

ULAŞ DUYGU AYSAL CİN

ELECTRIFICATION OF ISTANBUL (1878-1923)

Bilkent University 2019

# ELECTRIFICATION OF ISTANBUL (1878-1923)

A Ph.D. Dissertation

by

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Department of History

İhsan Doğramacı Bilkent University

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ELECTRIFICATION OF ISTANBUL  
(1878-1923)

The Graduate School of Economics and Social Sciences  
of  
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by  
ULAŞ DUYGU AYSAL CİN

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DOCTOR OF PHILOSOPHY IN HISTORY

THE DEPARTMENT OF  
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İHSAN DOĞRAMACI BİLKENT UNIVERSITY  
ANKARA

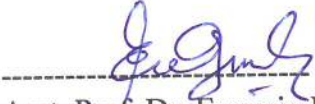
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Asst. Prof. Dr. Mehmet Akif Kireçci  
Supervisor

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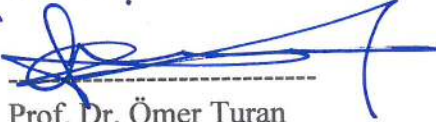
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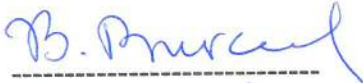
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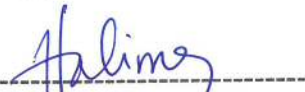
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Director

## ABSTRACT

### ELECTRIFICATION OF ISTANBUL (1878-1923)

Aysal Cin, Ulař Duygu

Ph.D., Department of History

Supervisor: Asst. Prof. Dr. Mehmet Akif Kireçci

January 2019

This dissertation focuses on the history of introduction and development of electrical technology in Ottoman Istanbul with a special focus on the 1910 concession, and its implementation, which was held to construct the first power plant in Istanbul, the Silahtarađa Power Plant. The concession became the arena for international competition, and revealed the critical roles of multinational companies, consortiums, and the international banking in the electrification business of Istanbul, along with the various diplomatic maneuvers of European and American states, which depicted the diffusion of foreign capital into the Ottoman lands. Under this complex competitive environment, rather than being a passive receptor of technology, the Ottoman bureaucracy and engineers played an active, well-informed and sophisticated role that they were able to select the appropriate technology to be applied in Silahtarađa plant, design necessary rules and regulations for it and control technology's implementation stage.

**Keywords:** Deutsche Bank, Electrification, Istanbul, Ottoman Empire, Silahtarađa Power Plant.

## ÖZET

### İSTANBUL'UN ELEKTRİFİKASYONU (1878-1923)

Aysal Cin, Ulaş Duygu

Doktora, Tarih Bölümü

Tez Yöneticisi: Dr. Öğr. Üyesi Mehmet Akif Kireççi

Ocak 2019

Bu çalışma, Osmanlı İstanbulu'nda elektrik teknolojisinin gelişim tarihini, kentin ilk santrali olan Silahtarağa Elektrik Santrali için 1910 yılında yapılan ihale, imtiyaz ve imtiyaz uygulama süreçlerine odaklanarak incelemektedir. Uluslararası rekabete konu olan İstanbul elektrik imtiyazı süreci, bu süreçte yer alan çok uluslu şirketler, konsorsiyumlar, uluslararası bankacılık ve Avrupa ve Amerika Birleşik Devletlerinin Osmanlı İmparatorluğundaki diplomatik birimlerinin kritik rolünü ortaya çıkarmış ve yabancı sermayenin Osmanlı topraklarına girişini betimleyen bir vaka çalışması olmuştur. Uluslararası rekabetin bulunduğu bu ortamda, Osmanlı bürokrat ve mühendisleri ise elektrik teknolojisinin pasif bir alıcısı olmak yerine, Silahtarağa Santrali'nde kullanılacak uygun teknolojinin seçiminde; elektriğin üretimi, dağıtımı, tüketimi ve kontrolü konularına ilişkin düzenlemelerin yapılmasında ve teknolojinin uygulama sürecinin denetiminde aktif, bilgi sahibi ve sofistike bir davranış sergilemişlerdir.

**Anahtar Sözcükler:** Deutsche Bank, Elektrifikasyon, İstanbul, Osmanlı İmparatorluğu, Silahtarağa Elektrik Santrali.

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For a researcher, it becomes hard to obtain documents from the institutions, where special permission is needed to benefit. A number of people provided me with this special research opportunity. Among them, I am thankful to Prof. Dr. Tayfun Kindap, the Vice Rector at Istanbul Technical University, who generously let me to

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*To Türkan and Vildan*

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## LIST OF ABBREVIATIONS

|                    |                                                                  |
|--------------------|------------------------------------------------------------------|
| <b>A.}DVN.MKL.</b> | Sadâret Mukavelenâmeler                                          |
| <b>A.}MTZ.(04)</b> | Sadâret Bulgaristan                                              |
| <b>BEO</b>         | Bâb-1 Âlî Evrâk Odası                                            |
| <b>CCA</b>         | Cumhurbaşkanlığı Cumhuriyet Arşivi                               |
| <b>COA</b>         | Cumhurbaşkanlığı Osmanlı Arşivi                                  |
| <b>DBA</b>         | Deutsche Bank Archives                                           |
| <b>DH. İD.</b>     | Dâhiliye Nezâreti İdare                                          |
| <b>DH. MKT.</b>    | Dâhiliye Nezâreti Mektubî Kalemi                                 |
| <b>DH. MUİ</b>     | Dâhiliye Nezâreti Muhaberat-ı Umûmiye İdâresi                    |
| <b>DH.EUM.SSM.</b> | Dâhiliye Nezâreti Seyrüsefer Kalemi                              |
| <b>DTMB</b>        | Deutsches Technikmuseum Historical Archive and Library in Berlin |
| <b>FO</b>          | Foreign Office                                                   |
| <b>HMM</b>         | Hendese-i Mülkiye Mektebi                                        |
| <b>HR. İD.</b>     | Hariciye Nezâreti İdare                                          |
| <b>HR. SYS</b>     | Hariciye Nezâreti Siyasi                                         |
| <b>HR. TO</b>      | Hariciye Nezâreti Tercüme Odası                                  |
| <b>HR.SFR.3</b>    | Hariciye Nezâreti Londra Sefâreti                                |
| <b>HRT. h</b>      | Haritalar                                                        |
| <b>İ. DH</b>       | İrâde Dâhiliye                                                   |
| <b>İ. DUİT</b>     | İrâde Dosya Usulü                                                |
| <b>İ. HR.</b>      | İrâde Hariciye                                                   |
| <b>İ. HUS.</b>     | İrâde Hususî                                                     |
| <b>İ. MMS.</b>     | İrâde Meclis-i Mahsus                                            |
| <b>İ. PT</b>       | İrâde Telgraf ve Posta                                           |
| <b>İ. RSM.</b>     | İrâde Rüsumat                                                    |
| <b>İ. ŞD.</b>      | İrâde Şûrâ-yı Devlet                                             |

|                     |                                                                     |
|---------------------|---------------------------------------------------------------------|
| <b>İ. TAL.</b>      | İrâde Taltifat                                                      |
| <b>İTÜ KA</b>       | İstanbul Teknik Üniversitesi, Kurum Arşivi                          |
| <b>İTÜ NEK</b>      | İstanbul Teknik Üniversitesi, Nadir Eserler Koleksiyonu             |
| <b>MF. MKT.</b>     | Maarif Nezâreti Mektubî Kalemi                                      |
| <b>MKT. MHM.</b>    | Mektubî Mühimme Kalemi                                              |
| <b>MMZC</b>         | Meclis-i Mebusan Zabıt Ceridesi                                     |
| <b>MÜM</b>          | Mühendis Mektebi                                                    |
| <b>MV.</b>          | Meclis-i Vükelâ Mazbataları                                         |
| <b>NV</b>           | Nâfia Vekâleti                                                      |
| <b>ŞD.</b>          | Şûrâ-yı Devlet                                                      |
| <b>T..</b>          | Ticaret, Nâfia, Ziraat, Orman, Maadin Nezaretleri                   |
| <b>TDV İA</b>       | Türkiye Diyanet Vakfı İslam Ansiklopedisi                           |
| <b>Y. A.HUS.</b>    | Yıldız Hususî Maruzat                                               |
| <b>Y. A.RES.</b>    | Yıldız Resmi Maruzat                                                |
| <b>Y. EE.</b>       | Yıldız Esas Evrâkı                                                  |
| <b>Y. MTV.</b>      | Yıldız Mütenevvi Maruzat                                            |
| <b>Y. PRK. ASK.</b> | Yıldız Perakende Evrâkı Askeri Maruzat                              |
| <b>Y. PRK. AZJ.</b> | Yıldız Perakende Evrâkı Arzuhal ve Jurnal                           |
| <b>Y. PRK. BŞK.</b> | Yıldız Perakende Evrâkı Başkitâbet Dairesi Maruzatı                 |
| <b>Y. PRK. HH</b>   | Yıldız Perakende Evrâkı Hazine-i Hassa                              |
| <b>Y. PRK. HR.</b>  | Yıldız Perakende Evrâkı Hariciye Nezâreti Maruzâtı                  |
| <b>Y. PRK. PT</b>   | Yıldız Perakende Evrâkı Posta Telgraf Nezareti Maruzatı             |
| <b>Y. PRK. SGE</b>  | Yıldız Perakende Evrâkı Mâbeyn Erkanı ve Saray Görevlileri Maruzatı |
| <b>Y. PRK. ŞH</b>   | Yıldız Perakende Evrâkı Şhremaneti Maruzatı                         |
| <b>Y. PRK. TKM.</b> | Yıldız Perakende Evrâkı Tahrirât-ı Ecnebiye ve Mâbeyn Mütercimliği  |
| <b>Y. PRK. TNF</b>  | Yıldız Perakende Evrâkı Ticaret ve Nafia Nezareti Maruzatı          |
| <b>YMM</b>          | Yüksek Mühendis Mektebi                                             |

## CHAPTER I

### INTRODUCTION

#### 1.1. Setting the Problem

In modern societies, electricity is among the most fundamental infrastructures. Electrical technology became an indispensable part of urbanization process and changed the nature of people's lives during the 20<sup>th</sup> century. Thanks to its usages in lighting, heating, transportation, and telecommunications, it adds to quality of our lives, probably more than any other technology. In addition, electricity is crucial for the development process since it is more convenient than other sources of energy as the motive power.

Especially in the last quarter of the 19<sup>th</sup> century, people witnessed the application of this significant technology in the United States and Europe. It should be noted that electrical technology was in experimental stage in this period while local applications of electricity were on the way yet it was hard to talk about large-scale power transmission and distribution systems, the power plants.<sup>1</sup> Then, in the first fifteen years of the 20<sup>th</sup> century, electrification of the cities in all over the world became more widespread by the opening of power plants to light the cities such as Barcelona (Spain), Messina (Italy), Varna (Bulgaria), Doniez (Russia) and provide

---

<sup>1</sup> "Historically, the type of electricity delivered to homes and businesses was first DC (direct current) but then changed to AC (alternative current) electricity. The standard voltage level started at 110V, went to 240V, back to 110V, and then to 220V. The frequency started at 60Hz and then went to 50Hz in most areas". Only after Tesla's contribution to the electrical technology, which relied upon three-phase AC power in the 1890s was accepted as a standard, the way opened for the large-scale power systems. Therefore, I can argue that it took long time that allowed the matured electrical technology, which we depend on today. Regarding the discussion on standard voltage levels, see Vijay K. Jindal, Could anybody tell me why the domestic supply is choosen usually as either 110 or 220 V? [http://www.researchgate.net/post/Could\\_anybody\\_tell\\_me\\_why\\_the\\_domestic\\_supply\\_is\\_chosen\\_usually\\_as\\_either\\_110\\_or\\_220\\_V](http://www.researchgate.net/post/Could_anybody_tell_me_why_the_domestic_supply_is_chosen_usually_as_either_110_or_220_V) (accessed 3 May 2016).

energy to the industry.<sup>2</sup> Rightfully, this period is called as an era of “global electrification” by some of the scholars.<sup>3</sup>

The introduction of this new technology into the Ottoman Empire and the construction of the first power plant of Istanbul can be placed as part of this wave of global electrification. Since the late 19<sup>th</sup> century, various companies offered different projects to electrify Istanbul, the capital city of the Empire. In the end, Ottoman Government announced the adjudication for the realization of the Istanbul’s electrification project and the concession agreement for the Silahtarağa Power Plant (Silahtarağa Elektrik Santrali or Silahtarağa Elektrik Fabrikası commonly referred to in Turkish) was held in 1910. The Hungarian Ganz Company won the bid among seven competitive rival consortiums, which applied for Istanbul’s electrification adjudication. Building of the plant took four years and it was opened in 1914. At first, the plant lighted the main streets of Istanbul as well as the streets where trams passed. In time, Silahtarağa provided electricity for the whole city and operated until 1983. In 2005, Istanbul Bilgi University took over the territory of Silahtarağa and this site became one of the campuses of the university: Silahtarağa Campus. The plant itself was renovated and transformed into Santralistanbul, which is now serving as a cultural center for contemporary arts and museum of energy.

This dissertation focuses on the history of introduction and development of electrical technology in Ottoman Istanbul with a special focus on the 1910 concession, and its implementation, which was held to construct the first power plant in Istanbul, Silahtarağa. Focusing on the electrification concession of Istanbul requires the identification of a number of issues.

First, the concession as a legal term together with the working system of the concessions in the Ottoman Empire is analyzed, starting from the announcement of

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<sup>2</sup> The history of electrification in the different cities of the world could be traced through the examination of “*The Electrician: A Weekly Illustrated Journal of Electrical Engineering, Industry, Science and Finance*,” (London: James Gray, 1878-1952), a journal of theoretical and applied electricity and chemical physics, which provided news on the worldwide development of electricity compiled from the various publications such as daily newspapers, journals and consular reports. The above references, which mention the development of electrification in various cities of the world, could be found through the volumes of *The Electrician* as follows: *The Electrician*, August 19, 1910, vol. 65, p. 790; *The Electrician*, August 26, 1910, vol. 65, p. 832; *The Electrician*, June 7, 1912, vol. 69, p. 378; *The Electrician*, January 26, 1912, vol. 68, p. 650.

<sup>3</sup> William J. Hausman, Peter Hertner, and Mira Wilkins, *Global Electrification: Multinational Enterprise and International Finance in the History of Light and Power, 1878-2007* (New York: Cambridge University Press, 2008).

the concessions by the Ottoman State to the legal procedures to be filled in by the companies when applying for a concession. Second, the bidding and the decision-making processes of the electrification concession of Istanbul will be examined. While the bidding process provides the reader with the detailed presentations of the companies and multinational enterprises, which applied for the electrification of Istanbul; the portrayal of the decision making process highlights the role of Ottoman bureaucracy and engineers who were active agents in the process. Contrary to the perceived unavailability of adequate technical expertise to control and manage industrial organizations, this study demonstrates that Ottoman engineers and bureaucrats were able to select the appropriate technology to be applied in Silahtarağa plant, design necessary rules and regulations for it and control technology's application stage.

The analysis of the concession process helps to identify dynamics of international actors trying to win the electrification project of Istanbul. This analysis also helps to explore local dynamics through the concession process and investigates how the Ottoman bureaucracy and engineers responded to this complex competitive environment and argues that, rather than being a passive receptor of technology, the Ottoman bureaucracy played an active, well-informed and sophisticated agency in the concession process.

The bidding and the decision-making processes of the concession are followed by the implementation stage, which makes up the third component of Istanbul's electrification project. The dissertation will use the legal documents of the concession and investigate whether or not the construction of the plant as well as the provision of electricity to the city were carried out in line with the regulations of the concession. The examination of these documents provides us information on the technology employed in the plant as well as the capacity, and scope of the plant. This endeavor helps us to analyze the role played by the Ottoman bureaucracy and engineers regarding the control process and provision of electricity to the city.

In addition, the close study of the concession helps to better identify the political, economic, and social contexts in which the plant was designed, established, and operated. Therefore, the case study of Istanbul's electrification contributes to the larger political, economic, and social history of the Ottoman Empire.

From the lenses of political history, the decision making process during the 1910 concession sets the scene for witnessing the various diplomatic maneuvers of European and American states as the supporters of their national companies or consortiums. Therefore, through the case of Istanbul's electrification concession, the dissertation highlights an international competition between foreign states to gain power in the Ottoman Empire.

The study contributes also to the economic history since it reveals the harsh competition among the giants of world's electrification business and banking institutions as well as their strategies to win the concession. The dissertation portrays the critical roles of multinational companies, consortiums, and the international banking in the electrification business of Istanbul, which depicted the diffusion of foreign capital into the Ottoman lands, and which were not deeply identified in the previous studies. In addition, the dissertation puts forward the enhancing agency of the plant regarding the commercial activity in the city, as it became major infrastructural element of Ottoman economic development.

This dissertation addresses also social implications of electricity. The history of Silahtarağa Plant provides significant insight into the consumption of electricity in the Ottoman Empire. The study exposes the shift within the Ottoman consumer culture due to the contractual character of electricity consumption. After the introduction of electricity, the status of the 'consumer' was transformed into the 'subscriber', who was responsible to engage in monthly payments to the company in exchange of the services rendered. Additionally, the counting of electricity meters determined the amount to be paid, of which the subscriber received through monthly bills from the company. These were all recent changes for the Ottoman consumers after the introduction of electricity in the city life.

Up to now, main themes of the dissertation are put forward. Going further from here, these main themes will be harmonized with the major discussion debates of the Ottoman history such as the modernization of the Empire, transfer of technology and diffusion of foreign capital in the Empire.

### 1.1.1. Electrification and Ottoman Modernization Project

Electrification of the cities could be placed in the modernization efforts of the Empire in terms of urban and industrial development. In the way of modernization, the Ottoman Empire had undertaken various public works projects ranging from construction of gas pipes to light the cities, water works, construction of roads, building telegraph lines, and the trams during the 19<sup>th</sup> and 20<sup>th</sup> centuries.<sup>4</sup>

All these infrastructure development projects were seen as the necessities of the modern urban lives of people, which required serious mapping activities on the urban area as well as detailed urban planning works. The tram projects in modern cities in the 20<sup>th</sup> century necessitated a new approach to the planning of the city. After 10 years from the construction of the first gas pipes, tramways emerged in the streets of Istanbul. The determination of the routes for the trams required the preparation of the city plans. Furthermore, the routes where the trams passed affected the fate of some of the buildings since they had to be destroyed in order to create new streets for the construction of tramlines.

Considering all of the projects of urban infrastructures ranging from roads to the gas lighting and from trams to electrification, it is clear that Istanbul went through a huge urban development process. Likewise, Zeynep Çelik argues “during the 19<sup>th</sup> century, a concerted effort was made to transform the Ottoman capital of İstanbul into a Western style capital, paralleling the general struggle to salvage the Ottoman Empire

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<sup>4</sup> In the way of modernization, public works developments in the Ottoman Empire started shortly before the *Tanzimat* (1839-1876) era and continued until the end of the Empire. The works done by Meclis-i Umûr-ı Nâfia (established in 1838) are considered to be the first initiatives for modern public works in the Empire: İlhan Tekeli and Selim İlkin, “Osmanlı İmparatorluğu’nda 19. Yüzyılın İkinci Yarısında Nafia Programları ve Teknoloji Gelişimi Üzerine,” İlhan Tekeli and Selim İlkin (eds.), *Cumhuriyet’in Harcı III: Köktenci Modernitenin Altyapısı Oluşurken* (İstanbul: İstanbul Bilgi Üniversitesi Yayınları, 2003), pp. 123-174. Similar projects accelerated in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries and the Ottoman State initiated three major public works programs in 1880, 1908, and 1923: Celal Dinçer, “Osmanlı Vezirlerinden Hasan Fehmi Paşa’nın Anadolu Bayındırlık İşlerine Dair Hazırladığı Lahiya,” *Belgeler*, vol. V-VII, no. 9-12, (1968-1971), pp.157-162. See also İlhan Tekeli and Selim İlkin, “1908 Tarihli “Umûr-u Nâfia Programı”nın Anlamı Üzerine,” *İslam Tarih Sanat Araştırma Merkezi (IRCICA), Osmanlı Dünyasında Bilim ve Eğitim Milletlerarası Kongresi*, İstanbul, 12-15 Nisan 1999, (İstanbul, 2001), pp.521-554 and İlhan Tekeli and Selim İlkin, “1923 Tarihli Umûr-u Nâfia Programı”, *Toplum ve Bilim*, vol. 40, (Winter, 1998), pp.77-86. For a detailed survey, which relies on archival documents, regarding the development of public works during the reign of Abdülhamid II, see Sevim Erdem, *Sultan II. Abdülhamit Devri (1876-1908) Osmanlı Devleti’nde Bayındırlık Faaliyetleri*, Unpublished Ph.D. Thesis (Firat University, Graduate School of Social Sciences, 2010).

by reforming its traditional institutions.”<sup>5</sup> Quoting from Kemal Karpat, Noyan Dinçkal asserts that Istanbul’s “social organization, government, population, and even physical appearance changed so radically as to make it appear a new city at the end of the (19<sup>th</sup>) century”.<sup>6</sup> Further, Dinçkal comes to a conclusion that, “the modernization led to a redefinition of Istanbul, even the emergence of entirely a new city.”<sup>7</sup> Going further from this discussion, I argue that electrification as the newest technology, which was introduced to the Empire in the early 20<sup>th</sup> century, constituted the last step of these urban development activities in Istanbul. Electricity; providing lighting to the city, making the lives of people at homes and workplaces smoother by the usage of electrical appliances, providing comfortable transportation by the electrified trams and accelerating the industrial development of the country is considered to be the most significant technological development of the 20<sup>th</sup> century. Thus, I argue that electrification of Istanbul demonstrates a new level in the modernization of urban infrastructure.

By demonstrating the relation of Istanbul’s electrification with Ottoman modernization, I hope to shed a light on the larger problem of modernization of the Ottoman Empire. Earlier studies on Ottoman modernization mostly dealt with two major issues; one, the modernization of army and state apparatus,<sup>8</sup> and the other one is modernization of education and life-styles of Ottoman society.<sup>9</sup> Little attention has been paid on the transfer, use, and reproduction of Western technology, except a few

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<sup>5</sup> Zeynep Çelik, *The Remaking of Istanbul: Portrait of an Ottoman City in the Nineteenth Century*, (Berkeley, Los Angeles, London: California University Press, 1993), p. xv.

<sup>6</sup> Noyan Dinçkal, “Arenas of Experimentation: Modernizing Istanbul in the Late Ottoman Empire,” Michael Hard, Thomas J.Misa (eds.), *Urban Machinery: Inside Modern European Cities*, (Cambridge: The MIT Press, 2008a), p. 50.

<sup>7</sup> Noyan Dinçkal, *Urban Machinery ...*, p. 50.

<sup>8</sup> R. H. Davison, *Reform in the Ottoman Empire 1856–1876*, (Princeton, NJ: Princeton University Press, 1963). Bernard Lewis, *The Emergence of Modern Turkey*, (London: Oxford University Press, 1961); Niyazi Berkes, *The Development of Secularism in Turkey*, (London: Hurst & Co., 1998); Şerif Mardin, *The Genesis of Young Ottoman Thought: A Study in the Modernization of Turkish Political Idea*, (Syracuse, N.Y.: Syracuse University Press, 2000); Mustafa Kaçar, “Osmanlı İmparatorluğu’nda Askeri Teknik Eğitimde Modernleşme Çabaları ve Mühendishanelerin Kuruluşu (1808’e kadar),” *Osmanlı Bilimi Araştırmaları*, no. 2 (Istanbul: İstanbul Üniversitesi Edebiyat Fakültesi Yayınları, 1998), p. 66-137; Gabor Agoston, *Guns for the Sultan: Military Power and the Weapons Industry in the Ottoman Empire*, (New York: Cambridge University Press, 2005); Carter Findley, *Bureaucratic Reform in the Ottoman Empire: The Sublime Porte, 1789-1922*, (Princeton, N.J.: Princeton University Press, 1980).

<sup>9</sup> Şerif Mardin, “Super-Westernization in Urban Life in the Ottoman Empire in the Last Quarter of the Nineteenth Century,” P. Benedict, E. Tümerterekin and F. Mansur (eds.), *Turkey: Geographic and Social Perspectives*, (Leiden: E. J. Brill, 1974). Ekmeleddin İhsanoğlu, *Darülfünûn: Osmanlı’da Kültürel Modernleşmenin Odağı*, (İstanbul: IRCICA, 2010). Selçuk Akşin Somel, *The Modernization of Public Education in the Ottoman Empire 1839–1908*, (Leiden & Boston & Köln : Brill, 2001).

works.<sup>10</sup> I argue therefore that the electrification of Istanbul, along with other major cities, although late, demonstrates a major step in the history of Ottoman modernization. Ottoman attempts for the electrification of major cities demonstrate a genuine internationalization of modernization.

As reflected in many studies, the efforts of modernization are thought to be “strongly conditioned by European phenomena and European actors”.<sup>11</sup> For instance, Dinçkal portrays an Eurocentric approach to the urban developments in Istanbul:

At least from the mid-nineteenth century, the city of Istanbul tried to follow what domestic actors understood to be the European way. This administrative change was provoked in part by the complaints of European settlers living in the city, whose numbers had considerably increased during and after the Crimean War (1853-1856). In a world that was increasingly influenced by European powers and Western culture, the strategy of the Ottoman Empire was to preserve the empire’s integrity by adopting Western science, technology, and organizational structures. In this respect, the Ottoman Empire could be seen as an example of so-called defensive or reactive modernization. That is, the ruling elite initiated social reforms in an attempt to accommodate the external and internal pressures to adopt the empire to the demands of modern times”<sup>12</sup>

Dinçkal’s claims are reasonable to some extent since Ottoman Empire followed the European way for urban development in the 19<sup>th</sup> and early 20<sup>th</sup> centuries. Yet, transfer of new technologies to the Empire is not peculiar for this period. As Ekmeleddin İhsanoğlu points out, Ottoman Empire followed Western science and

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<sup>10</sup> Kaçar, Mustafa, “Osmanlı Telgraf İşletmesi,” E. İhsanoğlu, M. Kaçar (eds.), *Çağını Yakalayan Osmanlı*, (İstanbul, 1995), pp. 45-120. Ekmeleddin İhsanoğlu and Feza Günergun (eds.), *Science in Islamic Civilization*, (İstanbul: IRCICA, 2000). Ekmeleddin İhsanoğlu, “Batı Bilimi ve Osmanlı Dünyası: Bir İnceleme Örneği Olarak Modern Astronomi’nin Osmanlı’ya Girişi (1660-1860),” *Belleten*, No. 217, (December 1992), pp. 727-780. Ekmeleddin İhsanoğlu, “Some Critical Notes on the Introduction of Modern Sciences to the Ottoman State and the Relation Between Science and Religion up to the End of 19th Century,” Jean-Louis Bacque-Grammont (eds.), *Varia Turcica IV*, Comite International d’etudes Pre-Ottomanes et Ottomanes - Proceedings of the VIth Symposium, Cambridge (U.K.), 1-4 July 1984, (İstanbul, Paris, Leiden: IFEA, 1987), pp. 235-251. Tuncay Zorlu, *Innovation and Empire in Turkey: Sultan Selim III and the Modernisation of the Ottoman Navy*, (London: I.B.Tauris, 2008). Donald Quataert, *Manufacturing and technology transfer in the Ottoman Empire, 1800-1914*, (Istanbul, Strasbourg: ISIS Press, 1992). Yakup Bektaş, “The Sultan’s Messenger: Cultural Constructions of Ottoman Telegraphy 1847-1880,” *Technology and Culture*, Vol. 41, No. 4, (2000), pp. 669-696. Berrak Burçak, “Modernization, Science and Engineering in the Early Nineteenth Century Ottoman Empire”, *Middle Eastern Studies*, Vol. 44, No. 1, (January 2008), pp. 69-83. Kemal Beydilli, *Türk Bilim ve Matbaacılık Tarihinde Mühendishane, Mühendishane Matbaası ve Kütüphanesi (1776-1826)*, (İstanbul: Eren, 1995). Darina Martykánová, *Reconstructing Ottoman Engineers: Archaeology of a Profession (1789 – 1914)*, (Pisa: Edizioni Plus, 2010).

<sup>11</sup> Noyan Dinçkal, *Urban Machinery ...*, p. 50.

<sup>12</sup> Noyan Dinçkal, *Urban Machinery ...*, pp. 50-52.

transferred new technologies.<sup>13</sup> Furthermore, Dinçkal portrays the Ottoman actors as passive players in this process. However, Ottoman actors played significant roles in transferring various technologies to the Empire. For instance, after transferring telegraphy to the Empire, Ottoman alphabet was adopted in telegraphy communication and rather than importing telegraphic instruments directly from Europe, a factory for the production of these items was established.<sup>14</sup> Coming to the case of Istanbul's electrification, the role of the Ottoman officials and engineers in the introduction of a Western technology into the Ottoman world is one of the most important aspects that my dissertation deals with.

Regarding the history of modernization in the Ottoman Empire; inspired by the analysis of Eric J. Zürcher in *Turkey: A Modern History*, –the penetration of the Western World over the Ottoman Empire versus the local response against it- I will propose to bring the issue of local response/dynamics and the role played by the local actors during the transfer of technology into the Ottoman lands.<sup>15</sup> In addition, I will be critical of approaches such as “penetration of the Western World over the Ottoman Empire”. Upon analyzing transfer of Western technology to the Ottoman lands, I present the competence of Ottoman actors against the cliché concepts of technology transfer “penetration of the technologically developed one” and “inferiority of the technologically underdeveloped one”.

### **1.1.2. Transfer of Western Technology into the Ottoman Lands**

Focusing on the textile industry of Ottoman Egypt, Nelly Hanna asserts that, “the nineteenth century witnessed a transfer of science and technology from Europe to other parts of the world.”<sup>16</sup> According to her,

Coming at a time of growing European control of various parts of the world, these transfers were accompanied by a hegemonic discourse on the benefits that science and technology, with the material progress that accompanied them,

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<sup>13</sup> Ekmeleddin İhsanoğlu, “Osmanlı Bilim Tarihi Konusundaki Araştırmalar Hakkında Bazı Notlar” *Osmanlı Bilimi Araştırmaları*, vol. 1, (1995), p. 49.

<sup>14</sup> Nesimi Yazıcı, Osmanlı Telgrafında Dil Konusu, *Ankara Üniversitesi İlahiyat Fakültesi Dergisi*, vol. XXVI (Ankara 1983), pp. 751-764. Nesimi Yazıcı, Osmanlı Telgraf Fabrikası, *Türk Dünyası Araştırmaları*, No. 22, İstanbul, (February, 1983), pp. 61-81.

<sup>15</sup> See Erik J. Zürcher, *Turkey: A Modern History* (London, New York: I.B. Tauris, 1997).

<sup>16</sup> Nelly Hanna, *Ottoman Egypt and the Emergence of the Modern World: 1500-1800* (Cairo: The American University in Cairo Press, 2014), p. 95.

could bring to ‘backward’ societies. European superiority and supposed non-European backwardness imply a certain level of determinism, and of the impossibility for so-called ‘backward’ cultures to change for the better.<sup>17</sup>

Hanna labels this stand as an “up-to-down discourse” which prevents the flow of technology in the reverse direction.<sup>18</sup> Questioning this approach in her case study she shows transfer of know-how and technology from the Ottoman Empire (Egyptian craftsmen) to the French textile industry regarding coloring of cloth, dyeing one clothing multiple colors, and bleaching by vapor.<sup>19</sup> According to Hanna, French textile industry “made use of coloring techniques learned from artisans in Ottoman lands” and “for a long time France was able to maintain its position as a major exporter of luxury items.”<sup>20</sup>

Inspired by the work of Hanna, this study criticizes the Eurocentric view of transfer of technology; which is thought to be one-sided activity from the technologically developed countries to the less developed ones. This idea of superiority originates from the employment of foreign expertise and knowledge in the technology transferring country; which lacks necessary knowledge, experience, and personnel in order to build and operate the technology in demand. Further, if the technology transfer is accompanied by foreign direct investment, the transfer is usually considered as a process of political and economic control by the technologically developed one over the receiving party who was not given any role in the process. The emphasis on the superiority of the one to another is usually so dominant, that the whole idea of technology transfer is attributed to the technologically developed party while the technology transferring party is considered in a passive position from the very beginning.

Instead, this study argues that the local dynamics within the process of technology transfer should not be underestimated since the transfer of technology is a twofold process in which both parties engage in the decision making and application phases. Likewise, the introduction of electricity into the Ottoman Empire and the construction of the first electrical plant in the capital of the Empire constituted an

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<sup>17</sup> Nelly Hanna, *Ottoman Egypt ...*, p. 95.

<sup>18</sup> Nelly Hanna, *Ottoman Egypt ...*, p. 96.

<sup>19</sup> Ibid, pp. 96, 98, 107-109.

<sup>20</sup> Ibid, p. 119.

example for such technology transfer in which the both parties assumed roles in the process.

Thus, I argue that the Ottoman officials working in the Ministry of Public Works and Istanbul Municipality were active in the selection, evaluation and implementation processes of this new technology from the late 1870s to 1910s. Ottomans were not silent acceptors of the electricity, but rather actively engaged in the process. Moreover, Ottoman authorities generated rules and regulations concerning public health, workers' safety and security, issues dealing with consumer rights; all of which demonstrate a high level of knowledge about this new technology and prove the active nature of local dynamics in the process.

Although some may argue that multinational companies supported these urbanization projects around the world, the idea of electrification for Istanbul was not the invention of foreign multinational companies.<sup>21</sup> Ottomans were keenly aware of the modern urban infrastructure and the need for lighting of their cities. Evidences suggest that Ottoman officials perceived electrification of major cities in the Ottoman Empire as a strategic issue. To them, constructing modern cities and factories and electrified trams were symbols of progress and civilization (*terakkiyat* and *medeniyte*). In their own words, the officials' correspondings of the Ministry of Commerce and Public Works<sup>22</sup> clearly indicate in the following lines, that they were actively involved in a speedy transfer of this new technology into the Ottoman lands:

Elektrikli tramvaylar gibi vesait-i nakliyenin sürat-i mümkün ile vücuda getirilmesindeki ehemmiyet ... (the significance of immediate introduction of the electrified trams and other related transportation vehicles)<sup>23</sup>

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<sup>21</sup> Mira Wilkins, William J. Hausman, John L. Neufeld, "Multinational Enterprise and International Finance in the History of Light and Power, 1880s – 1914," *Revue Economique*, Vol. 58, No: 1, (Janvier 2007), pp. 175-190.

<sup>22</sup> Ministry of Public Works acquired different names throughout its history such as Umûr-ı Nâfia Nezâreti, Nâfia Nezâreti, Ticaret ve Nâfia Nezâreti and Nâfia Vekâleti: N. Yücel Mutlu, *Bayındırlık Bakanlığı Tarihi (8 Ekim 1848-31 Aralık 2004)*, (Ankara: Bayındırlık ve İskân Bakanlığı, 2005). For an account of the Ministry during the *Tanzimat* era, see Aziz Tekdemir, "Tanzimat Dönemi Nâfia Nezâreti", *Trakya Üniversitesi Edebiyat Fakültesi Dergisi*, Vol. 1, No. 1, Ocak-2011, pp. 109-132.

<sup>23</sup> COA, ŞD 1230/14 (1 Nisan 1326 / 14 April 1910).

### **1.1.3. The Activities of Multinational Companies and International Finance in Istanbul's Electrification**

Another major issue, which this study investigates, is the role of foreign multinational companies in this huge urbanization process to electrify the city, more specifically, the role played by multinational companies in constructing and financing the electrification project of Istanbul.

European economic penetration over the Ottoman Empire in the 19<sup>th</sup> and early 20<sup>th</sup> centuries is one of the most discussed topics of Ottoman economic history. Yet, how this penetration occurred and its inner dynamics is far from to be told. In some studies; the impact of German, French, or British capital over Ottoman banking or infrastructure projects such as railroads is usually documented statistically, by presenting the shares of each state within the relevant industry.<sup>24</sup> However, these studies do not tell about the existence of consortiums, which are the combination of multinational companies and financial institutions for the realization of infrastructure projects in the Ottoman Empire.

Concerning Istanbul's electrification, different companies and financial institutions came together in the form of a consortium to undertake electricity business of the city. In addition, the consortium had multinational partners ranging from engineering companies from Germany, France, and other European countries to the international finance institutions such as Deutsche Bank as well as individual investors. While the finance institutions arranged and planned all the activities of the consortium, they were not only engaged with the financial tasks but they managed the whole administration of the consortium. The financial partner institution, which held most of the shares of the business, controlled the consortium and held the main management role. Furthermore, there was also competition between the partners of the consortium. Therefore, this study underlines multinational aspects of the companies and the role of international finance will be underlined while explaining the inner dynamics within the consortium.

The close-focus on the 1910 concession and its implementation reveals the issues that are not yet identified by earlier studies. This approach helped to correct the

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<sup>24</sup> V. Necla Geyikdağı, *Foreign Investment in the Ottoman Empire: International Trade and Relations 1854-1914* (I.B.Tauris, 2011), pp. 55-70. The place of publication is not stated.

misinformation regarding SOFINA; the consortium, which took over the rights of electrification concession from Ganz Company in the later years. As a common mistake, which was repeated in various studies, SOFINA was a company of Belgian origin, which took the rights of electrification project of Istanbul.<sup>25</sup> The motive of this assumption grounded with the information of company's fiscal domicile country. However, this study found out that SOFINA was a consortium of several European companies and banking institutions, therefore had a multinational character, which registered, and had its fiscal domicile in Belgium, due to the advantageous tax opportunities provided in this country.

## **1.2. Methodology**

This study invites the reader to rethink the last fifty years of Ottoman Empire, the period which is usually depicted as an era of underdevelopment, dependency and intense European political, diplomatic and economic involvement in the Ottoman territories. The study does not deny the European intervention affecting the Empire, but aims to go beyond the generalizations and linear narratives regarding European influence. By carrying out detailed research depending on the archival sources, this study attempts to show the active role played by the local dynamics in the modernization process of the Ottoman Empire by focusing on a concrete case, electrification of Istanbul.

The archival works of the study include the records of Istanbul's electrification, ranging from the Ottoman Archives in Istanbul and Ankara, to the files of Deutsche Bank in Frankfurt and to the transactions of American Embassy in Istanbul and the Department of State in Washington D.C., as well as the survey on the technical journals and popular magazines, in Ottoman and in French, of the time. Such comprehensive research enables us to understand Ottoman society and their approach to technological development not as depicted by the general discourse, namely "passive or dependent" but a dynamic process with its complexities and variations over time.

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<sup>25</sup> R. Sertaç Kayserilioğlu, *Dersaadet'ten İstanbul'a Tramvay I* (İstanbul: İ.E.T.T., 1998), p.179.

Another dimension for the discussion of technology in the Ottoman Empire is the problematic of technology transfer mentioned earlier. When studying the Ottoman modernization, rather than accepting the concepts such as “inferior party of technology transfer,” “underdeveloped society in need of technology transfer” or “passive receiver of technology,” I will retain on the idea that the transfer of technology is a twofold process in which both parties engage in the decision making and application phases; thus I consider Ottomans as active receivers of technology. Analyzing the attitudes of the administrators to the reception of technology as well as the public perceptions in receiving the technology rather than immediately labeling one party as the inferior or the underdeveloped one, will enable us to better understand the process.

As mentioned earlier, studies on Ottoman modernization paid little attention to transfer and application of modern technology in the Ottoman world. Most of the studies on modernization consider the Ottomans as passive receivers from the advanced West. A deeper understanding of modernity in the Ottoman world cannot be complete without analyzing the role of new technology in society. Since modernity can also be evaluated by the degree of development in the public works in a country, I consider the introduction of electricity in the Ottoman Empire as a major stage forward in modernization adventure of the Empire. By treating “technology as a distinctive feature of modernity,”<sup>26</sup> my study will demonstrate that the Ottoman decision makers did every effort in bringing and applying modern construction projects into the Empire, ranging from building new roads and trams, to lighting their streets. Their vision of modernity, however, encountered two major problems, limitations in financing such urbanization projects and approaching threat of the Great War.

Examining the electrification as a case of technology transfer and focusing on its decision making and application processes, my research highlights significant involvement of Ottomans as the active actors during the electrification of Istanbul. Besides, by arguing that the technology transfer is a twofold business and applying

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<sup>26</sup> Thomas J. Misa, “The Compelling Tangle of Modernity and Technology,” Thomas J. Misa, Philip Brey, and Andrew Feenberg (eds.), *Modernity and Technology*, (Cambridge, Mass.: The MIT Press, 2003), pp. 5-12.

the approach of Zürcher; this study traces and shows the local response against penetration of Europe in the case of Istanbul's electrification.

In addition, this study argues against "reluctant modernization" approach presented among others by Tekeli and İlkin.<sup>27</sup> In my dissertation, I demonstrate that the Ottomans not only had the will for modernization, but also were so proactive in bringing new aspects of modern life and technology into the Empire.

### 1.2.1. Archival Works

The archival work of the study include the research undertaken in various institutions and research centers, located in different parts of the world ranging from the Turkish National Archives in Istanbul and Ankara, to the Deutsche Bank Archives in Frankfurt and to the American National Archives in College Park in the United States and German Foreign Ministry Archives in Berlin as well as the survey on the technical journals and popular magazines (either in Ottoman, German or in French) of the time. The following lines summarize the nature of the research and institutions where it was undertaken.

#### Presidency State Archives in Istanbul, Turkey<sup>28</sup>

This study relies heavily on the archival documents such as concession contracts (*imtiyâz sözleşmesi*), rules, and regulations (*nizamnâme*) on the electricity and tramways, government decrees (*irâdes*) on the electrification, Ministry of Commerce and Public Works records about electrification, written transactions between the companies and the Ministry, the records of the Council of State regarding electrification, the subscriber contracts (*abone sözleşmesi*) for the electricity, and invoices, which were examined in the Ottoman Archives of Istanbul.

#### Presidency State Archives in Ankara, Turkey<sup>29</sup>

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<sup>27</sup> İlhan Tekeli and Selim İlkin, *Cumhuriyet'in Harcı III*, pp. 72-271.

<sup>28</sup> Former Republic of Turkey, Prime Ministry Ottoman Archives (T.C. Başbakanlık Osmanlı Arşivi, BOA). According to the presidential decree dated 16 July 2018 and numbered 30480, the organizational structure of the State Archives of Turkey has been affiliated with the Presidency and this institution is named as Republic of Turkey, Presidency State Archives, Department of Ottoman Archives (T.C. Cumhurbaşkanlığı Devlet Arşivleri Başkanlığı, Osmanlı Arşivi, hereinafter COA). For further details: <https://www.devletarsivleri.gov.tr/Sayfalar/Sayfa/9/ADA45D7B737CBC58F13C672C0AECCA8E9F0DDB54A7AB8426349949A5FDEB9E15> (accessed 4 January 2019).

This institution holds significant archival documents regarding the developments in the public works of the late Ottoman Empire and early Turkish Republic. Proposal files of the companies that applied for the electrification of Istanbul, the files concerning the decision of the Ottoman government for the establishment of Silahtarağa Power Plant, contracts, rules and regulations on the electricity and tramways, documents on electricity generated by the Ottoman bureaucratic circles, reports of the general meeting committee of Silahtarağa Power Plant regarding its construction and management, as well as various plans and architectural drawings about the construction of the plant constitute the basic documents that I used in the Presidency Archives of Ankara.

### **National Archives II at College Park, USA**

This study used great many deal of documents in National Archives II (College Park, USA) such as despatches from United States Councils in Constantinople (*konsolosluk raporları*) and correspondence between American Embassy in Istanbul and the Department of State in Washington D.C. In addition, National Archives II holds collection of microfilm series, which provides insights on the political, economic, and social developments in Turkey between 1910-1929: “Records of the Department of State relating to internal affairs of Turkey, 1910-29” and “Records of the Department of State relating to political relations between the United States and Turkey, 1910-29.”<sup>30</sup>

### **Deutsche Bank Archives in Frankfurt, Germany**

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<sup>29</sup> Former Republic of Turkey, Prime Ministry Republican Archives (T.C. Başbakanlık Cumhuriyet Arşivi, BCA). According to the presidential decree dated 16 July 2018 and numbered 30480, the organizational structure of the State Archives of Turkey has been affiliated with the Presidency and this institution is named as Republic of Turkey, Presidency State Archives, Department of Republican Archives (T.C. Cumhurbaşkanlığı Devlet Arşivleri Başkanlığı, Cumhuriyet Arşivi, hereinafter CCA).

<sup>30</sup> Records of the Department of State relating to internal affairs of Turkey, 1910-29 [88 microfilm reels], Washington D.C.: National Archives, National Archives and Records Service, General Services Administration, 1961. Records of the Department of State relating to political relations between Turkey and other states, 1910-29 [29 microfilm reels], Washington D.C.: National Archives and Records Service, General Services Administration, 1961. For both series of microfilms, guidebooks are available in the National Archives II, which lead the researcher to choose which microfilms to examine. For a full list of records of the Department of State regarding Turkey on microform, consult Center for Research Libraries: <http://www.crl.edu/us-department-state-records-turkey> (accessed 4 January 2019). Concerning various studies, which used despatches of councils in the Ottoman Empire, see: Özgür YILMAZ, “Türk Deniz Ticaret Tarihinin Kaynağı Olarak Konsolos Raporları,” *Türk Deniz Ticareti Tarihi Sempozyumu Tam Bildiri Kitabı*, (İstanbul: İstanbul Yayınları, 2016).

The archives of Deutsche Bank have rich files on the issue since Deutsche Bank was the main financier of the electrification business of Istanbul and undertook managing role in the design and organization of Istanbul's electrification as mentioned earlier. The documents, filed in chronological order, date back to 1880s and come to early Republican era, including correspondence between Deutsche Bank and the other counterparts of the proposed business such as engineering companies, financial institutions, individual investors, and engineers. Besides, the files also contain issues of newspapers such as *Times* or *Le Moniteur Orientale*, which reported frequent news related with electricity business in the Ottoman Empire.<sup>31</sup>

### **Politisches Archiv des Auswärtigen Amtes (Political Archive of the German Foreign Office) in Berlin, Germany**

Political Archive of the German Foreign Office holds German foreign policy files since 1867, consular reports, private papers of the former diplomats "as well as the international treaties signed by the Federal Republic of Germany and its predecessors in title".<sup>32</sup> During my research, I examined the series of "Turkei 197: Deutsche Wirtschaftliche und Industrielle Unternehmungen in der Turkei" (German Economic and Industrial Undertakings in Turkey)<sup>33</sup> for the periods of 1898-1901 and 1909-1914.

### **Bundesarchiv (German Federal Archives) in Berlin, Germany**

Federal Archives have the documents that have been produced by central offices of federal government dating from 1495.<sup>34</sup> The most practical method to trace

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<sup>31</sup> For further information regarding DBA, see <https://www.db.com/company/de/historisches-institut.htm> (accessed 4 February 2019).

<sup>32</sup> For detailed information, see: <https://www.auswaertiges-amt.de/en/aamt/politiscal-archive> and <https://www.auswaertiges-amt.de/en/aamt/politiscal-archive/uebersicht/215200> (accessed 4 February 2019).

<sup>33</sup> For a list of files on Turkey stored in German Foreign Ministry Archives, see: *A Catalogue of Files and Microfilms of the German Foreign Ministry Archives 1867-1920*, (Washington: The American Historical Association, Committee for the Study of War Documents, 1959). The reference list of the book "*Imperialismus und Gleichgewicht*" also documents German Foreign Ministry records related with Ottoman Empire and Turkey on various subjects ranging from Ottoman railways to the economic and political relations of France and Ottoman Empire: Gregor Schöllgen, *Imperialismus und Gleichgewicht: Deutschland, England und die Orientalische Frage, 1871-1914*, (München: Oldenbourg, 2000), pp. 475-476.

<sup>34</sup> The documents of Bundesarchiv include records "that have been produced by central offices of the Holy Roman Empire (1495-1806), the German Confederation (1815-1866), of the German Reich (1867/71-1945), the Occupation Zones (1945-1949), the German Democratic Republic (1949-1990), and the Federal Republic of Germany (since 1949)" as stated on the website of Bundesarchiv:

documents related with Ottoman electrification was to examine Deutsche Bank files stored at Bundesarchiv. That is why I first looked for Deutsche Bank files and then narrowed the scope by examining documents related with the topic of Ottoman electricity.

### **Deutsches Technikmuseum Historical Archive and Library in Berlin, Germany (DTMB)**

After the collapse of AEG-Telefunken in 1982, the company archives were transferred to Deutsches Technikmuseum Berlin.<sup>35</sup> AEG was one of the engineering companies, which had role in Istanbul's electrification. Its archival documents were stored at Deutsches Technikmuseum. Two photograph albums of Ottoman visits to AEG factory are the most interesting documents found at DTMB. In addition, it should be noted that DTMB has the concession contracts regarding the electrification of Ankara and it has archival documents mostly dating back to the electrification issues during the Republican era of Turkey.

### **Staatsbibliothek in Berlin, Germany**

Staatsbibliothek holds the collection of the journal "*Génie Civil Ottoman*"<sup>36</sup> which reported frequent news on the public works in the Ottoman Empire. The journal has a sub-title "*Revue Mensuelle Illustrée Technique et Industrielle des Travaux Publics dans l'Empire Ottoman*". It was published in French and in Istanbul between 1910 and 1914.<sup>37</sup> According to the inner cover of the journal, it was the media of the professional organization of engineers and architects in Turkey "Organe des Ingénieurs et des Architectes en Turquie."<sup>38</sup> In addition, architect Alexander M.

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<http://www.bundesarchiv.de/EN/Navigation/Meta/About-us/Tasks/tasks.html> (accessed 4 February 2019).

<sup>35</sup> For detailed information, see: <https://sdtb.de/technikmuseum/das-museum/69/>, <https://sdtb.de/technikmuseum/presse/2573/>, <https://sdtb.de/technikmuseum/ausstellungen/2295/> (accessed 4 January 2019).

<sup>36</sup> *Génie Civil Ottoman, Revue Mensuelle Illustrée Technique et Industrielle des Travaux Publics dans l'Empire Ottoman*, (Constantinople, 1910-1914).

<sup>37</sup> Çetin Ünalın, "II. Meşrutiyet Döneminde Mimar ve Mühendislerin Kurduğu Dört Dernek ve Yayınladıkları Fransızca Üç Dergi," *Mimarlık*, No. 358, (March-April 2011). The article is available online at <http://www.mimarlikdergisi.com/index.cfm?sayfa=mimarlik&DergiSayi=372&RecID=2614> (accessed 01 February 2019). Çetin Ünalın, "Mimar ve mühendisler tarafından II.Meşrutiyet döneminde İstanbul'da yayımlanmış iki dergi: Génie Civil Ottoman (1910) ve Zeitschrift für Technik und Industrie in der Türkei (1916)," *Osmanlı Bilimi Araştırmaları*, No. 10/II, (2009), pp. 59-96.

<sup>38</sup> Description based on: 2e année, no. 2 (Oct. 1911).

Raymond was the chief editor (*rédacteur-en-chef*) of the journal.<sup>39</sup> I examined this journal, *Génie Civil Ottoman*, for the period 1910-1914 in this library.

### **SALT Research Center, Istanbul, Turkey:**

SALT Research holds the collection of “*Revue Technique d’Orient*”<sup>40</sup> which reported frequent news on the public works in the Ottoman Empire as its counterpart “*Génie Civil Ottoman*”. The journal has a sub-title “*Organe mensuel illustré, technique et industriel des travaux publics dans l’Empire Ottoman.*” It was published in French and in Istanbul between 1910 and 1914. In addition, architect Alexander M. Raymond was the chief editor of the journal.<sup>41</sup> I examined this journal “*Revue Technique d’Orient*” for the period 1910-1914 in this research center.<sup>42</sup>

### **Princeton University Libraries, Princeton, NJ, USA**

Apart from the archives in Turkey and other countries; technical books on the electricity,<sup>43</sup> technical journals published in French and Ottoman Turkish,<sup>44</sup> popular magazines dealing with social implications of electricity are other sources, which I consulted when writing my dissertation. Princeton University Libraries provided the means to reach these resources through its ILL (inter library loan) service, which worked between the most prominent university libraries in the USA (especially among the libraries of the IVY League universities: University of Pennsylvania, Brown University, Columbia University, Cornell University, Dartmouth College, Harvard University, Princeton University, and Yale University) and other research centers as well as the libraries of the world. By this marvelous service, it was

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<sup>39</sup> Description based on: 2e année, no. 1 (Sep. 1911).

<sup>40</sup> *Revue Technique d’Orient: Organe mensuel illustré, technique et industriel des travaux publics dans l’Empire Ottoman*, (Constantinople, 1910-1914).

<sup>41</sup> Description based on: 1re année, no. 1 (15 September 1910).

<sup>42</sup> Recently, Bibliothèque Nationale de France (BnF) digitized great deal of its collections and made them available through its digital library, Gallica (bibliothèque numérique/digital library): <https://gallica.bnf.fr>. See 7 issues (4 issues published in 1910 and 3 issues published in 1911) of *Revue Technique d’Orient* online through <https://gallica.bnf.fr/ark:/12148/cb32861545v/date1910> and <https://gallica.bnf.fr/ark:/12148/cb32861545v/date1911> (accessed 26 February 2016).

<sup>43</sup> Technical books can give us idea on the level of technology discussed, translated, and learned during in the 19<sup>th</sup> and 20<sup>th</sup> century. Here are some of the examples: Mehmed Refik, *Mühendis Mektebinde Tedrîs Olunan Elektrik ve Tatbikatı Dersleri*, (İstanbul: Mahmud Bey Matbaası, 1327/1911); Ahmed İsmail, *Elektrik-i Sinai*, (İstanbul, Matbaa-i Bahriye, 1334/1918).

<sup>44</sup> *L’Éclairage Électrique* (*La Lumière Électrique*), *Revue Universelle d’Électricité*, (Paris, 1908-1916); *The Electrician*, and *Elektrotechnische Zeitschrift*, (Titles from caption: “Organ des Elektrotechnischen Vereins”, 1880-June 1894; “Organ des Elektrotechnischen Vereins und des Verbandes Deutscher Elektrotechniker, ” July 1894-; “Organ des Verbandes Deutscher Elektrotechniker (VDE)”, -June 15, 1952), (Berlin: Julius Springer, 1880-1952).

possible to order not only books but also other materials such as rare books and journals as well as archival documents either digitized or as microform. Another opportunity of carrying out research at Princeton University was the British Foreign Office Records (Public Record Office, PRO), which were available on microfilms, which I also examined.<sup>45</sup>

In addition, I examined contemporary books and reports of foreign countries on the Ottoman Empire as well as secondary literature in the Princeton University Libraries.<sup>46</sup>

### **Istanbul Technical University, Collection of Rare Books, Istanbul, Turkey**

Inheriting the heritage of Mühendishâne-i Hümâyûn (Imperial School of Engineering) Printing Press and the Libraries of Hendese-i Mülkiye (School of Civil Engineering) of Mühendis Mekteb-i Âlisi (Higher School of Engineering), ITU Rare Books Collection comprises a primary resource for the study of history of science and technology in the Ottoman Empire and early Republican period of Turkey. Made up of largely 18<sup>th</sup>, 19<sup>th</sup>, and early 20<sup>th</sup> centuries rare books and periodicals, this collection not only provides insight on the engineering and architecture education in the Ottoman Empire but also presents accounts of history, art, literature, and sociology, created in the Ottoman Empire. Within this collection, I consulted course books (in Ottoman Turkish) related with electric engineering as well as the secondary sources of electric engineering (manuals, handbooks, dictionaries and course books of electric engineering in several languages such as French, German or English). This survey among the ITU rare books helped to enlarge my horizon regarding the development of electric engineering education in the Ottoman Empire. Yet, it should be noted that cataloging of this collection is still under progress, which constitutes the primary handicap when working with it.

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<sup>45</sup> The related microforms within the scope of this dissertation are: FO (Foreign Office) 78, General Correspondence: Turkey, and FO 371, Political Correspondence: Turkey.

<sup>46</sup> For instance: Georges Carles, *La Turquie Economique*, (Paris: Librairie Chevalier et Riviere, 1906); E. Pech, *Manuel Des Sociétés Anonymes Fonctionnat Turquie*, (Constantinople: 1911); *Turkey in Europe 1920: Handbooks Prepared Under The Direction of The Historical Section of The Foreign Office No. 16* (London: H. M. Stationery Office, 1920).

## **Istanbul Technical University Institutional Archive, Istanbul, Turkey**

Inheriting the heritage of Mühendishâne (Imperial School of Engineering), Hendese-i Mülkiye (School of Civil Engineering), and Mühendis Mekteb-i Âlisi (Ottoman Highschool of Engineering), ITU Institutional Archive (*İTÜ Kurum Arşivi*) is significant to study history of engineering education in the late Ottoman Empire and early Turkish Republic. Within the thousands of documents of Mühendis Mekteb-i Âlisi, first, I traced the teaching carriers of Ottoman engineers, who played significant roles in the electrification project of Istanbul, namely Mehmed Hulusi Bey, Mehmed Refik (Fenmen) Bey, Mustafa Hulki (Erem) Bey. Second, working with the documents of Mühendis Mekteb-i Âlisi, provided me with the information regarding various aspects of electric engineering education in the Ottoman Empire ranging from the curriculums of electric engineering courses to the technical visits of the students to the industrial sites. Yet, it should be noted that cataloging of this collection is still under progress, which constitutes the primary handicap when working with it. In addition, special permission from the Rectorate of ITU is needed in order to access this archive.

### **1.3. Critical Review of the Literature**

When evaluating the literature of electrification, one should divide the subject into two: “Electrification literature dealing with the Western world” and “electrification literature dealing with the Ottoman Empire.”

Electrification literature dealing with the Western world focuses on different aspects of electrification. First of all, some of the literature tells the technical side of the issue, gives information on the electrification to the non-technical readers.<sup>47</sup> This kind of literature is really useful; though do not tell the story of electrification with its political, economic, and social implications. Second, early years of electrical inventions, development of electricity and life stories of important figures of the electrification history such as Edison, Tesla, and Westinghouse constitute an

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<sup>47</sup> Brian Bowers, *Lengthening the Day: A History of Lighting Technology*, (Oxford: Oxford University Press; 1998); W. James King, “The Development of Electrical Technology in the 19<sup>th</sup> Century,” *United States National Museum Bulletin*, no. 228, (Washington: Smithsonian Institution, 1962), pp. 231-271.

important portion of the electrification literature.<sup>48</sup> These kinds of works provide the reader with a background of the development of electricity and show that the inventions were/and are not only technical stages of the technologies but they are products of social environments. By trying to understand struggle and rivalry to get the lighting business, which was referred to as “the battles of lighting”, the reader learn about the rival companies trying to generate better electrical instruments and lighting technologies.<sup>49</sup>

Literature about the companies takes us to the area of business history.<sup>50</sup> Since the issue is electrification, a very important technology shaped the urban and economic life of the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. Individual histories of relevant companies thus become very significant. The studies on the activities of electricity companies such as General Electric, Siemens, AEG represent major aspects of the industrial history of the world.<sup>51</sup>

Additionally, some studies enlarge the scope of field of business history accounts by placing the history of the company in a larger context of the history of multinational enterprises and world's finance history. This standpoint provides the reader an integrated approach, which conventional business histories lack.

Specific works on histories of the electrification of the individual cities in the United States and Europe fill an important gap in the urban history of the 19<sup>th</sup> and 20<sup>th</sup> centuries.<sup>52</sup> Some of these studies deal with the electrification process by focusing on

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<sup>48</sup> Andre Millard, *Edison and the Business of Invention* (Baltimore: John Hopkins University Press, 1990); Wilfried Feldenkirchen, *Werner von Siemens: Inventor and International Entrepreneur* (Columbus: Ohio State University Press, 1994).

<sup>49</sup> Jill Jones, *Empires of Light: Edison, Tesla, Westinghouse, and the Race to Electrify the World* (New York: Random House, 2003), pp. 72, 144, 150, 188, 194, 197, 200, 202, 204, 229, 243, 249, 255, 260, 287, 291. For several accounts of “battles of lighting” regarding the development of electrification in different cities of the world such as Berlin, Chicago, and London, see Thomas Hughes, *Networks of Power: Electrification in Western Society (1880-1930)*, (Baltimore: John Hopkins University Press, 1983), p. 175-200, 201-226, 227-261. This book is available online on [https://monoskop.org/images/2/29/Hughes\\_Thomas\\_P\\_Networks\\_of\\_Power\\_Electrification\\_in\\_Western\\_Society\\_1880-1930.pdf](https://monoskop.org/images/2/29/Hughes_Thomas_P_Networks_of_Power_Electrification_in_Western_Society_1880-1930.pdf) (accessed 3 February 2019).

<sup>50</sup> W. Bernard Carlson, *Innovation as a Social Process: Elihu Thomson and the Rise of General Electric 1870-1900*, (New York: Cambridge University Press, 1991); Harold C. Passer, *The Electrical Manufacturers, 1875-1900*, (Cambridge: Harvard University Press, 1953).

<sup>51</sup> For a detailed account of Siemens' history, see: Wilfried Feldenkirchen, *Siemens: From Workshop to Global Player*, (Munich: Piper Verlag, 2000).

<sup>52</sup> Harold L. Platt, *The Electric City: Energy and the Growth of the Chicago Area, 1880-1930*, (Chicago and London: The University of Chicago Press, 1991).

specific topics. For instance, one study focused on the role of electrification in city life<sup>53</sup> and another study focused on the invention stage of the electric light.<sup>54</sup>

However, I believe that electrification is a multidimensional process in nature. It overlaps with transportation narrative (electrification of tramways in Istanbul in the early 20th century), a broad power story replacing the age of steam and gas powers in the industry, a communications story (construction of telephone operating systems), “and a story of basic infrastructure (including water systems, dams, ports, harbors, and other public works projects). Technological changes and continuous discoveries to provide electric light services, but especially the development of hydro-power and high-voltage transmission systems, was a critical part of the story, as was the stance of governmental bodies, whose roles evolved over time.”<sup>55</sup> In this process, multinational enterprises and international finance turned out to play significant roles. On the consumer side, “the foreign ownership and control of an industry whose sole product gradually became a necessity of life (for both home and industry) meant that political machinations were often at the forefront of the relationship between customers and foreign owners.”<sup>56</sup> Considering these multidimensional characteristics of electrification, this study, at the same time, relies on urban, social, political, and economic aspects of the subject.

The literature dealing with the Ottoman electrification history is still limited, although recently, a number of MA and PhD theses are appearing on the issue. In what follows I try to review this literature, including published articles, and books on the Ottoman electrification as well as unpublished MA and PhD theses.

Earlier works on the Ottoman electrification are consisted of short articles, which usually repeat the same encyclopedic information on the subject.<sup>57</sup> In these works,

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<sup>53</sup> Mark Rose, *Cities of Light and Heat: Domesticating Gas and Electricity in Urban America*, (University Park, PA: The Pennsylvania State University Press, 1995).

<sup>54</sup> Robert Douglas Friedel, Paul Israel, Bernard S. Finn, *Edison's Electric Light: Biography of an Invention*, (New Brunswick: Rutgers University Press, 1986).

<sup>55</sup> Mira Wilkins, William J. Hausman, John L. Neufeld, *Revue Economique*, p. 173.

<sup>56</sup> *Ibid*, p. 173.

<sup>57</sup> Halit Kiper, “İstanbul'a Işık Veren Silahtar Fabrikası,” *İ.E.T.T. Dergisi*, No. 2, pp. 28-29; Halit Kiper, “İ.E.T.T. Elektrik Tarihi,” *İ.E.T.T. Dergisi*, No. 1, (October 1956), pp.18-19; Ali Lemi Aytar, “Dün, bugün ve yarın-I,” *İ.E.T.T. Dergisi*, No. 5, (1957), pp. 4-5; Ali Lemi Aytar, “Dün, bugün ve yarın-II,” *İ.E.T.T. Dergisi*, No. 6, (1957), pp. 3-4; Ali Lemi Aytar, “Dün, bugün ve yarın-III,” *İ.E.T.T. Dergisi*, No. 7, (1957), p. 11; Nusret Alpeboz, “İstanbul Elektrik İşletmesinin Tarihçesi,” *Elektrik Mühendisliği Dergisi*, No. 179, (November 1971); Adnan Dinçel, “Türkiye’de Elektriklendirme Hizmetlerinin Anı ve Belgelerle Tarihçesi,” *Türkiye Elektrik Kurumu 50.Yıl*, (Ankara, 1973), pp.88-

basic information regarding Istanbul's electrification and Austria-Hungarian Ganz Company that won the bid, was told. However, none of the sources explain the detailed process of the concession. In addition, few sources mention that Ganz Company established partnership with Sofina, which is a multinational enterprise. Unfortunately, some of the literature on Ottoman electrification history even fails to show their sources.<sup>58</sup>

Above examples show that the articles on the electrification of Ottoman Empire are introductory ones, which do not use archival sources.<sup>59</sup> It should be noted that the research on the history of electrification would be complete only if the foreign archives are also consulted, along with the archives in Turkey. However, none of the studies on Ottoman electrification use foreign archival documents. In addition, these works provide brief information on the issue but do not analyze electrification by considering its urban, economic, and social dimensions.<sup>60</sup> Among these works, the article of Karaköse and the books of Kayserilioğlu are exceptions for using archival sources. Nevertheless, these works provide only the translations of the archival documents but do not carry out discussion over the translated archival documents.<sup>61</sup>

Another study on Istanbul's electrification makes a few references to some of the archival documents located in the Presidential Archives in Istanbul (former Prime Ministry Archives in Istanbul: Başbakanlık Osmanlı Arşivi, BOA) at the time when

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89; Adnan Dinçel, "Türkiye'de Elektriklendirme Hizmetlerinin Kısa Tarihçesi," *Türkiye Elektrik Kurumu Dergisi*, (April 1973), pp. 9-10; F. Ensari KARA, "Silahtarağa," *İstanbul Ansiklopedisi*, Vol. 54, (İstanbul 1994). A. Hamit Serbest, "Türkiye'de Elektrik Enerjisi Üretiminin İlk Yılları I," *Elektrik Mühendisliği Dergisi*, no. 418, (2003b); Adnan Dinçel, "Türkiye'de Elektrik'in İlkleri ve Silahtarağa Santralistanbul'da," *Kaynak Elektrik*, (August 2007), pp. 61-64. Mehmet Mazak, İstanbul'da Elektrik, (2015), the article is available online at <http://www.mehmetmazak.com/makale/3/334-istanbulda-elektrik#.V8wYICO7iko> (accessed 27 June 2016). In this article, Mazak repeats the information already provided in R. Sertaç Kayserilioğlu-Mehmet Mazak, Kadir Kon, *Osmanlı'dan Günümüze Havagazının Tarihçesi-I-II-III*, (İstanbul: İGDAŞ, 1999).

<sup>58</sup> A. Hamit Serbest, "Türkiye'de Elektrik Enerjisi Üretiminin İlk Yılları - II. Bölüm", *Elektrik Mühendisliği Dergisi*, No. 419, (Eylül 2003a), pp. 13-14.

<sup>59</sup> Naziye Özdemir, *Türkiye'de Elektrik'in Tarihsel Gelişimi (1900-1938)*, Unpublished M.A. Thesis, Ankara Üniversitesi, Türk İnkılap Tarihi Enstitüsü, (Ankara, 2011). Despite the fact that this study was prepared for the fulfillment of MA degree from Ankara University, Institute of Turkish Revolution History, it does not use any archival records.

<sup>60</sup> Asu Aksoy (eds.), *Silahtarağa Elektrik Santrali, 1910-2004*, (İstanbul: İstanbul Bilgi Üniversitesi Yayınları, 2007) is an exception since it covers the subject in a multi-disciplinary aspect. However, it still gives brief introductory information on the subject.

<sup>61</sup> Hasan Karaköse, "1910-1915 Yılları Arası Halep ve Antakya'ya Elektrik ve Tramvay Getirme Çalışmaları," Mehmet Tekin, (eds.), *VI. Hatay Tarih Kültür Sempozyumu Bildirileri 19-20 Nisan 2002*, (Antakya: Hatay Folklor Araştırmaları Derneği, 2004), pp. 145-155. R. Sertaç Kayserilioğlu, *Dersaadet'ten İstanbul'a Tramvay I-II* (İstanbul: İ.E.T.T., 1998).

this thesis was written).<sup>62</sup> However, the content of these references are apparently the summaries provided through the “document search” of BOA or they are already translated documents published in earlier studies.<sup>63</sup>

Emine Erol’s dissertation, “*Türkiye’de Elektrik Enerjisinin Tarihi Gelişimi*” examines the development of electric power in Turkey from 1902 to 2000.<sup>64</sup> The introductory part of the study provides comprehensive information on the history of electrification in the Ottoman Empire by using archival sources. The study, which focuses mainly on the Republican period of Turkey, adopts an economic approach by employing statistical, qualitative, and quantitative methods to evaluate the Turkish energy sector. Erol’s study provides information concerning the history of Ottoman electrification rather than interpreting it.

Another dissertation is by Serhat Küçük (*Osmanlı İmparatorluğu’nda Teknolojik Değişim ve Dönüşüm: Elektrik Örneği*), which mainly focuses on the documentation of electricity as a subject in the newspapers and journals published in Ottoman Turkish.<sup>65</sup> Küçük builds up his study on the notions of modernization and Westernization in the Ottoman Empire and aims to analyze the place of electrical development within the process of modernization. However, Küçük’s study remains limited, since he uses secondary sources while discussing relationship between the electrification and modernization. Further, Küçük documents electricity related

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<sup>62</sup> Yahya Coşkun, *20. Yüzyılın İlk Çeyreğinde İstanbul’da Aydınlatma Aracı Olarak Elektrik*, Unpublished M.A. Thesis, Gazi Üniversitesi, Sosyal Bilimler Enstitüsü, (Ankara, 2013).

<sup>63</sup> In the study of Yahya Coşkun, using the summaries provided for the documents resulted in some spelling mistakes, which were originally made in these summaries: For instance, the name of the company Ganz becomes Gantes (p. 68) or İzmir is considered among the cities, which were electrified earlier than İstanbul (p. 53). However, according to a report written by Stearns on the industrial conditions of İzmir, it was apparent that the city was not electrified by 1920: “There is no electricity in the city that can be secured for running machinery. In talking to a leading business man in Smyrna ..., he said that he would gladly change electricity from charcoal. ... If this power supply was conserved properly there would be enough power secured to run a large electrical plant, and perhaps enough power to could thus be generated to light the city. At least it should be carefully investigated, with the city streets at present in total darkness”. The full version of the report can be found in: Rıfat N. Bali (eds.), *A survey of some social conditions in Smyrna, Asia Minor, May 1921*, (İstanbul: Libra, 2009), pp. 18-21. In fact, İzmir is an example for the partial illumination within the city. According to Hüseyin Rıfat, since the Gas Company had the rights of illumination in İzmir, the city could not be lighted by electricity, despite a number of electrification concessions were granted. Nevertheless, the streets of Seydiköy were illuminated by electricity, thanks to the efforts the municipality: Hüseyin Rıfat, *Aydın Vilayeti 1330 Sene-i Maliyesi Ticaret Rehberi - İzmir 1914*, translated by Erkan Serçe, (İzmir: Akademi Kitabevi, 1997), p. 9.

<sup>64</sup> Emine Erol, *Türkiye’de Elektrik Enerjisinin Tarihi Gelişimi, 1902-2000*, Unpublished Ph.D. Thesis, İstanbul Üniversitesi, İktisat Tarihi Bölümü, (İstanbul, 2007).

<sup>65</sup> Serhat Küçük, *Osmanlı İmparatorluğu’nda Teknolojik Değişim ve Dönüşüm: Elektrik Örneği*, Unpublished Ph.D. Thesis, Hacettepe Üniversitesi, Sosyal Bilimler Enstitüsü, (Ankara, 2010).

articles in the newspapers, and journals published in Ottoman Turkish, which is informative for the reader, but does not discuss these articles.

Karayaman published a research on the introduction of electricity in Uşak, *İlkler Şehri Uşak'ta Elektriğin Serüveni*.<sup>66</sup> This work is significant in drawing the academic attention from the electrification histories of major cities to the history of electrification in the provinces in the Ottoman Empire. Nevertheless, the study has some drawbacks in defining electrification. Electrification of a city is complete when an electric power system supplies homes and industry with electricity.<sup>67</sup> What Karayaman portrays in his study is the introduction of street lighting in Uşak by the electricity generated by a dynamo. In addition, homes and work places did not receive electricity due to the absence of power grid in the city. Therefore, it cannot be argued that Uşak is among the earliest cities, which were electrified in the Ottoman Empire since the city did not have a power grid. The same problem appears in another study of Karayaman, “*Ankara Elektrik Türk Anonim Şirketi Tarihçesi (1929-1939)*” concerning the electrification of Ankara.<sup>68</sup> Karayaman mentions the introduction of various plants in different districts of Ankara. However, what Karayaman calls ‘plants’ should be the dynamos or electric engines employed to generate electricity as there cannot be several plants in the city. In addition, one cannot talk about a real power grid, which supplies, transmit and distribute electricity to the city. This mistake in defining the plant, is probably due to the ambiguity in the wording of Ottoman Turkish documents since the place where a dynamo or an engine is placed, or the place where the substation transformer steps up voltage for transmission, were all named as *fabrika* (factory) in these documents, which might mislead some readers.

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<sup>66</sup> Mehmet Karayaman, *İlkler Şehri Uşak'ta Elektriğin Serüveni*, (İzmir: 2013), (No information regarding the publishing house is stated).

<sup>67</sup> The electric power system (all installations and the plant provided for the purpose of generating, transmitting and distributing electricity) is known as the *grid* (electrical network) in electrical terminology. The grid consists of generators for supplying power, transmission system for carrying the power to the load centers where the substation transformer arranges voltage for transmission, and the distribution system that feeds nearby homes and industries by electricity. Regarding electrical terms, consult *Electropedia: The World's Online Electrotechnical Vocabulary* prepared by International Electrotechnical Commission (IEC) which prepares and publishes International Standards regarding electrotechnology): <http://www.electropedia.org/> (accessed 4 February 2019).

<sup>68</sup> Mehmet Karayaman, “*Ankara Elektrik Türk Anonim Şirketi Tarihçesi (1929-1939)*,” *Osmanlı Bilimi Araştırmaları*, No. XVI/1 (2014), pp. 50-72.

In the light of above arguments, Uşak should be considered as an example for the cities, which had street lighting in the early 20th century, in the Ottoman Empire. In 1909, the municipality of Uşak decided to have street lighting and contacted Warren Brothers Company, which was located in Symrna.<sup>69</sup> According to the agreement between the municipality and the company, a dynamo would provide electricity to the main streets of Uşak. Besides, an electrician would be in charge to operate it.<sup>70</sup>

In fact, Uşak was one of the leading cities in carpet weaving as well as the textile industry since 18th century. In general, local entrepreneurs employed new power sources in their business, in the form of either steam engines or dynamos. In addition, these entrepreneurs were usually enrolled in the municipality management of the city. As it was the case for İzmir, it may be guessed that the entrepreneurs of textile industry in Uşak decided to apply electricity as a power source for their business and excess electricity was provided to light the main streets of the city. It would have been very interesting to know whether there was a connection between Uşak municipality and the notable families of Uşak's textile industry, regarding the street lighting with electricity. Yet, this issue is beyond the scope of this study.

The case of Tarsus is similar to Uşak as well as the misinterpretations made in related literature. According to Hamit Serbest and Adnan Dinçel, Tarsus was the first place in the Ottoman Empire, which was electrified in 1902 by a water mill situated in Berdan River of Tarsus.<sup>71</sup> The running water gave the impetus to the mill to produce electric power. Since the electricity could not be stored as a power source, the municipality of Tarsus decided to utilize the excess electricity to illuminate the main streets of Tarsus. Yet, the mill provided only two kilowatts of electric energy, whereas Silahtarağa produced 3400 kilowatts of energy. It is for sure that Tarsus did not have a power plant to provide indoor electricity. Besides, the city did not have urban-scale grid for the distribution of electricity. Similar to Uşak and İzmir, it is probable that an entrepreneur first constructed this water mill on the Berdan River to generate electricity for his business. Besides, it is probable that the entrepreneur who first generated electric energy for his business was also a member of the municipality

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<sup>69</sup> For further information regarding Warren Brothers, see Hüseyin Rıfat, *Aydın Vilayeti 1330 Sene-i Maliyesi Ticaret Rehberi*, (İzmir 1914), p. 104.

<sup>70</sup> Mehmet Karayaman, *İlkler Şehri ...*, pp. 12-16.

<sup>71</sup> Hamit Serbest, *Elektrik Mühendisleri ...*, pp. 13-14. Adnan Dinçel, *Türkiye Elektrik ...*, pp. 88-89.

so that the arrangements for the distribution of electric energy to the city became easier for them.

Going further from above cases, it should be noted that the significance of Istanbul's electrification arises from the fact that it aimed the construction of urban-scale power plant to light the streets as well as the provision of indoor lighting, which necessitated the construction of an urban grid. Therefore, this study will not consider the following attempts as if they were urban-scale electrification projects: street lighting projects, partial lighting of a district within the city, lighting of individual buildings (homes, hotels, restaurants) by the efforts of their owners or operating a dynamo in the small scale production businesses, as these were the cases in İzmir, Uşak, and Tarsus. However, it should be noted that these were significant steps in the way of electrification, which shows the urban demand to have electricity.

At this point, it should be noted that the accounts of electrification history in the Ottoman Empire are problematic from a number of reasons when determining which city had electric illumination and when electrification was realized. First, agreements between the individuals and electricity supplier companies (selling electric apparatus such as dynamo, engines etc.) should not be considered as a project of urban scale electric lighting. For such projects, approval of the Sultan for granting a concession of electricity is necessary. Yet, the approval should not be assumed as if the electrification project was realized. The existence of a grant does not necessarily lead to the accomplishment of that project due to several reasons. That is why, the researcher should check whether the project was really realized or not in other sources such as newspapers, professional journals of electricity even published in France, Germany, or Britain and consular reports. Second, the studies of Ottoman electrification history immediately conclude for the electric illumination in an urban setting without making any differentiation between the street lighting, indoor lighting, or electrification of trams, and thirdly, these studies do not take into account the need of urban grid for the proper distribution of electricity in the city. Besides, these studies do not consider the source of electricity whether it was a power plant in urban scale or it was just a dynamo generating electricity.

Master thesis of Ozan Arslan deals with electrification of Eskişehir between 1916-1944. Similar to Karayaman, this study also suffers in defining what electrification

is. For instance, the attempts of Kenanzade Süleyman Efendi aimed at limited street lighting in the city and it was not an endeavor to establish an urban grid in Eskişehir. According to the study, the concession of Eskişehir's electrification was granted to the municipality of Eskişehir. The articles of the concession contract of this grant between the municipality and the Ministry of Public Works is presented to the reader throughout the thesis. However, Arslan infers from the project documents that the city's electrification was accomplished by AEG. Nevertheless, Arslan does not tell the story how AEG was involved with the electrification business of Eskişehir, which makes half of the story untold.<sup>72</sup>

Zafer Atar's dissertation, *Tanzimat'tan Cumhuriyet'e İzmir'de Kamu Hizmet İmtiyazları*, is a significant study dealing with public works concessions (water, gas, electricity, and trams) of İzmir during the 19<sup>th</sup> and early 20<sup>th</sup> centuries. However, Atar is not clear while he is telling about the proposals to electrify İzmir and their consequences. For instance, once he argues that the concession to electrify İzmir was granted to Ferdinand Reiser and provides the concession contract to the reader. Then he concludes that the concession was not granted to Reiser that is why the offers in the contract were not realized.<sup>73</sup> This ambiguity probably arises from the presence of the contract for the realization of the business. Yet, preparation of a contract does not necessarily mean that the concession is granted. Upon the application for a concession, negotiations start between the parties. During the negotiations, the contract to determine the framework for the business to be undertaken is prepared and Ottoman authorities examine the project. This, however, does not mean that parties may always come to an agreement. In that case, the concession is not granted. To be sure if a concession is granted or not *irade-i seniyye* concerning the concession is a must.<sup>74</sup>

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<sup>72</sup> Ozan Arslan, *Eskişehir'in Elektrifikasyon Tarihi (1916-1944)*, Unpublished M.A. Thesis, Mersin Üniversitesi, Sosyal Bilimler Enstitüsü (Mersin, 2014).

<sup>73</sup> Zafer Atar, *Tanzimat'tan Cumhuriyet'e İzmir'de Kamu Hizmet İmtiyazları*, Unpublished Ph.D. Thesis, Celal Bayar Üniversitesi Sosyal Bilimler Enstitüsü, (Manisa 2012), pp. 203-207.

<sup>74</sup> At this point, a document from the history of electrification in Edirne may be instructive for the researcher: "... Elektrikli tramvaylar tesisi ve şehirlerin elektrikle tenviri gibi imtiyâzâtın kablel ihale mukavele ve şartnâme lâyhalarının vekalet-i celile-i fahimanelerine irsâliyle alel usûl icâp eden tedkikat îfâ ve irâde-i seniyye istihsâl olunduktan sonra imtiyâzın ihâlesi lüzûmunun tamimen vilâyata tebliği...": COA BEO, 3898/292289, 1329 Ca 28 (27 May 1911). From this document, it is understood that before the adjudication takes place, the contracts of the concession are prepared and the Ottoman authorities examine them. If they reach an agreement, an *irade* is issued. *İrades* are best traced in *Düsturs* (available online at <https://acikerisim.tbmm.gov.tr/xmlui/handle/11543/67>, accessed 27

Different from the other studies on the history of Ottoman electrification, Öztaner's work presents theoretical approaches in the history of technology studies in her thesis.<sup>75</sup> Benefiting from these theories; which deal with the relationship between science, technology, and society, her study enlarges our perspective on the issue. However, using these theories requires comprehensive analysis of the concerned subject. For instance, in *Of Bicycles, Bakelites, and Bulbs*, one of the pioneering studies of "Social Construction of Technology (SCOT)", Bijker examines three case studies in the history of technology, analyzes why and how the technical change occurred and discusses primary significance of society when studying sociotechnical change.<sup>76</sup> Furthermore, in *Networks of Power*,<sup>77</sup> Thomas P. Hughes deals with the development of electric light and power systems in the United States, Great Britain, and Germany during 1880-1930 by using concepts such as technological momentum while discussing the transformation of Western societies. Unlike these comprehensive studies, Öztaner admits that her study is an introductory one. That is why, one of the theories of science, technology, and society studies cannot be adopted in such a work. However, the questions asked in those theories and the concepts used in them could be enlightening when doing research and during the writing process as well. Besides, Öztaner considers the electric appliances factory in Tersâne as the first one of its kind in the Empire. However, the factory, which was established to produce tools and instruments of telegraphy, should be considered as the first electrical appliances factory since it is earlier than the one in Tersâne.<sup>78</sup>

Apart from the theses and dissertations, the work of Vahdettin Engin is another academic contribution to the history of electricity in the Ottoman Empire, with a

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January 2019), or through the records of İ. DH. or İ. DÜİT classifications at COA, *İmtiyâz Defterleri* (6 volumes, 1829-1916) at COA, *Mukâvelenâme* (4 volumes, 1855-1887) and *Mukâvelât Defterleri* (26 volumes, 1883-1923) at COA. If not present in the archives, *irades* could be found in the series of "*İmtiyâzât ve Mukâvelât Mecmûası/Mecmûa-ı Mukâvelât/Mukâvelât Mecmûası/Umûr-ı Nâfiaya Ait Mecmûa-ı Mukâvelât*". These series were published by the Ministry of Public Works with all these different titles.

<sup>75</sup> Emine Öztaner, *Technology as a multidirectional construction: Electrification of Istanbul in the late nineteenth and early twentieth centuries*, Unpublished M.A. Thesis, İstanbul Şehir University, Graduate School of Social Sciences, (İstanbul, 2016).

<sup>76</sup> Wiebe E. Bijker, *Of Bicycles, Bakelites, and Bulbs: Toward a Theory of Sociotechnical Change* (Cambridge, MA, London: MIT Press, 1995).

<sup>77</sup> Thomas P. Hughes, *Networks of Power* ..., p. 79-105, p. 140-174.

<sup>78</sup> Nesimi Yazıcı, *Türk Dünyası* ..., pp. 61-81.

special focus on the electrification of trams in Istanbul.<sup>79</sup> Although Engin's work depends on archival sources and is informative on the electrification of trams in Istanbul, he does not focus on the complete picture regarding the competition around electrification business of Istanbul. However, incorporating of the Tramway Company was strategic from the point of Deutsche Bank, which aimed to control all electricity related business in Istanbul, ranging from the generation of electricity to the electrification of the transportation in the city.

Besides the historical accounts on Ottoman electrification, the Silahtarağa Plant received attention from the disciplines of history of architecture and architectural preservation and restoration. The plant, founded on the area of 12.000 m<sup>2</sup>, has become a large complex between the years 1910 and 1970s. The production and "working units were located at southern corner of the Halic shore. At the southern site, there were the plant and office buildings, workshops, coal storage, and lodgings for director and guards. At the north, far from pollution of the plant, there were housing facilities for workers and a restaurant".<sup>80</sup> No doubt, Silahtarağa; such a complex combining production, working, and living spaces, is one of the most important sites of industrial heritage in Turkey. That is why, a number of architectural studies examined Silahtarağa.

Cengizkan's article is the most detailed one among the others and involved information in relation to production units of the plant together with working and living spaces. On the one hand, the working spaces ranged from the administrative buildings to the atelier of the plant. On the other hand, the living spaces of the plant included the housing buildings for the workers as well as the administrative personnel, the dining hall, and a shop for daily needs of workers.<sup>81</sup>

Based on the archival sources, my dissertation analyzes the development of electricity in Istanbul as a new technology with a special focus on the 1910

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<sup>79</sup> Vahdettin Engin, *İstanbul'un Atlı ve Elektrikli Tramvayları*, (İstanbul: İstanbul Ticaret Odası, 2011). The study is available online at <http://www.ito.org.tr/itoyayin/0024195.pdf> (accessed 27 June 2016).

<sup>80</sup> Mevlude Kaptı, Binnur Kırac, Sait Ökten, "The Old Power Plant at Silahtarağa in Istanbul," S. Huerta (eds.), *Proceedings of the First International Congress on Construction History*, Madrid, 20th-24<sup>th</sup>, (Madrid: Instituto Juan de Herrera, SEHC, COAC, CAATC, January 2003), pp. 1239-1248. The article is available online at: [http://www.sedhc.es/biblioteca/actas/CIHC1\\_118\\_Kira\\_%20B.pdf](http://www.sedhc.es/biblioteca/actas/CIHC1_118_Kira_%20B.pdf) (accessed 27 June 2016).

<sup>81</sup> Ali Cengizkan, "Türkiye'de Fabrika ve İşçi Konutları: Silahtarağa Elektrik Santrali," *ODTÜ Mimarlık Fakültesi Dergisi*, vol. 20, (Ankara, 2000), pp. 29-56.

concession, and its implementation. The research covers the archival documents from Turkey, the United States, the United Kingdom, and Germany. The books as well as the journals in Ottoman Turkish, French, German, and English are the sources, which are examined to provide a complete picture of Ottoman electrification. Besides, the dissertation analyses introduction of this new technology into the Empire from the political, economic, and social contexts. Further, the study addresses different parties involved in electrification process of Istanbul, ranging from the Ottoman administrators (working in the Ministry of Public Works, Ministry of Finance, Council of State and the municipality) and engineers, foreign experts to the diplomatic agencies, multinational companies, and international banking.

As opposed to earlier studies, this study does not argue that the late arrival of electricity into the Ottoman lands as a major drawback for the Ottoman bureaucracy nor the dissertation depends on the idea that the obsession of Abdülhamid II curtailed the coming of electricity into the Ottoman lands, on the contrary, that Ottoman administrators were competent enough to realize the significance of electricity regarding the development of the country. Besides, Ottoman administrators showed insight to select and acquire matured technology regarding the electrification of cities.

On the one hand, limited financial resources were one of the causes of the late arrival of electricity into the Empire. It is apparent that the Ottoman administrators did not have similar financial opportunities with their counterparts in Europe. For instance, the self-regulating arc lamp invented by the Russian engineer Paul Jablochhoff, led to the first practical electric arc street lighting in Paris, in 1876.<sup>82</sup> Despite many drawbacks of Jablochhoff's lamps, which had a lifetime of 90 minutes, administrators of Paris applied this new technology in street lighting. However, Ottoman administrators rejected the offer that came from Jablochhoff to apply the same technology in Istanbul. Ottoman administrators were right to reject this offer since in two years time, "Compton and Pochin in England and Friedrich von Hefner-Alteneck in Germany invented the differential carbon arc lamp, which eventually superseded

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<sup>82</sup> Maxime F. Gendre, *Two Centuries of Electric Light Source Innovations*, Eindhoven Institute for Lighting Technology, (Eindhoven: Eindhoven Univ. of Technology, 2003), p. 2. The online version of the article is available at: [http://www.einlightred.tue.nl/lightsources/history/light\\_history.pdf](http://www.einlightred.tue.nl/lightsources/history/light_history.pdf) (accessed 3 February 2019).

Jablochhoff's lamp in street and industrial lighting.”<sup>83</sup> Yet, “the first private and public power stations, built in New York, Milan, and Berlin in 1882/83, were very small direct current producers that supplied electric lighting to a few blocks in the heart of these cities.”<sup>84</sup> Direct current was the reason for this limited geography where the electric light could be experienced. The application of “high-voltage alternating current” was a “technological breakthrough” which paved the way for the transmission of electric current in the long distances.<sup>85</sup>

On the other hand, Ottoman administrators opted for inclusive development, which would be applied throughout the Empire. That is why they waited for the maturing of technology rather than going on a trial and error process in the leading cities. It took long time that allowed for the electrical technology to mature. Only after Tesla's contribution to the electrical technology, which relied upon three-phase AC power in the late 1890s, the way opened for the large-scale power systems. I argue therefore that electrification of the Ottoman cities was not that late as argued by earlier studies.

19th and early 20th centuries in the history of the Ottoman Empire have long been interpreted as a period of economic, financial, and political subordination to the European powers. This kind of interpretation centers the “paradigm of European ascendancy”<sup>86</sup> over the Ottoman Empire where Ottoman decision makers were all passive actors. Additionally, these approaches concern with the economic and financial consequences of European ascendancy, usually limited to study the effects of European hegemony in the Ottoman Empire. However, electrification project of Istanbul provides us with the clues by which we can question the argument of “complete subordination to the European powers” when it comes to transferring new technologies, and correct injustices inherent in it. For instance, the decision making process of the electrification project of Istanbul proves that the Ottomans were independent actors throughout the project, which contradicts with Eurocentric approaches.

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<sup>83</sup> Maxime F. Gendre, *Two Centuries ...*, p. 2.

<sup>84</sup> Peter Hertner, “Corporate Governance and Multinational Enterprise in Historical Perspective,” Klaus J. Holt, Hideki Kanda, Mark J. Roe, Eddy Whymeersch, Stefan Prigge (eds.), *Comparative Corporate Governance: The State of the Art and Emerging Research* (New York: Oxford University Press, 1998), p. 47.

<sup>85</sup> Peter Hertner, *Comparative Corporate ...*, p. 48.

<sup>86</sup> Isa Blumi, *Foundations of Modernity: Human Agency and the Imperial State*, (New York: Routledge, 2012), p. 9.

I consider the late 19th and early 20th centuries as having a special significance in the formation of a modern political and social framework throughout the Ottoman history. Technological developments played a significant role in this framework since technology is a distinctive feature of modernity.<sup>87</sup> This dissertation places the electrification of Istanbul within the larger context of modernization process of the Empire. Different from the other studies on Ottoman electrification, I argue that the introduction of electricity in the Ottoman Empire is a major stage forward in modernization process of the Empire. This argument treats the Ottomans as actors i.e. engineers, administrators, etc. as active agents in the selection, evaluation, and implementation of electrification.

The project of Istanbul's electrification is a significant case, which proves that the modernization efforts of this age were executed by modest steps of Ottoman administrators, and engineers. Thanks to the educational reforms of *Tanzimat* and higher education schools of Abdülhamid II, Ottoman administrators and engineers received modern education. Electricity as a separate course in the engineering schools opened the way to raise workforce on electricity related jobs. The graduates of such schools, which had electricity courses in their curriculum, formed the nucleus personnel of electricity and they played significant roles during the evaluation process of the proposals of electrification projects, which were offered by foreign investors to the Ottoman Government, either to light the cities or to electrify the trams. I argue that various offers and project proposals leading to the construction of the first electric plant of Istanbul since 1870s and the negotiation processes between the companies and the Ottoman officials resulted in scientific knowledge and expertise accumulation regarding electricity among the Ottoman officials working in the Ministry of Public Works and the municipalities. Through the establishment of commissions to deal with different proposals of electrification projects in their selection, implementation, and management phases, knowledge and expertise regarding electricity developed.

Yalçinkaya's analysis of "learned patriots" becomes very instrumental at this point. As Burçak pointed out, Yalçinkaya challenges much of the earlier historiography equating Ottoman modernization with "Westernization" and depicting 19th-century

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<sup>87</sup> Noyan Dinçkal, "Reluctant Modernization: The Cultural Dynamics of Water Supply in Istanbul, 1885-1950," *Technology and Culture*, Vol. 49, No. 3, (Jul., 2008b), pp. 675-700.

Ottoman history as a site of struggle between “modernists” and “conservatives”.<sup>88</sup> Rather than portraying such dichotomies when analyzing the late Ottoman period, Yalçinkaya goes after what Ottoman elite discussed about science in this period. Likewise, this dissertation concerns with the actions taken by the “learned” Ottoman administrators and engineers during the electrification project of Istanbul.

These “learned” administrators and engineers of the Empire became “patriots” during the tough years of the early 20<sup>th</sup> century due to the fragile situation of the Empire. The outbreak of the Balkan Wars and its losses, then the coming of World War I accelerated this standpoint. The “learned patriots” of the Ottoman Empire had belief in modernity as a remedy for the contemporary problems that the Empire was dealing with at the time. Modern institutions as well as the modern infrastructures were all conceptualized as the needs of the Empire by which it would be an active actor again in the league of Western nations. Therefore, within the belief in technological development, which was associated with the progress, industrial and urban development to the Ottoman administrators and engineers, they could take firm steps during the 1910 concession and its aftermath. However, the Empire could not survive long enough after the World War I and Ottoman modernization with the electrification project as a major stage forward in it, was left unfinished.

#### 1.4. Chapters

The second chapter of the dissertation sets the stage, providing historical background to the history of electrification in Istanbul before the establishment of Silahtarağa Plant by describing the lighting practices of the Ottomans before electrification, such as lighting with candles, oil lamps, lanterns, torches and lighting with gas, early contacts of Ottomans with electricity before Silahtarağa through the experience of telegraphy, representations of electricity in engineering coursebooks,<sup>89</sup> popular

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<sup>88</sup> Berrak Burçak, Review of M. Alper Yalçinkaya, “Learned Patriots: Debating Science, State, and Society in the Nineteenth Century Ottoman Empire,” *International journal of Middle East Studies*, Vol. 48, No.: 3, (August, 2016), pp. 611-613.

<sup>89</sup> The course books including electricity as a scientific subject ranges from the work of Yahya Naci Efendi; “*Risale-i Seyyale-i Berkiyye*” and İshak Efendi, “*Mecmûa-i Ulûm-i Riyâziye*” to the curriculums of Telegraphy Schools.

Regarding Yahya Naci, see Feza Günergün, “Deneylerle elektriği tanıtan bir Türkçe eser: Yahya Naci Efendi'nin *Risale-i Seyyale-i Berkiyye'si*” *Osmanlı Bilimi Araştırmaları*, vol. 9, no. 1-2, (2008), pp. 19-50. The article is available online at

journals and magazines preceding the period of Silahtarağa<sup>90</sup> and individual uses of electricity in the mines, homes of the elite, small workshops, hotels, and restaurants as followed through the archival documents of the Ottoman Archives in Istanbul as well as the journals and magazines.

While the second chapter summarized the state of the art in the Ottoman Empire until the construction of Silahtarağa Plant, the third chapter will place the ideas as followed in the foreign country sources regarding electrical technology and the Ottoman Empire before the establishment of Silahtarağa Plant.

Chapter IV elaborates the state of electrical development in global scale within the timing of Istanbul's electrification. The chapter focuses on the developments of electrification in the neighboring geographies to the Ottomans and provides insights from the contemporary European examples of electrification. While the contemporary examples help to situate Ottoman electrification case among its neighboring and European counterparts, this chapter also serves as a base for the forthcoming chapter on the bidding process of Istanbul's electrification.

Chapter V deals with the working system of concessions in the Ottoman Empire. No doubt, general procedures of the concession process will help us to understand the case of Istanbul's electrification concession better. By focusing on the concession procedures, I will first deal with the concession as a legal term and then investigate how did they operate in the Ottoman Empire starting from the publicity of the concessions to the outer world to the legal procedures to be filled in by the companies when applying for a concession.

Chapter VI of the dissertation analyzes the bidding process of the electrification concession of Istanbul. This chapter focuses on the competition to electrify Istanbul by providing detailed presentations of the companies and multinational enterprises, which applied to the concession as well as their proposals to construct the electrical plant. In addition, the major role of international finance in this competition and the

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<http://www.journals.istanbul.edu.tr/iuoba/article/view/1023009087> (accessed 4 February 2019). Regarding İshak Efendi, see Abdullah Haris Toprak, *Modern Avrupa Fiziği'nin Osmanlı Devleti'ne Geçişi: Başhoca İshak Efendi'nin Mecmua-i Ulum-i Riyaziye'sinde Isı ve Elektrik Bahisleri*, Unpublished M.A. Thesis, Fatih Sultan Mehmet Vakıf Üniversitesi Medeniyetler İttifakı Enstitüsü Medeniyet Araştırmaları Anabilim Dalı, (İstanbul, 2014). The thesis is available online at: <http://acikerisim.fsm.edu.tr:8080/xmlui/handle/11352/2091> (accessed 4 February 2018).

<sup>90</sup> Perceptions of electricity in *Mecmûa-i Fünûn* will be elaborated.

acts of foreign embassies of Istanbul to support their national companies are elaborated.

Chapter VI of the study will enlarge our information on the European economic involvement in the Ottoman Empire. As a repeated discourse, 19<sup>th</sup> and early 20<sup>th</sup> centuries were depicted as the period of financial bankruptcies as well as the absolute subordination of the Empire to the European powers. Yet, the inner dynamics of this process; the strategies of foreign capital in order to organize and diffuse in the Ottoman territories and their tactics to win the concessions were not analyzed in detail in the current economic history literature. Besides, within this literature, the legal and financial structure of the enterprises, which won the concessions were not identified in detail. This is probably due to the fact that the field of business history has not yet flourished in the studies of Ottoman history.

Moreover, the role played by the financial institutions, were just seen as the loan providers, which masked their designing role in winning the concessions. However, this study claims that financial institutions; pursuing major concessions in the Empire, had the managing role from the beginning of the business as revealed with the dominant management role played by Deutsche Bank in Istanbul's electrification.

In addition, multi-partnered and multinational aspects of enterprises were usually neglected. For instance, literature on Istanbul's electrification claims that Sofina –a Belgian company, first became a partner to the electrification business of Istanbul in the later years of the concession and then acquired the whole business in the 1920s. Indeed, Sofina was a multinational enterprise, which preferred Belgium as a fiscal domicile due the tax advantages, provided in this country. Moreover, the enterprise had partners as the engineering companies and financial institutions from Germany, France, Belgium and Switzerland as well as the personal investors who had the shares of the enterprises in their hand. Therefore, this study attempts to go beyond the information regarding the legal registry of the enterprises and their domiciles when identifying the nationality of the foreign investment by tracing the partnership structure of the enterprise in question in the archives of the relevant countries.

Chapter VII deals with the decision making process regarding the electrification concession, and focuses on the local dynamics and the role played by the local actors during the decision making process.

In order to understand the spirit of the Ottoman officials that supported and initiated the electrification of Istanbul, I first evaluate the role of various Ottoman agencies ranging from the Ministry of Public Works to the Council of State and Istanbul Municipality. Presentation of the organizational structure of the Ministry of Public Works as well as the complex relationship and division of labor between Ottoman government agencies will contribute to our understanding of the history of bureaucracy in the Ottoman Empire.

In addition, this chapter examines the attitudes of Ottoman officials towards public works in general as well as the electrification project of Istanbul in particular. Ottoman engineers and their brilliant role in the evaluation of the proposals are presented in this part by focusing on the reports of these engineers. Further, in order to reveal the reasoning of Ottoman engineers while deciding among various technology options, a comparative reading between the concession contract and Burhaneddin [Ferid Sezerar] Bey's book on the economics of electrical technology is carried out.<sup>91</sup>

The determining role of the engineers, in terms of which technology to be implemented and the reasoning of their acts during the decision making process as well as their capability in the concession negotiations will be the contribution of this part to the history of engineering in the Ottoman Empire. The emphasized idea of development during the discussions, when constructing the modern infrastructures such as trams and electricity, reveals the standpoint of Ottoman bureaucracy and engineers towards the reception of new technologies to the Empire: They were aware of the fact that modern infrastructure was the imperative condition for a modern country.

Focusing on the engineers who worked in Istanbul's electrification, this chapter will identify the personal carriers of these individuals, as well. Therefore, this chapter includes personal stories of five of these engineers: Mr. Auric as a foreign expert in

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<sup>91</sup> Elektrik Mühendisi, Müderris Burhaneddin Ferid Bey, "*Mühendis Mektebi Elektrik Notlarından: Hatt-ı Hevâî Hesâbâtının Esâsâtı*", (İstanbul: Matbaa-i Askeriye, 1339/1923).

the service of Ottoman Government; Karl Terzaghi as a professor in the School of Engineering; Mehmed Hulusi Bey, an Ottoman subject as the head of Engineering School as well as the engineer in chief in the Ministry of Public Works; Frankiya Efendi an Ottoman subject, as an engineer in the Ministry of Public Works and an entrepreneur, and finally Mr. Caviano as an entrepreneur-architect who cleverly sensed the role of electrification in the urban development of Istanbul. In addition to the personal histories of these figures, the case of Andre Berthier, the civil engineer who served for Ottomans in the late 19<sup>th</sup> century will be examined in detail, while elaborating the working contracts between the foreign experts and Ottoman administration.

The part on the decision making process of electrification will be followed by Chapter VIII, which focuses on the study of contracts, rules, and regulations about Silahtarağa Plant. This chapter gives further information about the plant itself.<sup>92</sup> This chapter also portrays the consumption of electricity in Istanbul through the archival documents such as subscription contracts held with consumers, including individuals and commercial enterprises. In addition, the examination of the financial documents of the plant would reveal significant information regarding consumption of electricity during the years of World War I.

The conclusion chapter provides a short summary of the lessons learned by the efforts during the process of bringing electricity to the Ottoman capital.

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<sup>92</sup> When I visited Silahtarağa Power Plant Museum, the guide of the museum told about the social life of the plant. The workers, technical staff, and the engineers were living in the factory since there were houses for them. Some of those had families with them. There were also eating places in the plant. Thus, there was certainly a social life in the factory area: People ate in the factory restaurants, even, children of some of the workers married in the factory garden. Factory life, housing in the working place can be considered a new experience, new type of organization for the working life. In fact, factory life itself, collective workings were new for the Ottomans.

## CHAPTER II

### LIGHTING OF ISTANBUL BEFORE THE ESTABLISHMENT OF SİLAHTARAĞA POWER PLANT

This chapter provides background information to the history of electrification in the Ottoman Empire before the establishment of Silahtarağa Plant. This chapter examines first the practices of lighting in Istanbul before electricity such as lighting with candles, lanterns, oil lamps, and gas lighting; early contacts of Ottomans with electric technology through the experience of telegraphy; early appearances of the term ‘electricity’ in the Ottoman popular science press, primarily the journal; *Mecmûa-i Fünûn*<sup>93</sup> (*Journal of Sciences*); the place of the electricity in the world fairs in which the Ottomans participated and the electrical devices produced by the Ottoman Empire; and individual uses of electricity in the mines, homes of the elite, small workshops, hotels, and restaurants by relying on the documents in Ottoman Archives in Istanbul, as well as relevant journals and magazines.

The initial steps of the Ottomans in the way of using electric technology as an urban infrastructure to light the cities are also analyzed in this chapter. In this stage, early offers of foreign companies for the electrification of Ottoman cities and the attitudes of Ottoman administrators towards these offers are dealt with. A short presentation of electricity as a subject in the writings of intellectuals is also included in this part as well.

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<sup>93</sup> A popular journal of science published by *Cemiyet-i İlmiyye-i Osmâniyye*, the first civil organization for science in the Ottoman Empire between 1862 and 1867: Ali Budak, *Mecmûa-i Fünûn, Osmanlı'nın İlk Bilim Dergisi*, (İstanbul: Bilge Kültür Sanat, 2011).

## 2.1. Lighting of Istanbul before the Introduction of Electricity

Until the introduction of gas plants in the middle of the 19<sup>th</sup> century, the main lighting instruments used in Istanbul were candles, oil-lamps, torches, and lanterns.<sup>94</sup> The responsible guilds produced candles out of animal fat and sold it to the public from a certain price, which was decided by the state.<sup>95</sup> Before the introduction of street lighting, it was not common to walk around at night. Guards were traveling around with the lanterns during the night in order to maintain safety in the streets. However, lighting in the streets and homes was a common need.

The government took actions to solve the lighting problem of Istanbul. According to a decree dated 1817, shop keepers would hang candles in front of their shops since the illumination of the streets at nights was the sign of prosperity and civilization: *mamûriyet ve medeniyet*.<sup>96</sup> Besides, wealthy people and owners of the mansions were putting oil-lamps in front of their entrance doors to light around at nights. Even Meclis-i Vala-i Ahkâm-ı Adliye urged at the wealthy people together with the shop-keepers to hang lanterns in front of their houses and shops. Furthermore, the lanterns were supposed to be the same shape, which would be provided by the local police (*zaptiye*). Probably, those could be considered as the first initiatives of the lighting provided for the public at large by the state<sup>97</sup>.

Another example for the public lighting could be the custom of lighting the mosques and setting up *mahyas* between the minarets of the mosque during the Ramadan month. The *mahya* tradition survived until today. Thus, Ramadan nights in the Ottoman Empire symbolized illuminated city nights.

According to Süheyl Ünver the first *mahya* was built during the reign of Ahmed I.<sup>98</sup> Cemal Kafadar claims that the first *mahya* was built during the visit of a delegation coming from Vienna. Furthermore, according to Kafadar, the flourishing of the

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<sup>94</sup> The Museum of Lighting and Heating in Beykoz has valuable collection on the lighting instruments ranging from candles to variety of lamps. Unfortunately, the museum is closed at the moment: <http://www.aydinlatmaveisitmaaraclarimuzesi.com/> (accessed 12 February 2015).

<sup>95</sup> Doğan Kuban, "Aydınlatma," *Dünden Bugüne İstanbul Ansiklopedisi*, vol. I (İstanbul: Türkiye Ekonomik ve Toplumsal Tarih Vakfı, 1993-1995), p. 475.

<sup>96</sup> R. Sertaç Kayserilioğlu et.al., *Osmanlı'dan Günümüze ...*, p. 40.

<sup>97</sup> Mehmet Mazak, "Türkiye'de Modern Aydınlatmanın Başlangıcı ve Aydınlatma Tarihimize Genel Bir Bakış (1853-1930)," *IV. Ulusal Aydınlatma Sempozyumu ve Sergisi*, İTÜ, Aralık, 2007 (İstanbul, 2007), pp. 2,4. R. Sertaç Kayserilioğlu et. al, *Osmanlı'dan Günümüze ...*, p. 41.

<sup>98</sup> Süheyl Ünver, *İstanbul Risaleleri I*, (İstanbul: İstanbul Büyükşehir Belediyesi Kùlür İşleri Daire Başkanlığı Yayınları, 1995), p. 48.

coffee houses in Istanbul created the need for the illumination at nights in the 16<sup>th</sup> and 17<sup>th</sup> centuries.<sup>99</sup>

According to *Journal de Constantinople* in 1856, people living in Pera demanded modern ways of illumination as dwellers of Paris and London enjoyed by submitting petition to the government for this purpose. To this end, people around Pera gave petition to the government for this purpose.<sup>100</sup> However, lighting of the streets was not possible until the middle of the 19<sup>th</sup> century in the Ottoman Empire. It is for sure that the establishment of Şehremâneti provided the way for the modern city. The services provided by Islahat-ı Turuk Komisyonu (The Commission for Road Improvement)<sup>101</sup> for the streets, designing city plans, providing transportation and communication services as well as lighting opportunity for the public were all new services brought by the municipality administration to the city dwellers of Istanbul.

Likewise, it was the initiation of Istanbul municipality to extend the gas lighting, which was first realized in Dolmabahçe Palace to the other quarters of the city. Lighting system was needed for the palace, which was built on the area of 110.000 m<sup>2</sup>. For this purpose, gas plant was built in 1853 by Hazîne-i Hâssa-ı Hümâyûn close to the palace and was named as Dolmabahçe Gazhânesi.<sup>102</sup>

After the Crimean War, Abdülmecid began to live in Dolmabahçe palace. The plant began to produce gas in 1856. The gas that could be produced in the gas plant was too much for the palace. Şehremâneti administration wanted to light the streets of

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<sup>99</sup> Cemal Kafadar, “Kahve, Kahvehane ve Gecenin Fethi, Yemen’den İstanbul’a, İstanbul’dan Londra’ya, Modernitenin Doğuşu Hikayesine Bir Katkı” speech delivered at İSAM, (İstanbul, 26.12.2008).

<sup>100</sup> Nur Akın, 19. Yüzyılın İkinci Yarısında Galata ve Pera”, (İstanbul: Literatür Yayıncılık, 1998), p. 122-124.

<sup>101</sup> After the devastating fire of Hocaapaşa, Islahat-ı Turuk Komisyonu (The Commission for Road Improvement) for the reorganization of the district was established under the chairmanship of Fuad Pasha by the order of Sultan Abdülaziz. The first activities of the commission were the settlement of the sufferers of the fire, construction of new buildings and expropriation procedures: Koray Özcan, Tanzimat’ın Kent Reformları: Türk İmar Sisteminin Kuruluş Sürecinde Erken Planlama Deneyimleri 1839-1908, *Osmanlı Bilimi Araştırmaları*, No. VII/2, (2006), p. 167. In 1866, Islahat-ı Turuk Komisyonu *Vazifesi Talimatnamesi* (Regulation for the Commission for Road Improvement) was published: Nihal Erkin Erkan, “Ebniye Nizamnâmelerinden Şehir Planlama Teorisine Uzanan Yol: İstanbul’da Şehir Planlama”, *Çağdaş Yerel Yönetimler*, Vol. 21, No. 4, (October 2012), p. 5. For detailed information on the fire of Hocaapaşa and establishment of the Commission for Road Improvement as well as the reports by this commission see Zeynep Çelik, *The Remaking of Istanbul: Portrait of an Ottoman City in the Nineteenth Century*, (Berkeley, Los Angeles, London: California University Press, 1993), pp. 55-67.

<sup>102</sup> Mehmet Mazak, “İstanbul’da İlk Modern Aydınlatılan Mekan: Dolmabahçe Sarayı ve Dolmabahçe Gazhanesi”, paper presented at *TBMM 150. Yılında Dolmabahçe Sarayı Uluslararası Sempozyumu*, (İstanbul, 2006), p. 2.

Beyoğlu with the excess gas produced in the gas plant. Abdülmecid accepted this offer of municipality. Thus, in 1856, Beyoğlu district was lightened by Dolmabahçe Gas Plant. The first street lightened by gas was Cadde-i Kebir, today's famous İstiklal Street.<sup>103</sup>

Illumination of the Caddde-i Kebir was the first step of the street lighting. Then, gas pipes reached Galatasaray, Tünel, Yüksek Kaldırım and Karaköy and lighted these streets. In the mean time, Naum Theatre was also one of the places, which was illuminated. Acoording to people living in Beyoğlu, the theatre had an amazing appearance after the illumination.<sup>104</sup> In 1859, Galata and Tophâne districts met with gas lighting. In 1861, Talimhâne and Saraçhâne were lightened with gas. Finally, in 1864, gas pipes went through Maçka Silahhânesi and reached Teşvikiye, Nişantaşı, Pangaltı Street and Beşiktaş.<sup>105</sup>

The gas lamps were put within 80 steps away from each other. Gas lamps were supposed to be in the same shape as it was the case for the lanterns before the introduction of gas. These could be considered as the signs for city planning and landscaping.<sup>106</sup> Gas pipes and the pillars of the lamps were made of iron. Pipes were constructed and financed by Tophâne-i Âmire (State Canon-Foundry). People also were paying taxes "*tenvîriye resmi*" to finance the expenditures of the gas plant.<sup>107</sup> The administration of the plant was managed by Hazîne-i Hâssa.<sup>108</sup>

However, Dolmabahçe Gasplant could not follow the contemporary gas technology of its age thoroughly and could not fulfill the necessary repair works of the gas plant. The result of this was the higher prices in the gas production. People began to use *sulu gaz* (petrol gas) which was cheaper. As a solution to these problems, the administration of the gas plant was transferred to Şehremâneti in 1874.<sup>109</sup>

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<sup>103</sup> Mehmet Mazak, *TBMM 150. Yılında ...*, p. 2.

<sup>104</sup> Nur Akın, *19. Yüzyılın ...*, p. 123.

<sup>105</sup> Mehmet Mazak, *IV. Ulusal Aydınlatma ...*, p. 4-5.

<sup>106</sup> Nur Akın, *19. Yüzyılın ...*, p. 125.

<sup>107</sup> Mehmet Mazak, *TBMM 150. Yılında ...*, p. 2.

<sup>108</sup> Mehmet Mazak, *IV. Ulusal Aydınlatma ...*, p. 5.

<sup>109</sup> Mehmet Mazak, *TBMM 150. Yılında ...*, p. 3.

Şehremâneti modernized the equipment of the gas plant and did the necessary repair works. It was decided that the gas pipes would be produced by State Canon-Foundry. It was thought that this also would develop the local industry.<sup>110</sup>

Şehremâneti administered the gas plant for 15 years. In 1889, administration of the gas plant was transferred to State Canon-Foundry. Until 1913, Tophâne-i Âmire Müşirliği dealt with the production, construction, and repair works of the gas pipes, as well as the administration of gas works. In 1913, Şehremâneti took over the administration of the gas plant again due to the high prices of the gas service. Şehremâneti administration over the gas works did not last long and finally in 1914, Dolmabahçe Gas Plant was taken over by Beyoğlu-Yeniköy Türk Anonim Gaz Şirketi, which was established by French bankers Octav Bezanson and Louis Boer for fifty years.<sup>111</sup>

As seen from the above lines, the administration of the Dolmabahçe Gas Plant remained in the hands of the state for a long time. This situation was usually interpreted as the effort to secure safety towards a new technology since the first place, which was lighted by gas was the palace of the Sultan.<sup>112</sup> This standpoint could be logical yet it is not sufficient to elaborate the attitude of Ottoman administration. To them, establishing safety was one of the motives, but they also wanted to control and administer the technology by themselves, even self-producing the basic ingredients for the technology.

Apart from the Dolmabahçe Palace, Kuzguncuk Gazhânesi was established in 1865 to illuminate Beylerbeyi Palace on the Asian side of Istanbul.<sup>113</sup> A French company constructed the Kuzguncuk Gas Plant. As also experienced in Dolmabahçe Gas Plant, excess gas was produced at Kuzguncuk Plant as well. Beylerbeyi, İcadiye, Üsküdar, Abdullah Ağa, Küplüce, Burhaniye, and Fıstıklı districts were illuminated by the gas generated at Kuzguncuk Gas Plant.

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<sup>110</sup> Ibid, p. 3.

<sup>111</sup> Mehmet Mazak, *TBMM 150. Yılında ...*, p. 3.

<sup>112</sup> R. Sertaç Kayserilioğlu et. al, *Osmanlı'dan Günümüze ...*, p. 53.

<sup>113</sup> Mehmet Mazak, "Anadolu Yakasının İlk Sanai Tesislerinden Biri: Kuzguncuk Gazhanesi ve Üsküdar", available at <http://www.mehmetmazak.com/kuzguncukgazhanesi.html> (accessed 06 December 2008), p. 2.

As we understand from above experiences, lighting was first initiated for illuminating the palaces in Istanbul. However, it was a common need, which should be provided for everyone. For the illumination of the public at large, Yedikule Gazhânesi was established in 1880.<sup>114</sup>

Yedikule as a place for the construction of the gas plant was chosen on purpose since the plant would distribute gas to Suriçi district. Langa, Bayezid, Aksaray and Şehzadebaşı were the first places to be lightened. Moreover, the plant would illuminate homes, government offices, and tramway and train stops on its way. The plant was built by the French technical personnel<sup>115</sup> and administered by Şehremâneti. In time, gas light reached Eyüp, Bakırköy and Yeşilköy.

On the Asian side of Istanbul, Kadıköy Gazhânesi located at Hasanpaşa was built for the illumination of the public at large in 1891 and began to distribute gas in 1892.<sup>116</sup> The concession of the gas plant was given to a French citizen doing business in iron industry and a French engineer. The plant would illuminate Kadıköy, Üsküdar and Beykoz districts.

## **2.2. History of Electricity in the Ottoman Empire before the Establishment of the Silahtarağa Power Plant**

In this section, I present the early contacts of the Ottomans with electricity after the introduction of telegraphy in the empire. Those early contacts include the telegraphy experience of the empire and its relation with the issue of electricity, the first electricity courses in various curriculums' of schools as such held in Darüşşafaka, early appearances of the word electricity in the Ottoman popular science press, primarily the journal; *Mecmûa-i Fünûn (Journal of Sciences)*, the place of the electricity in the world fairs in which the Ottomans participated and the electrical devices produced by the Ottoman Empire. This introduction presents the place of electricity within the agenda of the Ottomans during their early relations with it.

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<sup>114</sup> Mehmet Mazak, *IV. Ulusal Aydınlatma ...*, p. 4.

<sup>115</sup> In fact, French were not the only foreign technical personnel of the gas plant, there were also Belgians: Mehmet Mazak, *IV. Ulusal Aydınlatma ...*, p. 7.

<sup>116</sup> Mehmet Mazak, "Osmanlı Üsküdarı'nda Aydınlatma" paper presented at *Üsküdar Sempozyumu I*, 23-25 Mayıs 2003, (İstanbul, 2003), p. 2.

### 2.2.1. Early Contacts of the Ottomans with Electricity

The first volume of *Mecmûa-i Fünûn*, the first popular science journal of the Ottoman Empire, contains early appearances of *elektrik* (electricity) in the Ottoman press. Information on the atmosphere (*yağmur*-rain, *kar*-snow, *rüzgar*-wind, *şimşek*-flash, *yıldırım*-thunderbolt, *gök gürültüsü*-thunder) was explained to the readers in an article with the title “*Hikmet-i tabiyyeden alâim-i semaviyeye dair bir hoca ile bir şakird beyninde muhaveredir*”<sup>117</sup> written by Kadri, one of the translators of Meclis-i Vâlâ.<sup>118</sup> The article was organized in the form of a dialogue between a professor and a student through the pages of *Mecmûa-i Fünûn*. When the professor told his student about the thunders and the flashes, he told about *kuvve-i elektrikiyye* (electric power).

Electricity was mentioned for several times in the series of articles; “*Medhal-i İlm-i Jeoloji* (introduction to the geology)” written by a’zâ-yı Meclis-i Vâlâ, Edhem.<sup>119</sup> In one of these series, the author informs the reader on *ziyâ* (light), *harâret* (heat), *elektrik* (electricity), *galvanizma* (galvanism), and *manyetizma* (magnetism).<sup>120</sup> In another article of “*Medhal-i İlm-i Jeoloji*” series, the author explained electricity current, induction, electrifying characteristics of the matters and magnetism to the readers.<sup>121</sup> Besides the articles mentioning electricity, there is only one article, whose main theme was about the electricity itself and electricity related experiments: “*Kuvve-i Elektrikiyye* (electric power)”.<sup>122</sup>

Above articles published in *Mecmûa-i Fünûn* dealt with the electricity as a scientific subject and informed the readers on this new technology. In addition, the subjects that the authors dealt with regarding electricity such as *manyetizma* and *galvanizma*

<sup>117</sup> Kadri, “*Hikmet-i tabiyyeden alâim-i semaviyeye dair bir hoca ile bir şakird beyninde muhaveredir*,” *Mecmûa-i Fünûn* vol. I, (İstanbul: Cem’iyyet-i İlmiyye-i Osmâniye, 1279-1283/1862-1866), p. 39-44.

<sup>118</sup> Cenanzade Mehmed Kadri Paşa first became civil servant in the public registration office in Anteb then he worked in Translation Office (Tercüme Odası), Ministry of Public Works (Nâfia Nezâreti) and municipal organization (Şehremâneti). He became grand vizier during the reign of Abdülhamid II for 3 months: Yeşim Işıl, *Bir Aydınlanma Hareketi Olarak Mecmûa-i Fünûn*, Unpublished M.A. Thesis, İstanbul Üniversitesi, Sosyal Bilimler Üniversitesi, (İstanbul, 1986), p. 52.

<sup>119</sup> Edhem, one of the members of Meclis-i Vâlâ, was in the patronage of Koca Mehmed Hüsrev Paşa and he was sent to Paris for higher education where he studied mining during the reign of Mahmud II. He is considered to be the first mining engineer of the Ottoman Empire. He became grand vizier during the reign of Abdülhamid II for 11 months. He is the father of Osman Hamdi Bey, Halil Ethem Eldem and İsmail Galip Bey: Mahir Aydın, “İbrahim Edhem Paşa (1818-1893),” *TDV İA*, vol. 10, (1994), p. 418-420.

<sup>120</sup> Edhem, “*Medhal-i İlm-i Jeoloji*,” *Mecmûa-i Fünûn*, vol. I, p. 105. 105-110.

<sup>121</sup> Edhem, *Mecmûa-i Fünûn*, vol. I, pp. 205-215.

<sup>122</sup> Daniş, an Erkan-ı Harbiye, “*Kuvve-i Elektrikiyye*,” *Mecmûa-i Fünûn*, Vol. II, p. 483-487.

as well as the experiments of electricity show that they followed the contemporary developments of electrical technology.<sup>123</sup> These articles provided information on different subjects of the sciences such as physics, geology and the new technologies to the reader, thus they helped popularization of science in the public.

*Mecmûa-i Fünûn* not only published articles on the sciences but the journal administration also organized public lectures. Public lectures can be considered as a part of popularization of science since the classes aimed “*intişâr-ı maârif*” (diffusion of sciences among the public).<sup>124</sup> The first class was instructed by “*saâdetlû Dervîş Paşa Hazretleri*” (Mehmed Emin Dervîş Paşa) on physics. There were more than 300 people who participated in the class.<sup>125</sup> The exact subject of the class was the basics of the formation of the air and the electricity power: “*mahiyet-i heva ve kuvve-i elektrikiyye ve saireye dair bazı usûl ve kavâid.*” The most exciting part of the class was an experiment of electricity that the audience was surprised with the sparks coming from the instruments used in the experiment:

Kuvve-i elektrikiyye tecrübesinde alet-i mahsusasından ateş şerareleri zuhur itdikden başka bir ince tel vasıtasıyla kuvve-i mezkûra bir ademin vücûduna nakil olundğu halde el veyahud başka bir şey ile vücudunun bir tarafına dokunsa oradan mai renklü kıfılcımlar çıkması ...

It is significant that the authors of *Mecmûa-i Fünûn* told about electricity as a subject in their articles. Moreover, the first public lecture contained electricity as a subject and experiments on it.

In the light of above lines, it is apparent that the authors of the journal were familiar with electricity. According to them, electricity was significant to mention about and inform the public about it. Apart from telling new technologies and make them known in the public by giving their definitions and make them clear through the

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<sup>123</sup> Michael Faraday’s works have been the milestones for the development of electrical technology. In 1859, Faraday published *Course of six lectures on the various forces of matter and their relations to each other* (Auckland, New Zealand: Floating Press), which dealt with similar issues, discussed by the authors of between 1862-1866. Full text of Faraday’s work is available online: <https://archive.org/details/courseofsixlectu00fararich> (accessed 26 February 2016). The Library of the School of Engineering owned one copy of this item, which proves that the works of Faraday received attention from Ottoman engineers.

<sup>124</sup> Münif, “Dar’ul-Fünûnda Ders-i Âmm Küşâdı,” *Mecmûa-i Fünûn*, vol. I, p. 258-260, electricity was mentioned on page 258.

<sup>125</sup> *Mecmûa-i Fünûn*, vol. I, p. 301.

public lectures and experiments, it is also significant how the authors of the journal see electricity as a social reality.

There is one article, which can give a clue on this issue published in the journal. In this article, the author places the inventions of electricity; construction of railways and the flourishing of the ships, as a part of Western history and civilization.<sup>126</sup> In a continuing article written by the same author, a discussion on the concept of civilization was carried out. According to him, Western civilization was admirable.<sup>127</sup> Reading the two articles as one piece, we can infer that the author, admiring Western world as the civilized one; associated it with the technological developments and civilization.

The article written by Münif Paşa,<sup>128</sup> “*Tarih-i Telgraf*” (history of the telegraphy) is the last article mentioning about electricity in *Mecmûa-i Fünûn*.<sup>129</sup> Although, it tells about history of telegraphy, it rightfully claims that the history of electricity is strongly related with the history of telegraphic communication, as well.

The introduction of telegraphy into the Ottoman Empire was a significant step in the history of electrification in the Ottoman Empire brought about the communication of information through the electric wires. Thus, electricity was brought to the agenda of Ottomans by the introduction of telegraphy.

The article of Emil Lakuvaan Efendi<sup>130</sup> published in the special issue of *Tercüman-ı Hakikat* and *Servet-i Fünûn* in 1897 is important for us to understand the relationship between electricity and telegraphy and how telegraphy created background for the introduction of electricity in the Ottoman Empire.<sup>131</sup> According to Emil Lakuvaan, introduction of telegraphy was the starting point for the history and development of electricity in the Ottoman lands.

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<sup>126</sup> Mehmed Şevki, “An Hulefa-i Oda-ı Tercüme-i Bâb-ı Âli,” *Mecmûa-i Fünûn* vol. III, pp. 258-268.

<sup>127</sup> Mehmed Şevki, *Mecmûa-i Fünûn*, vol. III, pp. 302-310.

<sup>128</sup> Mehmet Tahir Münif Paşa studied physics, law, and philosophy in Berlin. He worked in Tercüme Odası, became the Minister of Education. He was one of the leading founders of *Cemiyet-i İlmiye-i Osmaniye* and the journal *Mecmûa-i Fünûn*: Yeşim Işıl, *Bir Aydınlanma ...*, p. 64.

<sup>129</sup> Münif, “*Tarih-i Telgraf*,” *Mecmûa-i Fünûn*, vol. I, pp. 448-459.

<sup>130</sup> Emil Lakuvaan was a French citizen. He worked in Suez Canal when he accepted the offer of Ottoman government and began to work for the Ottomans in telegraphy business: Mehmet Kanar, *Dârişşafaka, Türkiye’de ...*, p. 63.

<sup>131</sup> Emil Lakuvaan Efendi, “Elektriğin Memleketimizdeki Tatbikatı,” *Tercüman-ı Hakikat ve Musavver Servet-i Fünûn taraflarından Girid muhtacinine ianeten nüsha-i yegâne-i fefkalade*, (İstanbul: Kırk Anbar Matbaası, 1313/1897), pp. 38-40.

He provides the following information in his article: information about the first telegraphy, how was the Ottoman script used in telegraphy communication, the factory for the telegraphy instruments, first telegraphy books and their authors, courses of telegraphy and electricity, students who studied telegraphy and electrical engineering in Europe, opening of telegraphy stations, telegraphic and electrical instruments presented in the World Fairs.

Since the article of Lakuvan is rich in the information and underlines different features of the subject, it will be useful to go deeper at what is told in the article. For instance, Lakuvan gives significant clues on the education dealing with electricity courses as he mentions about the electricity courses in the schools or he mentions about the students who went abroad to study electrical engineering.

Since the telegraphy schools were the first places, which included electricity in their curriculum, I can claim that the electricity knowledge of the Ottomans began with the telegraphy education and the establishment of telegraphy schools in the empire. Fünûn-ı Telgrafîye Mektebi (School of Telegraphic Science) was the first telegraphy school, which was opened in 1861.<sup>132</sup> Four of the nine courses taught at Fünûn-ı Telgrafîye Mektebi were related with electricity as we read from the regulations designed for the telegraphy school; *Fünûn-ı Telgrafîye Mektebi Nizamnâmesi* dated 19 Cumadelahir 1277 (1861).<sup>133</sup>

Telgraf idâresinde memurlar yetiştirmeye mahsus olan işbu mekteb muavininin taht-ı nezâretinde olarak mekteb-i mezkûrda telgraf nazariyyat ve ameliyyâtı ta'lim olunacaktır. Mezkûr mekteb Cuma ve Pazar günlerinden mada her gün vakt-ı zuhrdan bir buçuk saat evvel nazariyyat-ı telgrafîye dersleri virilüb vakt-ı zuhrda hitâm bulacak ve bu derslerin,  
Birincisi, telgraf fenninin muhtasar tarihi ile ulûm-ı umûmiye-i elektrikiyyenin mukaddimatı ve,  
İkincisi, pillerin isti'mâl ve intahab ve muhafazası ve,  
Üçüncüsü, eşkal-i telgrafîye ve kuvve-i seyyâlenin usûl ve tabay-ı elektrikin kuvve-i mîknatisiyyesi ve ...  
Dokuzuncusu, umûmen fünûn-ı telgrafîye ve elektrikiyyenin başlıcalarının icrâatı maddelerinden ibaret olacaktır.

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<sup>132</sup> Asaf Tanrıkut, *Türkiye Posta ve Telgraf ve Telefon Tarihi ve Mevzuatı Eğitim Notları-II*, (Ankara: Efem Matbaacılık, 1985), pp. 570-71. However, Osman Nuri Ergin argues that the name of the first telegraphy school was Telgraf Memur Mülazım Mektebi: Osman Nuri Ergin, *İstanbul Mektepleri ve İlim, Terbiye, ve Sanat Müesseseleri dolayısıyla Türk Maarif Tarihi I-II*, (İstanbul: Eser Matbaası, 1941), p. 621. In this case, we should accept Asaf Tanrıkut's information since he provides the transcription of "*Fünûn-ı Telgrafîye Mektebi Nizamnâmesi*".

<sup>133</sup> Asaf Tanrıkut, *Türkiye Posta ...*, p. 571.

Darüşşafaka was another school where electricity as a course was taught. For unknown reasons, Fünûn-ı Telgrafiye Mektebi was closed after two years from its establishment. In 1871, it was opened again and lasted for nine years. In the meantime, Ottomans began to search for a place to raise telegraphy personnel. In 1872, telegraphy courses were added to the curriculum of Galatasaray High School. However, students of Galatasaray did not pay attention to the telegraphy courses since they were the children of wealthy families and preferred better positions in the government.<sup>134</sup> Thus, in 1875, courses of telegraphy and electricity were added to the curriculum of Darüşşafaka.<sup>135</sup> The education period lasted for 8 years at Darüşşafaka. In the beginning of telegraphy education in Darüşşafaka, students received courses on telegraphy named as “*telgraf-ı elektriki*” (electric telegraph) in the last two years of their education.<sup>136</sup> In 1911, a new curriculum was introduced at Darüşşafaka and the students took the courses of electricity in their 4<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> years.<sup>137</sup>

Besides Darüşşafaka, Lakuvan taught courses related with electricity in Tophâne-i Âmire and Tersâne so that the military personnel learned about electricity and its applications. Emil Lakuvan received the title of “*elektrik müşaviri*” (consultant of electricity/technical advisor for electricity) since he taught courses related with electricity in Tersâne-i Âmire (Imperial Dockyard) and Tophâne-i Âmire.<sup>138</sup> According to Ottoman government, developments in electricity took place in Britain, France and in other European states. Besides, application of electricity had developed in the marine science. Thus, Emil Lakuvan and Raif Bey were appointed to teach electricity courses for the marine officers (*bahriye zabitanı*).<sup>139</sup>

As a result of the nature of the education; which Darüşşafaka graduates received, the first electrical engineers of the Empire were educated at Darüşşafaka.<sup>140</sup> Thus, the graduates of Darüşşafaka worked in electricity business. For instance, İbrahim

<sup>134</sup> Osman Nuri Ergin, *İstanbul Mektepleri ...*, pp. 622-623.

<sup>135</sup> Cemiyet-i Tedrîsiyye-i İslâmiyye Azâsından Mehmed İzzet, Mehmed Esad, Osman Nuri ve Ali Kami Beyler, *Dârüşşafaka, Türkiye'de İlk Halk Mektebi, Dârüşşafaka Nasıl Doğdu, Ne Hizmetler Etti, Nasıl Yaşıyor*, (İstanbul: Evkâf-ı İslâmiyye Matbaası, 1927), Mehmet Kanar (eds.), (İstanbul, 2003), p.12. Osman Nuri Ergin, *İstanbul Mektepleri ...*, p. 623.

<sup>136</sup> Mehmet Kanar (eds.), *Dârüşşafaka, Türkiye'de ...*, p.13.

<sup>137</sup> Ibid., pp.23, 25. The title of the courses of electricity 4<sup>th</sup> year courses: *Işık* (light), *elektrik* (electricity), *mıknatıslar* (magnetism), *cereyânlar* (flows), *manyetik akım* (magnetic current), 7<sup>th</sup> year courses: *Işık ve elektrik* (light and electricity) and 8<sup>th</sup> year courses: *Elektrik tatbikatı* (applications of electricity).

<sup>138</sup> COA DH. MKT. 1809/79, 1308 B 6 (15 February 1891).

<sup>139</sup> COA Y. A. RES. 29/36, 1302 Ş 11 (26 May 1885).

<sup>140</sup> Mehmet Kanar (eds.), *Dârüşşafaka, Türkiye'de ...*, p.60.

Efendi became *hükümet komiseri* (government inspector) in Bursa Elektrik Şirketi (Bursa Electric Company).<sup>141</sup> Mehmed Emin Bey taught courses of electricity at Darüşşafaka after his graduation.<sup>142</sup> Besides, in 1908 and during the coming years, graduates of Darüşşafaka, Hüsnü Sadık, Abdürrazak, İsmail Hakkı, Ali Ulvi, Abdüllatif, Hasan were sent to Paris to study electricity, telegraphy and telephone services.<sup>143</sup>

Furthermore, some of the graduates of Darüşşafaka produced books on electricity. For instance, Salih Zeki who became famous Ottoman mathematician later was sent to Paris to be educated as an electrical engineer since he had graduated in the first rank from Darüşşafaka.<sup>144</sup> He produced many books on mathematics and physics as well as electricity: “*Hikmet-i Tabiiye-i Umûmiyyeden Mebhas-ı Elektrik*” (On one of the Physical Sciences: Electricity).<sup>145</sup> Ahmed Rasim who became famous author later, was one of the graduates of Darüşşafaka and probably before writing his stories and novels, he wrote two books on electricity: *Elektrikiyet-i Sakine* (Static electricity) in 1885 and *Elektrik* (Electricity) in 1886. In the very beginning of his book, Ahmed Rasim, requested the application of electricity in the Ottoman lands since electricity had already flourished in Europe.<sup>146</sup>

As the above evidences show, it is for sure that the developments in the area of telegraphy contributed to the knowledge of Ottomans in electricity. Going one step further from the contribution of telegraphy to the development of electricity in the Ottoman lands, the telegraphy education presents an important example for the modernization efforts of the Ottoman Empire in education after the Tanzimat era. These schools, which raised telegraphy personnel, had modern education with fundamental science, technology, and foreign language courses. Evidences show that

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<sup>141</sup> Ibid., p.102.

<sup>142</sup> Ibid., p.73.

<sup>143</sup> Ebubekir Çınar, XIX. Yüzyılda Osmanlı Devleti’nde Mesleki ve Teknik Eğitim, Unpublished MA Thesis, Selçuk Üniversitesi, Sosyal Bilimler Enstitüsü, (Konya, 2007), p. 41.

<sup>144</sup> Mehmet Kanar, *Dârüşşafaka, Türkiye’de ...*, p. 83. Emil Lakuvan Efendi also writes in his article “*Elektriğin Memleketimizdeki Tatbikatı*” that the successful students of Darüşşafaka who were good at electricity courses were sent to Paris for two years and they received the degree of telegraphy engineer. According to Emil Lakuvan Efendi, at that time, there were 14 people working in the Ministry of Telegraphy who studied engineering in Paris: Emil Lakuvan, *Tercüman-i Hakikat ...*, p. 39.

<sup>145</sup> Salih Zeki, *Hikmet-i Tabiiye-i Umûmiyyeden Mebhas-ı Elektrik*, (İstanbul: Matbaa-i Âmire, 1328/1910).

<sup>146</sup> Ahmed Rasim, *Elektrik*, (Constantinople: Mihran, 1886), p. 2.

personnel who knew foreign languages were employed in the telegraphy stations.<sup>147</sup> Moreover, there were students who were sent to Paris in order to have further training on electricity.<sup>148</sup> When the students who were sent to Paris returned, they were employed in the telegraphy works of the Empire.<sup>149</sup>

At this point, there is one issue that should be counted carefully: the effort of Ottoman government and bureaucrats towards the transfer of telegraphy technology into the empire. They were eager to educate Ottoman subjects on the issue so that Ottoman subjects could work in the business and dependency to the Western powers in relation to personnel would diminish. Thus, I argue that Ottoman Empire tried to train their own personnel to work in the telegraph offices and telegraphy was one of the examples for the internationalization of a foreign technology in the Ottomans lands. Furthermore, students of telegraphy were among the Muslim community since Darüşşafaka accepted only Muslim students. According to Yüksel, the number of Muslim subjects working in the telegraphy administration increased by 1871, although the majority of the personnel were non-Muslim subjects during the introduction stages of telegraphy.<sup>150</sup>

It seems that Ottoman administrators were pleased with the idea of Muslim telegraph operators as well as the non-Muslim subjects working for the telegraphy business. The safety of information delivered through telegraphic communication is a critical issue. The information should be kept confidential and it should reach the targeted correspondence in time. Yüksel provided many cases of abuse of confidentiality through telegraphic communication in his article regarding telegraph operators. No doubt, issue of confidentiality as well as punctuality was of great significance to the Ottoman Government. In fact, in the beginning of transfer of telegraph technology into Ottoman lands, the Empire was in dependent position. By accepting Muslim students to Darüşşafaka, the government wanted to modernize the system without

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<sup>147</sup> Özkan Keskin, Ali Sönmez, “Telgrafın Osmanlı İmparatorluğu’nda Yayılması: Çanakkale Telgraf Hattı Örneği,” *OTAM (Ankara Üniversitesi Osmanlı Tarihi Araştırma ve Uygulama Merkezi Dergisi)* No. 25, (Spring 2009), p. 73 (67-81).

<sup>148</sup> COA İ. DH 1125/87912, 1306 B 7 (9 March 1889).

<sup>149</sup> COA DH. MKT. 1456/104, 1305 S 5 (23 October 1887).

<sup>150</sup> Ahmet Yüksel, “Suçluluk ve Suçsuzluk Arasında Osmanlı Telgraf Memurları,” *Uluslararası Sosyal Araştırmalar Dergisi*, Vol. 7, No. 33, (August 2014), p. 375, (373-389).

being dependent to the foreign sources.<sup>151</sup> As Bektaş pointed out “above all, telegraph came to symbolize the sultan’s authority and geographical reach”. The Ottomans “discovered in the telegraph an ideal system of communication and union”, which provided proximity to its parts spanning to the three continents.<sup>152</sup>

Going further through the article of Lakuvan, the factory for the telegraphy instruments has significant place for the history of electricity since the factory produced electrical devices as well. During the years 1868 and 1918, telegraph factory produced more than five thousand telegraph machines, and other postal instruments. Asaf Tanrıkut provides a summary of instruments produced in the telegraph factory:<sup>153</sup>

(300) makine (adi, mürekkebli, seyyar), (617) parlör makinesi, (1287) pusula, (785) muhtelif ebadda komutatör, (348) tarih mührü, (251) role makinası, (1117) manipulatör, (7) takım dubleks makinası, (1) vistori mürsilesi, müteaddid perforatör, binlerce adet pil eşyası.

According to Lakuvan, electrical devices (*elektrik makineleri*), electrical clocks (*elektrikli saatler*) were produced in the telegraphy factory.<sup>154</sup> Probably, Tersâne-i Âmire needed a separate factory to produce electrical instruments in time so that a factory in order to produce these devices for Tersâne was established in 1888.<sup>155</sup>

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<sup>151</sup> There were many non-Muslim Ottoman subjects in the telegraph administration of Ottoman State. Nevertheless, since Ottoman administration was sensitive about foreign impact on telegraph, they tried to raise Muslim telegraph people.

<sup>152</sup> Yakup Bektaş, *Technology and Culture*, pp. 669-670.

<sup>153</sup> Asaf Tanrıkut, *Türkiye Posta ...*, p. 665.

<sup>154</sup> Emil Lakuvan, *Tercüman-i Hakikat ...*, p: 38.

<sup>155</sup> COA Y.PRK.ASK 52/40, 1306 R 07 (11 December 1888). There are a number of books in Ottoman Turkish which focus on the various usages of electricity on the ships: M. Talat, *Tenvîrat-ı Elektrikiye: Elektrik makinalarıyla lamba ve teharri fenerlerinin usûl-i tanzim ve idarelerinden bahistir*, (İstanbul: Sefain-i Harbiye, 1903). The information on the inner cover of the book worths to note: Mekteb-i Bahriye-i Şahane’de müteşekkil komisyon-ı mahsus tarafından kabul ve intihab edilmiştir: This book is published by the decision of the commission established in the Imperial School of Navy.

A. Şemsetdin, *Elektrik*, (İstanbul: Matbaa-i Askeriye, 1918). The information on the inner cover of the book worths to note: Bahriye Dairesi Yedinci Muhabere ve Muvasala Şubesi, aded: 1, Muharrir: Bahriye Dairesi Yedinci Muhabere ve Muvasala Şubesi müdür vekili kaime-i makam A. Şemsetdin. The book was the first of the serials named as the Department of Communications in Naval Directorate. Erkân-ı Harbiye-i Bahriye Dairesi was responsible for tracking the technological developments in European Navy, preparing curriculums for the schools, management of the exams held to select the students to study abroad, and reporting the maneuvers of the Ottoman Navy: Levent Düzcü, “Osmanlı Bahriye Teşkilâtında Reform Çabaları (1876-1922),” *Gazi Akademik Bakış*, Vol. 3, No. 5, (Winter 2009), pp. 1-20..

Hasan Enver, *Nazari ve Ameli Elektrik Notları*, (İstanbul: T.C. Erkan-ı Harbiye-i Umumiye Riyaseti Bahriye Talim ve Terbiye Dairesi, 1927).

Furthermore, according to Lakuvan, a boat working with electricity (*elektrik ile müteharrik bir sandal*) was produced in the factory for the Sultan.<sup>156</sup> A document dated 1886 verifies the existence of boat(s) working with electricity since the document contains the “instructions for use with the electric boat and dynamo” (*Elektrikli sandalın sûret-i istimali hakkında talimat tercümesidir*) in English and in Ottoman Turkish.<sup>157</sup>

Above evidences for the production of technical tools prove the trials of the Ottomans to produce technical equipments. Technical devices were considered as a good reputation to be presented in the World’s Fairs by the Ottomans. Thus, the Empire paid attention to its displays in the departments of manufacture, machinery, mining, fire, and security services in the World’s Fairs. The Empire tried to present itself as a modern state with the capacity of producing technical devices. It is for sure the clocks, telegraphy instruments and electrical devices were the most popular ones to be presented in the fairs.<sup>158</sup> Thus, Ottoman Empire took technical devices to every fair it participated from the very beginning of London World’s Fair of 1851.

At London Exhibition of 1851, Ottomans displayed a clock built on a new principle. As we read from the catalog of the exhibition, the object was interesting as the result of patient reflectiveness and constructive skill. According to the catalogue, the clock was considered an unusual object for Islamic circles where mechanical proficiency is rare. The Ottoman Empire presented itself prominent in terms of machinery as well as the hand made products or textiles.<sup>159</sup>

As another example, technological artifacts such as instruments of telegraphy and electricity, were displayed as the symbols of modernity in the Ottoman pavilion of World’s Colombian Exposition –the Chicago World’s Fair of 1893. The Ottoman government requested Ministry of Telegraphy to send telegraphy instruments and electrical devices for the exhibition and these devices were exclusively produced for

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<sup>156</sup> Emil Lakuvan, *Tercüman-ı Hakikat ...*, p. 38.

<sup>157</sup> COA Y.PRK.ASK 33/24, 1303 N (June 1886).

<sup>158</sup> Since 1851, Ottoman Empire participated in the exhibitions held at different capitals of the world: London (1851), Vienna (1873), Paris (1867), and Chicago (1893) are the examples for the participation of the Ottoman Empire in the World’s Fairs.

<sup>159</sup> 1851 *Great Exhibition of the Works of Industry of All Nations*, Official Descriptive and Illustrated Catalogue by the Authority of the Royal Commission ,Vol. 3 (London: Spicer Brothers, 1851), p.1399.

the Chicago World's Fair of 1893.<sup>160</sup> Furthermore, according to Sevinç and Fazlıoğlu; electric rudder and the control button and the boat were displayed in the exhibition.<sup>161</sup>

According to Lakuvan, electrical devices; which were presented in the Vienna International Electric Exhibition (1883), were appreciated by the participants in the exhibition. The document dated 1883 confirms this information as well.<sup>162</sup> Moreover, Ottoman representatives Emil Lakuvan Efendi and Raif Efendi<sup>163</sup> were awarded “Fransuva Jozef” reward.<sup>164</sup>

Emil Lakuvan represented Ottoman government in the Paris Electric Exhibition as well. A commission was established in order to determine representatives of the Ottoman government in the exhibition as well as the tools and instruments, which would be sent to the exhibition.<sup>165</sup> Exhibitions were the places where great deal of knowledge on electricity was discussed and shared. It is for sure that Ottomans enlarged their knowledge on electricity during the exhibition. According to the reports of the exhibition, electricity was considered to be a great source with different areas of application: telegraphy, production, lighting, chemistry, military, navigation, sea lanterns, domestic life, meteorology, astronomy, agriculture, as a source of energy in engines and geodesy.<sup>166</sup>

Apart from show off with home made technical products, world's fairs had been the places where the Ottomans met new technologies. The Chicago World's Fair of 1893 was one of those. The lively description of the opening ceremony of the exposition

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<sup>160</sup> COA DH. MKT. 2043/23, 1310 C 27 (16 January 1893); COA İ. PT. 1/1310 C-05, 1310 C 15 (4 January 1893).

<sup>161</sup> Gülsen Sevinç and Ayşe Fazlıoğlu, “Turkish Participation to 1893 Chicago Exposition,” *The Yearbook of International Relations*, No. 31, (2000), p. 29 (21-30).

<sup>162</sup> COA HR. SYS. 218/5, 1301 M 4 (5 November 1883).

<sup>163</sup> Raif Efendi was a graduate of Dârüşşafaka: Mehmet Kanar, *Dârüşşafaka, Türkiye'de ...*, p. 63.

<sup>164</sup> Emil Lakuvan, *Tercüman-i Hakikat ...*, p. 39.; COA İ. HR. 293/18487, 1301 B 24 (20 May 1884); and COA HR. TO. 167/22, 1301 B 07 (3 May 1884). As Lakuvan writes in his article; Emil Lakuvan and Raif Efendi were representatives of the Ottoman government in a conference on electricity and Lakuvan presented his study on “*taht-el bahir kablolar*” (underground cables) in the conference. It is important that the Ottoman Empire participated in those kinds of conferences and even presented their studies.

<sup>165</sup> COA Y.A.RES. 10/4, 1298 R 06 (8 March 1881).

<sup>166</sup> COA Y.A.RES. 10/4, 1298 R 06 (8 March 1881): In this file, the documents titled “Exposition Internationale d'Électricité, Paris 1881, Règlement Générale and Congrès International des Électriciens, Exposition Internationale d'Électricité, Paris 1881 Rapport” contain information on electrical technology and its implementations.

can be read in the newspaper named “*Şikago Sergisi*”<sup>167</sup> (*Chicago Fair Illustrated*). The tension of the article was given to the application of the electricity during the ceremony and various types of machines operated by electricity.

In fact, the Chicago World’s Fair of 1893 occupied a significant place in the history of electrification. The inventor-companies such as Edison’s General electric and the Westinghouse’s Westinghouse Electric Company had the opportunity to show off their recent findings in the business. Thus, lighting as newly developed technology was the focus of attention for the visitors in the exhibition as well as Ubeydullah Efendi, the author of journal, *Şikago Sergisi*.<sup>168</sup>

Emil Lakuvan writes that Ahmed Fahri Bey who worked for telegraphy ministry was one of the officials who represented Ottoman Empire at the Chicago World’s Fair of 1893.<sup>169</sup> The other Ottoman official in the exhibition was İbrahim Hakkı Bey.<sup>170</sup> It is important that the Ottoman State chose personnel for the exhibition who were experts on new technologies and public works issues. Those people were familiar with the Western world and its technology. Thus, they were chosen as the representatives of the Empire in the World’s Fairs. Furthermore, I claim that the image of the Empire in the eyes of the Western world was significant for the Ottoman bureaucrats and the Sultan. Thus, they tried to display technological and commercial products produced in the Empire and tried to represent themselves as a modern nation among the others.

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<sup>167</sup> Ubeydullah Efendi, *Şikago Sergisi (Chicago Fair Illustrated)*, (June 1, 1893), p. 6. Ottoman Empire published a journal for the Chicago World’s Fair of 1893 in Ottoman Turkish. According to the foreword of the journal, it would be published monthly during the exhibition, which makes 6 issues in total. However, at Smithsonian Institution (USA) where the journal was kept, there were only three issues. Probably, the aim was to publish six issues (1 issue for each month) in the beginning. However, only three issues were published during the exhibition.

<sup>168</sup> Judith Adams, "The Promotion of New Technology through Fun and Spectacle: Electricity at the World's Columbian Exposition," *Journal of American Culture*, No. 18, (Summer, 1995), p. 45, 47 (45-55). For further information on Ubeydullah Efendi, see: Ahmet Turan Alkan, *Ubeydullah Efendi'nin Amerika Hatıraları: Sıradışı Bir Jön Türk*, (İstanbul: İletişim, 1997).

<sup>169</sup> For information about Ottoman officials in the Chicago World’s Fair of 1893: İbrahim Hakkı Bey and Ahmed Fahri Bey, see: “Turkey at the Fair,” *World's Columbian Exposition Illustrated (WCEI)*, No. 3, (Chicago: J. B. Campbell, May 1893), p. 79.

<sup>170</sup> İbrahim Hakkı (Paşa) graduated from Mekteb-i Mülkiye (School of Civil Service). He taught courses of history, commercial law and international law in the School of Civil Service. In 1908, he became the minister of interiors. Then, he became the grand vizier between 1910-1911. In 1916, he became Ottoman ambassador in Berlin where he died in 1918: Zekeriya Kurşun, “İbrâhim Hakkı Paşa (1863-1918)”, *TDV İA*, vol. 21, (2000), pp. 311-314.

### 2.2.2. Electrification in the Ottoman Empire before the Establishment of Silahtarağa

The first initiation of lighting with the electricity in the Ottoman Empire was the attempt of “Mösyö Şarl To(u)kas” to launch business of lighting with electricity in Istanbul, in 1878. In his offer, To(u)kas mentioned that European cities adopted electricity while the Ottoman Empire was still using gas. He proposed to apply Japloskof (Jablochkoff) method<sup>171</sup> in Istanbul in the name of a Paris based company, Jablochkoff Electric Company (Japloskof Usûlü Tenvîr-i Elektrikiyye Şirket-i Umûmiyyesi).<sup>172</sup> The company requested the testing of its project in front of the Sultan.<sup>173</sup>

As a result of To(u)kas’ application, a *mazbata* was issued by Public Works Directorate in the Council of State: “*Şûrâ-yı Devlet Nâfia Dairesi’nin Tanzîm ve Heyet-i Umûmiyyesi’nden tasdîk olunan mazbata*”.<sup>174</sup> According to the contract done with To(u)kas; concession for the application of electricity in Istanbul and other Ottoman cities was given to Jablochkoff Electric Company. However, if Ottoman Government was not satisfied with work done, it would not pay any compensation to the company. Tools and equipments for the business would not be subject to customs duty for once. Attempts for the electrification of other cities than Istanbul; Üsküdar, Selanik, Edirne, Sinop, Konya, Tarsus, İzmir, Bursa was in the agenda of the company as well. During the attempts of company for electrification in those cities, it would be in the patronage of the Ottoman government.<sup>175</sup> Further correspondence in

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<sup>171</sup> Paul Jablochkoff was Russian telegraph engineer. He developed a lamp that powerful electric currents could be obtained at much expense than from batteries: Brian Bowers, *Lengthening the Day: A History of Lighting Technology*, (Oxford: Oxford University Press, 1998), p. 73. He patented a novel kind of electromagnet and his innovations gave a tremendous boost to the commercial application and exploitation of the dynamo. For further information on his invention; a new kind of lamp (1876) which he called candle: William James King, “The Development of Electrical Technology in the 19th Century III”, *United States National Museum Bulletin*, vol. 228, (Washington D.C.: Smithsonian Institution, 1962), p. 393-395.

<sup>172</sup> Two different terms to name the lighting methods concerning To(u)kas’ project of lighting were mentioned in the archival documents: “*Japloskof usûlü*” and “*zaplu sukuf*”. In fact, “*zaplu sukuf*” arose from the misreading of the surname, Jablochkoff.

<sup>173</sup> COA Y.PRK.ŞH. 1/21, 1296 Z 05 (20 November 1876).

<sup>174</sup> COA İ. MMS. 64/3006, 1296 N 15 (2 September 1879).

<sup>175</sup> Aliye Önay, “Türkiye’de İlk Elektrik Teşkilatının Kurulması,” *Belgelerle Türk Tarihi Dergisi*, (September, 2000), pp. 60-63.

the same content for the application of electricity in lighting was done in 1879, three months later.<sup>176</sup>

Although a degree was issued for the project of To(u)kas and later correspondence took place, lighting with Jablochkoff's method did not come into reality. However, this attempt is still significant since in a very short time after the invention of Jablochkoff in 1876, this invention was taught to be applied and welcomed by the Ottoman government in 1878. Moreover, Ottoman government had planned to light not only Istanbul but also other cities in the Empire.

Towards the end of 1880s, Ottomans began to consider electricity for lighting seriously as revealed from the documents issued by the Hariciye Nezâreti Tercüme Odası (Translation Office in the Ministry of Foreign Relations) requesting the comparison of the fees for lighting with electricity and gas.<sup>177</sup> Ottoman embassies in Berlin, London, and Paris wrote to the centre on the prices of electricity and gas lighting.<sup>178</sup> As the correspondence between the centre and the embassies show, it was apparent that the lighting with electricity was expensive than lighting with gas. Although the reason for the application of a new technology is the need for it, cost of the new technology is important as well for the decision to apply it or not.<sup>179</sup>

Although Istanbul met with electricity as public lighting in 1910s and 1920s after the establishment of Silahtarağa Power Plant, electricity for lighting was applied in Yıldız Palace of the Sultan before 1910s.

As the archival documents show that there were people who had different ranks working in the Saray-ı Hümayûn Elektrik Müdürlüğü (Imperial Palace Directorate of the Electricity): *elektrik memuru* (officer in charge of electrical works), *elektrik sermemuru* (chief officer in charge of electrical works), *elektrik makineleri memuru* (officer in charge of electrical instruments), *elektrik müdürü* (Director of Electric

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<sup>176</sup> COA İ. ŞD. 50/2791, 1297 Ca 12 (22 April 1880).

<sup>177</sup> COA HR. TO. 63/53, 12 Ra 1306 (16 November 1888).

<sup>178</sup> COA HR. TO. 33/101, 3 Ra 1306 (7 November 1888); COA HR. TO. 83/38, 25 Ra 1306 (29 November 1888) and COA HR. TO. 63/54, 25 Ra 1306 (29 November 1888).

<sup>179</sup> For instance, London municipality favored gas rather than electricity since it was cheaper. London municipality was against to spend the taxes of people in a new technology, which was not yet tried much. This resulted in the slow diffusion of electricity in Britain: Thomas Hughes, *Networks of Power*, (Baltimore: John Hopkins University Press, 1983), p. 59-60.

Works).<sup>180</sup> Usually, the electricity team members of the palace were the former workers of the telegraphy instruments factory or personnel of the Telegraphy and Post Ministry or they were members of military organization.<sup>181</sup> Some of the personnel, who were charged with the electricity works of the palace were rewarded “*birinci rütbeden nişan-ı mecîd*” (first rank imperial honor) for their service.<sup>182</sup>

The list, which shows the electrical equipments of the palace, gives clues about the lamps used in the palace.<sup>183</sup> Different types of chandeliers (*onsekiz ziyâ’lı âvîze*, *altı ziyâ’lı âvîze*, *dört ziyâ’lı âvîze* ...) covered by gold or silver (*altın kaplama takım*, *gümüş kaplama takım*) and other items (*teferru’ât-ı saire*) of lamps and chandeliers (*vidalı lamba ayağı* ...) with their quantity and their prices in total and per item were listed in the document.

Above list of electrical equipments and chandeliers belonged to the room where the meetings in the palace took place, *merâsim odası*. This shows that special attention was paid for the rooms, where the Empire in the personality of the Sultan met with exterior world. Likewise, electrical equipments were ordered for the palace before the visit of Duke Edinburgh in 1888.<sup>184</sup>

Above evidences show that usage of electricity was seen as a matter of status symbol. Electricity was also used for show off. For instance, Isparta Ship was allowed to have electric lanterns in the birthday ceremony of the Sultan.<sup>185</sup> Usage of electricity in the ceremonies was not particular to the Ottomans. On the national festival day of France, electric lanterns were constructed in the French embassy.<sup>186</sup>

As for the safety issues, being aware of electricity related accidents, which took place in Europe and the United States, Ottomans made sure that the electrical devices; which were applied in Yıldız, were not dangerous ones. They checked the

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<sup>180</sup> “*Elektrik memuru*” is mentioned in: COA İ. PT. 9/1316 Ş-08, 1316 Ş 24 (7 January 1899); “*elektrik makineleri memuru*” is mentioned in: COA İ. TAL. 164/1316 N-089, 1316 N 26 (7 February 1899); “*elektrik sermemuru*” is mentioned in COA İ. TAL. 224/1318 Ca-175, 1318 Ca 30 (25 September 1900) and “*Saray-ı hümayûn elektrik müdürü*” is mentioned in COA İ. TAL. 169/1316-Za-112, 1316 Za 03 (15 March 1899).

<sup>181</sup> COA İ. PT. 9/1316 Ş-08, 1316 Ş 24 (7 January 1899); COA DH. MKT. 2394/34, 1318 R 27 (24 August 1900) and COA İ. TAL. 164/1316 N-089, 1316 N 26 (7 February 1899).

<sup>182</sup> COA İ. TAL. 169/1316-Za-112, 1316 Za 03 (15 March 1899).

<sup>183</sup> COA Y.PRK.SGE 9/96, 1320 Z 30 (29 March 1903).

<sup>184</sup> COA Y. PRK. PT. 3/110, 1305 Z 16 (24 August 1888).

<sup>185</sup> COA İ. HUS. 9/1310 Ş-073, 1310 Ş 17 (6 March 1893).

<sup>186</sup> COA Y.EE 15/151, 1320 R 08 (15 July 1902).

electricity equipments used in the palace and gathered information on electricity from the newspapers dealing with electricity. For instance, Ottoman bureaucrats read an article of Edison telling about electricity and safety issues.<sup>187</sup> Reading the article of Edison, a commission including *Fen müşaviri Emil (Lakuvan) Efendi*, and the civil servants working in Mekteb-i Sultânî (Imperial Galatasaray High School, Lycée Impérial Ottoman de Galata-Sérai) and Mekteb-i Tıbbiye-i Şâhâne (Imperial School of Medicine) was established in order to examine the dangers of electricity.<sup>188</sup>

Reports written by the director of electric works (*elektrik müdürü*) of Yıldız Palace concerned on the safety issues of the electric wires, which were used in the palace, as well as the usages of fuses.<sup>189</sup> According to the report, Galib Efendi was in charge of the safety of electric wires and the usage of fuses in the palace: “*Elektrik tellerinin emniyet tahtında bulundurulması ... sigorta aletleri konulması Galib Efendi kullarına emr-i fermân buyrulmuştur.*” The numerical values for the tension of the generators, dynamos, and electrical motors used in the palace are all stated in the report in detail so that any obstacle with the tension rates of the equipment would not be a problem.

Apart from the palace, lighting was the most needed element in the mines as well. Thus, electricity was used in the lighting of the mines.<sup>190</sup> For instance, it is clear that lighting with the electricity was used in Balya mines.<sup>191</sup> It is understood that the application of electricity in the mines were controlled by military officers and Imperial Palace Directorate of the Electricity.<sup>192</sup>

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<sup>187</sup> COA Y. PRK. TKM 25/38, 1309 Z 29 (25 July 1892).

<sup>188</sup> COA Y. PRK. TKM 25/38, 1309 Z 29 (25 July 1892).

<sup>189</sup> COA Y. PRK. SGE 9/96, 1320 Z 30 (29 March 1903).

<sup>190</sup> COA İ. HUS 150/1324 Z-75, 1324 Z 25 (9 February 1907).

<sup>191</sup> COA HRT.h 578, 1341 Z 29 (12 August 1923). “Balya Maden Şirketi tarafından ameliyât-ı madeniyede kullanmak üzere tatbîki istenilen elektriğin Teodor Mavrokordoto’nun istid’âsı vechile Mancınık’dan Balya’ya temdîdine mücade-i seniyye şâyân bulunduğundan Nezâretce mukavelenâmesinin mûmâileyh namına imza ve teâtî edilmesi ve bir defaya mahsus olarak mûmâileyhin dahilen ve haricen celb edeceği âlât ve edevâtın gümrük resminden me’fu tutulması hakkında şeref sâdır olub Mâbeyn-i Hümâyûn-ı mulukane baş kitabet-i celîlesinden iki kıt’a tezkire-i husûsiye ile tebliğ edilen irâdat-ı seniyye-i hazret-i hilâfet penâhî mukteza-i münifesine tevîkan Nezâretce tanzîm edilen mukavele ve şartnâme mûmâileyh ile teâtî olunmuş ve bir nüshası dahi alelusûl Divân-ı Hümâyûn kaleminde hıfz olunmak üzere leffen ve saliful arz tezâkir-i husûsiye sûret-i musaddakaları meân takdim kılınmış olmakla ol bâbda ...”: CCA NV 34E/3 230-0-0-0 20 1 3, 25 Nisan 1317 (8 May 1901).

<sup>192</sup> COA Y. PRK. BŞK. 64/34, 1318 Z 16 (6 April 1901); COA Y. MTV. 213/97, 1318 Z 16 (6 April 1901); COA Y. MTV. 212/103, 1318 Za 22 (13 March 1901).

The electrification of the cities came true in the Ottoman Empire a bit later than the European states and the USA. This resulted in the individual solutions to the problem of lighting. For instance, Summer Palace Hotel in Tarabya tried to use electricity although it was forbidden in 1899.<sup>193</sup> Furthermore, again in 1899, electricity lamps; which were requested by a few houses in Kadıköy and British Club were not allowed to enter the country in the customs.<sup>194</sup> According to a degree dated 1900, Ottoman customs administration did not allow the entrance of electrical tools and equipments into the country.<sup>195</sup>

Besides trying to control individual solutions to the need of modern lighting, Ottoman government tried to control inventions related with electricity. According to a degree dated 1899, permission was needed from the government for the applications of the inventions related with electricity.<sup>196</sup>

Controlling the individual applications of electricity, Ottoman government tried to apply electricity in some of the business it undertook or for the public services, such as hospitals. As read by a letter written by who had been in Paris submitted to the Sultan, Ottomans were aware of the different applications of electricity.<sup>197</sup>

For instance, usage of electricity as a force in transportation first took place in Çamaltı Saltworks. According to an article in *Revue Technique d'Orient*, transportation of the great amount of salt was handled by the help of electric power, and a primitive size “centrale électrique” was established in the saltworks area.<sup>198</sup> The head of this business was M. M. Basso, engineer in the Ottoman Public Works. All the electrical tools and equipments and the technical details of the business was told in the article.

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<sup>193</sup> COA DH. MKT. 2205/75, 1317 M 10 (21 May 1899). In the summaries provided by the Ottoman Archives, this hotel was named as ‘Sömher’ or Sümer Palas. However, as we read in Akçura, Summer Palace was built in Tarabya in 1893 by the Compagnie Internationale des Grand Hotels, the joint corporation of Wagons Lits, which was managed by Orient Express. According to the *1905 Badeker Guide* for Istanbul, the hotel served between May-October, had 110 rooms and the hotel had electricity: Gökhan Akçura, “Boğaziçi’nin İlk Otelleri”, *Atlas Tarih Dergisi*, No: 19, (April-May 2013), p. 126-133. See Appendix for the photograph of Summer Palace.

<sup>194</sup> COA DH. MKT. 2267/10, 1317 B 04 (8 November 1899).

<sup>195</sup> COA İ. HUS. 80/1317 N-21, 1317 N 13 (15 January 1900).

<sup>196</sup> COA DH. MKT. 2225/54, 1317 Ra 17 (26 July 1899).

<sup>197</sup> COA Y. PRK. AZJ. 44/84, 1320 B 24 (27 October 1902).

<sup>198</sup> “Installations Électriques dans les Salines de Turquie,” *Revue Technique d'Orient*, Decembre 1910, pp. 6-9. See Appendix for the photographs and network scheme of Çamaltı Salteorks.

Health was another area of electricity other than its application in lighting. The electrical devices to be used in the treatment of diseases were checked in the customs, even they were further investigated by Tophâne-i Âmire so that the device would be either permitted to the Ottoman lands or not, according to a document dated 1894.<sup>199</sup>

As the following documents show, the permission for letting electrical devices to be used for health issues into the Ottoman lands became easier in the later years. Even, the devices were freed from paying customs duty. For instance, a decree dated 1896, electrical device which was requested by German Hospital in Istanbul was free from paying customs duty.<sup>200</sup> According to another document dated 1901, electrical device requested by “Doktor Cerrahoğlu” was allowed to enter into the Ottoman lands.<sup>201</sup> There were further signs for the electricity used as a remedy in the hospitals. For instance, “*Mekteb-i Tibbiye seririyyat-ı dahiliye muavin-i sanisi Doktor Burhaneddin Efendi* (Dr. Burhaneddin Efendi, assistant specialist of internal diseases at Medical School)” was appointed to work at *Dar’ül-aceze* in order to cure patients with electricity.<sup>202</sup>

Another example for the Ottomans to apply electricity was the project of water treatment with the help of electricity. The decree dated 1894 requested the research if electricity could be used for the treatment of sea water, and if treated water by electricity could be distributed through street fountains.<sup>203</sup> The project aimed the flow of electric current through sea water. By this method, sea water would be cleaned by the help of electric power. If European states agreed on the application of this method, Ottomans were eager to apply the same method in cleaning sea water and use it for public distribution of water in the fountains of the city.<sup>204</sup>

Above lines shows that Ottomans followed the technological developments, which took place in Europe. More significant than that, they followed the technological agenda of Europe even the unrealized projects and ideas of European states. This

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<sup>199</sup> COA DH. MKT. 187/23, 1311 C 29 (1 December 1894).

<sup>200</sup> COA İ. RSM. 5/1313 N-5, 1313 N 29 (14 March 1896).

<sup>201</sup> COA Y.A.RES. 111/75, 1318 Z 28 (18 Nisan 1901).

<sup>202</sup> COA DH. MKT. 621/16, 1320 N 04 (5 December 1902).

<sup>203</sup> COA İ. HUS. 20/1311 B-68, 1311 B 26 (2 February 1894).

<sup>204</sup> COA Y. A. HUS. 294/41, 1311 L 13 (19 April 1894).

shows the efforts of the Ottomans in the way of transfer and application of new technologies.

Besides the early attempts of Ottomans in the way of electrification, it is useful to mention about the impressions of other intellectuals on the electrification, and lighting in order to understand the representation of electricity in the minds.

The *risâle* of Halil Halid Efendi (1900) during his ambassadorship in London includes his ideas on electricity. Halil Halid portrayed his office in the Embassy and complained about absence of electrical installation that he had to use gas lamp when working although every simple shop was electrified in London. As inferred from Halil Halid, London did not have electric grid on urban scale at that time, but the buildings had their electric installation separately. Further, Halil Halid reveals that electric light was expensive when compared to gas lighting since he allocated the allowance of electric lighting for other needs, and chose to use gas lamp for lighting. Halil Halid also criticized the Sultan for not letting the application of electricity in the Empire.<sup>205</sup>

Adi dükkânlara kadar elektrik ziyâ'sı isti'mâl olunan bir memlekette bir sefir-i kebir petrol lambası kullanır mı diye hemen itiraza kıyam eden bulunursa ... Sebeb-i hakiki şudur: Elektrik ve telefon gibi bid'atların isti'mâli Yıldızca tecviz olunmuyor. Velew ki -yalnız düvel-i mütemeddine sefârethânelerinin değil- ekser esnaf hânelerinin bile elektrik ve telefonu havi bulunduđu bir beldede oturulmuş olsun cevaz necm-i saltanata mahzar olamayan bedâyiden tevakkı, mürââtı müfevvız uhde-i ubudiyet olan kavaid-i sadakatdendir. ... Bilfarz hükümet sefâretin elektrik ziyâ'sı ve telefonu için ayrıca akçe tahsis itmiş olsa bile zat-ı sefâretpenâhî "hesab-ı sefârete" zam buyurur yine o parayı muğayir-i erkan-ı ubudiyet olan o makule bedâyinin ihdası yolunda israftan ictinâb eyler.

In the above lines, it is apparent that Halil Halid Efendi was eager to use electricity and he was critical with the ones who were not willing to use it including the Sultan. He blamed Abdülhamid II for not letting the diffusion of electricity in the empire as well.

However, electricity was used in the palace. Moreover, diffusion of electricity accelerated only after 1893 with the inventions of Tesla concerning alternative

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<sup>205</sup> İbrahim Şirin and Musa Kılıç, "Halil Halid Efendi ve Osmanlı Londra Sefaretine Dair Bir Layiha (Halil Halid and a Report about Ottoman Embassy in London)," *OTAM (Ankara Üniversitesi Osmanlı Tarihi Araştırma ve Uygulama Merkezi Dergisi)* No. 18, (2005), p. 402, (395-411).

current, which enabled electricity to be distributed in the long distances.<sup>206</sup> As understood from a decree dated 1889, Ottomans considered electricity as a new technology and decided to follow the developments related to electrification in the European states. Nevertheless, according to decree, Yıldız Palace would be lighted with electricity.<sup>207</sup> This shows that it is not easy to blame Abdülhamid II for not letting electricity in Istanbul.<sup>208</sup>

As an intellectual, Ahmed Mithat tells about Western technologies in his writings extensively. He first saw light bulb in Marseille when the ship was approaching to the harbor. When he was in Stockholm for the conference of the Orientalists in 1889, he was surprised to see the light bulbs in the conference room. He was surprised since the conference was taking place in a castle and he thought that electricity reached even to the rarely used castles. Then, he learned that there were mobile electricity production devices so that the electricity was provided with the establishment of them, which took ten hours. According to him, Western technologies symbolized organized urban life and progress and Ottoman Empire should have produced its own technology rather than importing it.<sup>209</sup>

The above lines prove that the Ottoman intellectuals were eager to transfer electricity to the Ottoman lands. They were either claimed that the European states had already applied it or they considered new technologies organized progress and urban life so that it would be appropriate to apply it in the Empire as well. Besides, some of them were careful about the application of the new technologies since they supported the idea of self production, and application of the new technologies.

### 2.3. Conclusion

The history of gas technology for lighting in Istanbul provides background for the history of electrification. In addition, it is instrumental to understand the case of Istanbul's electrification. The issues, which were peculiar to the gas lighting

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<sup>206</sup> After the success of alternative current, which was used at Niagara Falls Project, electrification in the long distances accelerated. For an account of Tesla's inventions and application of alternative current in Niagara Falls project, see: Jill Jones, *Empires of Light*, p. 277-335.

<sup>207</sup> COA İ. DH. 1129/88128, 1306 B 08 (10 March 1889).

<sup>208</sup> Emine Erol, "Osmanlı Devletinde Aydınlatma İmtiyazları ve Verilen İmtiyazlar (1850-1914)," *Türk Dünyası Araştırmaları*, No. 175, (August 2008), p. 215 (201-224).

<sup>209</sup> M. Orhan Okay, *Batı Medeniyeti Karşısında Ahmed Mithat Efendi*, (İstanbul: MEB, 1991), p. 55.

technology such as production and construction of gas lighting infrastructure, management of the gas plant, foreign personnel working in the plant, consumption of gas and bills for gas lighting, were peculiar to electrical technology as well.

Moreover, the policies applied regarding construction of the gas plant and its administration, are also important in evaluating the electrification experiment of Istanbul. For instance, Tophâne-i Âmire produced the gas pipes with the aim of supporting local industry. Electricity was also seen as a strategic issue by the Ottoman government that it aimed to employ Ottoman personnel, as workers or engineers in the plant. Furthermore, lighting of the streets was seen as a sign of prosperity and civilization for the Ottomans as also revealed from the documents related with gas.

Thus, literature on the production and distribution of the gas is useful when studying electrification case of Istanbul since construction of gas technology in Istanbul presents an example for the distribution of an urban service in the Ottoman Empire. That is why; the history of gas lighting provides a good base for the history of electrification in Istanbul.

The major difference in Istanbul's electrification experiment was the need of incredible amount of foreign investment and finance for the realization of the project. Unlike electrification, although the first gas plant was constructed by foreign companies, it could be locally financed and managed. Another point should be underlined is the coexistence of gas and electric technologies, until electricity completely replaced gas lighting. It is no doubt that the introduction of electricity did not end the distribution of gas immediately. Both technologies lived side by side and people continued to use gas until they received electricity to their homes and streets.

Providing the history of lighting in the Ottoman Empire before the advent of electricity as well as the early contacts of the Empire with this new technology, this chapter provided historical background for the further development of electrical technology in the Ottoman Empire.

Apart from the history of gas lighting in Istanbul, the experience of telegraphy of the Ottoman Empire forms an important base to analyse the further technology transfers to the Ottoman lands such as trams and electricity. The smooth integration of

telegraphic technology into the Empire is significant to underline. Ottoman administrators decided to produce telegraphic instruments by local industry. Besides, Ottoman alphabet was adapted to this new technology. Foreign personnel was employed when needed and technical commissions were established in order to manage telegraphy business. All these issues contribute the analysis of electrification experience of Ottoman administrators and society.

In addition, this chapter portrayed the developments on the way of electrification just before the establishment of Silahtarağa Plant. The proposals regarding initiating electric light into the Empire, as well as the individual uses of electricity in workplaces, ateliers, homes, restaurants, and hotels were all documented. This documentation, together with the representations of electricity in *Mecmûa-i Fünûn* and through the writings of individuals, adds to the history of electrification of Istanbul, before the foundation of Silahtarağa.

The next chapter focuses on the ways by which the foreign country sources interpret this situation of the Empire. Therefore, the ideas, which were followed in the foreign country sources will be documented and discussed in the next chapter.

## CHAPTER III

### IDEAS ON “ELECTRICITY AND THE OTTOMAN EMPIRE” AS FOLLOWED IN THE FOREIGN COUNTRY SOURCES

This chapter discusses the ideas on electricity and the Ottoman Empire in foreign sources; such as the books on the Ottoman Empire, annual reports containing information on commerce and state affairs and developments regarding the Ottoman Empire prepared by European and the United States government agencies, consular reports and correspondences, reports of foreign banks as the financing institutions of the electrification business as well as the weekly journals and daily newspapers. These ideas can be summarized around two main topics. The first group argued that the Ottomans were late in transferring electricity into the Empire despite the fact that it was one of the primary necessities for modern daily life. This group also grounded their argument on the backwardness of Ottoman society. The second group, which aimed to engage in electrification business in the Ottoman Empire, reported developments concerning public works, and electrification in the country.

#### 3.1. Literature on the idea of “necessity of electricity in the Ottoman Empire”

The book of Georges Carles; *La Turquie Économique*, can be one of the examples for the sources dealing with the necessity of electricity in the Ottoman Empire. In his book, Carles highlights the natural richness of the Empire. According to him, electricity is the most significant technology in the world as the fourth stage of work (quatrième âge du travail) referencing Le Play.<sup>210</sup> He claims that the Empire can acquire industrially important place in the near future. According to him, electricity

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<sup>210</sup> Georges Carles, *La Turquie Economique*, (Paris: Librairie Chevalier et Riviere, 1906), p. 116. According to Le Play, before electricity; vapor, animals and natural forces and human hand were used as power sources.

will help Ottoman Empire to regain the place it had once occupied in the world and it will provide success to the Empire in “peace even brightest than those obtained in the fields of battle”.<sup>211</sup>

Another argument presented the idea that the Empire could not follow the technological developments properly. “*Turkey in Europe*” produced by British Foreign Office underlines the scarce usage of electricity during the reign of Abdülhamid II and the Sultan’s “illiteracy” on new technologies:

Electricity was scarcely used in Turkey during the reign of Abdülhamid, who, it is said, thought that dynamo and dynamite are identical. Private installations of electric lighting were not unknown in Constantinople during the latter years of his rule, but it was impossible to secure any concession for producing electricity for public use.<sup>212</sup>

However, as a counter argument on the electricity and Abdülhamid II’s banning policy over it, the United States Consul General of Constantinople, G. Bie Ravndal mentioned in his consular report that the ban over electricity had been lifted and Abdülhamid II’s government approved electricity enterprises in Damascus.”<sup>213</sup> Furthermore, similar to Georges Carles, G. Bie Ravndal believed in the necessity of electrification in the Empire. According to him, “railways, ports, highways, telephone systems, electric street car lines, irrigation and reclamation works, public buildings, docks were urgently needed that the country was waiting to be built up from the very foundation.”<sup>214</sup>

As for the above quotation telling us so called illiteracy of Abdülhamid II (and the Ottomans in the personality of the Sultan) in terms of science and technology, it becomes just a general bias contradicting the developments regarding electrification.

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<sup>211</sup> Georges Carles, *La Turquie Economique ...*, pp. 116-117.

<sup>212</sup> *Turkey in Europe*, p. 103.

<sup>213</sup> G. Bie Ravndal, Department of Commerce, Bureau of Foreign and Domestic Commerce, Supplement to Commerce Reports, *Review of Industrial and Trade Conditions in Foreign Countries in 1914 by American Consular Officers*, Europe, Annual Series, Vol. 1, No: 18d, October 23, 1915, (Washington: Government Printing Office, 1916), Constantinople, p. 1.

<sup>214</sup> G. Bie Ravndal, *Review of Industrial ...*, p. 1.

### 3.2. Literature on the Developments of Public Works and Electrification

#### Business in the Ottoman Empire

British annual series “Diplomatic and Consular Reports”<sup>215</sup> presenting information on various countries are perfect examples for the detailed follow-up of the developments in the areas of communication, transportation in the Ottoman Empire since those documents contain the parts “public works” and “municipal improvements” which are present in every report. Thus, every public works development in the Empire was stated in the consular reports and reported to the British government. Since electrification is considered among the developments of public works, it took place in British Diplomatic and Consular Reports as well.

For instance, Diplomatic and Consular Report of Salonica, for the year 1907 told about the electrictrification of tramways in the city:

The widening of the quay by 26 feet, which began in 1903, is at last finished; and though the diminutive parabet aligning the sea-side pavement fails in its object, the road is now broad enough for all kinds of traffic, including the newly established electric tramway, which as mentioned in the report for 1906, has taken the place of the horse drawn tramway. The rolling stock, imported from the United States, consists of 25 cars, 720l. aech. They are long and lofty, are lighted by electricity, and accommodate 36 persons, including those standing on the platforms outside. A large generating station has also been built containing two four-cylinder 200 horse power dynamos and one 800 horse power oil engine, which supply the current to the cars by the overhead trolley system. The electric tramway service of Salonica, as well as the horse drawn tramway which preceded it, is due to Belgian enterprise, as is also the water company. It remains to be seen whether electric light will be installed by the municipality or by private persons, who seems to be deterred by fear of the heavy initial expenditure.<sup>216</sup>

The 1908 report for Salonica provided detailed information regarding the electrified trams and lighting by electricity. According to this report, three theatres and a flour mill were the only instances of private electric installations in the city. Since the city

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<sup>215</sup> As an example, see: *Diplomatic and Consular Reports*, No: 4188 *Annual Series, Turkey, Report for the Year 1908 on the Trade of Constantinople and District*, (London, 1909).

<sup>216</sup> *Diplomatic and Consular Reports, Turkey, Report for the Year 1907 on the Trade of the Consular District of Salonica*, No: 4121 *Annual Series*, Edited at the Foreign Office and the Board of Trade, (London: H. M. Stationery Office, Harrison and Sons, 1908), p. 5, 6.

did not have a power plant yet, the street lighting along the tramways would be supplied by dynamos and the wires would be carried overhead.<sup>217</sup>

In the following years, developments regarding electrification did not continue in the same speed as understood from the further “Diplomatic and Consular Reports” for Salonica. According to them, “nothing of any importance was realized” in 1910 but various attempts were under discussion for the drainage and lighting of the city, the extension of the existing electric trams and the widening of the principal streets.<sup>218</sup> In addition, the Gida-Papapoli Railway was the only construction work, which was carried out in 1913.<sup>219</sup>

In addition to British annual reports, the United States Department of Commerce reports contain information regarding development of public works in the Empire such as below examples:

Water works and other public improvements planned for the city of Adana were abandoned, and the electric lighting of Mersina, the installation of the plant for which was about to have been made as the war broke out, has again been halted.<sup>220</sup>

The Perrier Co., a French concern holding several public works concessions in the Empire ... obtained concessions of 40 years' duration for a water supply to the city of Jerusalem, an electric tramway line connecting Jerusalem with the suburbs, including the town of Betlehem, and electric lighting.<sup>221</sup>

As the above quotations show, the improvements in the public works in the Ottoman Empire were followed strictly even if the improvements were not realized as in the cases of Mersin and Adana cities. Besides, the concession news from the city of Jerusalem was recorded in the United States, Department of Commerce reports.

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<sup>217</sup> *Diplomatic and Consular Reports, Turkey, Report for the Year 1908 on the Trade of the Consular District of Salonica*, No: 4359 Annual Series, Edited at the Foreign Office and the Board of Trade, (London: H. M. Stationery Office, Harrison and Sons, 1909), p. 7.

<sup>218</sup> *Diplomatic and Consular Reports, Turkey, Report for the Year 1909 on the Trade of the Consular District of Salonica*, No: 4579 Annual Series, Edited at the Foreign Office and the Board of Trade, (London: H. M. Stationery Office, Harrison and Sons, 1910), p. 6.

<sup>219</sup> *Diplomatic and Consular Reports, Turkey, Report for the Year 1913 on the Trade of the Consular District of Salonica*, No: 5449 Annual Series, Edited at the Foreign Office and the Board of Trade, (London: H. M. Stationery Office, Harrison and Sons, 1915), p. 5.

<sup>220</sup> Edward I. Nathan, Department of Commerce, Bureau of Foreign and Domestic Commerce, Supplement to Commerce Reports, *Review of Industrial and Trade Conditions in Foreign Countries in 1914 by American Consular Officers*, vol. 1 Europe, Annual Series, No:18b June 12, 1915, (Washington: Government Printing Office, 1916), Mersina, p. 11.

<sup>221</sup> Edward I. Nathan, *Review of Industrial ...*, Jerusalem, p. 14.

Going further from the strict follow-up on the Empire's public works developments, foreign country reports and journals even dealt with the issue by an academic approach since they published and examined the public works programs and public works ministers of the Empire.

For instance, the first public works development program dated 1880 was published and examined in the journal, *Revue Technique d'Orient*, in a series of articles.<sup>222</sup> Focusing on the actual public works developments at Constantinople, the journal, *Génie Civil Ottoman*, published articles on the technical services and infrastructure issues undertaken at Constantinople and ministry of public works.

Distribution of electricity and the electrification of tramways as well as with the providing drinkable water to the city, streets, sanitary and embellishment issues of the city were considered as the major issues for Constantinople which should be handled in the first place in the "General Report on Technical Services of Constantinople" article, written by M. Auric, the Ingénieur en Chef in Istanbul. In the article, narrow streets of Istanbul were criticized that the narrowness of the streets caused trouble for the tramways especially the ones passing through Gülhâne district.<sup>223</sup>

As the above example shows, electrification of the tramways was also related with the reorganization of the roads and streets of the city where they passed through. Thus, the streets were widened and new roads and boulevards were created in the districts where the tramways constructed. That kind of reorganization of the city ended up by the removal of some of the buildings on the way of tramways causing protests from the city dwellers whose houses situated on the path of trams.<sup>224</sup> As stated in the article "The Reconstruction of Istanbul," it was hard to generate a city

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<sup>222</sup> *Revue Technique d'Orient*, 15 July 1911, no. 11, p. 8-13.

<sup>223</sup> A. Auric, "Rapport General du Service Technique de la Préfecture", *Génie Civil Ottoman*, 1 July 1911b, no. 1, pp. 1-4.

<sup>224</sup> For several cases of expropriations resulting from the construction of trams, see these examples: COA DH.İD.. 38/65 1331 M 4 (14 December 1912) and COA ŞD. 2873/10, 1290 Ra 17 (15 May 1873). Regarding the problems between the companies and the society during the construction process, see: CCA NV 230-0-0-0 30 29 3 (26 July 1927) and CCA NV 230-0-0-0 30 29 7 (15 August 1927). Regarding the protection of sacred places such as mosques during the construction of horse-pulled trams, see: COA A.}DVN.MKL. 78/34, 1285 Z 29 (12 April 1869).

plan, which would satisfy all the dwellers of Istanbul.<sup>225</sup> The mosques were the only places, which could be saved from the destruction.<sup>226</sup>

The title of the above mentioned article “The Reconstruction of Istanbul” tells the readers the changes that Istanbul city passed through. Tramways and reorganization of the streets, gas works, electrification of the city, water works, harbor works, construction of bridges in the city and other activities as such, all made up the construction activities of Istanbul in the late 19<sup>th</sup> and early 20<sup>th</sup> century. All of the construction activities and the changes in the city resulted in the reconstruction of the city.

Another article on the public highways in Istanbul argued that it was essential to put order, uniformity and speed in all the cases related with the roads to remove the arbitrary work.<sup>227</sup> Aiming order and uniformity, regulations were introduced in relation to public roads. In the article, it was argued that regulations would also facilitate execution of the works and establishment and collection of the related taxes. Although the article was on the roads, the major approach of the article to the public works is important that it demanded order, uniformity, speed, and regulation in the public works activities.

In addition to *Revue Technique d'Orient* and *Génie Civil Ottoman*, British authorities closely followed the public works developments in the Ottoman Empire by also evaluating the financial aspects of these projects as revealed from *British Documents on Foreign Affairs, Vol. 20*. This volume heavily contained information on the public works and new technologies applied in the Empire (roads, tramways, electric light, telephone, railways, and wireless telegraphy). Undoubtedly, dealing with the financial aspects of the public works brings the dimension of competition to gain shares in Ottoman public works business among the leading companies/countries of the world.

For instance, according to Sir G. Lowther, “an ambitious program was published in December 1908 by the Minister of Public Works Gabriel Effendi Nuradunghian, including roads, railways, harbors, regulation of rivers and irrigation; but owing to

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<sup>225</sup> “La Reconstruction de Stamboul”, *Génie Civil Ottoman*, July 1912, p. 4.

<sup>226</sup> Ibid, p. 4.

<sup>227</sup> A. Auric, *Génie Civil Ottoman*, (July 1911), pp. 13-14.

want of money and indecision, very little has been accomplished during the past twelve months.”<sup>228</sup> As Lowther’s remarks show, the Empire had problems in financing the public works improvements in the country that the investments for the construction of infrastructure of the cities (roads, electrification, harbors and etc.) were the most costly and hardly affordable ones.

Confirming the public works investments being costly, Louis Delaygue in his *Essai Sur Les Finances Ottomans* underlines the significance of public works and their share in the overall Ottoman budget since infrastructure investments were high budgeted investments which had significant share in the overall Ottoman budget spending while he is mainly talking about the Ottoman Bank, Ottoman loans and Ottoman budget which are expected issues for a thesis dealing with finance. Thus, in his PhD thesis, Delaygue mentioned about ministry of public works as well as developments in the public works such as construction of the roads and railroads.<sup>229</sup>

The records of British Foreign Office on the Ottoman budget confirm the share of public works in the budget for the years 1326-1327 (1910-1912) as well. As revealed from the expenditures in the budget; Ministry of War, Ministry of Finance, gendarmerie, Ministry of Marine, Ministry of Public Works and the Ottoman public debt made the major expenditures.<sup>230</sup>

In addition to public works developments; *British Documents on Foreign Affairs* contained information on the concessions in the Ottoman Empire, legal issues regarding concessions, municipal organization of Constantinople, issues related to finance such as public debt, loans, budget and ministers of economy and public works especially Cavid (Djavid) Bey, İsmail Hakkı Bey and Halaçyan (Haladjian) Efendi. Issues related to Ottoman ministers varied from personal evaluations of the ministers to the works they undertook. For instance, a journey of inspection which Halaçyan Efendi undertook in Adrionople was reported in 20<sup>th</sup> volume of *British Documents on Foreign Affairs* that he made inspection on the public buildings, roads and railways to make the people to feel that the provinces had not been entirely

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<sup>228</sup> David Gillard, (eds.), *British Documents on Foreign Affairs, Series B: The Near and Middle East, 1856-1914*, Vol. 20: *The Ottoman Empire under the Young Turks, 1908-1914*, (Washington: University Publications of America, 1985a), p. 131.

<sup>229</sup> Louis Delaygue, *Essai sur les Finances Ottomans*, Thèse pour le Doctorat, (Paris: Librairie Nouvelle de, 1911), pp. 219-220, 252-253.

<sup>230</sup> British Foreign Office 371/1261, August 21, 1911.

forgotten.<sup>231</sup> Or, it was recorded that “the provincial government is empowered to enter into contracts for reclaiming lakes and marshes, the construction of canals within certain limits, the installation of lighting and tramway system for any period up to 40 years.”<sup>232</sup> In addition, various opportunities of tenders were reported in the *British Documents on Foreign Affairs* such as the tenders for the electric lighting and electrified trams in Jerusalem, Tarsus, Mersina, Adana, and Adrianople.<sup>233</sup> The discussions over the tenders were also reported. For instance, it was reported that the concession for telephone service in İstanbul became the subject of dispute and the Council of Ministers would come to a solution on the issue.<sup>234</sup>

As for the close follow-up of the electrification and electricity related concessions, below quotations are perfect examples since the details for the 1910 concession for İstanbul’s electrification are stated:

The concession for lighting the city for electricity and the distribution of energy has been granted to the Austrian firm of Ganz and Co., but a group composed of the Société Havraise d’Énergie Électrique, Société d’Application Industrielle of Paris, Banque de Suisse Chemins de Fer, Giros et Loucheur, has joined the Austrian firm and will have an interest in the enterprise.

The electrification of the existing tramway system has been authorized and the company, which is today entirely in the hands of a German group, will carry out the work during the course of the year.<sup>235</sup>

For the year 1911, we read below notes for the issue of electrification of İstanbul:

Foreign, principally German enterprise has been active in securing a large share of the public works to be undertaken in the capital, especially in the development of the tramway system and the installation of electric lighting. ... The concession for electric lighting was granted to Messrs. Ganz and Co., of Budapest, in 1910, and a syndicate styled the Société Anonyme Ottomane d’Electricité was formed in 1911, to take over and work the concession. This syndicate is formed by the Société Anonyme pour Entreprises d’Electricité et des Communications of Budapest, Banque Générale de Crédit Hongrois, Banque de Bruxelles, Giros et Loucheur of Marseilles and Paris, and has a capital of 12.000.000 fr.

The building of the generating station on a site acquired in the Golden Horn was taken in hand during the summer.

With acquisition by the Deutsche Orient Bank of the controlling share in the Metropolitan Railway Company of Constantinople negotiations were set on

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<sup>231</sup> David Gillard, (eds.), *British Documents ...*, p. 141.

<sup>232</sup> *Ibid.*, p. 430.

<sup>233</sup> *Ibid.*, p. 185.

<sup>234</sup> *Ibid.*, p. 134.

<sup>235</sup> *Ibid.*, p. 185.

foot for combining the various undertakings and forming a trust. These negotiations have terminated in the formation of a powerful consortium called the Union Ottomane, Société d'Entreprises Électrique à Constantinople with a capital of 100.000.000 fr. the head offices of this powerful group are in Brussels, and all the enterprises taken by the various syndicates are now put under one administration.<sup>236</sup>

As the above examples show British followed the public works developments in the Ottoman Empire in detail, even the moves of the ministers and their public works programs. Istanbul Consulate General reports of the United States were not different than the British reports on the issue. They contained information on the portraits of grand viziers, ministers of public works, their programs and the future and ongoing public works in the Ottoman lands.

For instance, Oscar S. Straus of Consulate General at Constantinople, informed the Secretary of State at Washington D.C. about the “program of the new cabinet and the personality of Hakkı Pasha, Grand Vizier.” He attached the program of the new cabinet in his letter and informed the Secretary of State regarding Hakkı Pasha in detail:

It is encouraging that the new Grand Vizier has enjoyed Western training and is liberal and broad in his sympathies, and spent some time in the United States in 1893 as Turkish commissioner to the World's Fair. I knew him well during my former mission here. He was at that time legal adviser to the Ministry for Foreign Affairs and at the same time professor of jurisprudence in the Law Department of the Ottoman University in this city. He is a student, scholar and man of views. Recently, he has held the position of Minister of Public Instruction and Minister of the Interior. For the past twelve months, he has been ambassador to Italy. He is about fifty two years of age<sup>237</sup>

The detailed report on the trade in the Near East, which appeared in the *Levant Trade Review*,<sup>238</sup> underlined the “excellent opportunities for the extension of trade, a fact which is appreciated by the leading commercial nations of Europe” in Asia Minor. However, the report also focused on the drawbacks within “this vast extent of territory, dotted with populous cities, and offering accesable and commodious

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<sup>236</sup> David Gillard, (eds.), *British Documents ...*, p. 322.

<sup>237</sup> American Archives II (College Park), Despatch no. 72, January 24, 1910.

<sup>238</sup> *Levant Trade Review* is a journal published in Istanbul from 1911 to 1931 in English, reporting on the economy, trade, and financial affairs of Turkey and surrounding areas: <http://www.dlir.org/archive/items/show/11806> (accessed 7 February 2019). G. Bie Ravndal lent an active hand in the editing of *Levant Trade Review* (Journal of American Chamber of Commerce) for several years, until a competent executive secretary was found: American Archives II (College Park), Index Bureau, 165.006/1487.

harbors to largest steamships.” These drawbacks were the “few railways in operation, few of the large seaports offering ordinary facilities for handling freights and passengers, ... and efficient local postal system.” In addition, report underlined the absence of electric light, electric tramways, and telephone service in many of the largest cities.<sup>239</sup> Yet, these insufficient infrastructures were needed to be constructed, which meant new business opportunities for the American capital.<sup>240</sup>

Besides, the “Report on Various Public Works and Industries to be Undertaken in the Ottoman Empire” sent by the American Consulate General at Constantinople to the Secretary of the State in 1911, confirms the close interest of the United States on the public works developments in Istanbul. This report included information on the “concessions in Turkey, which seem available to American capitalists and engineering firms.” The issues that the report mentioned were “the reconstruction, repair and extension of gas works at Dolma Bagtché; the rebuilding of the sections Stamboul which were destroyed by the great fire of July 23<sup>rd</sup>, 1911; barracks; electricity and electric tramways; irrigation of Mesopotamia”.<sup>241</sup>

The method of American Consulate General in obtaining above information is interesting to note since the report above mentioned was prepared by the youngest member of the firm Messrs. Aslan Fresco et Fils (Aslan Fresco and Sons), the son-in-law of Mr. Aslan Fresco who is a member of Turkish Parliament. G. Bie Ravndal stated that the firm “Aslan Fresco et Fils” spent eight years in United States where it expects to return. According to Ravndal, the youngest member of the firm Aslan Fresco et Fils, is proving helpful to him in opening a way for American enterprise in Turkey.

Thus, it is apparent that the United States, closely observed the developments in the Ottoman Empire and as well as Britain, even the consulate general used every means to obtain information on the concessions and commercial situation of the Ottoman Empire. Besides the consulate reports of the United States, informing the center on the developments of public works and concessions, the American consulates

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<sup>239</sup> John M. Carson, Trade in the Near East, *Levant Trade Review*, vol. I, No. I, 1911, p. 16. John M. Carson was the chief in the Bureau of Manufacturers, Department of Commerce and Labor in Washington: *Levant Trade Review*, Vol. I, No. IV, p. 468.

<sup>240</sup> John M. Carson, *Levant Trade Review*, pp. 64-65.

<sup>241</sup> American Archives II (College Park), Index Bureau, 867.641/9, October 12, 1911.

provided commercial information and financial analysis of the business in question for the American entrepreneurs who would like to engage in business activities in the Ottoman lands.

For instance, G. Bie Ravndal replied the questions of an American citizen seeking business opportunities in Istanbul in laundry business at Constantinople, which also gives information about electricity:

There is no modern up to date system laundry, doing business on a large scale at the present time in the city of Constantinople. There are many small laundries scattered throughout the city, but their workmanship is of inferior quality and cannot be considered a factor. In fact, the outlook for a modern steam laundry such as you speak of is extremely good. ... Electricity is at present not obtainable in the city. The concession for same, has, however, been awarded and it is expected to be introduced within two years.<sup>242</sup>

Furthermore, American Consulate at Constantinople encouraged Enterprise Electrical Company of New Orleans-Louisiana in order to establish business in the manufacturing industry of electrical machinery and trading automobiles in the Empire. The consulate asked for information from the Ottoman Ministry of Public Works regarding manufacturing laws and what to do in order to purchase sites for the factory. Upon compiling needed information for the company, Ravndal replied the company in detail as follows:

The (Ottoman) Ministry of Public Works informs me that there will be no difficulty about your securing sites for your factory and that the machinery needed in establishing the factory will be allowed to pass the Turkish Custom House free of duty. It will be necessary for you to organize a company under Turkish laws, which may be a branch of your American Company. It will be necessary for you to present to the Turkish authorities a certificate from the State and federal authorities showing that your home organization is permitted to carry on business in the State of Louisiana and in the United States. There are certain formalities that must be complied with but these best can be attended to after your arrival in Constantinople. This office will be pleased to render any service it properly can in the furtherance of your plans.<sup>243</sup>

Thus, the examples of American consulate reports reflect the desire of the United States to promote American business in the Ottoman Empire. The consular reports also tell the motivation of the United States behind the desire of promoting American business in the Ottoman Empire.

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<sup>242</sup> American Archives II (College Park), Index Bureau, 166.335/3, December 14, 1911.

<sup>243</sup> American Archives II (College Park), Index Bureau, 166.335/7, July 9, 1912.

As an example for an American Consulate transaction reflecting the motive of the consulate for the development of American business in the Ottoman Empire, the American Consulate in Trebizond, submitted his suggestions for a plan for the extension of American trade in the Ottoman Empire when he was reporting to the Secretary of State at Washington D.C., in his letter titled “Extension of American Trade in Turkey,” he mentioned that the European neighbors were working hard to get and hold the market in the Ottoman Empire. According to him,

Turkey is awakening to the calls of Progress. A great future lies before this country. This country is bound to progress and nothing can hinder it very long. Perhaps no country in the world offers so great opportunities for commercial and industrial development as the Ottoman Empire. It is a country where everything is yet to be done. A country rich in natural wealth and resources that has not yet been touched.

American consuls in the Ottoman Empire have been working hard ... to build up American business in Turkey. Several new plans for increasing our trade here have recently been inaugurated, the most important ... of which is the establishment of an American Chamber of Commerce for Turkey.<sup>244</sup>

Besides the American efforts to do business in the Ottoman Empire, the report concerning the French interests in the Ottoman Empire prepared by the Commission pour la Défense des Porteurs Français de Valeurs et de Fonds Ottomans (Commission for the Defense of French Holders of Values and Ottoman Funds) reveals the efforts of the French government in the Ottoman lands.<sup>245</sup>

The report composed of mainly three parts: French Interests in The Ottoman Public Debt, The Interests of the French Enterprises Functioning in Turkey, Impacts of the War (World War I) on the French Interests in the Ottoman Empire. The second part of the report, which is the most crucial one for this dissertation, provides the summary and shares of the French investments in the different fields of the Ottoman economy such as banking, agriculture, transportation (trams and railroads), construction of roads and ports, lighting houses, municipal works (gas, water system, electricity, telephone) and mining. Besides the position of French firms in the aforementioned fields and their shares, the report provided the shares of German and British in the business as well.

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<sup>244</sup> American Archives II (College Park), Index Bureau, 667.111/7; April 8, 1911.

<sup>245</sup> Groupement des Intérêts Français dans l'Empire Ottoman, *Les Intérêt Financiers de la France dans l'Empire Ottoman*, (Paris: Imprimé Centrale de la Bourse, 1919).

The report providing the summary of the Ottoman business and the place of French investment from a comparative perspective is the proof for the French efforts to receive increasing shares in the Ottoman business. Furthermore, it is apparent that the aim of increasing French business is the policy of the French government since a commission (Commission pour la Défense des Porteurs Français de Valeurs et de Fonds Ottomans) for this purpose was established as the below quotation underlined:

Toutes ces entreprises ont grandement travaillé pour notre prestige politique et notre développement économique général, car ceux qui ont la responsabilité de les orienter ont gardé sans cesse à l'esprit le double souci du maintien de notre position politique et de la défense des intérêts de notre industrie nationale.<sup>246</sup>

British motives were much different than the United States and France. The name of the book of J. Carlile McCoan, *Our New Protectorate Turkey in Asia: Its Geography, Races, Resources and Government*, may give clue on the reason of European interest on the public works. The first chapter of McCoan's book summarized the situation in the Ottoman Empire, and concluded that the Empire needed infrastructural advancements by the year 1879:

No better measure of the backward civilization of Eastern Turkey could be suggested than the present state of its public works. Over an area of nearly seven hundred thousand square miles, with a vast coast line on five seas, these comprise only some six hundred of carriageable road, hundred and seventy miles of railways divided between four different lines, of which one is yet unfinished, and one solitary quay, at Smyrna, made and toll-farmed, as a private enterprise by foreigners.<sup>247</sup>

Written in 1879, McCoan tried to describe the Ottoman state affairs, trade and society so that the British would be informed about Ottoman Empire and could penetrate over it, as the title of the book suggests.

Thus, the countries, lacking adequate public works services, were ideal investment areas to construct the services they needed and sell all related equipments with the construction that the European countries as well as the United States and Japan were eager to undertake public works concessions. Moreover, it should be noted that these investments were costly, since they formed the city infrastructures needed by every city and town. That kind of monetarily promising commercial activity created

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<sup>246</sup> *Les Intérêt Financiers* ..., p. 31.

<sup>247</sup> J. Carlile McCoan, *Our New Protectorate Turkey in Asia Its Geography, Races, Resources and Government*, (London: Chapman and Hall, 1879), p. 1.

competition among the candidate firms and resulted in a policy of penetration among the countries, who would act in the public works construction business. The competition race among the firms and countries could be read in the commercial and consular reports, as well as journals dealing with electricity.

The letter sent from the American Embassy at Constantinople to Philander C. Knox, Secretary of State underlying the lack of facilities such as electricity, telephone etc. and the interest of the foreign capital groups in the industrial awakening of the Empire is a perfect proof for the competition race for the Ottoman electrification:

I have the honor to bring in your notice the efforts which are at the present time being made by various American enterprises to obtain a foothold in Turkey. Since the promulgation of the Constitution in July last, foreign capitalists have been keenly interested in endeavoring to secure a further share in the anticipated industrial awakening of Turkey. ... The wave of nationalists which has swept lately over the country has further caused many to believe that the Government should itself manage all enterprises of a quasi-public nature. Fortunately, the minister of Finance, Djavid Bey, whose financial capacities are for the moment undisputed, is averse to such government ownership, wisely recognizing its inconveniences. ... The near future may witness the granting of certain important concessions likely to interest our enterprise. ... In the event of concession being given, I need not assure the department that the Embassy is affording every possible proper assistance to the furtherance of our commercial interests in Turkey.<sup>248</sup>

As further examples for the competition race for the electrification business in the Ottoman Empire, *British Documents on Foreign Affairs* are detailed reports interpreting the internal and external situation of the countries as well as the proposed British strategies for various conditions. The memorandum of Adam Block “respecting the Franco-German penetration” over the Ottoman Empire mentions about the German and French business in the Ottoman Empire leading to political impact of those countries over the Empire as we read from his own words:

England seems to be liquidating her holding in the Near East. I only hope that we shall not find out when it is too late that we are mistaken. At any rate let us open our eyes to the facts. If we take into consideration the ever-increasing influence of France and Germany in finance and railway enterprise; if we take also into consideration the rapid and successful extension of French and German industrial enterprises (docks, quays, tramways, etc.), all of which is due just as much to the pushing methods and ... direct diplomatic intervention and support of their respective ambassadors and official agents, it

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<sup>248</sup> American Archives II (College Park), Dispatches to the Department of State, No: 1045, July 15, 1909.

is evident that the two countries tightening, and intend to tighten their economic hold on this country.<sup>249</sup>

Furthermore, in his letter written to Sir Charles Hardinge, Block mentioned about involvement of German enterprises in the fields of bridge construction and electrification.<sup>250</sup> According to Block, German influence through German business in the Ottoman Empire was so significant to be considered by Britain since he argued that “if Germans had our position, they would fight tooth and nail to fortify it.”<sup>251</sup>

Salonica Trade Report mentions about influence of German and Austro-Hungarian houses in Salonica:

Still, Austro-Hungarian and German houses, guided by no doubt by carefully selected local agents and by the travelers whom they send out at regular intervals, undoubtedly gain much business at our expense.<sup>252</sup>

John G. A. Leishman of American Embassy in Constantinople mentioned about the “setback suffered by German influence in Turkey since the revolution and the superior advantages to the United States”<sup>253</sup> in his letter written to the Secretary of State. According to Leishman, the setback suffered by Germans was for the benefit for the Americans since they could increase their activities in the Ottoman Empire.

As understood from the American and British sources, they were both uncomfortable with the German undertakings in the Ottoman Empire. The title of an article in a Washington D.C. newspaper named *Star*, dated March 13, 1909, supports this behavior: “Opportunities for the Americans, American Consuls Say that United States Can Beat Germany in Oriental Trade.”<sup>254</sup>

According to the article, the German influence, which had been dominant for years, diminished recently. In the eyes the new constitutional government, Germany was

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<sup>249</sup> David Gillard (eds.), *British Documents on Foreign Affairs, Series B: The Near and Middle East, 1856-1914*, Vol. 16: *Ottoman Empire, Arabia and the Gulf, British Financial and Commercial Interests, 1890-1914*, (Washington: University Publications of America, 1985b), p. 69. Adam Block was the President of the Council of Administration of the Ottoman Public Debt at that time.

<sup>250</sup> *Ibid.*, p. 74.

<sup>251</sup> *Ibid.*, p. 74.

<sup>252</sup> Diplomatic and Consular Reports. Annual Series. Turkey. *Report for the Year 1910 on the Trade of the Consular District of Salonica*. No. 4797. Edited at the Foreign Office and the Board of Trade. (London: Wyman and Sons, 1911), p. 7.

<sup>253</sup> American Archives II (College Park), Dispatches to the Department of State, No: 923, April 2, 1909.

<sup>254</sup> The newspaper article is enclosed to the Dispatches to the Department of State, No: 923, April 2, 1909.

regarded as the only friend of the dethroned Sultan. Besides, its support for Austria in the annexation of Bosnia and Herzegovina would be disadvantage for Germany and this would result in the increase of American trade in the Ottoman Empire.

Further in the article, it was reported that the American consuls in different cities of the Ottoman Empire (Mr. Ozum Consul General at Constantinople, Ernest I. Harris at Smyrna, Mr. Ravndal at Beirut, Mr. Jackson at Aleppo), urged American firms to take advantage of the unprecedented opportunities offered them in the Ottoman market. As understood from the newspaper article, the American consulate officers worked like commercial agents of the United States to promote American trade and investments in the Ottoman Empire.

Although the United States Consular reporters expected deterioration between Ottoman Empire and Germany, it was not the case as followed by the British Foreign Office:

It has been announced in the Press recently that the Turkish Crown Prince, Yussuff Izzeddin Effendi, will proceed to Berlin, after visiting Bucharest and Vienna, in order to be present at the autumn parade as the guest of the Emperor. ... The visit affords an undoubted proof of the excellent relations existing between Germany and Turkey. ... Germany regained the favorable position at Constantinople which it occupied previous to the establishment of the new regime, and great importance is attached both in the capital and in the Provinces to the cultivation of friendly relations between Turkey and Germany<sup>255</sup>

*Turkey in Europe* can be another source mentioning about German economic penetration. While talking about German influence through banking sector and concessions, the report stressed on the benefiting German home industry as well:

German influence political or other, has been able to obtain concessions for railways, for the construction of harbors, docks, drainage systems, bridges, quays, mines, tramways, gas and electricity works, and has facilitated the raising of loans for these purposes. The exploitation of the concessions confers benefits on the country concerned, by bringing in capital and employing labor; while home industry profits largely, for the materials are mostly brought from Germany in German bottoms, and with them come German skilled workmen and others who require supplies from Germany. Trade inevitably follows. Such

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<sup>255</sup> British Foreign Office 371/1261, Letter of Gerald Lowther of Britain from Berlin, August 25, 1911.

is the German system of economic penetration, not only in Turkey but throughout the world.<sup>256</sup>

Britain was very keen on keeping the statistical records of every single piece sold to the Ottoman Empire and other states. As E. Weakley, the special commissioner of the Commercial Intelligence Committee of the Board of Trade wrote in his report for Damascus, the sales records of electric motors used in river Barada and their country of origin, the shares of Britain and other countries in terms of the technological product sales were analyzed:

Although the river Barada furnishes considerable water-power, as many as 150 electric motors (from 1/4 to 2 H.P.) are in use for raising water, the motors and pumps being made by a Berlin firm. Damascus agents of British firms have, since 1907, supplied a considerable number of motors in the district. The demand for machinery in the Aleppo district has been insignificant, but the establishment of railway connections with Beyrout has greatly simplified the transportation of heavy machinery, and the introduction of mechanical power has been put on a practical footing. British makers are paying attention to this trade, and have supplied gas, oil and steam engines.<sup>257</sup>

As an example for the German system of economic penetration and its supremacy in the electricity business, the British followed the developments in the electrification business and the activities of German companies in the other countries as well as Ottoman Empire:

An article in the *Anglo-Russian Gazette* states that Germany holds the lion's share electrical business in Russia, not merely through imports but also by the reason of the Russian electrical works wholly or partly controlled by German firms. In this connection Germany has been strongly assisted by her banking institutions. Belgian and German firms are usually represented by an engineer who is also skilled in the commercial side of the business and speaks Russian. It is necessary to give extensive credits.<sup>258</sup>

As revealed from the above example, the way that the German companies engaged in electrification business was closely followed. The assistance of the German banking institutions as the backers of the companies dealing with huge capital investments and employment of an engineer who has commercial and local language skills were the points which made the German business advantageous when compared with the British business.

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<sup>256</sup> *Turkey in Europe*, p. 117.

<sup>257</sup> *The Electrician*, September 8, 1911, p. 873.

<sup>258</sup> *The Electrician*, December 3, 1909, p. 331.

As a further example for the comparative advantage of a local representative was underlined during the tramway tenders of Bursa:

The municipality of Broussa (Turkey) requires tenders by Dec. 13 for erection and equipment of electricity supply works for the construction of an electric tramway. Conditions of tender and a list of British firms established at Constantinople may be seen at 73 Basing-hall Street, London, E.C. It is stated to be practically impossible for a British firm's tender to be considered unless presented through an agent on the spot.<sup>259</sup>

Going further through the series of British Documents on Foreign Affairs, in a minute written by Mr. A. Parker, he mentioned about the German and French impact on the Ottoman Empire as well as the strategies proposed to promote British financial institutions in the Ottoman Empire:

Certainly Deutsche Bank has been the means by which Germans secured valuable concessions in Turkey, where finance and politics are even more closely connected than elsewhere ... the whole tendency of French in Turkey is to secure monopoly on finance, and through finance, in public contracts and concessions. It seems clear that Turkey is more likely to give concessions to those countries who help her financially than to those who do not; and as it is desirable that we should get as many as concessions as we can, especially in Mesopotamia, this seems a *primâ facie* (at first sight) argument.<sup>260</sup>

Although Parker stressed the importance of helping financially to the Ottoman Empire in order to get the concessions from the Ottoman government so that the British government would be influential over the Ottomans, he underlined the unwillingness of some of the British financiers and British government officers in Istanbul. For instance, Sir Henry Babington-Smith, in his letter to Parker indicated that:

The disasters, which have overtaken Turkey, and the little hope there is that effective control over Turkish finance can be established, almost preclude the possibility of sound finance in Turkey, at all events from the investor's stand point. ... Apart from the present monetary stringency, there is little hope of Turkey's regeneration, and there are more profitable fields for investment in other parts of the world.<sup>261</sup>

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<sup>259</sup> *The Electrician*, October 29, 1909, p. 122.

<sup>260</sup> David Gillard (eds.), *British Documents on Foreign Affairs, Series B: The Near and Middle East, 1856-1914*, Vol. 18: *Ottoman Empire, Arabia and the Gulf, British Financial and Commercial Interests, 1907-1914*, (Washington: University Publications of America, 1985), pp. 468-474.

<sup>261</sup> *British Documents on Foreign Affairs, Series B*, Vol. 18, p. 468.

It is important that Sir Henry Babington-Smith was not sure that the Ottoman economy would recover due to monetary stringency in the country when his carrier was taken into account. Henry Babington-Smith was the British representative in the Ottoman Public Debt Council in 1900. In 1901 he became the president of this organization and in 1909 he became the president of the National Bank of Turkey, which he was instrumental during its establishment.<sup>262</sup> Yet, Parker argued that it would be of great advantage to their prestige and material interests in Turkey if they could keep the National Bank in existence.<sup>263</sup>

As understood from the above lines, British government officers had contrasting views for backing up the Ottoman Empire by loans whereas Germany and France were willing to engage in concessions and they were eager to be influential over the Empire through concessions.

It is important to note that, these various sources produced by government agencies and consulates of different countries, books, PhD theses and etc. on the Ottoman Empire; mostly told about –concessions, public works, loans, the ministers of public works and economy- which all made up the agenda of the Empire at that time. It was the time that Ottoman Empire was in the way of modernization through the introduction of new technologies, new city infrastructures into the Empire. That is why the *British Documents on Foreign Affairs* on the Ottoman Empire or the United States Consular Reports on Constantinople mainly talked about public works, concessions, and ministers of public works and economy.

### 3.3. Conclusion

Researching thoughts on the electrification and the Ottoman Empire among the various European sources reveals the significance of technological development as an historical category in Ottoman studies. As seen in either consular or business reports, the European evaluations of the public works in the Ottoman Empire, reveal the exact Ottoman picture in their minds. Since technology is closely intermingled with the economic, commercial, industrial, and social development, tracking it in the

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<sup>262</sup> Marian Kent (eds.), *The Great Powers and the End of the Ottoman Empire*, (London: Frank Cass, 1996), p. 173, 215.

<sup>263</sup> *British Documents on Foreign Affairs, Series B*, Vol. 18, p. 469.

European sources, would enlighten our vision of Ottoman Empire vis a vis the European states.

At this phase of the dissertation, the following question can be raised: How the electrification project of Istanbul was realized. In order to answer this question, the concession process of the electrification business and the role of the Ottoman bureaucracy should be analyzed. Before focusing on the concession process for the electrification of Istanbul and the role of Ottoman bureaucrats in the electrification of Istanbul, I first examine the electrical technology around the world before and after the establishment of Silahtarağa Power Plant and try to draw a general picture of the other examples of electric plants and electrification projects. I believe that the contemporary examples of electrification will be helpful in understanding Istanbul's electrification case better.

## CHAPTER IV

### WORLD'S ELECTRICAL ENVIRONMENT BEFORE AND AFTER THE ESTABLISHMENT OF SİLAHTARAĞA POWER PLANT

In this part, I try to draw a general picture of the world's electrification business just before and after the establishment of the Silahtarağa Power Plant. In this manner, general characteristics of the electrification business at the time in which Silahtarağa Plant was established will be analyzed. Providing the characteristics of electrification business, I also shed a light on the role of multinationals and international banking within the development process of electrical industry and the spread of electric light. The contemporary developments of electrification in other parts of the world will provide better understanding of the Ottoman case.

The journal, *The Electrician*<sup>264</sup> is the basic source of this chapter since it was the basic and most popular journal of electricity covering all electricity related matters from all over the world: news of tenders for electricity in all over the world; news of newly registered companies engaged in electricity business as well as bankrupted ones; further information on companies' meetings, reports, dividends, statutory returns and telegraphy and telephone; municipal, foreign and general notes on the electricity supply, extensions, traction and lighting export and import figures of electrical tools for different countries; cases of electrification projects of the cities; news on the electrification of trams and railways; electrical exhibitions; inventions of electricity; reviews of electricity related books and so on. Covering broad spectrum of electricity issues; *The Electrician* presents lively accounts of world's electrification cases.

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<sup>264</sup> *The Electrician: A Weekly Illustrated Journal of Electrical Engineering, Industry, Science and Finance*, (London: James Gray, 1878-1952).

#### 4.1. Electrical Developments in Global Scale: Global Electrification

The nineteenth century has witnessed the development of urban infrastructure in the fields of transportation, communication, energy, water, and waste management. Some of these infrastructures, for instance railroad and telegraph networks between the long distances and gas, water supply, and sewage systems in large cities, were already constructed before 1870. These developments expanded enormously after 1870, and various new technologies such as electric power and telephone spread in the cities.<sup>265</sup> The acceleration of the technological developments after 1870 and the crucial role played by electricity in this development should be underlined. According to Dunning,

The last half century before the First World War introduced a wave of technological advances which in many ways were more profound and far-reaching than their predecessors. They were stimulated and supported by the creation of new transport and communication networks, which helped increase both the demand for and the supply of goods and services. Electricity and the internal combustion engine ... were the main technological linchpins of the second industrial revolution.<sup>266</sup>

The most important development in the electrical technology was the transmission of electric current in the long distances, which was achieved in Lauffen, Germany for the first time.<sup>267</sup> In 1893, a competition in Niagara Falls was held to select the best engine and electricity production and transmission method. The winner was alternative current of Westinghouse Electric Company and Tesla.<sup>268</sup> After this event, the illumination of the cities as well as the transport and communication systems evolved enormously.

By 1914, dwellers of city centers around the world had met various facilities of the electricity such as lighting, heating, transportation, communication and generation of

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<sup>265</sup> Joel Mokyr, "The Second Industrial Revolution: 1870-1914," Valerio Castronovo (eds.), *Storia dell'economia Mondiale*, (Rome: Laterza Publishing, 1999), p. 2. The article is available online at <https://pdfs.semanticscholar.org/769c/a06c2ea1ab122e0e2a37099be00e3c11dd52.pdf> (accessed 22 October 2018). For an online collection of Mokyr's articles, see <https://sites.northwestern.edu/jmokyr/research/> (accessed 22 October 2018).

<sup>266</sup> John H. Dunning, *Multinational Enterprises and the Global Economy*, (Wokingham, England; Reading, Mass.: Addison-Wesley, 1993), p. 103.

<sup>267</sup> Luciano Segreto, "Financing the Electric Industry Worldwide: Strategy and Structure of Swiss Electric Holding Companies, 1895-1945," *Business and Economic History*, Vol. 23, No. 1, (Fall 1994), p. 163.

<sup>268</sup> Jill Jones, *Empires of Light* ..., p. 63.

energy.<sup>269</sup> For instance, as the number of passengers increased in great numbers between the years 1903 and 1908 in Rio Janeiro of Brazil, electrified trams could not meet the demand fully and further electric traction in the tramways of the city came into the agenda:

It is announced that President Peçanha has been asked authority from congress to enter into contracts and issue bonds for the electrification of Central of Brazil Railway in and near Rio Janeiro, as the number of passengers carried increased from 13423779 in 1903 to 20128387 in 1908 while the means of giving service has not increased at a proportionate rate. Unusual demands (as on Sundays and holidays) cannot be met. It is understood that the preliminary estimates and surveys of the government engineers provide for the third rail system, and that the work, without materially interfering with traffic can be finished within two years, at an estimated cost of \$ 2.500.000.<sup>270</sup>

Another example in order to tell the desire for electricity among the city dwellers comes from Russia:

A German consular report states that there is an increasing demand in the Saratoff district for electrical material and accessories, and the inhabitants evince a desire to have electric light in their houses.<sup>271</sup>

Electricity was even demanded by small towns in Romania:

The German Vice Consul at Craiova reports that there is a great demand in Romania for engines, especially petrol and suction gas and that there is a good future for electric plant. There is an increasing desire to have electricity supply even in smaller towns.<sup>272</sup>

Thus, the need for electricity and the commercial enterprises willing to electrify the world encouraged the electrification projects in all over the world ranging from Africa to Latin America. For instance, in South Africa, “the Uitenhage (Cape Colony) electric supply was formerly inaugurated on August 25, 1910 and Cradock municipality has decided to adopt electric lighting.”<sup>273</sup> Likewise, in Uruguay, concessions were granted for the construction of electric railway between Montevidea and Colonia as well as the establishment of hydro-electric works.<sup>274</sup> According to *Indian Engineering Journal*, Lahore electric supply scheme was progressing while the Simla municipality decided for the substitution of electricity

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<sup>269</sup> William J. Hausman, Peter Hertner, and Mira Wilkins, *Global Electrification ...*, p. xvi.

<sup>270</sup> *The Electrician*, November 5, 1909, vol. 64, p. 164.

<sup>271</sup> *The Electrician*, June 10, 1910, vol. 65, p. 368.

<sup>272</sup> *The Electrician*, March 24, 1911, vol. 66, p. 969.

<sup>273</sup> *The Electrician*, September 10, 1910, vol. 65, p. 1043.

<sup>274</sup> *The Electrician*, October 21, 1910, vol. 66, p. 73.

instead of steam power for pumping water for the civil station of Simla.”<sup>275</sup> Moreover, in Chili, the government approved the installation of telephone service in Constitucion, and supply of electricity in San Vincente.”<sup>276</sup>

In addition to the above cases of electrification, Consul Cartwright told about the electrification developments, which took place in Ecuador:

The capital and objects of the electric light and car company at Guayaquil have been considerably extended during the past year. The capital is now 1.500.000 sucres (\$150.000) all locally subscribed with power to increase the capital or to issue debentures.<sup>277</sup>

#### **4.2. Electrification in the Neighboring Countries to the Ottoman Empire**

Apart from the different parts of the electrified world, there were developments in the field of electrification in the neighboring countries to the Ottoman Empire. For instance, *The Financier* informed its readers regarding the project of telephone service at a cost ranging from 320.000 to 400.000 roubles between Tiflis and Bakü and stated that the municipal council instructed their engineers to prepare plans for a hydro-electric station on the river of Kure.”<sup>278</sup> Besides the construction of telephone schemes at Bakü, electric lighting was considered for the city as well:

Vice-Consul McDonnell (Baku) says the Baku municipality has raised a loan of about 2.842.000 of which certain sums have been set apart for the electric lighting of the town and electrification of the tramways. Foreign tenders will be invited. For the public lighting 960 are lamps will be required, but it has not yet been decided whether the municipality will erect their own station or come to an arrangement with the existing power company.<sup>279</sup>

In addition to Tiflis and Bakü, there were developments in the electrification of the railways and trams around Batoum district. Consul P. Stevens stated that any decisive action regarding these schemes could be received from St. Petersburg, and engineers and companies wishing to engage in such activities could consult the

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<sup>275</sup> *The Electrician*, June 7, 1912, vol. 69, p. 378.

<sup>276</sup> *The Electrician*, September 8, 1911, vol. 67, p. 873.

<sup>277</sup> *The Electrician*, September 10, 1910, vol. 65, p. 1043.

<sup>278</sup> *The Electrician*, March 18, 1910, vol. 64, p. 953.

<sup>279</sup> *The Electrician*, July 1, 1910, vol. 65, p. 493.

Government there.<sup>280</sup> Furthermore, the electrification developments in Egypt can be followed from the report of Pro-Consul Lockwood for 1909:

Both Suez town and Port Tewfik are now lighted throughout by electricity supplied by the Electricity & Ice Supply Co. About 4000 lamps are in use in private houses and public buildings and 250 in the lighting of public roads. The wires are partly overhead and partly underground.<sup>281</sup>

Another British consular report prepared for Iran reveals the electrification projects undertaken in this country. As learned from the report, telephone service was established in Ispahan, and a wire reached Najafabad. In addition, the report suggested employment of personal representatives to the companies rather than transmitting catalogues of electrical apparatus and machinery so that the representatives discovered the needs of customers by building intimate communication with them:

The import trade of the district is fully exploited by British firms or merchants with offices in Ispahan. Would be expected should bear in mind that in this as in other parts of Persia, a British catalogue, even if fully illustrated, is seldom likely to lead business with Persian clients, and that a personal representative to push their goods on the spot is a sine qua non. British firms who frequently transmit to this Consulate-General catalogues of electrical apparatus, elaborate machinery for boring and crushing, marine and commercial motors, would do well to realize that in the present backward condition of the country there can be little room for such products.<sup>282</sup>

Moreover, Bulgarian Government provided budget for electric light and power works in Bourgas (£20.000) and for electric supply in Varna (£10.000).<sup>283</sup> The Electrician also announced that the Philipollis Communal Authority would invite tenders to construct electric trams and provision of electric supply.<sup>284</sup>

As a further example, Greece made progress in the traction of electric tramways. According to the report of Consul MacDonell, except the line between Phalerum and Piraeus, which was still pulled by horses, the tramway company electrified the remaining tram lines in Athens.<sup>285</sup>

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<sup>280</sup> *The Electrician*, July 1, 1910, vol. 65, p. 493.

<sup>281</sup> *The Electrician*, March 17, 1911, vol. 66, p. 922.

<sup>282</sup> *The Electrician*, May 3, 1912, vol. 69, p. 159.

<sup>283</sup> *The Electrician*, January 26, 1912, vol. 68, p. 650.

<sup>284</sup> *The Electrician*, May 20, 1910, vol. 65, p. 254.

<sup>285</sup> *The Electrician*, August 12, 1910, vol. 65, p. 750.

### 4.3. Contemporary Electrification Examples from Europe

Above examples of India, Chili, Bulgaria, or Baku may give a misleading idea that only the underdeveloped parts of the world were in the way of electrification, and that, European countries has already finished with the electrification projects. This was not true since Spain and Italy were not electrified fully.

As we read in *The Electrician*, in 1910, an application was made for a concession for the construction and working of electric tramways in Barcelona.<sup>286</sup> Besides Spain, a concession was granted to construct electric trams between Rome and Albano. Another concession was granted for the conversion of steam trams into electric traction from Pisa to Leghorn.<sup>287</sup>

As the consular reports in relation to the electrification developments in Italy, the construction of the electric tramways in the main Italian cities was a recent phenomenon:

A consular report from Messina states that on the two local steam tramways electric traction will be adopted shortly and the existing services extended. A report from Catania says that new electric installations for supplying the district of Catania with electric current, for public and private use, are in progress.<sup>288</sup>

In addition to the application of electricity in the tramways, electricity was used as a power source in the form of private installations for Italy's agriculture as it was the case for the ottoman Empire:

A consular report from Genoa states that the Riviera Electric Supply Co. at Bordighera steadily increasing its supply of electrical energy, especially in regard to the application of electric power for irrigation of the fruit gardens.<sup>289</sup>

Furthermore, according to Plummer, the principal firms in the electrification business of Austria, a relatively developed European country compared to Spain and Italy, were either of foreign origin or closely connected with foreign undertakings.<sup>290</sup> Therefore, the Ottomans were among the contemporary counterparts in appropriating

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<sup>286</sup> *The Electrician*, August 12, 1910, vol. 65, p. 750.

<sup>287</sup> *The Electrician*, October 7, 1910, vol. 65, p. 1086.

<sup>288</sup> *The Electrician*, June 7, 1912, vol. 69, p. 378.

<sup>289</sup> *The Electrician*, May 31, 1912, vol. 69, p. 336.

<sup>290</sup> Alfred Plummer, *International Combines in Modern Industry*, (London: Sir Isaac Pitman & Sons, Ltd., 1934), pp. 12-13.

electrical technology and it they were not alone in financing this new technology by foreign capital.

#### **4.4. Competition for Electrifying the World: Foreign Investment, Multinational Companies and International Finance**

Above examples show extensive spread of electricity all over the world. That is why some of the historians label this stage as “global electrification” in the history of electricity. It would be useful to identify the competitive nature of this age. The need for the electricity in the places where electrification did not reach accompanied with the multinational enterprises hungry for the business created great deal of competition between the multinational enterprises and leading technologically developed countries.

*The Electrician* journal, compiling the British consular reports related with the electrification projects as well as the news on electricity published in various journals and newspapers of the world, provides its readers accounts of the competition in world’s electrification market. For instance, British Consul General of Barcelona, Mr. Roberts stated that the local electric light, tramway, and gas companies were in German and French hands, in his report on the trade and commerce of Barcelona for the year 1909. According to Roberts, the electricity supply company was a German concern and provided electricity to the city and its environment. Furthermore, German coal was used in order to produce electricity. All of these show that the foreign investment managed the electrification of Barcelona and even foreign raw materials were used in order to produce electricity.<sup>291</sup>

In order to promote British trade in Spain, and probably as counter step against German and French business in the country, the British Chamber of Commerce for Spain started in April, 1908. It is reported that it did successful job so far that the electrical material imported into Barcelona increased four times in 1909 when compared with the year 1908.<sup>292</sup>

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<sup>291</sup> *The Electrician*, August 19, 1910, vol. 65, p. 790.

<sup>292</sup> *The Electrician*, August 19, 1910, vol. 65, p. 790.

Reading *The Electrician* journal provides further examples for the German undertakings in Russia regarding the electrification business:

Electric generating stations (in Russia) seem to be mainly German. One German firm is believed to have had a turnover in 1909 (mainly in the Doniez district of Russia) of about £300.000. It sold 20 steam turbine generators of 500 kW to 1200 kW.<sup>293</sup>

Following the British consular reports, *The Electrician* journal provides detailed account of Russia's electrification to its readers. For instance, H. E. Dickie, the Vice-Consul of Kertch, told about the success of German manufacturing firms and summarized their strategies of trade that the German travelers spoke Russian and they were in touch with the people, furthermore, they gave reasonable credit and supplied price lists and catalogues in German and Russian.<sup>294</sup> Another consular report stated that the electric trams were Belgian specialty in Russia and inferred that electrification business in Russia seemed unattractive to British firms.<sup>295</sup>

It was not a coincidence that the electrification of tramways in various Russian cities was realized by Belgian capital since the years between 1895 and 1913 were the period in which there was the strongest growth in Belgian foreign investment in tramways. Thus, Belgian companies took advantage of their expertise in light railways and trams.<sup>296</sup>

Besides Germany, Belgium, the United States, Britain, or France as the leading actors in the world's electrification business, there were also other candidates for the electrification of the world.

For instance, Canadian companies were acting in the world's electrification

market as well. An account of the consular report on industries and commerce of Spain in 1910 proves this issue. The article mentioned about the activity of foreign capital in Spain's electrification:

A consular report on the industries and commerce of Spain in 1910, states that there are signs of foreign capital being more strongly attracted than hitherto,

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<sup>293</sup> *The Electrician*, August 26, 1910, vol. 65, p. 832.

<sup>294</sup> *The Electrician*, August 26, 1910, vol. 65, p. 832.

<sup>295</sup> *The Electrician*, August 26, 1910, vol. 65, p. 832.

<sup>296</sup> Alberto Martínez López; "Belgian Investment in Tramways and Light Railways," *Journal of Transport History*, Vol. 24, No. 1, (March 2003), p. 73 (59-77).

among the branches of industry favored being electrical enterprises and railways. The most important of such enterprises initiated during the year was Barcelona Traction, Light & Power Co., a Canadian company formed to link up Barcelona with the neighboring industrial centers by electric traction, and supply current for light and power to towns in the Barcelona district. The capital is about £8.000.000.<sup>297</sup>

Apart from the leading European countries, it is interesting to observe Japan as an emerging actor in the world's electrification market. According to *The Electrician*, by 1910, there were few large cities or towns without electric supply. In 1890, first electric tramway in Tokyo and in 1895, the first public electric tramway in Kyoto was established. Furthermore, the first hydro-electric undertaking was established in 1891. By December 1908, there were 318.339 consumers with 1.230.876 lamps, besides 3.688 power consumers with 3.978 motors. Although the manufacture of electrical machinery in Japan grew rapidly, and almost all kinds of general machines, tools, wires, cables, lamps, and other materials could be obtained from works in the country.<sup>298</sup>

Although foreign investment activated in Japan<sup>299</sup> or Japan imported electrical tools from Europe,<sup>300</sup> Japanese companies were strong enough to finance the electrical investments on their own:

In a recent issue of the "Japan Chronicle" it is stated that considerable progress has been made in the arrangements for the formation of Kinugawa Hydro-Electric Power Co. the concern was to have had a capital of 13.500.000 yen under the joint interest of British and Japanese capitalists. As, however, the British capitalists could not secure suitable terms for the concession, the

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<sup>297</sup> *The Electrician*, September 20, 1912, vol. 69, p. 1004.

<sup>298</sup> *The Electrician*, July 22, 1910, vol. 65, p. 623. According to *The Electrician*, the information on the electrical progress of Japan was compiled from *The Times*.

<sup>299</sup> For instance, German companies activated in Japan: The German Consulate at Kobe report that the Kobe-Akashi Electric Railway Company, which has a nominal capital of about 210.000 intent to build an electric railway from Kobe via Suma to Akasha 11,5 miles in all, of which 5,5 miles will be double and 5 miles will be double, and five miles single track: *The Electrician*, December 17, 1909, vol. 64, p. 410.

<sup>300</sup> According to British Consul General at Kobé: The outstanding feature of 1910 was the number of gas plants set up for supplying towns with gas and for small section gas electric power stations. In the early part of the year (1910), the bulk of the orders were given for British machinery, but during the latter half Continental firms secured a number of important contracts, principally by undercutting British prices: *The Electrician*, September 8, 1911, vol. 67, p. 873. However, Japan could produce necessary tools in the country: The pumps ordered from a British firm for Takow (Formosa) water works are to be driven by three-phase electric current obtained either by the Government supply or from an independent station. Practically, the whole of the electric supplies have hitherto come from German and American makers.: *The Electrician*, September 8, 1911, vol. 67, p. 873.

Japanese promoters have decided to float the company without the help of foreign capital.<sup>301</sup>

It is important that Japan started to produce electrical tools and established electric lighting companies in 1910:

A Kobe paper states that Messrs I. Zenyemon, F. Kamekichi and N. Tetsuma have filed an application in Kencho for a charter to form an electric lighting company in Kobe with a capital of 3 million yen (£ 300.000). It is also stated that another company is in process of organization, and that application will be made for another charter.<sup>302</sup>

As *The Electrician* states, almost all kinds of general machines, tools, wires, cables, lamps and other materials could be obtained from the works in the country.<sup>303</sup> In addition to that, Japanese firms could produce electrical tools for reasonable prices by the help foreign experts. For instance, a local rubber electric cable factory, equipped with British machinery, employed a British cable expert and could successfully compete with prices of British goods.<sup>304</sup>

It can be argued that reverse engineering was successfully achieved in Japan as early as 1910s since with the exception of weaving and spinning, by far, the greater part of the machinery used in the Osaka factories is of Japanese manufacture, the designs were taken from foreign models.<sup>305</sup> Moreover, Japan even gained share in the world's market among the giants of the electrification business that it supplied China with electrical accessories, which were formerly supplied by Germany.<sup>306</sup>

Consulate reports including statistics on the trade of electrical tools constitute the further indications regarding the competition over the electrification business. For instance, the consular reports prepared for Romania regarding electrical tools market show the demand for these tools as well as the customer profile:

A consular report on the Braila district states that the electrical tools imported during 1910 include dynamos, motors, rotary converters, accumulators, arc lamps, telegraph and telephone apparatus, bells, batteries for medicinal and chemical purposes, switches, wires and insulated cables &c., incandescent

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<sup>301</sup> *The Electrician*, August 12, 1910, vol. 65, p. 750.

<sup>302</sup> *The Electrician*, April 8, 1910, vol. 64, p. 1079.

<sup>303</sup> *The Electrician*, July 22, 1910, vol. 65, p. 623.

<sup>304</sup> *The Electrician*, September 8, 1911, vol. 67, p. 873.

<sup>305</sup> *The Electrician*, October 7, 1910, vol. 65, p. 1086.

<sup>306</sup> *The Electrician*, October 7, 1910, vol. 65, p. 1086.

lamps and porcelain insulators. Ventilators are used to some extent in banks, hotels, hospitals and public institutions.<sup>307</sup>

In addition to the information on electrical tools imported in Romania for the year 1910, the consular report mentioned about the competition in the electrification market of Romania. Further in the report, the business strategies in order to be successful in the market were suggested:

A steady development of home industries in Romania is favorable to the import trade in electrical goods, but there is keen competition between the United Kingdom, Germany, Austria-Hungary and France. Manufacturers should be represented in Romania. The import business of Braila district is carried out through commission agents, who are of great assistance to commercial travelers and the firms that they represent but firms should send out their own representatives to establish their first connections; and it is necessary for such men to be capable of transacting their business, failing Romanian, either in German or French, the former for choice. The foreign agent or traveler is an expert: he speaks the business language, has circulars and price lists in that language, and will wait upon the would-be buyer at his own shop. He can further give him indulgent terms owing to being in continual and personal contact with him, visiting him several times a year.<sup>308</sup>

Further strategies for the market success was stated by *The Bulletin Commercial* of Brussels. It was suggested to establish an agency with branch offices, to offer good quality products and competitive prices with regards to Germany.<sup>309</sup>

As the above examples show; foreign investment in world's various places was essential in the electrification business. The period 1870-1914 was the Golden Age of foreign investment, and this was especially intense during the decade prior to the First World War.<sup>310</sup>

Furthermore, during the golden age of foreign investment, consulates could be regarded as the agencies of their governments in order to promote investments and commercial activities in the host countries since the consular reports contained information on the sales and trade of the electrical tools as well as business strategies for the companies. This local information provided great assistance to the companies operating in the different parts of the world. In this sense, the consulates played key

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<sup>307</sup> *The Electrician*, June 16, 1911, vol. 67, p. 390.

<sup>308</sup> *The Electrician*, June 16, 1911, vol. 67, p. 390.

<sup>309</sup> *The Electrician*, December 17, 1909, vol. 64, p. 410.

<sup>310</sup> A. G. Kenwood and A. L. Lougheed, *The Growth of the International Economy, 1820-2000: An Introductory Text*, (London: Routledge, 1999), p. 51.

role and provided specialist guidance to the traders by passing information regarding market conditions, competitors as well as the local politics. Therefore, consulates played crucial role in defending interests of companies abroad.<sup>311</sup>

#### 4.5. Multinational Companies and International Finance

Apart from the role of consulates in foreign investment, I will now focus on two main actors of world's electrification business, as the driving forces in the provision of electrical power and lighting up the world by electricity.<sup>312</sup> They are the multinational companies and international finance.

In the last decades of the 19<sup>th</sup> century, communication and transportation facilities made it possible to extend the span of managerial control over substantial distance. "Cables and steamships linked with telegraph and railroads, created the modern world economy and at the same time, the basis for the modern multinational enterprise."<sup>313</sup> Multinational enterprises played crucial role for the worldwide spread of electrification from the 1870s through the first three decades of the twentieth century.<sup>314</sup>

It is beneficial to define the multinational enterprise at first. A multinational has investments and extended business activity outside the frontiers of its home nation. The capital to manage and control investments is not transferred to an independent entity abroad, but it is embodied within the extended company. This extended company may be simply a sales branch abroad, if the multinational has a minor presence outside its nation.<sup>315</sup> Otherwise, the combination of multinational enterprise could be more complicated in the form of a consortium, including companies and

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<sup>311</sup> Alberto Martinez López, *Journal of ...*, p. 67.

<sup>312</sup> William J. Hausman, Mira Wilkins and John L. Neufeld, *Revue Économique*, p. 177.

<sup>313</sup> Mira Wilkins, *The Growth ...*, p. 28-29.

<sup>314</sup> William J. Hausman, Peter Hertner, and Mira Wilkins, *Global Electrification ...*, p. 35, 75, 146. William J. Hausman, Mira Wilkins and John L. Neufeld, *Revue Économique*, p. 176.

<sup>315</sup> Mira Wilkins, "The History of European Multinationals: A New Look," Mira Wilkins (eds.), *The Growth of Multinationals*, (Aldershot, Hants, England, Brookfield: Edward Elgar, 1991), p. 28. For further definitions, theories, and concepts on multinational enterprise see Geoffrey Jones, *The Evolution of International Business*, (New York: Routledge, 1996).

financial institutions “with overlapping international business groups crisscrossing national frontiers.”<sup>316</sup>

For instance, a German supplier, Union Elektrizitäts-Gesellschaft which was founded in 1892 by the American Thomson-Houston Electric Company and by the Berlin machine building firm Ludwig Loewe & Co., organized its bank in Belgium, the Société Financière de Transports et d’Enterprises Industrielles (Sofina).<sup>317</sup> The case of Union Elektrizitäts-Gesellschaft and its financial institution, Sofina is one of the examples for the multinational technical-financial consortium. Furthermore, mergers among the companies of electrification occurred after the turn of the century leading more complex combination of companies. For instance, AEG acquired Union Elektrizitäts-Gesellschaft in 1902 and Sofina entered the AEG orbit.<sup>318</sup>

Another important actor of the electrification process has been financial institutions in the realization of electrification. Some of the above examples included the monetary value of electrification investments. It is apparent that the electrification projects (building power plant in urban scale, the construction of the city infrastructure, management and organization of the electrification processes) required huge capital investments. Apart from the monetary burden of electrification, Hertner grounds the involvement of financial institutions in the electric industry on the maturing of electrical technology by the end of 1890s as well as the demand for higher capacity power plants to feed more regions with electricity. According to Hertner, “most of the products had reached a certain level of maturity in the high voltage sector by the end of 1890s” which led “standardized mass production” in the electric industry.<sup>319</sup> Besides, the demands for higher capacity plants and the application of electricity not only in lighting but also in transportation and generation of power resulted in “full-line producers who were able to offer solutions for the entire systems.”<sup>320</sup> Quoting from Harold C. Passer, Hertner argues that “electrical products had to be part of a system –a lighting system, a power system or a transportation system. Manufacturers found it advantageous to produce all of the

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<sup>316</sup> William J. Hausman, Peter Hertner, and Mira Wilkins, *Global Electrification* ..., p. xvii.

<sup>317</sup> Peter Hertner and H. Viv Nelles, “Contrasting Styles of Foreign Investment: A Comparison of the Entrepreneurship, Technology, and Finance of German and Canadian Enterprises in Barcelona Electrification,” *Revue Économique*, Vol. 58, No. 1 (January, 2007), p. 196.

<sup>318</sup> Peter Hertner and H. Viv Nelles, *Revue Économique*, p. 196.

<sup>319</sup> Peter Hertner, *Comparative Corporate* ..., p. 49.

<sup>320</sup> *Ibid.* p. 49.

components of any system they chose to market.”<sup>321</sup> The organizations, which could succeed in “standardized mass and full-line production” were the multinationals, which could engage in partnerships with the other companies easily to accomplish the various tasks within the electrification projects. Furthermore, these multinationals were backed by international finance, which provided necessary budget for the projects as well as the management different actors in the process, from the producer companies to the private investors of the business.

The great creditor nation, United Kingdom, and its businesses’ role in the spread of electrification was weighed vis-à-vis those of many key actors: American, Belgian, Canadian, French, German, and Swiss.<sup>322</sup> For instance, the crucial role of banking in Belgian supremacy over transport sector is apparent.<sup>323</sup> “The Société Générale de Belgique and other Belgian banks played major role in channeling the capital into Belgian heavy industry. After about 1850, when Belgium became a capital exporter, the Société Générale, again followed by the other banks, played a similar role in channeling Belgian capital abroad.”<sup>324</sup> In addition, Société Générale played a very important role in the expansion of the world’s railway network especially through its Société Belges des Chemins de Fer which had sizeable interest in France, Germany, and Austria.<sup>325</sup> “In the 1890s, the Société Générale took the lead in creating holding companies and similar financial institutions abroad in which it maintained a controlling or at least a preponderant interest. These firms, in turn, catered to the needs of government and industries in the countries in which they were located. In this way, the Société Générale, in particular, became the center of a vast worldwide network of financial and industrial interests.”<sup>326</sup> Before the First World War broke

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<sup>321</sup> Ibid. p. 49. The quotation is from Harold C. Passer, “Development of Large-Scale Organization: Electrical Manufacturing Around 1900,” *Journal of Economic History*, No. 12, (1952), pp. 378-95.

<sup>322</sup> William J. Hausman, Peter Hertner, and Mira Wilkins, *Global Electrification ...*, p. xvi.

<sup>323</sup> Between 180 and 1914, more specifically between 1895 and 1913, the total number of Belgian banks increased rapidly. In 1913, the total number of banks was estimated at between 250 and 300: Herman Van der Wee and Martine Goossens, “Belgium,” Rondo Cameron and V. I. Bovykin (eds.), *International Banking 1870-1914* (New York, Oxford: Oxford University Press, 1991), p. 125.

<sup>324</sup> Rondo Cameron, “Introduction,” Rondo Cameron and V. I. Bovykin (eds.), *International Banking 1870-1914* (New York, Oxford: Oxford University Press, 1991), pp. 15-16.

<sup>325</sup> Herman Van der Wee & Martine Goossens, *International Banking ...*, p. 123.

<sup>326</sup> Ibid., p. 16.

out, Belgium controlled 140 railway companies and 65 steel mills in developing countries.<sup>327</sup>

López, being aware of the rising demand for tramways in the cities, argued that from 1870 onwards mixed banking and especially the Société Générale played a major role, both directly and indirectly via its holding companies, in the setting up of Belgian firms abroad, especially in the transport system. This occurred largely as a response to the relative saturation of Belgian railway market. The banks responded by channeling their resources into tramway projects abroad in order to stimulate demand for their coal and metal subsidiaries.<sup>328</sup>

As a further example, Belgian banks acted in the Ottoman Empire's gas works:

The Banque de Bruxelles has taken an important stake in the Société Ottomane pour l'Eclairage de la ville de Constantinople, aimed at exploiting the concession of Stamboul. The construction of the plant and the canalization directed by one of the most competent engineers, are close to full completion and very soon we will be able to commence exploitation.<sup>329</sup>

Besides Belgian business backed by banking, bankers accelerated the spread of advanced scientific and technological skills and equipment.<sup>330</sup> For instance, J. P. Morgan<sup>331</sup> supported Edison financially.<sup>332</sup> Moreover, the structure and management of the General Electric Company was largely determined by Drexel, Morgan & Co., not by the Edison Company.<sup>333</sup> In fact, private banks satisfied the long-term capital

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<sup>327</sup> Daniel Van Den Bulcke "Importance of Outward and Inward Direct Investment for the Belgian Economy: The Historical Background," John H. Dunning (eds.) *Multinational Enterprises, Economic Structure and International Competitiveness - Wiley/IRM Series on Multinationals*, (Chichester & New York: Wiley, 1985), p. 247.

<sup>328</sup> Alberto Martínez López, *Journal of ...*, p. 61.

<sup>329</sup> Annual Report Banque de Bruxelles, Year 1889, April 24<sup>th</sup> in Marc Van den Reeck (eds.), *Belgium in the Ottoman Capital, From the Early Steps to 'la Belle Epoque' 1900-2000*, (Istanbul: Consulate General of Belgium, 2000), p. 41.

<sup>330</sup> Vincent P. Carosso, "American Private Banks in International Banking and Industrial Finance, 1870-1914," *Business and Economic History*, Vol. 14, (Illinois: The Board of Trustees of the University of Illinois, 1985), p. 24.

<sup>331</sup> J. P. Morgan is the founder of today's Chase & Company: Jean Strouse, *Morgan, American Financier*, (New York: Random House, 1999). He is the owner of the first house, which was lighted by electricity, by Edison's company in 1882. Edison and his team had built a generator and a steam engine for operating the generator in the basement of Morgan family in 1882: Jill Jones, *Empires of Light ...*, pp. 3-15. Edison had asked other bankers of the time to light their house. However, it was J. P. Morgan who accepted the offer. Morgan's companies came until today. But, the companies of Vanderbildt who refused the electricity at his home did not survive until today as put by Jill Jones (pp. 13-14). In fact, some of the companies of our age, were founded in late 19<sup>th</sup> century and survived until today. The basis of today's capitalism was established in the 19<sup>th</sup> century.

<sup>332</sup> Jill Jones, *Empires of Light ...*, p. 63.

<sup>333</sup> Vincent P. Carosso, *Business and Economic ...*, p. 24.

needs of governments and corporations by issuing bonds, many of which they sold through international banking syndicates.<sup>334</sup>

German electrical companies had strong ties with specialized investment bankers as well. As the electrification business expanded in the mid 1890s, the German electrical manufacturers and their bank partners created special joint banks dedicated to the finance and oversight of this rapidly growing, capital intensive network of domestic and overseas electric utilities.

For instance, AEG (Allgemeine Elektrizitäts Gesellschaft) for example depended heavily on the Deutsch Bank as its initial financier.<sup>335</sup> In 1895, AEG founded the Bank für Elektrische Unternehmungen, better known as Elektrobank. Some of the mixed German Banks (Deutsche Bank, Berliner Handelsgesellschaft, Nationalbank für Deutschland) also took part, as well as the Crédit Suisse (whose president would later become the president of Elektrobank), the Banque de Paris et des Pays Bas (Paribas), the Banca Commerciale Italiana (Comit), the Swiss Eidgenössische Bank, and two important German private banking houses, Jacob Landau and Delbrück.<sup>336</sup> A year later Siemens organized a counterpart, the Schweizerische Gesellschaft für elektrische Industrie (Indelec). For tax and reasons pertaining to more relaxed corporate law, these companies were domiciled in Switzerland.<sup>337</sup>

The report of Robert Franz to the US Senate dated 1910 on German banking system is impressive in order to understand the role of banking in the industrial progress of Germany. In his report, Franz first builds the relation between bankers, German industry, and the development of science and technology:

German industry in its present commanding position took its origin with the men who put to practical use and in the interest of economic progress of the nation the achievements and inventions of the domain of science and technique.

It is the undisputed merit of the persons at the head of the banks that they appreciated those endeavors and supported them by advancing the requisite capital, oftentimes incurring great risks for the banks.<sup>338</sup>

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<sup>334</sup> Vincent P. Carosso, *Business and Economic ...*, p. 21.

<sup>335</sup> Peter Hertner and H. Viv Nelles, *Revue Économique*, p. 192.

<sup>336</sup> Luciano Segreto, *Business and Economic ...*, p. 163.

<sup>337</sup> Peter Hertner and H. Viv Nelles, *Revue Économique*, p. 196.

<sup>338</sup> Robert Franz, "The Statistical History of the German Banking System," *Miscellaneous Articles on German Banking, US Senate Document 508*, (Washington DC: GPO, 1910), pp. 29-33. The report is accessible on <http://www.fordham.edu/halsall/mod/germanbanks.html> (accessed 22 January 2019).

Further in his report, Franz tells the close relationship between banking and industrial undertakings as well as the establishment of Deutsche Bank and the rise of banking in Germany. According to him, Deutsche Bank secured a lasting and decisive control over industrial corporations in order to accomplish its aim of furthering industry. Furthermore, the close relationship between the banks and industries finds expression also in the filling of places on the supervisory boards of directors. As members of the boards of directors of industrial corporations the bank directors are at all times in a position to guard the interests of the banks, particularly by supervising the systematic and rational employment of the credit granted by the bank to the corporation. On the other hand, in order to create and maintain friendly relations between the banks and industrial corporations, the directors of the latter are given places on the supervisory boards of the banks.

Franz, cleverly analyzes the progressive industrialization of Germany and the increase of its population. This growth on the one hand caused increase in the imports of industrial and auxiliary materials as well as of foodstuffs, and on the other hand, it caused steadily growing exports of industrial products. As a result Germany's share in the world's commerce showed a rapid growth. "The banking system in Germany, that developed from the 1850s, and especially from the 1870s, catered directly to the needs of German industry for capital, and also accompanied it abroad in the search for foreign markets."<sup>339</sup> Furthermore, the establishment of Deutsche Bank in 1870 in Berlin became a turning point for the institution as well as the German foreign investment. Until the seventies of the 19<sup>th</sup> century, the financial regulation of German foreign overseas trade had been almost exclusively in the hands of London banks. However, Deutsche Bank with the purpose of doing a general banking business, particularly to further and facilitate commercial relations between Germany, the other European countries, and overseas markets, filled the gap to render German foreign trade independent of the English intermediary, and to secure for German commerce a firm position in the international market. "The booming export surplus of German industry generated the funds for foreign investment and the banks saw to it that those funds were utilized in ways that contributed to further foreign demand for German industrial products."<sup>340</sup> Other Berlin joint-stock banks, especially the Disconto Gesellschaft and the Dresdner

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<sup>339</sup> Rondo Cameron, *International Banking* ..., p. 16.

<sup>340</sup> Rondo Cameron, *International Banking* ..., p. 16.

Bank, followed the example of the Deutsche Bank to extend the sphere of their interests abroad.

According to Franz, the above account of the organization of the German credit-bank system, demonstrated with sufficient clearness that the managers of the German credit banks, and particularly of the leading Berlin banks, have made constant and successful endeavors to place the banks in the service of German trade and industry and to accommodate the organization of the credit system to the variable and growing demands of national economic development. Furthermore, it is apparent for Franz that the German banks have had a large share in raising German commerce and industry to its present world-wide commanding position.

#### **4.6. Conclusion**

This chapter gives general characteristics of world's electrification business shortly before and after the establishment the Silahtarağa Power Plant.

First of all, electrification projects diffused to all over the world. Cities during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries went through amazing changes in relation to urban infrastructure in the fields of communication, lighting, and transportation. There was universal demand for light, mobility, communication, and transportation. In this manner, the term “global electrification” was true that there were electrical developments in global scale, from Chili to Russia and from Spain to Iran, almost every place in the world.

Second, as early as the 1880s, foreign direct investment played an important role in this newly emerging technology, by creating and promoting international joint ventures and spreading electricity on the periphery; the Americas, Europe and Asia.<sup>341</sup>

Third, electrification projects were undertaken by multinational companies, which had complex partnership structures. These companies were generally of German, American, French, Belgian, and British origin. However, later on, Japan and Canadian companies emerged as actors in the electrification business as well.

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<sup>341</sup> Peter Hertner and H. Viv Nelles, *Revue Économique*, p. 195.

Fourth, electrification projects required huge capital investments. Thus, multinational companies were backed by banking industry/international finance.

Contemplating the general characteristics of world's electrification, I will focus on the electrification project of Istanbul in the following chapters. The working system of the concessions in the Ottoman Empire and the electrification concession for Istanbul –firms applied for the electrification of Istanbul, the bidding process in the concession and the role of Ottoman bureaucrats played in the concession- will be the bulk of the following parts.



## CHAPTER V

### THE WORKING SYSTEM OF THE CONCESSIONS IN THE OTTOMAN EMPIRE

This chapter will focus on the working system of concessions in the Ottoman Empire. No doubt, general procedures of the concession will help us to understand the concession process of Istanbul's electrification. I first deal with the concession as a term and how concessions were operated in the Ottoman Empire especially the publicity of the concessions to the outer world and legal procedures in applying a concession. As the background of these two phases of a concession, I focus on the European circles' suggestions to the commercial institutions in their country in order to do business in the Ottoman Empire.

#### 5.1. Concession as a Term

Concession as a method of carrying out public works (*imtiyâz usûlû kamu hizmetlerinin yürütülmesi*), played important role in the 19<sup>th</sup> century in the Ottoman Empire. The main reason for the administrators to prefer this method was the heavy financial burden of the infrastructural investments, which were accelerated due to urban developments in the 19<sup>th</sup> century. In the late Ottoman Empire, concessions were first applied in the river transportation and construction of railways.<sup>342</sup>

According to Tan, concession is the assignment of construction and management of a public work project to a private person based on a contract and given for a definite time. Once the project is realized, the holder of the concession requests payment for its services from users, but bears all the benefits and costs under the contract rules

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<sup>342</sup> Bilmez Bülent Can, *Demiryolundan Petrole Chester Projesi (1908-1923)*, (İstanbul: Tarih Vakfı Yurt Yayınları, 2006), p. 39.

and under the command of the Government.<sup>343</sup> Can defines the concession as the document which symbolizes all the rights and privileges in relation to an investment and assigned by the Government (the Sultan and the Government for the Ottoman case).<sup>344</sup> Furthermore, according to Can, concession was like a prior contract, which shows the assignment of the privilege of an investment in a certain region.

The operation of the concessions in the Empire was regulated through a *nizamnâme* called “*Memâlik-i Mahruse-i Şâhânede Müsade-i İmtiyâziye ve Ruhsat-ı Resmiye İstid’â Edenlerin İfâ Etmeleri Lâzım Gelen Şerâit ve Merâsime Dair Nizamnâme*” (Regulation for those who request to undertake concessions in the Ottoman Empire).<sup>345</sup> According to the regulation, the candidates for the concession should have residency (*ikametgâh*) in the Empire, the candidate has to be wealthy enough in order to undertake the concession, or if this is not the case, they had to provide a letter of guarantee (*kefaletnâme*). Further, if the capital holder is a foreigner and lives in a foreign country, the Ottoman Consulate in that country should ratify that the capital holder can undertake the concession.<sup>346</sup>

The report by the commission for Istanbul’s electrification (*Dersaadet elektrik münakasa komisyonu ekseriyet kararını havi rapor*) defines the basic characteristics of Istanbul’s electrification concession. According to the report, concessions were adjudicated through the methods of bargaining (*pazarlık*) and reverse auction (*münâkasa*)<sup>347</sup> and Istanbul’s electrification concession was deemed to be a concession of closed bidding type which is operated in the circle of Ministry of Public Works (*Nâfia Nezâret-i celîlesinin kararnâmesi ahkâmı dairesinde ve kapalı*

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<sup>343</sup> Turgut Tan, “Kamu Hizmeti İmtiyazından “Yap-İşlet-Devret” Modeline,” *Ankara Üniversitesi Siyasal Bilimler Fakültesi Dergisi*, (January 1970), pp. 307-325.

<sup>344</sup> Bilmez Bülent Can, *Demiryolundan Petrole ...*, p. 39.

<sup>345</sup> *Düstur*, Tertip: I, C: III, (Ankara: Başbakanlık Matbaası, 1937), 14 Safer 1282 (07.07.1865), pp. 498-499.

<sup>346</sup> *Düstur*, Tertip: I, C: III, pp. 498-499.

<sup>347</sup> CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910): “İmtiyâzat; ya münâkasa veyahud doğrudan doğruya pazarlık sûretiyle ihale edilir”. Within *münâkasa* method, Ottoman authorities determine the rules and regulations to be obeyed and the concession is announced through the newspapers. Candidate companies, wishing to obtain the concerned concession, apply to Bab-ı Ali and present their offers. When the deadline is over for the applications, a competition is held among the offers. It should be noted that Bab-ı Ali keeps its right to exclude some of the candidates, which do not comply with necessary criteria, out of this competition. After the evaluation of the commission in charge, all candidates are ranked according to certain criteria regarding the nature of the business. In the end, the concession is awarded to the candidate, which presented the most appropriate offer both in technical and financial concerns: COA MV 125/39, 26 Z 1326 (19 January 1909). “... imtiyâz-ı mezkûrun mukavele ve şartnâmesi tanzim ve gazetelere i’lân olunarak en naif şera’iti dermiyan eyleyenlere ihale olunmak üzere ...”

*zarf usûlünde bir münâkasadır*). Erberk claims that bargaining was used in limited scale works.<sup>348</sup> That is why the Ottoman Government preferred *münâkasa* as a method for the electrification concession. Moreover, it was not possible for the state to undertake and manage electricity works due to their heavy financial burden and lack technological capacity.

## **5.2. Suggestions of the Foreign Embassies to do Business in the Ottoman Empire**

The encouraging role of the embassies in announcing the promising nature of the Ottoman market was already mentioned in the former chapters. The tactics and suggestions of the foreign embassies for the companies to do business in the Ottoman Empire laid the base for the companies to apply for the bidding and encouraged them to do business in the Empire. In the following section, I provide some examples for the suggestions of “how to do business in the Ottoman Empire”.

According to *Levant Trade Review*, to operate in the Ottoman Empire, the companies should work with well-known agents and take into account local demands and conditions while the journal underlined the importance of being on the spot and the support of the banks. *Levant Trade Review* also suggested its readers that considerable business could be profitably transacted by American manufacturers with the Turkish Government provided that they would send experts and establish offices in Constantinople.<sup>349</sup> Furthermore, there were numerous other opportunities for the investment of capital in the Ottoman Empire, which would be investigated and studied on the spot by American engineers employed by large engineering and contracting firms who would maintain offices permanently.<sup>350</sup>

Having in mind the aim of promoting commercial interests of their own nationalities, American Consul at Trabzon complaint that the American traders did not pay necessary attention to the peculiarities of the Ottoman market since there has been very little direct commercial work done by American manufacturers and they have generally been content to let Turkish buyers seek their goods, or they have trusted to

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<sup>348</sup> İbrahim Ali Erberk, *İmtiyazla İşleyen Nâfia Amme Hizmetleri*, (Ankara: Hukuk İlmini Yayım Kurumu, 1937), pp. 4-6.

<sup>349</sup> John M. Carson, *Levant Trade ...*, vol. I, No. I, 1911, pp. 16-26, 62-73.

<sup>350</sup> American Archives II (College Park) Index Bureau, 867.15/3, Letter From American Consulate-General (Constantinople) to the Secretary of State, Washington D.C. on March 29, 1912.

a certain indirect filtering of their goods through European ports into the Ottoman Empire.<sup>351</sup> Those complaints underlined “what not to do” for the traders and investors of the United States.

Apart from what to do and what not to do, the consulates provided assistance for the concessions in the Empire as well. One of the letters from the Istanbul Embassy to the Secretary of State at Washington reveals the *raison d’être* of the embassy officers since Henry L. Janes who entered upon duties as the *Chargé d’Affaires* stated in his letter that he would use very endeavor to carry out the instructions of the Department relative to the railway concession and contract for the addition of several warships to the Turkish Navy.<sup>352</sup>

According to the letter dated 24<sup>th</sup> of March, 1910 between the Department of State and American Embassy, Henry L. Janes stated that they would wait for the instructions from the Department of State regarding the companies in need of assistance in their applications for the concessions from the Ottoman Empire. Reading the letters between the Istanbul Embassy and the Department of State helps us to understand the assistance mechanism of the Embassy to the companies working in the Ottoman Empire. Thus, according to the letters; first, the companies would present their credentials to the Department of State, and the Department would do the proper examination among the companies in order to determine the ones, which would receive assistance from the Embassy in Istanbul. Upon the Department’s notification regarding the companies to be assisted, the Embassy had to provide all of its means to those companies.<sup>353</sup>

Another letter from the Department of State to Istanbul Embassy of the United States asked for the assistance from the Embassy for the American companies in the Empire while mentioning about the availability of the Ottoman economy to do business:

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<sup>351</sup> American Archives II (College Park) Index Bureau, 667.1117, 8 April 1911, Report on "Extension of American Trade in Turkey" from American Consulate in Trabzon to the Secretary of State at Washington, D.C.

<sup>352</sup> American Archives II (College Park), Letter from American Embassy (Constantinople) signed by Henry L. Janes (Chargé d’Affaires) to the Secretary of State, Washington D.C. on March 15, 1910. Subject: Mr. Janes enters upon duties as Chargé d’Affaires.

<sup>353</sup> American Archives II (College Park), Letter from American Embassy (Constantinople) to the Secretary of State, Washington D.C. on March 24, 1910. Subject: Concessions; Acknowledgement.

I have to acknowledge the receipt of your Nos. 1045 and 1065, of the 15<sup>th</sup> and 29<sup>th</sup> ultimo, respectively, discussing the industrial awakening of Turkey and the likelihood of American capital being advantageously invested there. The Department doubts not that your Embassy will aid all proper efforts of Americans to obtain equal opportunities in Turkey.<sup>354</sup>

The investment of the American business groups were discussed within the Department of State and Department of Commerce and Labor and proper information regarding the investors was demanded from the Embassy in Istanbul:

It is respectfully suggested in as much as the attention of American capitalists has been drawn to possible investments in the Ottoman Empire, the American Ambassador at Constantinople, and consular officers accredited to that Empire, be instructed to promptly communicate all information relating to matters of this kind (concessions said to have been made to one or more American companies in Asiatic Turkey to construct railroads and similar utilities), and when concessions are made to furnish the names of the concessionaires, their nationality and place of business. It is further suggested that this matter may be of sufficient importance at times to warrant its transmission by cable.<sup>355</sup>

In the meantime, it should be noted that the Department of State took into consideration of the policy and interests of the United States Government for the Ottoman Empire when determining the companies to be assisted. The answer of the Department of State for the letter<sup>356</sup> of Oscar S. Straus mentioning about the conflicting claims of American companies for the concessions in the Ottoman Empire underlines the significance of the governmental policies and interests in the issue:

All applications for concessions on matters of a financial nature should, in the first instant, be made direct to the Department so that the Department would not only be advised but might also give such instructions as to it appeared in accordance with the policy and interests of the Government, and that the action of the Embassy be limited to securing for such claimants to concessions who seem to be deserving of it, an introduction to the respective Departmental chiefs having charge of such matters, and then to leave such persons to depend

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<sup>354</sup> American Archives II (College Park), Letter from the Department of State (Acting Secretary of State: Alvey A. Adee), Washington D.C. to Lewis Einstein Esquire, the American Chargé d'Affaires, Constantinople on August 25, 1909. The letter has no subject.

<sup>355</sup> American Archives II (College Park) Letter from Department of Commerce and Labor, Office of the Secretary (Ormsby Mcharg: Acting Secretary) to the Secretary of State, Washington D.C. on August 28, 1909.

<sup>356</sup> American Archives II (College Park) Letter from the Department of State (Acting Secretary of State: Alvey A. Adee), Washington D.C. to Oscar S. Straus, American Ambassador, Constantinople, October 22, 1909. The letter has no subject.

upon their own efforts without having any right further to claim or rely upon the Embassy's assistance in conducting their negotiations.<sup>357</sup>

Additionally, the Bureau of Trade Relations and the Department of Commerce and Labor of the Department of State instructed embassies to send a copy of statistical and commercial publications (publications relating to domestic trade and industries; annual/semiannual/quarterly statistics of foreign commerce and navigation; customs tariff on imports and exports; commercial treaties/conventions and agreements with foreign countries; the customs law at present in force, the ministerial decrees and instructions to customs officers relating to the administration of the customs and the admission of goods from foreign countries; sanitary laws governing the admission of food products and animals; all the legislative amendments, administrative decrees, and customs decisions that are published from time to time in connection with the administration of the customs) issued by the Government of the country or the colonial dependency in which they are stationed.<sup>358</sup> Requesting information on the Empire continued in the later years that the Bureau of Statistics asked for complimentary copies of all official publications bearing upon the trade industry, finances, railroads, postal and telegraph statistics of the Ottoman Empire, particularly the statistics of trade for the recent years.<sup>359</sup>

Considering the above lines, it may be inferred that the United States policies regarding the trade relations with the Ottoman Empire may have occurred after the examination of this information as well as the reports of the embassy and the consulates.

The case of Mr. Joice can be an example for the assistance of the consulate to the possible concession seeker in the Ottoman Empire. According to the letter from Alvey A. Adey (Acting Secretary of State-Department of State) to Mr. J. K. Joice of Chicago, Illinois, on October 14, 1911, it is understood that Mr. Joice wanted to take

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<sup>357</sup> American Archives II (College Park) Letter from the Department of State, Washington D.C to Oscar S. Straus American Ambassador, Constantinople on November 1, 1909. The letter has no subject.

<sup>358</sup> American Archives II (College Park) Letter from the Department of State (Acting Secretary of State: Huntington Wilson), Washington D.C. to the American Diplomatic Officers and Certain Consular Officers in Colonial Possessions on October 15, 1909. Subject: Documents for the Bureau of Trade Relations.

<sup>359</sup> American Archives II (College Park) Letter from the Department of State (Acting Secretary of State: Huntington Wilson), Washington D.C. to the American Ambassador (William W. Rockhill), Constantinople on August 31, 1911.

part in the reconstruction of large number of houses at Constantinople and in other Turkish public contracts and wrote to the Department of State for assistance.<sup>360</sup>

In order to win over the concessions, G. Bie Ravndal, the Consul-General suggested that under existing conditions Americans seeking concessions in Turkey would do well to work through the agency of reputable Government contractors in Constantinople until the concession is secured in the name of the contractor, after which the American backers can come forward and handle the project in a proper manner.<sup>361</sup>

According to Ravndal, Aslan Fresco & Fils<sup>362</sup> was probably the most successful firm of Government contractors in Constantinople during the last fifty years. He also underlined that the company had many friends prominent in the Government circles in Constantinople.

Having prominent friends in the Government circles provided inner information to Aslan Fresco & Fils regarding the concessions to be undertaken in the Empire. For instance, the son-in-law of Mr. Aslan Fresco who was a member of the Ottoman Parliament prepared a report of eleven pages with the title of "Report on various Public Works and Enterprises to be undertaken in the Ottoman Empire".<sup>363</sup> According to Ravndal, the report was reliable and up to date.<sup>364</sup>

The report has valuable information for the public works carried out in the Ottoman Empire for the years 1910 and 1911. It mainly deals with the subjects of repair and extension of gas works at Dolmabahçe Palace, rebuilding of the section destroyed by

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<sup>360</sup> American Archives II (College Park) Index Bureau 867.641/6.

<sup>361</sup> American Archives II (College Park), State Department Records Relating to International Affairs of Turkey 1910-29. Microcopy No. 353 Roll No. 67. Summary of Despatch (No. 128) from Consul-General Ravndal dated at Constantinople, September 18, 1911, to the Department of State.

<sup>362</sup> Aslan Fresco & Fils made cooperation with American companies as revealed in the archival documents: Aslan Fresco & Fils, as government contractors, are succeeding in paving the way for American cotton fabrics and footwear into the Ottoman army: American Archives II (College Park) Index Bureau, 867.15/3. An advertisement appeared in *Levant Trade Review*, (Vol. 1, No. 4, p. 397) reveals that the company was located in Lacivert Han, Galata. In the advertisement, the title of the company appeared as "Aslan Fresco & Sons" with a sub-title of "the oldest government contractors in Turkey, established in 1866."

<sup>363</sup> American Archives II (College Park) Index Bureau 867.641/9. Enclosure of the letter from American Consulate General (Constantinople) to the Secretary of State, Washington D.C. on October 12, 1911: From Messrs. Aslan Fresco & Fils to Mr. Ravndal - Report on various Public Works and Enterprises to be Undertaken in the Ottoman Empire.

<sup>364</sup> American Archives II (College Park) Index Bureau 867.641/9. Letter from American Consulate General (Constantinople) to the Secretary of State, Washington D.C. on October 12, 1911. Subject: Concession in Turkey.

the great fire of July 23, 1911, issues related to electricity and electric tramways and irrigation of Mesopotamia region.

These subjects in the report were stated as the most urgent public works of the Empire. It is apparent that this information provided significant clue for the American investors. In the light of this report, the American companies could prepare themselves to the possible biddings and will start to the competition of the concessions before the rival companies.

According to Ravndal, Aslan Fresco & Fils proved helpful in opening a way for American enterprise in the Ottoman Empire.<sup>365</sup> Furthermore, according to Ravndal, Aslan Fresco & Fils were not Germanophile that they were not particularly tied up to any foreign nation or group of individuals. Besides, the company wished to deal with Americans, since United States entertaining no territorial or political aims in the Empire, the relation between the Empire and the United States was promising.<sup>366</sup>

Ravndal stated that Aslan Fresco & Fils had various projects (including public buildings, a railroad from Smyrna to the Dardanelles, a street car and electric lighting system) conceded to them as natives of the country, and were prepared to negotiate with Mr. Joice and his associates for a transfer of these and other concessions and also to work for Mr. Joice and his associates in securing other concessions.<sup>367</sup>

As learned from the case of Mr. J. K. Joice of Chicago in the pursuit of the concession for Istanbul's house construction, finding a native company which is reliable and experienced in the job, reputable among the Ottoman bureaucracy and accompanied by prominent friends in the Government circles was stated as the key factors to win over the concessions in the Ottoman Empire.

In some of the adjudications, the concessions was taken by a certain group with the aim of transfer and sell the concession to a syndicate against the payment of a fixed sum in cash and another sum being composed of bonds and shares of that

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<sup>365</sup> American Archives II (College Park) Index Bureau 867.641/9, October 12, 1911.

<sup>366</sup> American Archives II (College Park) Index Bureau 867.641/6. Letter from American Consulate General (Constantinople) to the Secretary of State, Washington D.C. on September 28, 1911. Subject: Concession in Turkey.

<sup>367</sup> American Archives II (College Park) Index Bureau 867.641/9, October 12, 1911.

syndicate.<sup>368</sup> However, the suggestions of Ravndal were practical and safe since he suggested working with the native company from the very beginning of the concession so that there would be no rivals when the concession was agreed with the Ottoman government agencies in principle and the concession would be in the hands of the American company.

### **5.3. The Publicity of a Concession to the Outer World**

After dealing with the suggestions and tactics of the embassies for the companies who would like to do business in the Empire, it will be enlightening to deal with the publicity process of the concessions to the outer world by the Ottomans as well as the public announcements of the concessions by the embassies and the concerned media.

Reading the written transactions between P.O. Knox, the Secretary of State of the United States and Youssouf Zia (Yusuf Ziya), the Ambassador of the Ottoman Empire regarding the concession of the electric-street-railways in the city of Adana and the distribution of electric power in the *vilayet* of Adana may be a good example for the publicity of the concessions by the Ottomans to the outer world.<sup>369</sup>

Yusuf Ziya, in his letter to P.O. Knox wrote that he received a communication from the Ministry of Foreign Affairs of the Ottoman Empire regarding the electrification concession of Adana and asked from P.O. Knox to publicize the announcement of the concession through the Department of Commerce and Labor and the Chambers of Commerce of the United States.

Attached to his letter, Yusuf Ziya provided necessary documents about the concession regarding its conditions and the specifications: The Ministerial order of November 10/23 of 1326/1910 regarding the formalities in awarding the contract; the specifications of the concession and the Ministerial regulations of March 1/14 1326/1910, setting forth the technical conditions that must be met.

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<sup>368</sup> American Archives II (College Park), Index Bureau 867.641/9, October 12, 1911.

<sup>369</sup> American Archives II (College Park) Index Bureau 867.78/6. Letter from Embassy of the Ottoman Empire (Washington) to the Secretary of State (Washington) on January 23, 1911.

On receiving the letter from Yusuf Ziya, P.O. Knox requested the Department of Commerce and Labor through its Bureau of Manufactures, to give publication to the invitation of the Ottoman Ministry of Public Works for the concession described in the letter of Yusuf Ziya. He also added his interpretation of the subject that he believed that valuable opportunities were presented for American enterprise.<sup>370</sup>

Reading the written transactions regarding Adana's electrification concession, the publicity of a concession by the Ottoman side can be summarized as such: First, the Ministry of Foreign Affairs informs the Ottoman Ambassador in the United States. Then, the Ottoman Ambassador writes to the Secretary of State requesting the publicity of the concession through the Department of Commerce and Labor and the Chambers of Commerce of the United States. On receiving the letter from the Ottoman Ambassador, the Department of State informs the Department of Commerce and Labor to give publicity of the concession through its related office of the subject matter of the concession, the Bureau of Manufactures for this case.

Besides the role of embassy in announcing the concessions to the outer world, the submission of the formalities, specification and regulations of the concessions provided detailed information regarding the legal procedures and the rules and regulations of the concession. The Ottoman Ministry of Public Works prepared and submitted the specifications of the concessions to the embassies of the concerned countries so that the information was sent to the chambers of commerce and related government offices of these countries and the concessions were announced to the business circles.

As an example for the above lines, the American Embassy informed the Department of State regarding the establishment of electric power in Adana:

I have the honour to enclose herewith, for the information of the Department, two copies of the particulars of an adjudication concerning a concession of electric tramways in the city of Adana and establishment of electric power in the vilayet of Adana which the Minister of Commerce and Public Works has sent to this Embassy.<sup>371</sup>

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<sup>370</sup> American Archives II (College Park) Index Bureau 867.78/6. Letter from Secretary of the Department of State (P.O. Knox) to the Secretary of Commerce and Labor on February 8, 1911.

<sup>371</sup> American Archives II (College Park) Letter from American Embassy, (signed by J. R. Carter) Constantinople to the Secretary of State, Washington D.C. on December 27, 1910. Subject: Concession in Turkey. The letter has no subject. Unfortunately, the mentioned copies of the particulars related with the concession is not attached to the letter.

Apart from the written transactions between the government circles, announcements of the concessions were placed in the related media. For instance, the news for the electrification concessions to be carried out in the Ottoman Empire was announced in the journals of electricity of the time. For instance, on the 3<sup>rd</sup> of February, 1911, *The Electrician* announced the concessions for the electrification of the cities of Adana and Edirne which were the subject matters of the above mentioned transactions between the Ottoman Ambassador in Washington D.C. and the Secretary of State:

The Turkish Ministry of Public Works require tenders (addressed to M. le Ministre du Commerce et des Travaux Publics, Constantinople) by March 15 for a concession for electricity supply and the concession and working of electrical tramways in the Sanjak of Adrianople, the concessionaire being authorized to erect and operate hydro-electric stations on the rivers Maritza, Arda and Tundja.

The Turkish Ministry of Public Works, Constantinople will receive tenders (until March 14) for concessions for the construction and working of electric tramways in Adana, and for the supply of electricity in the vilayet of Adana with the right to erect hydro-electric works on the banks of Seiboun Tcha river. Conditions (on payment of 9s.) from the Ministry, Constantinople.<sup>372</sup>

Other examples for the announcement of Ottoman concessions come from the journal *La Lumière Électrique*:

The Ottoman Ministry of Public Works in Constantinople, require tenders by 15<sup>th</sup> of February, 1910, for the construction of electrical tramway between Niaousta ville (*vilayet* of Salonica) and the station of Niaousta situated on the line between Salonica and Monastir.<sup>373</sup>

The Ottoman Ministry of Public Works in Constantinople, require tenders by 15<sup>th</sup> of September, 1911 until 14:00 o'clock for the establishment of electrical tramways and distribution of electrical energy in Aleppo (Syria). Cahier de charges in French can be consulted at Chamber of Commerce in Bruxelles.<sup>374</sup>

In addition to *The Electrician* and *La Lumière Électrique*; on 15 December 1910, *Elektrotechnische Zeitschrift* announced the bidding held for the cities of Adana and Adrianople in order to build an electricity plant and construct electrical trams.<sup>375</sup> Likewise, on 10 August 1911, *Elektrotechnische Zeitschrift* announced the bidding

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<sup>372</sup> *The Electrician*, February 3, 1911, vol. 65, p. 681.

<sup>373</sup> *La Lumière Électrique*, January 29, 1910, vol. IX, 2<sup>nd</sup> Serie, p. 160.

<sup>374</sup> *La Lumière Électrique*, 1911, vol. XV, 2<sup>nd</sup> Serie, p. 256.

<sup>375</sup> *Elektrotechnische Zeitschrift*, 15 December 1910, vol. 31, p. 1288.

held for Aleppo regarding the construction of an electricity plant and electrical trams in the city.<sup>376</sup>

Above examples show that the concession news for the electrification works in the Ottoman Empire received great attention since the news of the concessions were announced to the English, French and German speaking world. Although the news was usually short, they included the scope of the concession, the deadline, and the place where to obtain further information.

#### 5.4. Legal Procedures in Applying for a Concession in the Ottoman Empire

In the first place, the candidate had to demonstrate certain indicators to be eligible to apply for the concession. For instance, the candidate had to be a respectful tradesman confirmed by the chamber of commerce as a condition to apply for a concession requiring capital of 20.000 Lira. In case of an investment requiring capital more than 20.000 Lira, the candidate had to provide a certificate of financial state proving her/his eligibility for the concession (*itibâr-ı mali şehadetnâmesi*) from a bank approved by the Ottoman Government.<sup>377</sup>

Going back to the example of Joice of Chicago who was in the pursuit of the construction of houses in Istanbul in 1911 may reveal the legal procedures in the application phase of a concession. G. Bie Ravndal, in his letter, stated that if Mr. Joice desired the concession, he should have had his bankers telegraph to the Bank Constantinople by Monday for the conditional acceptance as well as the deposit.<sup>378</sup> Thus, it is understood that the candidate companies for the concession had to deposit certain amount of money as customary guarantee of good faith.

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<sup>376</sup> *Elektrotechnische Zeitschrift*, 10 August 1911, vol. 32, p. 814.

<sup>377</sup> COA DH.MKT. 2749/42 1327 S 3 (24 February 1909): Rıfat and Hariğ Efendi applied for the electrification and telephone concessions of İzmir. For the case of electrification, the compulsory financial conditions to be eligible for the concession are stated above. "*İtibâr-ı mali şehadetnâmesi*" was one of the conditions of "*Memâlik-i Mahruse-i Şâhâmede Mûsade-i İmtiyâziye ve Ruhsat-ı Resmîye İstidâ Edenlerin İfâ Etmeleri Lâzım Gelen Şerâit ve Merâsime Dair Nizamnâme*" which was already mentioned in the above lines.

<sup>378</sup> American Archives II (College Park) Index Bureau 867.641/7. Letter from Alvey A. Adey (Acting Secretary of State-Department of State) to Mr. J. K. Joice of Chicago, Illinois, on October 28, 1911 and American Archives II (College Park) Index Bureau 867.641/7. Telegram from G. Bie Ravndal to the Department of State, Washington D.C. on October 27, 1911.

After the depositing transaction, the application of the company to Bab-ı Ali for the concession comes into the picture. Candidate companies regarding the concession apply to Bab-ı Ali and present their offers. When the deadline is over for the applications, a competition is held among the offers regarding the concerned concession and the concession is awarded to the candidate, which presented the most appropriate offer.<sup>379</sup>

It will be enlightening if I summarize the application procedures step by step. First, the company presents its offer to Bab-ı Ali regarding the concession. If the petition of the company was found appropriate by Bab-ı Ali, the offer goes to the Ministry of Public Works. The Ministry examines the offer and prepares the convention (*mukavelenâme*), cahier des charges (*şartnâme*), and rules and regulations (*nizamnâme*). A technical commission<sup>380</sup> is established within the Ministry of Public Works in order to prepare the *mukavelenâme*, *şartnâme*, and *nizamnâme*. One of the members of the commission comes from the Municipality.<sup>381</sup> In this way, the opinion of the Municipality is taken. Then, the concession documents goes to Şurâ-yı Devlet (Council of State) and Meclis-i Vükelâ (Council of Ministers). Şurâ-yı Devlet determines whether the contract is in the circle of law or not and makes necessary

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<sup>379</sup> COA MV 125/39, 26 Z 1326 (19 January 1909) “... imtiyâz-ı mezkûrun mukavele ve şartnâmesi tanzim ve gazetelere ilân olunarak en naif şerâ’it dermiyan eyleyenlere ihale olunmak üzere ...”

<sup>380</sup> CCA NV, 34E/10 230-0-0-0 20 1 10, 28 Mayıs 325 (10 June 1909).

<sup>381</sup> Regarding the involvement of municipality during the decision making process of urban infrastructure, see: COA DH.MUİ 9/10, 1327 Za 18 (1 December 1909), COA DH.İD 215/3, 1332 B 25 (19 June 1914): “Pay-i tahta aid olmak üzere mukaddema verilen imtiyâzat eshabından mukavelat-ı münakide ahkâmına tevfiқан hazinece istifa edilmekte olan husus-ı temettuun Şehremânetine devir ve terki hakkında devair-i müteallikasıyla alakalı cereyan iden muhaberat ve Şûrâ-yı Devletçe ittihâz olunan mukarrerat üzerine sebk iden işâra cevaben Maliye Nezâret-i celîlesinden varid olup Meclis-i Vükelâda mütalaa olunan tezkirede tasrih olunduğu üzere Şûrâ-yı Devletçe menafinin beledieyelere aidiyeti beyan idilen şehir dahilindeki müessesat-ı nâfiadan tramvay, gaz ve su şirketleri hasılat ve varidatına Şehremâneti’nin nispet-i muhtelif ve muaayenede iştiraki ahkam-ı mukavelat iktizasından olup ...”, CCA NV, 230-0-0-0 20 1 8, 19 Kanun-i Sani 324 (1 January 1909): “... umum elektrik müessesatı hakkında Nezâret-i acizice bir kanun lâyihası tanzim edilmekte ise de talep edilen imtiyâzın İstanbul şehrine aid bulunmasına nazaran evvel-i emirde Emânetçe vaki olacak mütalaanın bilinmesine lüzum görünerek ...”, CCA NV, 34E/10 230-0-0-0 20 1 10, 28 Mayıs 325 (10 June 1909): “Dersaadet tramvaylarının cerri ve şehrin elektrikle tenviri için verilecek imtiyâzın şerâiti kararlaştırılmak ve tanzim edilecek şartnâme badehu ilan edilerek zuhur edecek ve evsaf-ı lazimeyi haiz olacak talipler arasından bilmüşabaka en nâfi şerâiti ilaveten kabul edecek olana imtiyâz verilmek üzere şimdiden bir komisyonun teşkili ve bunlara Harbiye Nezâreti’nden bir Erkan-ı Harbiye zabiti ve Şehremâneti’nden bir idâre ve bir fen memuru ve Nezâret-i aliyyelerinden de acizleri ile beraber fen ve hukuk müşavirliğinden birer memur bulundurulması münasib mütalaa kılınmakta olub keyfiyet 14 Mayıs 325 tarihli takrir ile dahi arz edilmiş olmakla ol vechile icrâ-yı icâbı menut-ı rey-ı âli-i nezâret penâhileridir. Ol bâbda emr-i fermân hazret-i men lehü’l-emrindir.” Full transcription of the document can be found in Appendix A.

corrections on the concession documents.<sup>382</sup> As the last step, the *mukavelenâme* is signed by the Government and the company.<sup>383</sup> The contract is signed by a minister in the name of the Government. Usually, the minister who signs the contract is the Minister of Public Works. Finally, the contract is presented to the approval of the Sultan. Then the imperial *firman* (decree) is issued regarding the concession.

The concession for the electric trams and lighting by electricity for the city of Adana would be a case in order to understand the application process of a concession better:

Out of these four concessions the first (Adana) has been obtained in principle considering that the specifications by the group have been accepted by the Ministry, and the Council of State of the Empire. The group is expecting the approbation of the Council of State (all sections) and the promulgation of the Imperial *Firman* (decree). ...

The specifications presented by the group, have been, in principle, approved by the Technical Commission of the Ministry of Public Works, which has signed to that effect, the minutes required by the Regulations.

There are yet articles of the specifications to examine and which will also be approved, it is understood.

These formalities as well as to those to be executed before the Council of State will end within five or six weeks, when the group may obtain the three Imperial *firman*s (decrees) of concession in two months at the latest.<sup>384</sup>

As seen in the above case of Adana, the proposal for the concession was forwarded to the Technical Commission (*Fen Müşavirliği*) in the Ministry of Public Works in

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<sup>382</sup> Regarding the operation of concessions in the Ottoman Empire, see Ali İhsan Öztürk, *Osmanlı'dan Cumhuriyet'e İmtiyaz Usulüyle Yürütülen İstanbul Belediye Hizmetleri: Yap-İşlet-Devret Uygulaması, 1852-1964*, (İstanbul: İstanbul Büyükşehir Belediyesi, Kültür AŞ. Yayınları, 2010). At this point, it should be noted that the decision of the concessions was registered to the *İmtiyâz Defterleri* (Concession Registers). The register of the electrification concession of Istanbul summarises the legal process of the concessions: "...elektrik kuvveti tevzi'ât-ı umûmiyesi imtiyâzının şerâ'it-i mukarrereye nazaran diğer taliblere hâiz-i rüchan görülmüş olan Peşte'de kâ'in Gans nam Anonim Elektrik şirketine elli sene müddetle ihâle olunması hakkında Ticaret ve Nâfia Nezâreti'nden tanzim ve irsâl olunan mukâvelenâme ve şartnâme Şûrâ-yı Devlet'de ve ahîren Meclis-i Mahsus-ı Vükelâ-yı fihâmımda tetkik ve mukavelenâme münderecâtınca lüzum görünen bazı ta'dilât ve ilâvât icrâ ve tenmîk olunduktan sonra takımıyla huzur-ı şâhâneme arz ve takdim kılınmış ve ta'dilât ve ilâvât-ı vâkı'a icab-ı maslahata muvafık bulunmuş olmakla mârru'z-zikr mevâki'de elektrik kuvveti tevzi'ât-ı umûmiyesi imtiyâzının şerâ'it-i mukarrere ve elli sene müddetle mezkûr şirkete iltizâm ve ihâlesi...": COA, 4 Nolu İmtiyâz Defteri. According to *Meclis-i Mebusan ve Meclis-i Âyan Tutanak Terimleri Sözlüğü*, definitions of Şûrâ-yı Devlet and Danıştay are as follows: Şûrâ-yı Devlet (Osmanî Dönemi'nde) yasa, tüzük tasarılarını hazırlayan danışma kurulu; Danıştay, idari davalara bakmak, hükûmetçe hazırlanan tasarı ve imtiyâz sözleşmeleri üzerine düşüncelerini bildirmek gibi görevleri bulunan idari yüksek mahkeme: [https://www.tbmm.gov.tr/yayinlar/tutanak\\_terimleri\\_sozlugu.pdf](https://www.tbmm.gov.tr/yayinlar/tutanak_terimleri_sozlugu.pdf) (accessed 27 January 2019).

<sup>383</sup> Emine Erol, *Türkiye'de Elektrik ...*, p. 51.

<sup>384</sup> American Archives II (College Park), Index Bureau 867.641/9, October 12, 1911. Above quotation is derived from Report on Various Public Works and Enterprises to be Undertaken in the Ottoman Empire. The report mentions about four concessions of electrification in the cities of Adana, Aleppo, Jerusalem and Broussa (Bursa). That is why the quotation mentions about four concessions.

order to examine the technical competency of the proposal and its appropriateness to the regulations. According to the above mentioned document, the Imperial *firman* would be issued in two months and the delay given for the beginning of the works was six months, since the issuance of the *firman*. Additionally, the concessionaire had to pay a certain amount of warranty for the concession. According to a document dated 1913 concerning the construction of electrified tramways in Adana, Osman Vehbi Bey could not pay for the warranty, which was determined for the concession.<sup>385</sup>

Reading the journals *La Lumière Électrique* and *The Electrician*, it is clear that the electrification concession of Istanbul went through a similar process. For instance, in 1909, *La Lumière Électrique* announced that the Ottoman Ministry of Public Works appointed a commission, which would be responsible for establishing the specifications regarding the concession for the lighting of Istanbul by electricity and establishing a central station of electricity.<sup>386</sup> Furthermore, the technical commission appointed by the Ministry of Public Works, would examine different project offers and would submit its report within one month. The duration of the works would not exceed eighteen months.<sup>387</sup>

According to *The Electrician*, after examination by a commission of the financial standing of the tenders, an exhibit of their schemes would be held at the Prefecture of the City during eight days, which the public could inspect. Subsequently a technical commission (appointed by the Minister of Public Works) would examine the

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<sup>385</sup> COA MV. 179/85, 1331 N 21 (24 August 1913): Adana şehrinde elektrikli tramvay tesis ve inşası ve tevzi'at-ı elektrikiye icrâsı için elli sene müddete ve şertevzî'ait-i mukarrere-i saireye ? Osman Vehbi Bey'e itası 3 Haziran 329 tarihinde şeref-taalluk buyrulan irâde-i seniyye iktizasından olan imtiyâz hakkında Nâfia Nezâretince tanzîm idilmekde olan mukavele lâyihasının yetmiş birinci maddesinde sahib-i imtiyâzın işbu taahhüdâtın i'tâsını temînen tevzi itmiş olduğu iki bin Osmanlı Lirasını imtiyâz fermânının süduru teblîğ olunduğu tarihten itibaren bir ay müddet zarfında beş bin liraya iblağ ? Hükümet-i Osmaniye'nin kabul ideceği bir bankaya teslim ideceği muharrer olduğu halde Şûrâ-yı Devletçe icra kılınan tahsisat miyanında salifü'l-beyân temînat ? imtiyâzın meriyeti tarihinden itibaren bir ay zarfında beş bin liraya iblağ idileceği gösterilmişse de halen ? ? def'aten tedarikindeki müşkilata müsellemler olduğundan bahis ile madde mebhusun-anhanın Nezâretçe yapılan lâyiha ? icrâ-ı mazumuna dair Nâfia Nezâreti'nin 17 Temmuz 329 tarihli tezkiresi okundu. Zikr olunan mukavelenâmenin Şûrâ-yı Devletden muaddel madde mahsusası mucibince bu babdaki irâde-i seniyyenin süduru tarihinden itibaren bir ay zarfında temînat ? beş bin liraya iblağı lazım olub esbâb-ı mücbireden dolayı bu müddetin temdidî muktezi olduğu halde ne kadar müddet temdid lüzum geleceğinin ? ? nezâret-i müşarünileyhaya cevaben tezekkür kılındı.

<sup>386</sup> *La Lumière Électrique*, 1909, vol. 7, p. 320.

<sup>387</sup> *La Lumière Électrique*, July 23, 1910, vol. 11, p. 127.

schemes, and within one month; the commission would send its report indicating the most favorable one, and also which three schemes should receive the prize £T250.<sup>388</sup>

### 5.5. Law of Concessions in the Ottoman Empire

As I focused on the working system of the concessions in this part, it will be good to mention about the law concerning the concessions in the Ottoman Empire in brief. The law was accepted in 1910, just a few months before the electrification concession of Istanbul: *Menâfi-i Umumiyyeye Mûteallik İmtiyâz Hakkında Kanun* (Law of Concessions).<sup>389</sup> The English version of this law on the concessions was attached in one of the written transactions of the American Consulate of Istanbul and the Department of State in Washington D.C.<sup>390</sup> The law was also published in French for the French speaking audience.

According to report of American embassy, the law was very general in its terms and it was intended to apply for public utilities as distinguished from concessions governing mines and quarries, commercial agricultural, industrial and financial enterprises.<sup>391</sup> Besides, according to the law, concessions regarding public works would be granted directly by the executive power -council of ministers- (Article I), the costs of the real estates needed for the concession would belong to the concessionaire and in case of a dispute, the real estate in question would be confiscated according to the law of expropriation (Article II); in the end of concession the tools and equipments could be bought by the Ottoman Government (Article IV); Ottoman Government would have the authority to determine the number of foreign personnel working for the concession (Article VIII); and in the end fixed term determined in the convention, the concession would be transferred into Ottoman Corporation of limited liability (Article VII).

Apart from the content of the law, I can argue that the timing of the law for the concessions was not a coincidence since the public works such as tramways,

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<sup>388</sup> *The Electrician*, 15 June 1910, vol. 65, p. 580.

<sup>389</sup> For further information on the law: Seda Örsten Esirgen, *Osmanlı Devleti'nde Yabancılar Verilen Kamu Hizmeti İmtiyazları*, (Ankara: Turhan Kitabevi, 2012). Seda Örsten Esirgen, II. Meşrutiyet Meclis Tutanaklarına Göre "Menafii Umumiyyeye Mûteallik İmtiyazat Hakkında Kanun"un Kabulü," *Ankara Üniversitesi Hukuk Fakültesi Dergisi*, vol. 60, No. 4 (2011), pp. 935-962.

<sup>390</sup> American Archives II (College Park), Enclosure to Despatch No: 217.

<sup>391</sup> American Archives II (College Park), Enclosure to Despatch No: 217.

construction of the roads, electrification, and telephone works gained momentum after the Second Constitution. It is logical that the Ottoman bureaucracy wanted to design a law for the concessions. Thus, the law for concessions occurred just in time with the electrification, roads, and tramway concessions.

According to the law of concessions enacted in 1910, central administration was authorized to sign the contract with the concessionaire and the Ministry of Public Works had the authority of decision among the candidate offers. In 1909, it was decided that the Ministry of Public Works would be in charge to decide regarding the concessions, but the municipality would receive its share from the company's profits.<sup>392</sup> According to a document of 1914, the payments once paid to the Treasury by the companies providing tramway, water and gas services in Istanbul would be transferred to the municipality.<sup>393</sup>

The reason for the municipalities to receive share from the profits of the company may be the efforts creating income for the municipalities. However, the dates of the documents provoke to think that the municipality could not receive the payments from the companies regularly since the document dated 1914 included written transactions among Ottoman bureaucratic circles mentioning about the transfer of payments from the companies once paid to the Treasury due to the fact that the document dated 1909 had already stated that the municipality would receive its share from the company's profits.

Another reason for the transfer of the payments to the municipalities, coming from the companies of tramway, gas, and water; may probably due to the tendency for the involvement of the municipalities in the public works concessions for the faster construction of the public works in the concerned municipality.

As an example for the municipality's tendency to engage in public works concessions is present in a document dated 1909 in which Şehremâneti sought for the concessions of Dolmabahçe Gas Plant and Istanbul's electrification.<sup>394</sup> Although the municipalities wanted to engage in public works concessions, İzmir municipality was not allowed to engage in licensing activities concerning the electrification and

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<sup>392</sup> COA MV.128/48 1327 C 20 (9 June 1909).

<sup>393</sup> COA DH.İD. 215/3, 1332 B 25 (19 June 1914).

<sup>394</sup> COA DH.MKT. 2859/60, 1327 C 09 (28 June 1909). For further examples, see: COA DH.MKT. 2907/14, 1327 Ş 05 (22 August 1909) and COA DH.MKT. 2763/26, 1327 S 17 (10 March 1909).

telephone construction concessions of the city.<sup>395</sup> A former document related with İzmir stated that it would be more appropriate if the Government engaged in the electrification and telephone construction concessions of the city.<sup>396</sup>

The document dated 1909 and concerning the electrification of Istanbul underlines the role of the Ministry of Public Works in the concession process.<sup>397</sup> According to the document, Cemiyet-i Umûmî-i Belediye (Council General of the Municipality) decided to undertake concession process of Istanbul and asked an approving decision from the Ministry of Interior, thus, sent a *tezkiye*, which explains their request to the Ministry. As an answer to the Şehremâneti, it was decided that the Ministry of the Public Works would evaluate the offers for the electrification of Istanbul and decide for the winning one. Thus, it was the Ministry of Public Works which would deal with the concession and not the municipality. Nevertheless, the Ministry of Public Works would be in contact with the municipality.

However, there are counter examples in which the municipalities were let to take active part in the public works. For instance, a document dated 1910 mentioned about a disagreement between the municipality and the company undertaking the electrification works of Damascus. According to the document, the company had violated the rules and regulations of the contract, which was signed within the municipality and the company.<sup>398</sup> As understood from this document, the company and the municipality signed the contract concerning the electrification of the city.

In addition to the above example, in a document dated 1910 and regarding Manastır, it was stated that the public works such as providing water and electricity belonged

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<sup>395</sup> COA DH.MKT. 2734/69, 1327 M 17 (8 February 1909).

<sup>396</sup> COA DH.MKT. 2690/15, 1326 Za 29 (23 December 1908): “İzmir’de kurulması talep olunan elektrik ve telefon tesisinin hükümetçe icrâsının daha münasip olacağı ...”

<sup>397</sup> COA MV. 132/9, 1327 Ş 16 (2 September 1909): 1. Hülâsa-i mana: Pay-i tahtında elektrikle kuvve-i cerr ve muharrike ve tenvîriye imtiyâzının emânet ve devâir-i belediye nâmına i’tâsı esbabının istihsâli Cemiyet-i Umûmî-i Belediyece kararlaştırıldığına dair Şehremâneti’nden mebus tezkirenin gönderildiği beyânıyla bu babda bir karar ittihâzı lüzumunu havi Dahiliye Nezâretinin 5 Şaban 327 tarihli ve 2192 numarolu tezkiresi okundu. Şehremâneti ile devâir-i belediye nâmına imtiyâzat itâsına mahal olmayub ancak bu gibi şehrin imâr ve tezyinine hizmet idecek müessesât ve umûr-ı nâfianın menâfi’ emânet ve devâir-i mezkûreye aid bulunmak üzere imtiyâza tâlib olanların Nâfia Nezâretine müracâat iylemeleri ve Nezâretçe de usûlü dairesinde emânetle bil-muhâbere muamele-i lazimenin ifâsına icâb ideceğinin emânet-i müşarünileyhaya li-ecli’t-tebliğ Dahiliye Nezâretine cevaben iş’arı ve Ticaret ve Nâfi’a Nezâretinde malûmat i’tâsı tezekkür olundu.

<sup>398</sup> COA DH.MUİ. 87-2/21 1328 C 18 (27 June 1910).

to the municipality's obligations so that Dersaadet should not engage in concession decisions for the city.<sup>399</sup>

Above contradicting examples regarding the responsibilities of the municipalities and the limits of their authority concerning various public works led to the law regulating the engagement of municipalities in the public works. Thus, in 1913, İdare-i Umumiye-i Vilayat Kanun-i Muvakkatı (The Temporary Law for General Administration of the Provinces) was enacted so that the municipalities were also authorized to execute concessions of lighting by electricity and gas, distribution of electricity and water, and management of the tramways in their authorization area for less than forty years.

Nevertheless, the companies had to obey the rules stated in the law. In addition to that, Ministry of Public Works would examine the offers of the companies. It was apparent that the municipalities and the contracts regarding the concessions would be controlled through the Ministry of Public Works.<sup>400</sup>

Furthermore, İdare-i Umumiye-i Vilayet Kanun-i Muvakkatı was not applied for the public works of Istanbul. Meclis-i Vükelâ preferred the evaluation of the offers to be done by the Ministry of Public Works since it argued that Istanbul Municipality did not have competent personnel to evaluate the offers of the companies to undertake public works in Istanbul.<sup>401</sup> Thus, it can be argued that the public works concessions in the Ottoman Empire were examined and controlled by the Ministry of Public Works.

## 5.6. Conclusion

This chapter focused on the working system of the concessions in the Ottoman Empire in detail. Besides the archival documents, I relied on the consular transactions and professional journals of electricity business, either published in French, German, or English. This endeavor presented lively picture of the concessions as a method of undertaking public works in the Ottoman Empire, from their first stage (announcement and application) to the last phase (evaluation and

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<sup>399</sup> COA DH.MKT. 2736/30 1327 M 19 (10 February 1909).

<sup>400</sup> *Düstur*, Tertip: I, Cilt: V, p. 200.

<sup>401</sup> COA MV 128/48 1327 C 20 (9 June 1909). For this discussion, see Emine Erol, *Türkiye'de Elektrik ...*, p. 53.

granting the concession). After this detailed examination of concession as a term and process, this chapter will be followed by the chapter dealing with the competition to electrify Istanbul. While the bulk of the chapter focuses on the rival companies who applied for electrification concession of the city, which was granted in 1910, it will survey the attempts of obtaining concession for the electrification of Istanbul just before the 1910 concession.



## **CHAPTER VI**

### **INTERNATIONAL BANKING AND BUSINESS RIVALRY TO ELECTRIFY ISTANBUL**

This chapter deals with the business rivalry to electrify Istanbul and the place of international banking in this competition. While the bulk of the chapter focuses on the presentation of the business groups, which engaged in 1910 concession for the electrification of Istanbul, this chapter also surveys the attempts of obtaining concessions to electrify Istanbul just before the 1910 concession. By this endeavour, in the following sections, I first deal with the early offers just before the electrification adjudication of Istanbul. Second, I focus on the companies and the business groups, that engaged in the electrification concession of Istanbul in 1910 and their proposals. Third, I deal with the relation of international banking and Istanbul's electrification concession. As the electrification required huge deal of monetary investment, international banking became the complementary compound of Istanbul's electrification process. Having mentioned about the role of financial institutions in the issue, I focus on the 1910 Ottoman loan negotiations and its possible role at Istanbul's electrification concession. Lastly, I highlight the role of multinational companies, financial institutions, embassies and the consulates for the construction of city infrastructures.

#### **6.1. Early Offers Before the Electrification Adjudication of Istanbul in 1910**

Istanbul, being the capital city of the Ottoman Empire and a promising attraction centre for the investors, received offers concerning its electrification, which

accelerated after 1908. On February 12, 1908, the representative of Gaston Brait<sup>402</sup> from MATHE<sup>403</sup> presented four different proposals for the electrification of Istanbul to the attention of Zeki Pasha.<sup>404</sup> The offer of Gaston Brait aimed at partnership with Zeki Pasha in the business of Istanbul's electrification.

Zeki Pasha was Tophâne Müşiri (head of State Canon-Foundry) at that time. As the suggestions of the embassies and the related journals indicated, working with well-known Ottoman agents was advantageous for the companies. Probably, Gaston Brait wanted to establish partnership with Zeki Pasha, who was well-known and trustable among the state circles.

In general, the offer aimed at the establishment of a plant for the production and distribution of electricity to the city, especially Pera, Galata, and European side of Istanbul. In the letter, it was stated that a plant of 3.000 kilowatt would be enough for this business. In addition to that, the plant would work with steam power and turbo alternators, which were among the latest electrical and mechanical technologies to be used in the plant. In the offer, it was insistently claimed that every effort would be made so that there would not be any accidents in the plant. The plant would be designed and constructed by latest technology by which the electrification science reached at the time and the plant would be as the other electricity plants were constructed in Paris or the ones in the north of France. As seen in the above lines, the offer tried to underline its advantages such as the construction of the plant in line with latest technology and science considering the needs of the city. However, the offer included some provisions, which would be to the benefit of the company.

For instance, it would be compulsory for the Tramway Company to buy the electricity it needed for minimum price of 0,25 frank (per kW/hour). By this provision, Tramway Company was banned from generating electricity by its own. Gas lighting was another concern of the company. According to the offer, gas

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<sup>402</sup> According to the letter; Gaston Brait was one of the managers and founders of the company "La Canalisation Électrique." He was also the manager in a number of French companies: L'Énergie Électrique du Nord de la France, Constructions Électriques de Lyon, Secteur Électrique and Constructions Mécaniques Boulte et Larbodiére. The name of the representative of Gaston Brait could not be read in the document.

<sup>403</sup> MATHE is probably the abbreviation of a company name. However, the document does not state the full version of this title.

<sup>404</sup> CCA, NV 34E/27 230-0-0-0 20 2 15 (10 October 1910). Full transcription of document can be found in Appendix A.

lighting would not be used anymore after the application of electricity in Galata and Pera. This was probably due to the elimination of the risks, which would arise from the existing usage of gas lighting, the rival technology against electricity. Furthermore, the company would be exempted from paying taxes and customs duty. Undoubtedly, exemption from the taxes and customs duties would be great advantage to the company. In addition, the company requested a unique place in the harbor so that the ships carrying coal for the plant would move easily. Moreover, the company would vacate the coal it needed for the plant by its own, without depending on the porters' association in the harbor. Probably it would be easier and less costly for the company to work with its own workers rather than the porters' association.

Convinced about the proposal, when Zeki Pasha applied for the concession of Istanbul's electrification, the electrification business was awarded to him.<sup>405</sup> The concession was acquired by the Pasha, yet it should be underlined that Zeki Pasha would be in mediatory position regarding the concession that he would sell his rights over the concession to an investor, who could realize it. However, electrification concession of Istanbul by Zeki Pasha was not realized. In his letter to the Sultan, Zeki Pasha told about the interference of the Grand Vizier to the issue, further he added that he was upset with the situation and demanded the decision of the Sultan.<sup>406</sup>

On October 1909, a letter in the name of Gaston Brait from MATHE was written to the Ministry of Public Works again.<sup>407</sup> In this letter, Brait and Société Générale connection comes into the picture. It is apparent that Société Générale was already after the electrification business of Istanbul before applying 1910 concession. However, this attempt did not work out as well.

Moving from the offer of Brait, the manager of the Dersaadet Tramway Company applied for the electrification concession of Istanbul in 1907.<sup>408</sup> It was logical for the

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<sup>405</sup> COA Y..PRK.ASK. 252/63, 1325 C 24 (29 December 1907), COA BEO 2972/222827, 1324 Za 15 (31 December 1906).

<sup>406</sup> COA Y..PRK.ASK. 242/4, 1324 N 06 (24 October 1906): "... Dersaadet cihetinin elektrik ile tenviri imtiyâzını bu kullarından i'tâyâ buyrulmasını ... bir kaç defa ... istirhâm itmiş idim. Sadrazam Paşa kulları mezkûr imtiyâzın ismani ? ve Beyoğlu cihetine konulması fermân buyrulan elektrik mesarîfine karşılık olmak üzere Tophâne-i Âmirelerine i'tâ buyrulmasını ... geçen Pazar günkü mecliste söyledi. Bu halde bu kulları mahrum kalarak mahzun oldum ...".

<sup>407</sup> CCA, NV 34E/27 230-0-0-0 20 2 15 (10 October 1910).

<sup>408</sup> COA Y..PRK.ASK. 252/63 1325 C 24 (29 December 1907).

Tramway Company to try to win over the electrification concession of Istanbul since the company would be one of the institutional customers of electricity. It would be less costly if the Tramway Company became the producer and the customer at the same time.

On the 19<sup>th</sup> of August 1909, Hugues Rosalt<sup>409</sup> wrote to the Ministry of Public Works and the Sultan concerning the electrification concession of Istanbul. Rosalt did not mention the name of any company for which he acted. Thus, the name of the company, which wanted to undertake Istanbul's electrification business is not known. In his letter, Rosalt proposed to produce, distribute and exploit the electric power for lighting and as a motor force to be used in the industry or in any business for Pera, Galata and European side of Bosphorus as well as the electrification of tram lines existing in Pera, Galata, Stamboul and European side of Bosphorus.<sup>410</sup>

On 27<sup>th</sup> of August in 1909, Brown Boveri & Cie proposed to undertake lighting and distribution of electricity in the districts; Pera, Galata and European side of the Bosphorous of Istanbul city as well as the construction of new electrical tramway and railway lines in the same region. The company declared to deposit 3000 liras for the concession. As understood from the letter of the company to the Ottoman Ministry of Public Works, Engineer E. Stöffler, the representative of the company was staying in Pera Palace Hotel to present the proposal of this concession to the Ottoman Ministry of Public Works.<sup>411</sup>

The proposal of Brown Boveri was forwarded to Fen Mûşavirliği (Technical Bureau in the Ministry of Public Works) to be examined as understood from the note, which was placed on the back page of Brown Boveri Company's proposal. According to a transaction from the grand vizier to the Sultan, it was necessary to apply directly to the Ministry of Public Works concerning the public works concessions.<sup>412</sup>

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<sup>409</sup> Rosalt used the title of chemical engineer in his proposal. He wrote the proposal in French.

<sup>410</sup> CCA NV 34E/19 230-0-0-0 20 2 7 (1 September 1909). Letter from Hugues Rosalt to the Ottoman Ministry of Public Works and the Sultan on August 27, 1909.

<sup>411</sup> CCA NV 34E/18 230-0-0-0 20 2 6 (27 August 1909). Letter from Brown Boveri & Cie to the Ottoman Ministry of Public Works. The company also proposed to electrify Üsküdar and Asian side of the Bosphorous: CCA NV 230-0-0-0 20 2 5 (27 August 1909).

<sup>412</sup> CCA NV 34E/20 230-0-0-0 20 2 8 (9 September 1909). "... elektrikle kuvve-i cerr ve muharrike ve tenvîriye imtiyâzının imalât ve devâir-i belediye nâmına kararlaştırıldığına dair Şehremâneti'nden bu babda bir karar ittihâzı lüzumunu havi Dahiliye Nezâret-i Âlisi'nden varid olan tezkire meclis-i mahsus-i vükelada ? Şehremânetiyle devâir-i belediye nâmına imtiyâzat itâsına mahal olmayub bu

On 15 September, 1909, J. & A. Niclausse wrote a letter to Haladjian, the Minister of Public Works, concerning the reorganization of the İdare-i Mahsusa (Maritime Administration).<sup>413</sup> The letter mentioned that the representative of the company, M. Verchin had already submitted a proposal to the Municipality, by which the company engaged with an industrial group effective in the public works such as lighting with electricity. Unfortunately, the name of the industrial group, which J. & A. Niclausse worked with, was not mentioned in the letter. Yet, it should be noted that J. & A. Niclausse mentioned about its partnership within the proposal of Istanbul's electrification in order to win the reorganization work of the İdare-i Mahsusa.<sup>414</sup> Similar to the proposal of Brown Boveri, J. & A. Niclausse's proposal was forwarded to Fen Müşavirliği (Technical Bureau in the Ministry of Public Works) to be examined.

In 1909, a group of French companies applied for the electrification concession of Istanbul. The offer was written in Ottoman Turkish. Probably, the companies had their offer translated into Ottoman Turkish. In the proposal, three of the companies, one by one, were introduced to the Ottoman side. The instruments and machines produced by the concerned companies were all listed in the offer. Furthermore, the offer presented the cities, which were lighted by these companies. The countries, where the companies operated, ranged from France to Algeria and China. Interestingly, attendance of the companies to the World's Fairs in the years 1867, 1873, or 1900 were documented together with the medals, which were acquired by

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gibi şehrin i'mâr ve tenvîrine hizmet idecek müessesât ve umûr-ı nâfia menâfi'-i emânet ve devâir-i mezkûreye aid bulunmak üzere imtiyâza talib olanların Nâfia Nezâret-i aliyelerine müracaat eylemeleri ve nezâret-i aliyeleri usûl dairesinde emânetle bil-muhâbere muamele-i lüzumenin îfâsı icâb ideceğinden emânet-i müşarunileyhaya ...”

<sup>413</sup> CCA NV 34E/23 230-0-0-0 20 2 11 (15 September 1909), Letter from J. & A. Niclausse Company to the Ottoman Ministry of Public Works on 15 September 1909. The letter was written on the company's original papers. Thus, as it is read in the letterhead, the company operated as a supplier of large industries for military navies. It served in many countries: France, Britain, Japan, Russia, Germany, United States, Italy, Spain, Portuguese, Turkey, Argentina, and Chile. In the very top of the letter, it was written that the company obtained golden award from the Association for the Encouragement of National Industry.

<sup>414</sup> CCA NV 34E/23 230-0-0-0 20 2 11 (15 September 1909). In the letter, İdare-i Mahsusa was stated as Mahsusa Company. It organized sea transportation while it also served for commercial, military and communication purposes. For further information on İdare-i Mahsusa, see Davut Hut, “Buharlı Gemiler Çağında Osmanlı Deniz ve Nehiryolu Ulaşımı”, Vahdettin Engin, Ahmet Uçar eds. *Osmanlı'da Ulaşım*, (İstanbul: Çamlıca Basın Yayın, 2011), pp. 71-101. Ercüment Kuran, “XIX. Yüzyılda Osmanlı Devleti'nde Deniz Ulaşımı: İdare-i Mahsusa'nın Kuruluşu ve Faaliyeti”, Ekmeleddin İhsanoğlu-Mustafa Kaçar eds. *Çağını Yakalayan Osmanlı*, İstanbul: IRCICA, 1995, pp. 159-163.

the companies in these exhibitions, probably aiming to create good impression of themselves.<sup>415</sup>

As the above examples considered, there were many offers for the electrification of Istanbul just before the electrification adjudication. The number of offers and the interest on Istanbul's electrification shows that it was competitive that many companies sought after investing in Istanbul's electrification.

## **6.2. Firms Engaged in the Electrification Concession of Istanbul in 1910 and Their Proposals**

*The Electrician* reported that eight offers were received for the concession of the electric lighting of Constantinople and its suburbs from the following syndicates: the Union Ottoman consisting of the Deutsche Bank and Constantinople Tramway Group, Fouquian Warnant (acting for a French group), Westinghouse Group, Cio Francaise d'Eclairage Électrique, Swiss Electrical Syndicat, Giros and Louchard (representing a group of French and Swiss electricians), Ganz & Co., and Schneider & Cie.<sup>416</sup>

*La Lumière Électrique* reported the same eight companies with slight differences regarding their titles.<sup>417</sup> The names of the companies which applied for the electrification of Istanbul, as stated in the ottoman archival documents are as follows: Union Ottomane, Fouquian et Warnant, Westinghouse, Société Générale, Syndicat Suisse, Giros et Loucheur, Ganz and Schneider.<sup>418</sup> The archival files do not always mention the exact titles of the companies. Although the exact names can be derived from the proposals submitted, the archives do not hold all the proposals, which are spread among archives in Frankfurt (Deutsche Bank Archives), Presidency Archives in Ankara and Presidency Archives in Istanbul. The exact titles of the companies, which are compiled from these three archives, are Union Ottomane, Fouquian et Warnant, Westinghouse Electric Company, Société Générale, Syndicat Suisse, Giros

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<sup>415</sup> CCA, NV 34E/27 230-0-0-0 20 2 15 (10 October 1910).

<sup>416</sup> *The Electrician*, 15 June 1910, vol. 65, p. 580.

<sup>417</sup> *La Lumière Électrique*, July 23, 1910, vol. 11, p. 127. The journal provided the titles of these companies as follows: l'Union Ottomane, Fouquiau et Warnant, Société Westinghouse, Compagnie Française d'Eclairage Électrique, Syndicat Électrique Suisse, Giros et Loucheur, Ganz et C. and Schneider et C.

<sup>418</sup> CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910).

et Loucheur, Société Anonyme d'Electricité Ganz and the Schneider Group (MM Schneider & Cie, Crédit Mobilier Français and Société des Grands Travaux de Marseille).

It would be enlightening to provide brief information on the companies, which applied for the electrification concession of Istanbul regarding their previous undertakings in the Ottoman Empire, contemporary information of the company (if the company still exists), their proposal submitted for the electrification concession (if the proposal of the company is found in the archives researched). This information will serve as background when discussing the decision making process of Istanbul's electrification concession.

### **6.2.1. Syndicat Suisse**

Syndicat Suisse is the only one whose project was rejected by the Ottoman Government since the Syndicate could not submit the proposal on time.<sup>419</sup> However, J. Vidoşzek<sup>420</sup> on behalf of the Swiss Syndicate wrote a petition to the Government, argued that everything was alright with the submission of the project and there was no delay when submitting it and he asked the reason of the rejection for their project.<sup>421</sup> Moreover, Izak Matalon, on behalf of the Swiss Syndicate sent a telegraph to the Ottoman Government regarding the rejection of their proposal.<sup>422</sup> In the mean time, Ottoman Government undertook several written transactions regarding the petition of Swiss Syndicate.<sup>423</sup> At the end, the commission for the electrification concession of Istanbul found the Syndicate's project as insufficient in the beginning of the evaluation and the commission did not rank it among the other competitors.<sup>424</sup>

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<sup>419</sup> COA BEO 3800/284978, 1328 § 27 (3 September 1910).

<sup>420</sup> In various documents found in the Presidency State Archives, Department of Ottoman Archives, this name was written differently in Ottoman Turkish, which changed regarding how it was pronounced by each Ottoman civil servant: Vidmerştrak, Vidoşzek, Vidmerstayn or Vidmeriston. Since the exact name of the person could not be identified, in this dissertation, this name will be provided as it was written in the document. That is why different varieties of this name will appear throughou the text.

<sup>421</sup> CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910).

<sup>422</sup> COA BEO 3700/277478 1328 M 28 (9 February 1910).

<sup>423</sup> COA BEO 3800/284978 1328 § 27 (3 September 1910); CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910).

<sup>424</sup> COA BEO 3800/284978 1328 § 27 (3 September 1910); CCA NV, 230-0-0-0 22 7 4 (9 October 1910). The commission assigned points to each company in order to rank them and decide for the winner. However, Swiss Syndicate did not get any points and was not placed in the raking list.

It was only the Swiss Syndicate, which was found insufficient for the concession among eight companies who bid for the concession.

### 6.2.2. Ganz Company

Being a Hungarian company, Ganz can be considered to be the weakest one among the other companies applied for the electrification concession of Istanbul at first sight since it may be thought that Hungary was not developed in the electrical industry compared to the other countries such as France or the United States.

However, Hungary did pretty well in the 19<sup>th</sup> century. Berend's portrayal of Hungary's industrial development as well as the educational achievement in the country is illuminating:

By the turn of the century, mechanized factories produced 65-70 percent of Hungary's industrial output. By the outbreak of the war, ten engineering companies were already employing more than a thousand workers. The Engineering Company of the Hungarian State Railroad, established in 1873, produced a thousand locomotives by the end of the century, and its product won the gold medal at the Paris Exhibition in 1900<sup>425</sup>

"Hungary was a rare example of a peripheral country in which elements of Dutch-Danish modernization became an important factor in economic development. Budapest emerged as the world's second larger flour mill center, behind Minneapolis in the USA."<sup>426</sup>

"The German type gymnasiums also spread up steadily in Hungary: 150 gymnasiums offered elite education for some 5 percent of the high school generation in the 1860s, and 350 did so by World War I. Hungary offered compulsory and free primary education decades before Britain and France did."<sup>427</sup>

Hungary showed remarkable progress in the scientific and technological development as well. In the 19<sup>th</sup> and early 20<sup>th</sup> centuries, electric and chemical industries

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Written transactions of the Ottoman bureaucracy circles regarding the Swiss Syndicate are provided in the Appendix to Chapter VII.

<sup>425</sup> Ivan T. Berend, *An Economic History of Nineteenth-Century Europe: Diversity and Industrialization*, (New York: Cambridge University Press, 2013), p. 389.

<sup>426</sup> Ivan T. Berend, *An Economic History ...*, p. 385. According to Berend, the success of Hungary in processing grain depends on the "patented cast-iron-roller milling" which was developed by Ganz Company. The cast-iron-roller milling was "a major technological improvement that contributed to the boom in the flour-mill industry": Ivan T. Berend, *History Derailed: Central and Eastern Europe in the Long Nineteenth Century*, (Berkeley, Los Angeles: University of California Press, 2003), p. 171.

<sup>427</sup> Ibid. p. 348.

flourished in Hungary.<sup>428</sup> For instance, Ránki argues that Ányos Jedlik published some basic principles of the electrical dynamo as early as 1861, and allegedly for research purpose he even prepared a simple dynamo as well in the laboratories of the university.<sup>429</sup> Moreover, Ránki mentions that the first electric plant started to work in Temesvar, a commercial and industrial town of Southern Hungary, only three years after the establishment of the first British public power plant in 1884.<sup>430</sup> Since the Hungarian scientists developed electrical instruments as early as the other European inventors and as the first electrical plant was established in Hungary shortly after its establishment in England, it can be argued that Hungary was in the league of electrical industry developers.

According to Berend, Hungary raised many scientists and engineers who dealt with electricity such as Ottó Titusz Bláthy, Károly Zipernowsky, Miksa Déry and Kálmán Kandó and contributed to the field of electric engineering by inventions and significant studies in the 19<sup>th</sup> century.<sup>431</sup> Berend underlines the significance of technical education behind the success in electric industry of Hungary while he credits Ganz Company as a common workplace of these talented electric engineers:

The good technical education available in Hungary also contributed. The Budapest Technical University trained excellent engineers. One of them was Károly Zipernowsky, who was invited to join the Ganz Works from university and became the head of electric department of the factory. In the first half of the 1880s, three more exceptionally talented engineers, most of them graduates of the Budapest Technical University, joined the factory: Kálmán Kandó who worked in France first, Ottó Bláthy, a graduate of the Technical University of Vienna; and Miksa Déry who studied both in the Budapest and Vienna Technical Universities. This group of electrical engineers made breakthrough inventions.<sup>432</sup>

Godfrey L. Carden provided detailed information regarding Ganz Electrical Company in his report, which he prepared for the United States Department of Commerce and Labor.<sup>433</sup> Since Carden wrote his report in 1909, his information

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<sup>428</sup> Ibid. p. 389.

<sup>429</sup> György Ránki, "Electric Energy in Hungary," Fabienne Cardot (eds.), *Histoire d'Électricité, 1880-1980: Une Siècle d'Électricité dans le Monde* (Paris: Presses Universitaires de France, 1987), p. 151.

<sup>430</sup> György Ránki, *Histoire d'Électricité ...*, pp. 151-152.

<sup>431</sup> Ivan T. Berend, *Case Studies on Modern European Economy: Entrepreneurs, Inventions, Institutions*, (New York: Routledge, 2013), p. 151.

<sup>432</sup> Ivan T. Berend, *Case Studies ...*, p. 151.

<sup>433</sup> Godfrey L. Carden, *Machine-Tool Trade in Austria-Hungary, Denmark, Russia and Netherlands with Supplementary Reports on Italy and France*, Department of Commerce and Labor, Bureau of

about the Ganz Company reflects the contemporary situation of the Ganz just before the adjudication of Istanbul's electrification concession.

According to Carden, Ganz was recognized as one of the first electrical plants in the world, known for originality in the design and for boldness, and employed Bláthy, Déry and Zipernowsky who were associated with much of the best work in electrical development in Europe. In his report Carden argued that Ganz had a progressive concern:

It was Ganz who brought out the first transformers with closed magnetic circuit, and also the first to connect these in parallel representing a complete and thorough solution of working electric devices independent of each other. This solution aided largely in making long line power transmission possible by using high pressure current for transmitting electric power and low pressure current for distributing this power through the medium of economical stationary devices.<sup>434</sup>

Ganz was the first ... to do away with belt and chain drives and to couple electric generators directly to steam engines. Ganz claims to have utilized direct connection since 1883. Likewise it is claimed that Ganz was the first to design alternating-current meters based on the induction principle. This was done ... as early as 1889. Ganz also claims the distinction of bringing out the first device for measuring accurately A. C. power, namely, the wattmeter, based on the electro-dynamometric principle. ... It is stated that Ganz was the first to bring out the single-phase commutator motors, ... many of these single-phase motors are said to be still in service.<sup>435</sup>

As the above examples of inventions show Ganz had brilliant engineers. As a result of this, a number of the noteworthy power installations in Europe were the work of this firm. The first great plant based on the transformer principle was undertaken by Ganz in connection with the power transmission of 8.000 horse power from Tivoli, Italy to Rome. This service was rapidly followed by similar plants, power and light, including 20.000 horsepower at Vienna, and installations at Montevideo, Budapest, Venice, Tsarkoye-Selo, and elsewhere. One of the most recent installations was known as Manojlovac, in Dalmatia, involving 30.000 volts, 3-phase, 4 generators of 6000 horsepower each. At the Manojlovac plant Ganz was transforming 30.000 volts

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Manufacturers, Special Agent Series, No: 34, (Washington: Government Printing Office, 1910). Godfrey L. Carden was a captain at U.S. Revenue-Cutter Service and served as a special agent for the Department of Commerce and Labor. He investigated companies of machine-tool trade throughout Europe. Regarding the issue "Machine-Tool Trade", he wrote three reports, similar in kind. The first of these reports dealt with Germany, France, Switzerland, Italy and the United Kingdom, the second with Belgium and the third one dealt with Austria-Hungary, Denmark, Russia and Netherlands.

<sup>434</sup> Godfrey L. Carden, *Machine-Tool ...*, p. 44.

<sup>435</sup> Ibid., p. 48.

to 50.000 volts at one step. The 30.000 voltage is generated directly without the use of step-up transformers. According to Carden, it was doubtful if any other firm has ever undertaken such a feat.<sup>436</sup>

Furthermore, Carden stated that the Ganz Plant created the impression of primarily a wonderful laboratory when compared the works with other electrical plants in Europe. Moreover, the executive control was excellent, many of the machine tools in service were of high grade, and there was notable workmanship displayed on all of the materials displayed.<sup>437</sup>

According to Carden, Ganz was well known to the popular mind in connection with electric locomotives. He further stated that when 3-phase current was first considered the Ganz Company interested itself in the subject with marked success and installed many 3-phase plants in Hungary and abroad. To Carden, perhaps the greatest achievement was the adapting of 3-phase system for heavy traction on main railway lines.<sup>438</sup>

Carden provides information on the varieties of electrical equipment that Ganz produced as well as its original products:

The material turned out by Ganz embraces all kinds of electrical machinery, but does not include telephone and telegraph apparatus. Among the equipment manufactured are large transformers, turbo-dynamos, electric traction outfits, controlling apparatus, and arc lamps. Ganz originated the system of placing arc-lamp carbons obliquely side by side, and has also brought out oil switches, lightning-arresting devices, of which quite a line has been developed, an oscillograph, based upon an original principle, and dynamo-metric amper and wattmeters for research work.<sup>439</sup>

Apart from the lively description of Carden, the advertisement of the Ganz Company published in *Génie Civil Ottoman* on April 1912 provides information on the company's works in Istanbul and the address of the branch. As understood from the advertisement, the company dealt with installation and construction electrical works of Istanbul as well as the manufacturing electrical tools and equipment. Furthermore,

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<sup>436</sup> Ibid., pp. 45-46.

<sup>437</sup> Ibid., p. 45.

<sup>438</sup> Godfrey L. Carden, p. 46.

<sup>439</sup> Ibid., p. 48.

the company had an office at Pera, on the Cadde-i Kebir Street (İstiklal Street) where Hôtel Paulick once located.<sup>440</sup>

Additionally, Hungary was one of the countries where the Ottoman Empire had sent personnel for electrical training. For instance, Mehmed Ali and Cemil Efendi working in the factory of telegraphy, were sent to Hungary by the Ottoman Government to be trained in Budapest.<sup>441</sup> After the establishment of the Silahtarağa Power Plant, the training of the personnel in Hungary for electricity issues continued. For instance, Ahmed Kani Efendi was sent to Budapest for electrical training.<sup>442</sup> Therefore, given all this background, Ganz had strong positioning in the bidding process of Istanbul's electrification concession.

### 6.2.3. Union Ottomane

Deutsche Bank engaged in several public works concessions in the Ottoman Empire especially the construction of railways. Apart from the railway construction, as early as 1898, Deutsche Bank with Siemens & Halske sought after electrification concessions in the Ottoman Empire not only in Istanbul but also in Edirne, Trabzon, Şam (Damascus), Halep (Aleppo), Prens Adaları (Prince Islands) as early as 1898.<sup>443</sup>

Although this first attempt for acquiring electrification business in the Ottoman Empire failed, Deutsche Bank established “Union Ottomane, Société pour Entreprises Électriques en Orient”, just before the call of the Ottoman Government for electrification concession of Istanbul. The composition of this consortium, which was founded in 1909 with the capital of 12.000.000 Francs which was based in Zürich and backed by Deutsche Bank to engage in the electrification business in the Ottoman Empire, was more complicated in terms of its shareholders than the above mentioned consortium of 1898 since the Union Ottomane was composed of 4

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<sup>440</sup> *Génie Civil Ottoman*, No. 8, (April 1912).

<sup>441</sup> DH.MKT. 1130 33 1324 L 08 1. In the document, it was written “*Posta Nezareti Fabrikası ustalarından Mehmed Ali ve Cemil Efendiler*” (Mehmed Ali and Cemil Efendi who were the foremen in the factory of Ministry of Postal Services). The “*Posta Nezareti Fabrikası*” in the document should be the “*Telgraf Fabrikası* (factory of telegraphy)” which was introduced in the article of Nesimi Yazıcı. That is why, the expression of “*telgraf fabrikası*” was preferred rather than using “*Posta Nezareti Fabrikası*”. See, Nesimi Yazıcı, *Türk Dünyası ...*, pp. 71-72.

<sup>442</sup> COA DH.EUM.SSM. 61/20, 1336 L 11 (20 July 1918).

<sup>443</sup> DBA in Frankfurt, OR1640, Correspondence from Dr. R. Fellingner (Officer in Siemens & Halske Wien Office. His position was not mentioned in the letter) to the Siemens & Halske Head Office in Berlin. Date & Place: 8 February 1898, Wien.

German banks including Deutsche Bank, 3 Swiss banks, 1 French bank, 1 Belgian bank, 1 Austrian bank and several companies and individual investors from Germany, France and Belgium.<sup>444</sup>

The distribution of the capital of 12.000.000 Francs can be followed from the below table.<sup>445</sup>

Table 1. The composition of the Union Ottomane, Société pour Entreprises Électriques en Orient

| <b>The Company / Group</b>                                                                              | <b>Amount of the Capital</b> |
|---------------------------------------------------------------------------------------------------------|------------------------------|
| Continental Gesellschaft für elektrische Unternehmungen                                                 | 4.000.000,- Franc            |
| French Group<br>(Société Générale, Banque Imperiale Ottomane, Banque de Paris et des Pays-Bas & others) | 4.000.000,- Franc            |
| Bank für Elektrische Unternehmungen (Allgemeine Elektrizitäts-Gesellschaft Group)                       | 2.000.000,- Franc            |
| Deutsche Bank Group (Siemens-Trust-Gesellschaft)                                                        | 2.000.000,- Franc            |

Union Ottomane, the unification of the giant companies, individual investors and leading financial institutions of German, French, Swiss, or Belgian origin; employed several strategies to obtain Istanbul's electrification business to be at a better position from their rivals. One of those strategies was the acquisition of Dersaâdet Tramway Company. Since the tramways would be the major users of electricity when they were electrified, the tramway company would be one of the candidates of Istanbul's electrification. In order to eliminate this rival, the Union Ottomane began to collect the shares of the Dersaâdet Tramway Company. According to a letter written from Deutsche Bank to Mr. Spitzer, one of the partners of the Union Ottomane, some of the shares of the Dersaâdet Tramway Company were in the hands of various people,

<sup>444</sup> A document (without date) found in DBA in Frankfurt (OR1634: Union Ottomane, Zürich III, 01 July 1909 - 30 September 1909 [hereinafter OR1634]) indicates the full names of the companies: Deutsche Bank, Société Générale pour favoriser etc., Paris; Banque de Paris & des Pays-Bas, Paris; Banque Impériale Ottomane, Paris; A. Spitzer & Co., Paris; Thalmann & Co., Paris; Josse Allard, Brussels; Continentale Gesellschaft für Elektrische Unternehmungen, Nürnberg; Commerz & Disconto-Bank, Hamburg; Geh. Kommerzienrat A. Wacker, Schachen b/Lindau; M.M. Warburg & Co., Hamburg; Paul Dansette, Brussels, Elektrische Licht- & Kraftanlagen A.G., Berlin; Mitteldeutsche Kreditbank, Berlin; Jakob S.H. Stern, Frankfurt a/M.; Gebrüder Bethmann, Frankfurt a/M.; Wiener Bankverein, Wien; Schweiz. Gesellschaft für Elektrische Industrie, Basel, Bank für Elektrische Unternehmungen, Zürich and Schweiz Kreditanstalt, Zürich.

<sup>445</sup> DBA in Frankfurt, OR1634, Title of the document: "Union Ottomane, Société pour Entreprises Electriques en Orient, Zurich" without date. Arthur Spitzer was a financier close to Paribas and Société Générale. As an example for Spitzer's financial undertakings, he occupied 10.000 shares out of 200.000 shares comprising Banque de Salonique's capital of 20 million francs in 1913: Hubert Bonin, *French Banks and the Greek 'niche market': Mid-1880s - 1950s*, (Paris: Droz, 2013), p. 190.

for instance Mr. Empain,<sup>446</sup> a lady in Brussels, and Zographos<sup>447</sup> in Istanbul.<sup>448</sup> The identification of the individuals who had the shares of the company, going after them and bargaining with them in order to obtain their shares reveal the meticulous efforts of the Union Ottomane for trying to gain a better position. Especially, buying the shares, which Empain held, was not easy. As an industrialist and financier, Empain was aware of the fact that Union Ottomane wanted to own every share related to the electrification business of Istanbul. That is why he took advantage of his position and increased the price so that his shares costed 300.000 Francs to the Union Ottomane. At the end of these relentless efforts the Union Ottomane became successful in collecting most of the shares of the Dersaadet Tramway Company.<sup>449</sup>

Another strategy of Deutsche Bank was the incorporation of German electrification giants into the Union Ottomane that the bank administrators showed incredible level of ambition in assuming a critical role in forming and re-forming consortiums.<sup>450</sup> For instance, A. von Gwinner, head of Deutsche Bank, met with Dr. Rathenau, head of AEG on the electrification of Istanbul in order to incorporate AEG into Union Ottomane. Gwinner thought that it was advantageous for AEG to be in the Union Ottomane since almost everything was planned and organized regarding the electrification business of Istanbul and it would be easy for AEG to enter such an

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<sup>446</sup> Baron Edouard Empain was the Belgian engineer, industrialist, and financier, who founded Empain Group and a bank in Brussels in 1880. Empain Group began its activities in the early 1880s in local railways in Belgium and France. Besides its activities in railways, then group involved in the business of construction of tramways; first horse-drawn trams, then electrified ones. “Gradually, electricity had become the principal activity of the Empain group and invested in Europe, Asia, Africa, and South America. ... Cairo Electric Railways and Heliopolis Oasis Company (of the Empain Group) got a concession in 1906 from the Egyptian government, built an electric tram line linking Cairo with Heliopolis, and developed a housing project in Heliopolis”: William J. Hausman, Peter Hertner, and Mira Wilkins, *Global Electrification ...*, pp. 103, 104, 186. For more information on the Empain group in Egypt, see Robert L. Tignor, *State, Private Enterprise and Economic Change in Egypt, 1918-1952*, (Princeton: Princeton University Press, 1984), pp. 28, 182, 83.

<sup>447</sup> Zograpos could be the Ottoman subject who engaged in banking activities in 1870s. See, Haydar Kazgan & Osman S. Arolat, “Galata Bankerleri,” Filiz Özdem (eds.), *Karaların ve Denizlerin Sultanı İstanbul* - Vol. I (İstanbul: Yapı Kredi Yayınları, 2010), pp. 435-447.

<sup>448</sup> DBA in Frankfurt, OR1636: Union Ottomane, Zürich V, July 1910-October 1911, Correspondence to A. Spitzer, Date & Place: 15 August 1910, Berlin.

<sup>449</sup> DBA in Frankfurt, OR1356, Correspondence to the Deutsche Bank Secretariat, Subject: Union Ottomane, Date & Place: 07 May 1909, Frankfurt. In addition, see OR1637: Union Ottomane Zürich VI – Liquidation und Zwischensyndicat/Consortium Constantinople, 8 August 1911 - 13 December 1911, Correspondence from Deutsche Bank to the Union Ottomane, Date & Place: 08 August 1911, Berlin.

<sup>450</sup> DBA in Frankfurt, OR1632: Union Ottomane, Zürich I, 10 February 1909 – 12 June 1909 (hereinafter OR1632), Correspondence from Dr. Frey (Schweizerische Kreditanstalt-Société de Crédit Suisse) to the Director of Deutsche Bank (A. von Gwinner). Date & Place: 22 February 1909, Zürich.

organized business.<sup>451</sup> In the end, Deutsche Bank officials became successful in incorporating AEG into the multinational consortium to act in the Ottoman Empire, the Union Ottomane.<sup>452</sup>

The efforts of Deutsche Bank for the successful incorporation the AEG into an already finalized consortium, shows that it worked for German interests at large and acted as a planner of German business to flourish worldwide. It should be noted that this behavior of Deutsche Bank was in line with the policy of the German State in joining the forces of their leading companies and strengthening the commercial position of Germany against France, Britain, and USA.<sup>453</sup>

Despite all the efforts, the Union Ottomane was not the winning party of Istanbul's electrification concession. Obviously one of the main reasons for the failure of the Union Ottomane in getting the concession situated from the concern of Ottoman administrators towards monopolization of the public works. The administrators preferred to assign concessions of different tasks to different companies. In this way, one company obtained the rights to produce electricity, and the other one obtained the rights to operate electrified trams whereas the third one growing (Tunnel Company) still held the rights of operating the rails between Galata and Pera by 1910. All these efforts provided 'separation of powers' in Istanbul's electrification business and did not let monopolization of electricity related public works, at the time.

Although it could not win the concession, Union Ottoman did not give up and its partners established Istanbul Consortium for all kinds of electricity works in Istanbul.<sup>454</sup> Similar to Union Ottomane, Istanbul Consortium was a multinational

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<sup>451</sup> DBA in Frankfurt, OR1632, Correspondence from A. von Gwinner to Dr. Frey, Date & Place: 24 February 1909, Berlin.

<sup>452</sup> DBA in Frankfurt, OR1632, Correspondence from Dr. Frey to A. von Gwinner. Date & Place: 01 March 1909, Zürich.

<sup>453</sup> The joining forces of the leading companies was in the agenda of German State according to Kemalettin Sami, the ambassador of Turkish Republic to Germany, Berlin in 1924. Kemalettin Sami visited AEG and Siemens factories and wrote a report regarding his visit. In the report, he told that the German Emperor advised AEG and Siemens companies to join their powers rather than being rivals to each other. Further, according to Kemalettin Sami, Telefunken was established as a joint venture of Siemens and AEG: CCA, NV 06HY3 230 8 26 3 (18 December 1924).

<sup>454</sup> British Tunnel Company was incorporated into Union Ottomane in 1911. Dersaâdet Tramway Company was also incorporated into Union Ottomane in 1909. These incorporations present examples for the efforts of Deutsche Bank in establishing monopoly over the electricity business of Istanbul. For the case of Tunnel Company, see DBA in Frankfurt, K01/1206: Konstantinopel, Konsortium Konstantinopel, 1911-1927, Correspondence from the Direction der Disconto-Gesellschaft to the

trust organized in Brussels due to tax and banking advantages in the country. Furthermore, financial institutions such as Deutsche Bank and Elektro Bank took active roles in the organization and management of the consortium. According to “Foreign Interests and Concessions in Turkey” report, Consortium Constantinople was composed of French, Belgian, Swiss and German members as a trust and it was organized in Belgium, in 1911 for the purpose of uniting the transportation and lighting interests of Constantinople under its management. Its program comprised the following:

- 1) The purchase of the Galata-Pera Tunnel the purchase and electrifying of the tramways of Constantinople and the construction of a second track,
- 2) Concession of a Metropolitan Railway,
- 3) The purchase from the Belgian-Hungarian Syndicate the concession for the distribution of electricity in Constantinople and Gas in Stamboul.<sup>455</sup>

On November 1911, Istanbul Consortium acquired Belgian-Hungarian Syndicate, which had already won Istanbul’s first electricity plant. The contract was signed between Ungarische Allgemeine Creditbank on behalf of Ganz Company and Banque de Bruxelles on behalf of Société Financiere de Transports et d’Entreprises Industrielles (SOFINA).<sup>456</sup>

The managing role of Deutsche Bank will be examined in detail in the further lines while examining the leading role of international banking in the electrification concession of Istanbul.

#### **6.2.4. Société Générale Group**

Société Générale applied for the electrification concession of Istanbul with a partner, named Société la Canalisation Électrique. The proposal of Société Générale Group

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Norddeutsche Bank in Hamburg, Date & Place: Berlin, 19 September 1911. For the case of Dersaâdet Tramway Company, see DBA in Frankfurt, OR1634, Title of the document: “Union Ottomane, Société pour Entreprises Electriques en Orient, Zurich” without date. However, the decree (*irade*) on the water works of Istanbul shows one of the examples regarding the Ottoman opposition to the creation of monopolies: COA, İ. HUS. 97-1320/S-085, 1320 S 21 (30 May 1902), cited in Vahdettin Engin, *Sultan II. Abdülhamid ve İstanbul’u* (İstanbul: Yeditepe Yayınevi, 2008), p. 261.

<sup>455</sup> American Archives II (College Park), Index Bureau 867.602/56, “Foreign Interests and Concessions in Turkey” Report, April 10, 1923.

<sup>456</sup> DBA in Frankfurt, OR1643a: Orient Konsortium, Elektrische Geschäfte in der Türkei, Protocol between Ungarische Allgemeine Kreditbank and Banque de Bruxelles, Date: 7 November 1911.

was a very detailed one.<sup>457</sup> Unfortunately, the author of the letter written to the Ministry of Public Works cannot be read. However, it should be noted that this signature is the same as the one in the proposal for the electrification of Istanbul written to Zeki Pasha in 1908 by Gaston Brait, who was one of the managers and founders of the company “La Canalisation Électrique.”

In the letter, a private meeting with the Minister of Public Works was asked so that the project could be told to the Minister in detail. Furthermore, it was stated that their proposal was once accepted by the commission in the State Canon-Foundry headed by Sami Pasha. However, the project could not be realized. The group demanded the first priority regarding the electrification concession of Istanbul claiming that they had once won the adjudication. When demanding the first priority, the belief, and the trust in the spirit of justice and the honesty of the Minister was expressed in the letter. Furthermore, the group claimed that they would protect the interests of the Ottoman Empire and expressed its deep commitment to the Empire.

The group provided the list of the cities such as Bordeaux, Grenoble, St. Tropez where the group worked for their illumination as well as the companies, and financial institutions, which the group had worked together in its previous projects. Crédit Foncier & Agricole d’Algerie, Crédit Du Nord, Banque Transatlantique, Banque Privée, Société Marseillaise de Crédit, Industriel & Commercial de Dépôts à Comptes-Courants were the banks which the group cooperated for the illumination works.

An example of an contract to be signed between the Group and the Ottoman Government was provided in the proposal. The name of the company in the contract was “La Société de Distribution Électrique.” This was the title which the group established for the electrification business of Istanbul. The contract included eight sections regarding the subject of the contract, establishment of the company for the electrification of Istanbul, advantages assured for the company, the works to be undertaken, the cost of the electrical energy, organisation and management of the company, general conditions and guarantee issues.

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<sup>457</sup> CCA, NV 34E/27 230-0-0-0 20 2 15 (10 October 1910).

The contract has similar points with the one proposed in 1908. For instance, the company would be exempted from all taxes and customs duties during its execution of the electrical plant. In addition to that, the equipments for the plant would be ordered from the eminent companies and the machines used in the plant would be of the first class of its kind and among the latest technology in order to acquire best unit price for the electricity. Latest electrical technology and construction methods would be used in order to establish an electrical plant similar to the ones in Europe. It was also claimed that every effort would be spent in order to prevent accidents in the plant and in the electrical network. Moreover, the company would have the monopoly of the construction of electrical plant and production of electricity and these activities would be prohibited for any other company as long as the Government permitted to engage in electricity business.

Other articles in the contract were new as compared with the articles stated in 1908. For instance, the plant would be constructed along the sea side, to the most appropriate place for the production of electricity. The company would have the right to confiscate buildings and land on the way of construction of electrical network on the condition of that the confiscation would be in line with the Ottoman confiscation law.

According to the contract, all the construction units such as the plant, living places in the plant and the services and other units which could be needed in the plants such as revolving bridge and arranging the quay; would be defined in detail. In addition to that, a laboratory for the experiments and a repair shop would be established in the plant. All the machines and equipments to be used in the plant would be listed in detail as well. The Government had the right to refuse buying the offers which did not list the materials in detail. Moreover, the company had the obligation to provide the Government cost prices for the machines and equipments as well as the unit prices per hour (kW/h).

The section titled as “the cost of the electrical energy” of the contract determined the unit prices for electricity which would be charged to the customers. There were minimum and maximum rates for the lighting. There were minimum and maximum rates for the Tramway Company as well. However, the exact rates were not stated in

the contract. Probably, the company would determine the exact rates with the Government when signing the contract.

As seen in the above lines, the contract regulated the price issues which would occur with the Tramway Company as one the major customers of the plant. According to the contract, there would be minimum and maximum price limits which would be applied for the Tramway Company. Aiming the favour of the company, it is apparent that the the people who prepared the contract for the company tried to regulate its relations with the Tramway Company within the contract, from the very beginning.

It was stated in the contract that there could be special provisions regarding the public lighting of the city between the Government and the company. The rates for the heating would be determined during the management process. If the customer could not pay the rates, the company could decide not to provide electricity for the consumer anymore. The Government would aid the company in order to collect the debts from the customers. The company had the authority to increase the rates if the Government agreed upon it. Furthermore, the Government or the customers could not sue the company due to a power cut as a result of extra ordinary situations.

The article regarding the customers who do not pay their electricity bills can be considered as a tough one. The regulation for such situations ended up by the banning of the customer from receiving electricity.

However, the articles of the contract in relation to bankruptcy issues are in the favor of Ottoman Government. The company had to manage the plant as economically as possible. If the company goes bankrupt and if the Government does not have any responsibility in this issue, the Government could authorize another company as the monopoly of electricity. In such a case, the Government has the right of compensation due to the bankruptcy.

The contract included rules and regulations regarding the management of the plant and social life in it. For instance, the Ottoman Government had the authority to employ one or two auditors in order to check the financial issues of the plant. Auditors would be paid by the Government. They had to be fair in case of a disagreement between this commission of auditors and the administrative board of the company and their selection had to be made considering this issue. The company

had the obligation to present the works, which would cost great amount to the attention of the auditor/s before submitting the expenditures to the approval of company's administrative board.

All the personnel except the director of the plant, would wear fez. All the correspondence with the official bureaus would be undertaken in Turkish. The company had to employ Ottoman subjects as many as it could. Furthermore, the company would be impartial to the employees regarding the political and religious issues.

Above issues regarding Ottoman employees, fez wearing or the company correspondence to be undertaken in Turkish are all articles which are in favor of the Ottoman Empire.

To me, above articles may be the result of the company's meeting(s) with the Ottoman Government before the submission of their proposal. Probably, they formulated the articles regarding wearing fez or employment of Ottoman subjects in the meetings held with the Ottoman Ministry of Public Works. Otherwise, the company could not think of personnel's obligation to wear fez in the plant or the company could prefer French rather than using Turkish in its official correspondence.

#### **6.2.5. Westinghouse Electric and & Manufacturing Company**

Westinghouse Electric & Manufacturing Company in collaboration with its subsidiaries, The British Westinghouse Electric and & Manufacturing Company, Ltd., of London and Manchester, England, Société Anonyme Westinghouse, of Paris, and Societa Italiana Westinghouse, of Vado, Ligure, Italy, with the financial support and co-operation of the National Bank of Turkey, were one of the applicants for the concession of Istanbul's electrification.<sup>458</sup> The structure of the Westinghouse

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<sup>458</sup> American Archives II (College Park), Letter from Westinghouse Electric and & Manufacturing Company (Chairman, Robert Mather) to the Secretary of State, Washington D. C. on June 7, 1910. The National Bank of Turkey was founded in 1909 by British Government encouragement. Main motivation for such attempt was the memorandum of Sir Adam Block on the Franco-German economic penetration in the Ottoman Empire against British interests: Marian Kent, "Agent of Empire? The National Bank of Turkey and British Foreign Policy," *The Historical Journal*, Vol. 18, No. 2 (June 1975), pp. 367-368.

Company shows the diffusion of a United States company to Europe since the company had subsidiaries in Britain, France, and Italy.

Mather, in his letter regarding Istanbul's electrification concession, talked about the competition of a combined group of German electrical manufacturers in which, the Allgemeine Electricitäts Gesellschaft (AEG) and the Siemens-Schuckert Werke were the principal factors. Against such a rival, Mather requested the assistance of the American Ambassador to the Ottoman Empire, in such manner as it was approved by the Department of State.

As an example of a perfect support for the commercial offices and embassies to the companies, the Department of State wrote immediately to the Division of Near Eastern Affairs and to the American Ambassador in Istanbul, urging them to deal with the issue.<sup>459</sup> The Department of State asked a careful investigation of the matter if the American interest in the desired concession was a substantial and efficient one. If so, the Department of State asked the support of the Ambassador to the Westinghouse Company in order to win over the concession. Furthermore, the Department of State informed the Westinghouse Electric & Manufacturing Company that appropriate cable instructions were sent to the American Ambassador in Istanbul.

#### **6.2.6. The Schneider Group (MM Schneider & Cie and Crédit Mobilier Français and Société des Grands Travaux de Marseille)**

In 1836, Schneider brothers bought the iron mines in Creusot (France) and established Schneider Company, which operated in steel industry, railway construction, armaments, and shipbuilding.<sup>460</sup> The advertisement of Schneider & Cie, which appeared in *Lumière Électrique*, reveals the specialization areas and the electrical materials that the company engages in. These areas and the materials are processors, electrical mills, turbo alternators of all types of currents, different types of dynamos, special materials for mines, elevators, cranes, and winches, special materials for mines, electro-mechanical applications, electro-chemistry, and electro-

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<sup>459</sup> The letter of the was received by Department of State on June 9, 1910 and the instructions of the Department to the American Embassy in Istanbul was sent on June 10, 1910 by a telegram.

<sup>460</sup> Agnès D'Angio, *Schneider & Cie et les Travaux Publics 1895-1949*, (Paris: École des Chartes, 1995), pp. 41-47. Patrick Verley, *La Révolution Industrielle*, (Paris: Gallimard, 1997), pp. 221-22.

metallurgy.<sup>461</sup> According to Beaud, the process of multinationalization for Schneider started in the end of the 19<sup>th</sup> century.<sup>462</sup> Together with multinationalization, Schneider began to operate in the electrification projects of the cities, as well.<sup>463</sup> The company initiated business all around the world, from Russia to China and from Morocco to Brasil.<sup>464</sup> It attended at world's fairs, which became a showcase for the companies to advertise their products and inventions and a platform to establish new business links.<sup>465</sup>

The commercial relations between the company and the Ottoman Government go back to 1860s.<sup>466</sup> The evidences show that the armaments produced by Schneider were bought for the Ottoman military forces. For instance, according to a document dated 1887, bullets and grenades produced by Schneider were tested and they were in good condition.<sup>467</sup> Besides, there are many other evidences, which indicate the rifles for the Ottoman army were supplied by Schneider.<sup>468</sup> The company supplied torpedo and boats for the Ottoman Navy, as well.<sup>469</sup>

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<sup>461</sup> *La Lumière Électrique*, 4 July 1914, vol. 26.

<sup>462</sup> Claude Beaud, "Investissements et profits du groupe multinational Schneider," *Histoire, Économie et Société*, Vol. 7, No. 1, (1988), p. 127, pp. 127-138.

<sup>463</sup> Charles Barthel, *Bras de Fer : Les maîtres de forges luxembourgeois, entre les débuts difficiles de l'UEBL et le Locarno sidérurgique des cartels internationaux, 1918-1929*, (Luxembourg: Saint-Paul, 2006), pp. 33-34.

<sup>464</sup> Agnès D'Angio, *Schneider & Cie ...*, p. 9-10. On the becoming of Schneider a "multinational conglomerate" see: Michael Stephen Smith, *The Emergence of Modern Business Enterprise in France, 1800-1930*, (Cambridge, MA Harvard University Press, 2005), p. 367. For the activities of Schneider in Russia, see Claude Beaud, "De l'expansion internationale à la multinationale Schneider en Russie 1896-1914," *Histoire, Économie et Société*, vol. 4, No. 4 (1985), pp. 575-602.

<sup>465</sup> Regarding the pavillons of Schneider as well as their products (ranging from locomotives to steam engines, which were produced by the company) displayed in the exhibitions of 1867 and 1878, see : <http://www.ecomusee-creusot-montceau.fr/spip.php?article361> and <http://www.ecomusee-creusot-montceau.fr/spip.php?article360> (accessed 7 February 2019). The 1881 album of Schneider Company showing the factories of the company in Cresout, Montchanin, and Mazonay, as well as the photographs of the engineers, workers working for Schneider are available at <http://www.ecomusee-creusot-montceau.fr/spip.php?rubrique21> (accessed 7 February 2019). For an interactive representation of the painting of François Bonhomme, which shows the Schneider plant in Cresout in 1868, visit : <http://www.ecomusee-creusot-montceau.fr/IMG/bonhomme/> (accessed 2 April 2018).

<sup>466</sup> COA HR.SFR.3... 117/20, 1283 B 17 (25 November 1866).

<sup>467</sup> COA Y..PRK.ASK. 42/102, 1305 S 19 (6 November 1887). For the activity of Schneider in military technology, see Claude Beaud, "Les Schneider Marchands de Canons 1870-1914," *Histoire, Économie et Société*, Vol. 14, No. 1 (1995), pp. 107-131.

<sup>468</sup> COA Y..PRK.ASK. 3/15, 1296 Ra 16 (10 March 1879), COA Y..MTV. 227/124, 1319 Z 23 (2 April 1902), COA Î..DH. 1317/38, 1312 Ca 22 (21 November 1894), COA HR.ID.. 2127/40, 1316 C 14 (30 October 1898), COA DH. MKT. 278/21, 1312 S 3 (6 August 1894), COA DH.EUM.MH.. 132/9, 1334 § 18 (20 June 1916), COA BEO 393/29440, 1311 L 23 (29 April 1894).

<sup>469</sup> For the contract regarding the sales of torpedo and boats by Schneider to the Ottoman Navy: COA Y..PRK.ASK. 184/33, 1320 Ca 5 (25 August 1902). For another contract regarding the sale of torpedo and boat destroyers (*muhrip*), see: COA Y..PRK.ASK. 233/86, 1323 § 25 (25 October 1905) and COA A.}MTZ.(04) 155/9, 1325 S 26 (10 April 1907).

On 10 October 1909, the representative of MM Schneider and Cie from the department of electricity and mechanics wrote to the Ministry of Public Works.<sup>470</sup> In the letter, it was stated that the proposal for the electrification of Istanbul would be submitted to the Ministry with a delay of fifteen days and the company asked from the Ministry to accept its proposal with such a delay. This request of MM Schneider and Cie was accepted by the Ministry of Public Works since the company was among the companies which applied for the electrification adjudication of Istanbul.

In the letter, MM Schneider and Cie proposed to construct the electrical plant and the electrical network of the city as well as the organization of the electricity services. The company claimed that the latest technology would be used in the construction of the plant and there would be no problem in the plant regarding safety issues.

The price of electricity in kW/h would be set both by the Ottoman Government and the company. However, this price would not be less than 75 *kuruş* for the individual users and 30 *kuruş* for the public bodies.

#### **6.2.7. Fouquiau et Warnant**

The title Fouquiau et Warnant refers to the surnames of Paul Fouquiau and Jules Warnant. Paul Fouquiau was an architect from France according to a document regarding the electrification of Edirne.<sup>471</sup> Fouquiau and Warnant's project aimed to electrify 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> circles of Istanbul municipality. However, the project stressed the importance of Galata, Pera, Nişantaşı, Pangaltı, and Feriköy districts.

It is interesting that Fouquiau et Warnant established a contract with Cie. du Gaz de Stamboul which had undertaken gas works of Istanbul and controlled by Banque de Bruxelles. Introduction of electricity would not cease the gas lighting immediately since the old technologies coexisted with the new ones for a while after the application of the newest technology. This shows the farsightedness of Fouquiau et

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<sup>470</sup> CCA NV, 34E/27, 230-0-0-0 20 2 15 (10 October 1910).

<sup>471</sup> COA BEO, 3426/256884, 1326 Z 10 (3 February 1909): "Edirne'de elektrikli tramvay ve tenvîrat tesis ve icrâsı hakkında Fransalı mimar Möyö Pol Fukyo tarafından mukaddema talep olunan imtiyâza dair olup li-ecli't-tedkik lüzum-ı irsâli 1326 tarihli ve 622 numaralı tezkire-i aliyyeleri ile işar bulunan evrak leffen savb-ı alilerine tesyar olunmakla ol bâbda ..."

Warnant since Ganz had to establish contract with Cie. du Gaz de Stamboul in order to manage the electrification business of Istanbul.

Apart from Istanbul, Paul Fouquiau applied for the concession of lighting Edirne with electricity and electrification of trams in the city in 1906 as the examination of the documents regarding the electrification business of Edirne reveals.<sup>472</sup> The name of Jules Warnant is absent in these documents, but Baron Vebdeuvre seems to be the partner of Fouquiau. Fouquiau was not successful in his attempts regarding the electrification business of Edirne. Upon this unsuccessful attempt of partnership, it could be guessed that Fouquiau established a partnership with Jules Warnant for the electrification concession of Istanbul.

### 6.2.8. Giros et Loucheur

In 1899, Alexandre Giros<sup>473</sup> et Louis Loucheur,<sup>474</sup> two graduates of Ecole Polytechnique, founded “Société Giros et Loucheur” an engineering firm specialized in constructing electricity and electric rail networks.<sup>475</sup> “Société Giros et Loucheur” was soon known as Girolou, which was specialized in construction business (thanks to the promotion of the use of reinforced concrete, by Giros) as well as construction

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<sup>472</sup> COA BEO, 3426/256884, 1326 Z 10 (3 February 1909); CCA 22E/1 230-0-0-0 16 63 1 (9 October 1909). The second file contains numerous documents in relation to public works issues of Edirne. Among these documents, three of them are the letters written by Fouquiau in which he stated his wish to acquire the concession of lighting Edirne with electricity as well as electrification of trams in the city.

<sup>473</sup> “Alexandre Giros was born in 1870 and studied at Ecole Polytechnique. In 1899, he teamed up with former Polytechnique classmate, Louis Loucheur to found” Société Giros et Loucheur. Giros became “a leading player in the electrical power sector in the 20<sup>th</sup> century and was active in at least thirteen different companies”. He also “helped promote the use of reinforced concrete and was one of the founders of a business organisation of reinforced concrete companies in 1903.” <https://www.vinci.com/vinci.nsf/en/history/pages/index.htm#1880> (accessed 2 February 2019).

<sup>474</sup> Louis Loucheur studied at Ecole Polytechnique and found Société Giros et Loucheur with his friend Alexandre. He was an engineer-entrepreneur. He also had an active political life. During the WWI, Loucheur served as the under-secretary of state concerning munitions. Then, he became the Minister of Armaments. “After the war, Loucheur became the Minister of Reconstruction. In that role, Loucheur aimed to lay the foundations for a strong, efficient, and modern France. He encouraged mass production, and stressed the importance of raw materials and energy, in particular coal and hydroelectric power”: Vincent Lagendijk, and Dave Lyddon, *Electrifying Europe: The Power of Europe in the Construction of Electricity Networks*, (Amsterdam: Amsterdam University Press, 2009), p. 52.

<sup>475</sup> Vincent Lagendijk and Dave Lyddon, *Electrifying Europe*, p. 52. Société Giros et Loucheur has transformed into contemporary VINCI Group (VINCI Construction and VINCI Energies) in time: <https://www.vinci.com/vinci.nsf/en/history/pages/index.htm#1880> (accessed 2 February 2019).

of electric plants and trams.<sup>476</sup> In 1908, Giros and Loucheur, decided to charge Girolou with planning, business development, and financial tasks and found Société Générale d'Entreprises (SGE) as a separate enterprise to deal with construction business worldwide.<sup>477</sup> In 1910, SGE allied with other partners, acquired the concession for the construction of roads as well as repairment of them in the Ottoman Empire.<sup>478</sup> Yet, this project could not be realized due to the instable position of the Ottoman Empire at the time.<sup>479</sup>

Louis Loucheur was one of the most important and interesting figures of İstanbul's electrification concession. He was not just an engineer-entrepreneur but also a significant statesman who organized industrial mobilization of France during the World War I and "opened the way to an independent national oil policy."<sup>480</sup> After the war, Loucheur became the Minister of Reconstruction. "He envisaged such a European economy existing of private ententes in the industrial sector –like coal, steel, iron, chemicals, and electricity–, and in particular along a German Franco axis."<sup>481</sup> According to Lagendijk and Lyddon, ideas of Loucheur regarding unified European with the major role played by an unified electric network, became source of inspiration for George Viel, the engineer who supported the idea of European electricity network. The evidence of Lagendijk and Lyddon for such inspiration was strong since "The Compagnie électrique," Viel's employer, belonged to the Société Giros et Loucheur, partly owned by Louis Loucheur."<sup>482</sup>

The idea of unified European electricity network is significant for the case of İstanbul's electrification, as well.<sup>483</sup> It may be guessed that Loucheur considered

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<sup>476</sup> Stephen D. Carls, *Louis Loucheur: Ingénieur, homme d'état, modernisateur de la France 1872-1931*, (Villeneuve d'Ascq: Presses Universitaires du Septentrion, 2000), p. 20.

<sup>477</sup> Stephen D. Carls, *Louis Loucheur ...*, p. 21.

<sup>478</sup> "10.000 kilomètres de ponts et chaussées" in *Revue Technique d'Orient*, 15 Septembre 1910, no. 1, p. 2. See also "Société Générale d'Entreprises dans L'Empire Ottoman, Construction des routes d'Etats, Sandjak Bolou" in *Revue Technique d'Orient*, Juillet 1913, pp. 19-20.

<sup>479</sup> Ibid, pp. 21-22.

<sup>480</sup> Dominique Barjot, "Les cartels, une voie vers l'intégration européenne? Le rôle de Louis Loucheur (1872-1931)" *Revue économique*, Vol. 64 (June 2013), p. 1.

<sup>481</sup> Vincent Lagendijk and Dave Lyddon, *Electrifying Europe ...*, p. 78.

<sup>482</sup> Vincent Lagendijk and Dave Lyddon, *Electrifying Europe ...*, p. 81.

<sup>483</sup> The companies Sofina (Société Financière de Transports et d'Entreprises Industrielles) and Gesfürel (Gesellschaft für Elektrische Unternehmungen) developed the idea of a unified European power network, which was never realized. This issue is significant for the Ottoman Empire because the proponents Sofina and Gesfürel were involved in Ottoman electrification business. Gesfürel had been one of the companies that applied to the Ottoman government for the electrification of İstanbul in the 1890s. DBA in Frankfurt, OR1640, Correspondence from Continentale Gesellschaft für Elektrische Unternehmungen to Elektrizitäts Aktiengesellschaft, 24 June 1898, Berlin. Sofina became

Istanbul's electrification as a further step in the way of Europe's unified network. Société Giros et Loucheur could not succeed in obtaining the concession for Istanbul, in 1910. However, in 1911, the company involved in partnership with Sofina, which later acquired electrification business of Istanbul. As the evidences show, it can be inferred that the company was oriented to do business in the Empire. At the end, Société Giros et Loucheur became successful in this endeavour. Louis Loucheur was one of the members of administrative board (*Meclis-i İdare Heyeti*) of Osmanlı Anonim Elektrik Şirketi in 1917.

It is also interesting to note that Dannie Heinemann, head of Sofina supported the idea of unified electric network for Europe, similar to Loucheur. According to Anastasiadou, Heinemann argued that "technological integration should precede the political unification of Europe in his book *Esquisse d'une Europe Nouvelle*, published in 1931 in Brussels."<sup>484</sup> It could be inferred that the case of Istanbul's electrification was a strategic step for the establishment of unified electric network for Europe, according to both Loucheur and Heinemann.

### **6.3. International Banking and Istanbul's Electrification Concession**

The role of finance was of immense importance to both sides of Istanbul's electrification concession: the Ottoman Empire and the candidate companies. For the Ottoman Empire, financial institutions were important in case of the electrification concession, due to the considerable amount of capital, which the project would cost. Besides, electrification was not the only project of the Ottoman Government since it attempted to realize many public works projects after the proclamation of the Second Constitution in 1908. For instance, construction of 8,000 kilometers of provincial roads was awarded to a powerful French group representing three important French firms of contractors.<sup>485</sup> In addition to that, the telephone concession for Istanbul,

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a partner in the Silahtarağa power plant in 1911. DBA in Frankfurt, OR1643a: Orient Konsortium, Elektrische Geschäfte in der Türkei, Protocol between Ungarische Allgemeine Kreditbank and Banque de Bruxelles, 7 November 1911.

<sup>484</sup> Irene Anastasiadou, *Constructing Iron Europe: Transnationalism and Railways in the Interbellum*, (Amsterdam: Amsterdam University Press, 2011), p. 82.

<sup>485</sup> American Archives II (College Park), Index Bureau 867.154/-, Letter from American Consulate General (Constantinople) to the Secretary of State, Washington D.C. on July 25, 1910.

construction of ports and railways, and irrigation works was in the agenda of the Government.<sup>486</sup>

According to the candidate companies of the concession, financial institutions operating in the Ottoman Empire were considered to be instruments to be effective and powerful in the country. As an example for the financial institutions being the instruments of power, *British Documents on Foreign Affairs*<sup>487</sup> argued that it would be of very great advantage to British prestige and material interests in Turkey, if it could keep the National Banks in existence.<sup>488</sup> British sources observed the impact of German and French banking institutions over the Ottoman Empire as well. For instance, in a minute written by Parker he mentioned that Deutsche Bank was certainly the means by which Germans secured valuable concessions in Turkey, where finance and politics were even more closely connected than elsewhere.<sup>489</sup> Furthermore, according to Parker, the whole tendency of France in Turkey was to secure monopoly on finance, and through finance, in public contracts and concessions.<sup>490</sup>

European countries in the pursuit of Ottoman market were aware of the financial institutions' role in order to operate in the Empire. For instance, in 1911, Banco di Roma, one of the most important financial establishments of Rome, decided to establish a branch in Istanbul with an agency at Jerusalem. Establishment of a branch office of Banco di Roma was the second attempt of Italian financial sector to enter into the Ottoman market. The branch office of La Società Commerciale d'Oriente (Comor, Eastern Trading Company), was the first one to be established in Istanbul in 1909. La Società Commerciale, owned by the Venetian Volpi group, was one of the companies involved in Italian expansion in the Balkans.<sup>491</sup> The financial supporter of the company was Comit, which "was mainly interested in financing railway companies and railway material manufacturers, metallurgical companies and

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<sup>486</sup> American Archives II (College Park), File No: 5012/49, Letter from American Consulate General (Constantinople) to the Secretary of State, Washington D.C. on Feb 21, 1910.

<sup>487</sup> David Gillard, Kenneth Bourne, Donald Cameron Watt, (eds.), *British Documents on Foreign Affairs – reports and papers from the Foreign Office confidential print*. Part I, Series B, Vol. 16: *Ottoman Empire, Arabia and the Gulf, British Financial and Commercial Interests, 1907-1914*, ([Frederick, Md.]: University Publications of America, 1984-1985).

<sup>488</sup> David Gillard et. al. (eds.), *British Documents ...*, p. 469.

<sup>489</sup> David Gillard et. al. (eds.), *British Documents ...*, p. 472.

<sup>490</sup> Ibid, p. 474.

<sup>491</sup> Vera Zamagni, *The Economic History of Italy 1860-1990*, (New York: Oxford University Press, 1993), p. 151.

shipbuilders, electrical companies (being the most important one of bank's point of view), and also various engineering companies".<sup>492</sup> According to the annual report of the branch of La Società Commerciale d'Oriente, Italy was one of the youngest and most active bidders for a share in Turkey's trade.<sup>493</sup> In addition, La Società Commerciale d'Oriente sought for the concession for the electrification of Edirne, construction of electrical tramways in the city and distribution of water.<sup>494</sup> Moreover, according to *La Lumière Électrique*, La Società Commerciale d'Oriente made the attempt within Istanbul municipality in order to obtain concessions of illumination of the city by electricity and the electrification of the tramways.<sup>495</sup>

The significance of the financial institutions in order to succeed in the adjudications was clearly stated in one of the American Consulate letters written to the Department of State claiming that it was practically impossible for Americans who were not sustained by a bank in Constantinople of their own nationality to obtain Turkish government concessions.<sup>496</sup>

In a letter written by American Consulate at Trebizond (Trabzon) necessity of an American bank in the Ottoman Empire was underlined while stating that the European countries had banks in the Empire:

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<sup>492</sup> Vera Zamagni, *The Economic History ...*, p. 150.

<sup>493</sup> Giampaolo Conte, "The Italian Bank Società Commerciale D'Oriente and Its Business in Ottoman Istanbul (1907-1915)" Fourth International Conference on Ottoman Istanbul, Istanbul 29 Mayıs University, Altunizade, Istanbul, (20-22 May 2016), pp. 31-45. See also Andrea Filippo Saba, "La Società commerciale d'Oriente entre la diversificación y la situación estratégica intranacional (1902-1935)," *Información Comercial Espanol*, no. 812 (2004), pp. 137-152.

<sup>494</sup> COA DH.İD.. 49/9 1332 Ra 14 (10 February 1914). The electrification concession of Edirne became the matter of dispute between Edirne Municipality and the company. Due to the war between Ottoman Empire and Italy, Edirne Municipality first denied the grant of electrification concession of Edirne to the company and then refused the delivery of the plans of the project and the city map, which were prepared by the company. Against this denial, the company applied to Italian Embassy for compensation of its expenditures (preparation of map of Edirne and plans for the project): Hükümet-i Osmaniye ile İtalya beyrinde vukûa gelen muhasamatın bidayetinde Edirne Belediyesi mezkûr plan ve haritaların teslimi için muayyen olan müddetin birkaç gün mürur eylesmesinden naşı marul beyan mukavelename ile tasdik edilmiş olan hukukunun sakıt olduğunu şirket-i mezkûreye tebliğ ve ihtar ettirmiştir. Società Commerciale d'Orient Şirketi, muharebeden dolayı menafiini hukuken muhafazaya muvaffak olamamış ve elyevm Edirne Vilayeti'nin bulunduğu ahval ise şu aralık bu babda bir guna teşebbüsât icra eylesmesine mani bulunmuştur. Binaenaleyh, sefaret, marul beyan şirketin mukavelename-i mezkûr ile tasdik edilmiş olan hukukunu hal ve mevkii müsait olduğu zaman tervic ettireceğine dair bilcümle kuyûd-ı ihtiraziye'i dermian eylediğine şirket-i mezkûre tarafından vukû bulan talep üzerine Nezaret-i Hariciye'ye beyan eyler.

<sup>495</sup> *La Lumière Électrique*, 3 July 1909, vol. 7, p. 31.

<sup>496</sup> American Archives II (College Park), File No: 25011, Letter from Westinghouse Electric & Manufacturing Company (Chairman, Robert Mather) to the Secretary of State, Washington D. C. on June 7, 1910.

America has no bank in Turkey to facilitate its commerce while France, Austria, England, Russia and Italy have their banks in this country which greatly aid and support their transactions keen, competent European travelers are coming and going constantly and seizing every opportunity to push their trade by hard effort and by an intelligent personal appeal to the others.<sup>497</sup>

According to G. Bie Ravndal establishment of an American bank in Istanbul was necessary as read from his own words: I am looking for a speedy establishment by American capitalists ... of an American bank in Constantinople. Should these hopes be realized, we may look for a decided American business revival in the Near East.<sup>498</sup>

In another letter from American Consulate General (Constantinople) to the Secretary of State, on July 25, 1910, the granting of the road concession to a French group was regarded as the French industrial success. In addition to that, the letter mentioned the good impression that the grant has created in French financial circles.

Furthermore, according to Deputy Consul General of Constantinople, this success was an incentive to French financial activity in Turkey and it is the intention of the group to attach agents to the engineering section of the undertaking in each province, whose business would be to study the economic resources of their particular districts.<sup>499</sup>

Reading the news about harbor concession of Samsun and Trabzon in the Near East of London Journal and the comments of G. Bie Ravndal on the issue, draws the general picture of the harsh competition among the rival companies and countries in order to win over the concessions, and the role played by the banks in the concessions:

It is much to be regretted that, ... the downfall of Hamidian system did not bring about revival of British interest and British interests in Turkey that was anticipated. The Turkish field is still largely monopolized by Germans and the French. ... In this particular case the principal opposition, according to the Constantinople correspondent of Times, came from the French, who appear to have used both diplomatic and financial influence to prevent a British firm

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<sup>497</sup> American Archives II (College Park), Index Bureau, 667.1117; Letter from American Consulate at Trebizond (Trabzon) to the Secretary of State, Washington D.C. on April 8, 1911.

<sup>498</sup> American Archives II (College Park), Index Bureau, 867.15/3, Letter from American Consulate-General (Constantinople) to the Secretary of State, Washington D.C. on March 29, 1912.

<sup>499</sup> American Archives II (College Park), From American Consulate General (Constantinople) to the Secretary of State, Washington D.C. on July 25, 1910.

from obtaining the contract. Their opposition is possibly due to the rivalry between the Ottoman and the National Bank, and the latter is to be congratulated on having succeeded in defeating it.<sup>500</sup>

We must come forward with money. ... By the establishment of an American Bank in Turkey that our capitalists are prepared to help Turkey with loans when needed whether by the Central Government for budgetary purposes or public works and development of natural resources. ... I believe that our Government working along these lines, would find our relations with Turkey gradually and materially improving so that fuller protection could be afforded our missionaries ... and fuller advantage could be taken by our capitalists, manufacturers, and exporters of the present awakening Turkey.<sup>501</sup>

There are several points to be raised regarding the previous statements placed in the Near East of London and in the comments of Ravndal. First of all, it is apparent that managing a commercial activity in a country creates suitable environment for the preparation and execution of future potential commercial activities in the same country. Although the above example was related with the road construction in the Ottoman Empire, the fact that an ongoing investment creating suitable conditions for the future ones, can be valid for the electricity business of Istanbul as well. Thus, European and American companies tried to win as many as concessions from the Ottoman Empire so that they could easily be involved in the future commercial activities.

Second point in the article as well as the letter of Ravndal is the significance of the banking sector in order to win over the concessions. For the case of road concession held for Samsun and Trabzon, the clash of the Ottoman Bank and the National Bank is an important issue. I can infer that opening credit for the Empire is profitable for the financial institution. That is why Ravndal underlines the significance of establishment of an American Bank to loan Ottoman Empire for any reason it needs.

Another point in the letter of Ravndal is that he conceives Ottoman Empire as a promising country for the investment of American capital. According to him, the Empire is an awakening country, which needs credit for its budget, public works, and

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<sup>500</sup> This article is attached to the letter of G. Bie Ravndal (Consul General, Constantinople) to William Woodville Rockhille (American Ambassador Extraordinary and Plenipotentiary, Constantinople) dated September 13, 1911: Near East of London, August 30, 1911.

<sup>501</sup> American Archives II (College Park), Letter from G. Bie Ravndal (Consul General, Constantinople) to William Woodville Rockhille (American Ambassador Extraordinary and Plenipotentiary, Constantinople) on September 13, 1911. This letter is enclosed to the document filed as: Index Bureau, 367.112 4/40, Letter from American Consulate General (Constantinople) to the Secretary of State, Washington D.C. on September 15, 1911.

development of natural resources, and he tells to the Department of State that the United States should be the one to fund the Empire's projects.

In order to secure concessions in the Ottoman Empire, Ravndal pointed out that the financial institutions supplying funds to the Empire could swing the best concessions to their own nationals and that the pressure which the governments represented by such banks can bring to bear upon Turkish officials is generally more than a match for the persistent effort and diplomacy of foreigners unsupported by a strong bank of their own nationality.<sup>502</sup>

Although dates to several years after the electrification of concession, the efforts of Ravndal in establishing an American bank in Constantinople, should be noted at this point since his attempts for an American bank in Constantinople shows the attention he paid for the banks in order to secure concessions in the Ottoman Empire. In the way to establish an American bank in Constantinople, in 1919, Ravndal interviewed leading American bankers in Paris for the purpose of bringing about the establishment of an American bank in Constantinople. These conversations continued in Rome when he met by appointment the president and one of the vice-presidents of the National City Bank. The following year, in New York, he had a conference to the same end with the principal vice president of the American Express Company, which since has instituted several branch offices in Constantinople, Athens, and Cairo.<sup>503</sup>

The role of banking in the commercial life was extensively discussed among the American financial circles. For instance, an article published in *Levant Trade Review* summarized of the diffusion of British and German banks to the certain parts of the world whereas branch banking was new to the American system. While the journal in its various issues, regarding banking facilities, complaint that the existing situation presented difficulties which strongly emphasized the need of American banks

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<sup>502</sup> American Archives II (College Park), State Department Records Relating to International Affairs of Turkey 1910-29. Microcopy No. 353 Roll No. 67. Summary of Despatch (No. 128) from Consul-General Ravndal dated at Constantinople, September 18, 1911, to the Department of State.

<sup>503</sup> American Archives II (College Park), Index Bureau, 165.006/1487. Letter from American Consulate General (Constantinople) to the Secretary of State in Washington D.C. on February 1, 1923.

abroad,<sup>504</sup> it claimed that England owed its being a world's power to its leadership in the banking industry and existence of an active discount market for bills in London:

England's position as world power is in the largest measure due to the development of her foreign commerce. She has not only been world's largest carrier and ablest merchant, but at the same time its greatest banker. England has loaned money in all parts of the world whenever she has been able to see trade returns as a result of the loan. Through her system of English-owned foreign banks, with their branches, she has ever been ready to finance the needs of countries whose raw materials could be used by her factories and whose people in return could be converted into customers for her manufactured products. ... Exchange on London has been the means of settlement of transactions in international commerce for years, with the resultant large profits to English bankers. ... The development of Branch banking is of necessity a slow and difficult process.<sup>505</sup>

Apart from the role of banking to exercise power, according to a letter American Consulate in (Trabzon) to the Secretary of State, Washington D.C., banks could be the intermediaries for the extension of American trade in the Ottoman Empire. For instance, he thought to use a Greek bank as the commercial partner of the United States:

The question is how to get it (Ottoman market) in the face of European competition. A plan has been suggested to me that seem to offer advantages over all others and promise a brilliant success. The plan is to form an American Trading Oriental Company in conjunction, with a Greek bank, a company in which the Americans furnish the goods, the majority of the capital, the control and the protection of the commercial company, and the Greeks would sell the goods throughout the Greek bank organization. I would choose the Greeks first because the Americans cannot personally do the business in an Oriental country, they do not know how to do it and never would learn, and second because the Greeks, in Turkey, Ottomans and Hellens, already have a majority of trade in their hands. They know the country, the people, the trade, and can hold their own against any European competition. There exist already in Turkey some thirty branch offices of a Greek bank. ... In connection with each one of these branches could be established a commercial department for the sale of American goods.<sup>506</sup>

Apart from the efforts of the United States in establishing an American bank in the Ottoman Empire, a report in the aim of Empire's financial reorganization is worth to mention at this point. According to Rockhill, the American Ambassador, financial

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<sup>504</sup> American Banks Abroad, *Levant Trade Review*, Vol. 1, No. 1, (1911), p. 56. John M. Carson, Trade in the Near East I-II, *Levant Trade Review*, Vol. 1, No. 1, (1911), pp. 16-26, 62-73.

<sup>505</sup> American Banks in Foreign Lands, *Levant Trade Review*, Vol. VI, No. I, (June 1916), pp. 73-74.

<sup>506</sup> American Archives II (College Park), Index Bureau, 667.1117; Letter from American Consulate at Trebizond (Trabzon) to the Secretary of State, Washington D.C. on April 8, 1911.

independency of the Ottoman Empire was necessary to obtain a serious foothold. Thus, Rockhill proposed a program for the financial reorganization of the Empire to the Department of State which was well thought program of sufficient scope to enable the (Ottoman) Government to withstand the pressure brought to bear on it, and break away from its present financial servitude, in his own words.<sup>507</sup> According to Rockhill, the program would be backed by prominent American financiers or it could have support of French and British finance, to be able to force the Ottoman Bank to come to terms, or, in case of a refusal, the program would be carried in the teeth of its opposition.<sup>508</sup>

Furthermore, according to Rockhill, the program would give Turkey the necessary strength to emancipate herself from European dictation, check the present dangerous tendency towards the creation of “spheres of influence” of various European powers and introduce the element of healthy competition on the Turkish market needed for its regeneration.<sup>509</sup>

Above mentioned plan of Rockhill may receive some critical points. Although Rockhill argued to free Ottoman Empire from the influence of foreign powers through financial institutions, he proposed a program headed by American financiers, which probably would work for the sake of American investors and traders. Nevertheless, the attempt of Rockhill for such a proposal shows the significance of the financial institutions in order to secure concessions since the proposal of Rockhill aimed to break the influence of Ottoman Bank in the Empire.

Another critical point can go for the claims of Rockhill about the Empire’s servitude in the hands of European forces. The ambitious moves of the European countries were taken as an advantage by the Ottomans as balance politics and Ottoman bureaucracy could find its way against European powers.

Another point, which should be underlined, is that the Ottoman Empire produced its own rules and regulations for the concessions that the concession process was not something without rules and the contractors had to obey these rules and regulations. As a further argument, I may claim that the 19<sup>th</sup> and early 20<sup>th</sup> centuries in the

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<sup>507</sup> American Archives II (College Park), Index Bureau, 867.51/61.

<sup>508</sup> Ibid.

<sup>509</sup> Ibid.

Ottoman Empire can be labeled as the century of the regulations (*nizamnâmeler yüzyılı*). It is for sure that the Empire went through significant changes in the 19<sup>th</sup> and early 20<sup>th</sup> centuries. When these changes occurred, the Ottoman bureaucracy tried to give order to the changes and determined regulations for each of them.

The trade reviews of the American consulates prepared for the Department of Commerce reflected the idea of the establishment of an American bank in the Ottoman Empire as well. The Department of Commerce reports of the United States for the year of 1914 defended the establishment of an branch of one of the home national banks in Athens, Constantinople or Alexandria.<sup>510</sup>

Moving from the American observations on the issue, developments on the Deutsche Bank side should be noted at this point. Deutsche Bank, which financed most of the Ottoman railways, being one of the significant financial institutions for the Ottoman Empire, sought for business in the Ottoman Empire during the late 19<sup>th</sup> century. For instance, Deutsche Bank seized the opportunity and provided loans to the Ottoman Government in 1888 after the Ottoman Bank rejected the Ottoman request for loans.<sup>511</sup> The German Emperor Wilhelm II's visit to Istanbul in 1889 followed seeking business opportunities in the Empire.<sup>512</sup> Germany was being treated by the Ottoman administrators as a welcome third party in their relations with dominating influence of Britain, and to a lesser extent France and Russia.

In such an environment, Siemens & Halske Company was in the aim of gaining a foothold in electrification business of the Ottoman Empire, even before the Ottoman Government called for the electrical plant in Istanbul, as mentioned earlier. For this purpose, in 1898, Siemens & Halske prepared an electrification project contract for the cities of Edirne, Trabzon, Damascus, Aleppo, and the Princes Islands. The letter written to the head office of Siemens & Halske underlined the significance of the Princes Islands as a starting point for the project since the islands were close to Istanbul. The Company though that since the wealthy community of Istanbul had

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<sup>510</sup> Edward I. Nathan, *Review of Industrial ...*, Jerusalem, p. 11.

<sup>511</sup> W. O. Henderson, "German Economic Penetration in the Middle East, 1870-1914," *The Economic History Review*, vol. 18, No. 1/2 (1948), p. 58.

<sup>512</sup> Merve Savaş, *Alman İmparatoru II. Wilhelm'in Filistin ve Suriye Ziyareti (1898)*, Unpublished M.A. Thesis, Fatih Sultan Mehmet Vakıf Üniversitesi, Sosyal Bilimler Enstitüsü, (İstanbul, 2018), p. 152. For further information, see: Fatmagül Demirel, *Dolmabahçe ve Yıldız Saraylarında Son Ziyaretler, Son Ziyafetler* (İstanbul: Doğan Kitap, 2008).

their summerhouses in the Islands; it would be a good advertisement for their project.<sup>513</sup> Additionally, as the exchanged letters between Deutsche Bank and Siemens & Halske reveal, Deutsche Bank played prominent role in the preparation of the proposal as the financial backer of the project. However, this comprehensive project was never realized due to the wars that the Empire was dealing with at the time.

Transformation of old style horse-pulled tramway networks into electrified versions as well as street lighting was another interest of the companies, which sought business in Istanbul.<sup>514</sup> One of the interesting examples for such business was a German origin consortium. Founded in 1898, one of the earliest examples for the companies and banks coming together to electrify Ottoman capital's trams; the consortium involved Elektrizitäts Aktiengesellschaft (formerly Schuckert & Co.), Siemens & Halske, Deutsche Bank and Continentale Gesellschaft für Elektrische Unternehmungen, Nürnberg.

While the above mentioned German Consortium was trying to secure tramway concession for Istanbul from the Ottoman Government, another German company attempted also to bid in the Ottoman tramway business. This was one of Germany's leading industrial companies in the 19th and 20th centuries, AEG (Allgemeine Elektrizitäts Gesellschaft). The ensuing rivalry among German companies was resolved by the intervention of Deutsche Bank, in order not to divert the power of companies; the result was incorporation of AEG into the earlier formed consortium.<sup>515</sup> The reason for this was the win-win opportunity that the consortiums provided for the shareholders. As a large-scale business, electrification of trams provided profitable opportunities for each and every partner, and joining forces

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<sup>513</sup> DBA in Frankfurt, OR1640, Correspondence from Dr. R. Fellingner (Officer in Siemens & Halske Wien Office). His position was not mentioned in the letter) to the Siemens & Halske Head Office in Berlin. Date & Place: 8 February 1898, Wien.

<sup>514</sup> It should be noted that electrification process was not limited to the construction of electrical plant but it included the electrification of trams in the city. The competition to electrify Istanbul took place in two levels in the city, one for the construction of an electrical plant and electrification of the trams on the other. Reasonably, acquiring both would be the most profitable for the concessionaire. DBA in Frankfurt, OR1640, Correspondence between Continentale Gesellschaft für Elektrische Unternehmungen, Elektrizitäts Aktiengesellschaft vormalis Schuckert & Co. and Deutsche Bank. Date & Place: 21-24 June 1898, Nürnberg & Berlin.

<sup>515</sup> DBA in Frankfurt, OR1640, Correspondence between Deutsche Bank, Continentale Gesellschaft für Elektrische Unternehmungen and AEG, Date & Place: 05-06 July 1898, Berlin.

rather than dividing them added to the power of consortium. Thus, rival companies conceded their individual claim for a guaranteed gain.

The promise of electrification of Istanbul's trams encouraged German consortium to involve other partners, such as the Ottoman Bank.<sup>516</sup> The nature of the electrification business, which needed enormous capital, may have led the consortium to partner with an already established and organized bank in the Ottoman Empire. This move could also be interpreted as pacifying a strong potential for rivalry. Despite vigorous efforts of Deutsche Bank for this well planned and organized consortium, Ottoman Government opted to wait until this technology reached a level of maturity.

Nevertheless, Deutsche Bank never gave up pursuing to be part of the electrification business in Istanbul. According to a letter, which was sent by Deutsche Bank to Bavyera Bank, electrification works in Istanbul was deemed to be the most enormous investment opportunity that a company can hope for. The same letter emphasized the significance of the real estates located around the projected tramlines, as these areas would also promise lucrative profits. Furthermore, electrification of tramways was supposed to be very profitable under the estimation of increase in the traffic of the city in the coming years.<sup>517</sup> In 1910 on the same year with Istanbul's electrification concession, Deutsche Bank established its branch office in Istanbul.<sup>518</sup>

The efforts of Deutsche Bank assert that the financial institutions were not only the creditors of the business but they had active and determining role in the management and organization of the business since the bank had primary role in planning the business environment, making necessary arrangements between the partners, and considering the interests of German capital.

The close relation with Deutsche Bank and the German Government while undertaking major infrastructure projects may provide insights on how the German strategy forms a strong correlation between business activities, and its aim of political penetration.

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<sup>516</sup> DBA in Frankfurt, OR1640, Correspondence from Deutsche Bank to Société du Chemin de Fer Ottoman d'Anatolie, Date & Place: 07 July 1898, Berlin.

<sup>517</sup> DBA in Frankfurt, OR1356: Union Ottomane Elektrizität, Deutsche Gruppe, 1909-1911 (hereinafter OR1356). Correspondence from Deutsche Bank to Bayerische Handelsbank Sekretariat. Date & Place: 06 January 1911, Berlin. The document contained the expression "strictly confidential".

<sup>518</sup> *Forty First Annual Report of the Deutsche Bank for the Year 1910*, Berlin, p. 12.

Germans adopted a policy of active interference in commercial and financial activities of the market for the realization of political influence. German Government supported German companies in every step of preparation for the concession. For instance, in 1910, Ottoman Government sought loan from a group of German banks. However, “the banks were reluctant to take part in a flotation. Thereupon, German Government, through the Foreign Office, informed the banks that the Government, for political reasons, would be glad to see the loan taken over by them.”<sup>519</sup> Apart from its impact on the financial institutions, German Government acted as an organizer in the market since the Government could advice to the companies to join their powers rather than being rivals to each other as with the case of Telefunken Company, jointly formed by Siemens and AEG by the advice of German Emperor.<sup>520</sup> Of course, German Embassy played a constructive role in this process by its well prepared, and detailed reports to the center.<sup>521</sup>

#### **6.4. The 1910 Ottoman Loan Negotiations and its Possible Role at Istanbul’s Electrification Concession**

1910 was the year when the negotiations for the electrification project of Istanbul took place along with the loan negotiations of the Ottoman Empire with France. According to the letter from American Embassy (Constantinople) to the Secretary of State, Washington D.C. on October 31, 1910; Ottoman Government refused to confide the service of the Trésorerie Générale to the Imperial Bank of the Ottoman Empire, the presence of a Frenchman in the Court of Accounts or at the Central service of the Ministry of Finance and the right of France upon the orders of the State.<sup>522</sup> As the American Consulate papers show, the loan negotiations failed

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<sup>519</sup> Walter H. C. Laves, “German Governmental Influence on Foreign Investments, 1871-1915,” *Political Science Quarterly*, Vol. 43, No. 4, (December, 1928), pp. 510-511.

<sup>520</sup> CCA, NV 06HY3 230-0-0-0 8 26 3 (18 December 1924).

<sup>521</sup> As an example for the informative work of German Embassy, in 1898, Marschall von Bieberstein, the German ambassador wrote that “there were railways, ports, and bridges to build, electric works to erect lighting, tramways, etc. apart from the special services for the army”. Besides the day to day correspondence with the Government, the embassy prepared reports on the economic conditions in the Ottoman Empire: “Report for 1913 on the Trade of the Consular District of Constantinople” cited in W. O. Henderson, *The Economic History ...*, pp. 58-59.

<sup>522</sup> American Archives II (College Park), Index Bureau, 867.51/22

because France imposed conditions regarding Tripoli and the absolute control of expenditures of the loan, which the Ottoman Empire did not wish to accept.<sup>523</sup>

At that time, Britain was not willing to offer loan to the Empire. In a conversation between the British and American Ambassadors, the British Ambassador informed the other that his government had no intention of supporting a group of English capitalists headed by Sir Ernest Cassel, in their project of making the loan to Turkey, in opposition to the attitude assumed by the French Government.<sup>524</sup> The Empire in need of loan for the internal development of the country could not make it with France due to certain unacceptable conditions of the French Government over the Ottoman Empire. Moreover, Britain was not willing to offer it. In such a situation, Germany and Austria became the friends of the Ottoman Empire to offer the loan.

At this point, it may be useful to recall Deutsche Bank's establishment of a branch at Istanbul. The establishment of Deutsche Bank's branch may be due to the loan negotiations of the Empire with France as well as the electrification concession of Istanbul. It was obvious that electrification concession was a huge investment requiring considerable amount of capital. As the budget of the Empire for the year 1910 shows, public works expenditures had considerable portion in the overall budget.<sup>525</sup> Besides, French newspaper *Gli Blas* published an article on the activities of Cavid Bey to secure loan from European financial institutions. While the article focused on the evaluations of Ottoman daily press towards Cavid Bey and loan negotiations, it provided detailed information on the electrification concession of Istanbul. Reading between the lines, it may be inferred that the article established close relation between loan negotiations and Istanbul's electrification.<sup>526</sup>

Thus, the loan negotiations played important role in the electrification concession of Istanbul. Britain's unwillingness to offer the loan to the Empire and the demands of France to interfere into the internal affairs of the Empire in exchange of the loan, entailed the Ottoman Empire to be in good relationship with Austria and Germany.

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<sup>523</sup> American Archives II (College Park), Index Bureau, 867.51/23, Letter from American Consulate (Constantinople) to the Secretary of State, Washington D.C. on December 2, 1910.

<sup>524</sup> American Archives II (College Park), Index Bureau, 867.51/14, Letter from American Embassy (Constantinople) to the Secretary of State, Washington D.C. on September 30, 1910.

<sup>525</sup> *Loi promulguée le 25 Djémazi-ul-Akhir 1328 (20 Juin 1326) portant fixation du budget général de l'exercice 1326*, (Constantinople: Imprimerie de la Dette Publique Ottomane, 1910).

<sup>526</sup> "Lettre de Turquie, Djavid Bey and L'Emprunt de Turc", *Gli Blas*, 1 October 1910, p. 3.

Shortly after signing the Istanbul's electrification concession by Ganz Company, there occurred an interesting written transaction between Constantinople American Consulate and the Secretary of State at Washington D.C. Although the United States could not win over electrification concession of Istanbul, it still had confidence to be powerful over the Empire since the United States claimed that Germany and Austria alone would not carry out the enterprises they have undertaken in the Ottoman Empire without aid and the aid would come from the United States since the Empire had already broke with the Triple Entente:

Why was this loan made with Germany and Austria? Did the negotiations fail with France because Turkey has no credit? By no means. It failed because France imposed conditions regarding Tripoli and the absolute control of expenditures of the loan, which the Young Turks did not wish to accept.

Germany cannot raise money alone, France will not cooperate, and the Turks who are now most suspicious of England's politics in Persia. ... In short, Germany and Austria alone cannot finance Turkey. They cannot even carry on the enterprises they have undertaken here without help. Turkey must have aid. The vast resources she has should and will be developed by outside capital. She has broken with the Triple Entente. Who then but ourselves? America, if she will but act wisely, holds today the whip hand in Turkey. That means not that we will be at all a tail to Germany's kite, but that we can practically dictate our own terms. I firmly believe that there never has been so opportune a moment for us in Turkey as now and, strangely enough, it has not been brought about by our own cleverness but has literally fallen into our lap.

Now then just exactly what are our opportunities in Turkey for the next two years? In another sixteen months Turkey will need the remainder of her so called eleven million loan. The Deutsche Bank will not be in apposition, in all probability to take it nor will Turkey go to the Triple Entente.<sup>527</sup>

It is apparent from the above lines that it was still significant for the United States to be the funding source for the Ottoman Empire. According to another consular report, Germany in close relationship with the Ottomans did not please France and Britain and they both welcomed a check to Germany.<sup>528</sup>

At the time, the loan negotiations were settled and the electrification concession had already finished. However, the United States was still after the issue since the Empire was a promising trade land for them. At this point, it will be enlightening to note that the main motive of the United States was the trade opportunities in the

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<sup>527</sup> American Archives II (College Park), Index Bureau, 867.51/23, Letter from American Consulate (Constantinople) to the Secretary of State, Washington D.C. on December 2, 1910.

<sup>528</sup> American Archives II (College Park), Telegram from Huntington Wilson to the Department of State, Washington D.C. on November 2, 1910.

Ottoman Empire. According to a consular report, it was the proper moment for the American capitalists to do business in the Ottoman Empire after the collapse of French and Ottoman loan negotiations. Otherwise, it would be likely that Austria and Germany would take the advantage of the situation both by financially and politically.<sup>529</sup> Thus, the suggestions through the pages of the consular reports, along with the years passing, has been the motive of doing trade and engaging in investments in the promising Ottoman country.

## **6.5. Conclusion**

Up to here, I have put forward the significant role of the multinational companies, financial institutions, embassies, and the consulates for the construction of city infrastructures which cost great deal of money. In the competition for the infrastructure concessions, the companies are the ones, which are seen on the scene since the contract for the job is done with them. However, financial institutions backing the companies and the embassies assisting the companies are actors of the concession as well. In this way, financial institutions and the embassies join to the competition of the companies among each other in order to win the concessions. It can be stated that the companies, financial institutions, and embassies were all actors of the concession process and fight together for the concessions.

Nevertheless, companies, financial institutions, and embassies are not the only actors of electrification concession of Istanbul. While they can be considered one side of the coin, talking about them requires mentioning the other side of the coin regarding the actors of the Ottoman Istanbul's electrification concession. The other side is the Ottoman actors on which I did not focus so far. However, Ottoman bureaucrats, personnel of the Ministry of Public Works played important role in the concession process. What follows, I focus on the role of the Ottoman bureaucrats and their ideas on electricity. The idea of electrification for Istanbul was not the invention of only foreign multinational companies, embassies in Istanbul or financial institutions, but rather Ottomans were active agents in bringing this technology to the Empire.

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<sup>529</sup> American Archives II (College Park), Index Bureau, 867.51/17, Telegram from Carter to the Secretary of State, Washington D.C. on October 26, 1910.

The following chapter demonstrates that Ottoman bureaucrats were not silent acceptors, but rather actively engaged in the selection, evaluation, and implementation of this new technology.



## CHAPTER VII

### DECISION MAKING PROCESS DURING THE ADJUDICATION

The role of the Ministry of Public Works in Istanbul's electrification process was vital since the Ministry was the authority to decide for the issues regarding electrification as told in the previous part, "The Working System of the Concessions in the Ottoman Empire". Going further from the working system of the concessions, core discussions of this part is going to be about the ideas on electricity for Istanbul as followed in the bureaucratic circles and decision making process during the adjudication of the electrification project for Istanbul.

In an attempt to present a clear picture, I first deal with the attitude of the Ministry to the public works in general, then, I focus on the ideas of the Ottoman officials on electricity followed in the bureaucratic circles. Lastly, I deal with the role of the Ministry of Public Works in practice regarding the electrification of Istanbul.

As the last part of this chapter, I discuss the rules and regulations for electrification as designed by Ottoman bureaucratic circles.

#### 7.1. The Ministry of Public Works

According to *Revue Technique Orient*, the development of the public works was in the agenda of the Empire in the early years of the 20th century. For instance, road construction of 10.000 kilometers was under way.<sup>530</sup> As *Revue Technique Orient* addresses in its pages, the embellishment of the cities was another concern of the

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<sup>530</sup> *Revue Technique Orient*, No. 1, 15 Septembre 1910, p. 1.

Ottomans as various projects from electrification to the hygiene and water systems in the cities were going on in the Empire.<sup>531</sup>

According to Ergin, pavements of different kinds were built in Istanbul:

Bu sene Mart ibtidasından Ağustos nihayetine kadar olan altı ay zarfında 116120 metro murabba-i parke kaldırım ve 62553 metro murabba-i adi kaldırım, 34095 murabba-i şose kaldırım, 1357 metro tulune çimento lağım ve 1024 metro tulunde adi mecra ve 7386 metro murabba-i asfalt piyade kaldırımı, 10087 metro murabba-i çimento piyade kaldırımı inşaat ve tamirat icra edilerek bunlar için min haysulmecmu 83.000 lira sarf olundu ve bunların bir kısmı hitama erdi.<sup>532</sup>

As the capital city of the Empire, Istanbul was significant for the Ottoman officials so that above mentioned public works activities were carried mainly in Istanbul. Nevertheless, Ottoman officials were not indifferent to the provinces as well. The article published in *Le Stamboul* dealing with the public works programme of Cavid Bey when he became the minister in 1912 can be a proof for the concern of the Ottoman officials to public works in the provinces.<sup>533</sup>

According to the article, the Ministry of Public Works requested the provinces to list their local needs in relation to the public works so that the Government would take care of these needs. In the article, it was underlined that the Government would pursue the principles of the constitutional regime and the satisfaction of the people.

As a further example, the significance attached to the local needs and the principles of justice and equality was underlined in the speech of Said Pasha in 1912:

The normal and untrammelled development of commerce, industry and agriculture in the country can be assured only by the maintenance of absolute security and by the entire application of the principles of justice and equality. Also, in order to achieve this end in a practical way, a special mission presided

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<sup>531</sup> Further examples from *Revue Technique Orient* are as follows: “Embellissement de la ville de Constantinople”: 15 Septembre 1910, No: 1, “Embellissement de la Capitale”: 15 Novembre 1910, No: 3, “Kasımpaşa Ravin”: 15 Janvier 1911, No: 5, Adana: 15 Février 1911, no: 6 “Embellissement du Caire”: , “La Reconstruction de Stamboul”: 15 Aout 1911, No. 12, “Choses de Constantinople”: Juin 1912, no. 22, “Constantinople en Transformation”: Mai 1912, No. 21, “La Nouvelle Sublime Porte”: Mars 1914, No. 37.

<sup>532</sup> Birge Yıldırım, *Belediye Başkanı Cemil Topuzlu'nun İstanbul'u Dönüştürme Uygulamaları*, Unpublished M.A. Thesis, İstanbul Technical University, Graduate School of Science, Engineering and Technology, (İstanbul, 2009), p. 62. (Quoted from Osman Nuri Ergin, *İstanbul Şehreminleri*, 1996).

<sup>533</sup> *Le Stamboul*, 22 February 1912: The article was attached to the letter from J. R. C. to the Secretary of State, Washington D.C. on Jan 26, 1911. Additionally, a report related with the conversation made with the Grand Vizier and Said Bey related to the railroad concessions was attached to the letter.

over by our Minister of Interior has been sent to Roumelia in order to learn at first hand the local needs and requirements and to formulate there without delay the measures necessary to satisfy them. The reform which this mission finds to be necessary is now being executed.<sup>534</sup>

The letter of Philander C. Knox on January 5, 1911 is like a mirror showing the developments in trade, agriculture, education, military and public works in the Ottoman Empire.<sup>535</sup> All of these were the efforts of the Empire in the way of modernization.

The Ottoman Government is extending education by establishing new and better schools, supplying the Agricultural Bank with money to buy agricultural implements at the wholesale, to be sold to farmers at about cost on long time notes, and instructing them how to use them, building nine thousand kilometers of highways, the establishment of an Agricultural School at Adana, the director of which is an American, formerly connected with the Massachusetts Agricultural College, the establishment of Agricultural Schools at Baghdad, Adrianople, Diarbekir, and Jenina is announced for the near future, as well as the transformation of the five Government model farms, the reorganization of the judiciary, ... the passage last session of a law aiding manufacturers by granting free entry of raw material, exemption from taxation, and extending other privileges, the reorganization of the police and gendarmerie and the reorganization of both the Army and Navy. In the city of Constantinople, many miles of new pavement have been laid, two long bridges over the Golden Horn have been rebuilt, an electric street railway will soon be built, the new rails are now being laid, an entirely new survey of the city of Constantinople has been made by French engineers, and a commission for relieving congested districts and for beautifying and improving the city is about to be appointed.

In addition to the above mentioned internal improvements, the statements of Ahmed Rıza Bey, the president of the chamber on the policies of internal development were provided in the letter of P.C. Knox. According to him, Ahmed Rıza Bey stated that they were planning to construct enterprises to manufacture the equipments for their own defense, the improvements of the harbors for commerce, and increased aid in agriculture and education.<sup>536</sup> As the words of Ahmed Rıza proved, it was apparent that the Ottoman officials aimed in the development of public works by their own means.

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<sup>534</sup> American Archives II (College Park), Dispatches to the Department of State (January-June 1912), Speech from the Throne: Enclosure no. 1 to Dispatch no. 178, W.W. Rockhill (Constantinople) to the Department of State in Washington, D.C., 19 April 1912.

<sup>535</sup> American Archives II (College Park), Index Bureau 867.51/24. Letter from Philander C. Knox on January 5, 1911.

<sup>536</sup> American Archives II (College Park), Index Bureau 867.51/24.

## 7.2. The Ideas of the Ottoman Officials on Electricity

Electricity represented progress, civilization, and industrial development for the Ottoman bureaucrats. In 1910s, electrification was needed by the Ottoman cities and it would be better to apply it immediately.<sup>537</sup> However, the courage for the immediate establishment of this technology did not prevent Ottoman officials to do a proper evaluation of the issue as the electrification was a high technology urban infrastructure with a great impact on the lighting, transportation, and industrial development of the cities.

### 7.2.1. Admiration of Technology vs. Technological Consciousness and Competence

The travel accounts of Ottoman intellectuals give some impressions of technological developments in Europe. For instance, Serhat Küçük explains the impressions of Ahmed Mithad Efendi regarding electrical technology through Mithad's novel, *Avrupa'da Bir Cevelan*.<sup>538</sup> According to Ahmed Midhad, Lyon city looked like under daylight during nights. Stockholm was like Lyon at nights, even the electricity and gas lighting was too much than needed. Further, theatres in Stockholm benefited from this technology as the electric light provided them with new opportunities.<sup>539</sup> In addition, Mithad told about the electrical lighting instruments of Drottningholm Palace:

Billurdan mamul ve bizim adi su koğalarından daha büyücek bir kandil rabt olunur ki kandilin ağzı olan tarafa kutrı bir metrodan ziyade sini gibi ve fakat beyaz boyalı bir cism-i akkas örtülmüş olduğundan kandilin ağzı görünmeyib bizim kadim kandilcilikte kutu içine konulan kandiller misüllü haricen kocaman bir meme şeklinde görülür. Bu billurların bazıları buzlu olub derunundaki kuvvetli ziyâ'-yı harice dönük olarak aksettirir. Bazıları ise

<sup>537</sup> "... memalik-i Osmaniye'nin terakkiyat-ı iktisadiye ve medeniyesi ... muamelat-ı nası teshil idecek olan elektrikli tramvaylar gibi vesait-i nakliyenin sürat-i mümkinine ile vücuda getirilmesindeki ehemmiyet ... teklifat-ı muhtelifeden memlekete ve hazine-i devlete en nafi hin-i tefrik ve intihabda memleketin bu hususdaki ihtiyacına binaen ...": COA ŞD 1230/14, 1328 R 16 (27 April 1910). Full transcription of the document can be found in Appendix A.

<sup>538</sup> Ahmed Mithat, *Avrupa'da Bir Cevelan*, (İstanbul: Tercüman-ı Hakikat Matbaası, 1892). Serhat Küçük, "Osmanlıların Modern Teknoloji ile Karşılaşması: Elektrik Örneği," *Hacettepe Üniversitesi Türkiyat Araştırmaları Dergisi*, No. 18, (2013), pp. 161-185. For an interesting analysis on Mithad's travel writings, see Olcay Akyıldız, Muhayyelat-ı Ahmed Mithat: Söylemsel Bir Starteji Olarak "Seyahat-i Zihniye," *Türk Dili ve Edebiyatı Dergisi*, vol. XLVII, (2014), pp. 9-33.

<sup>539</sup> Serhat Küçük, *Hacettepe Üniversitesi ...*, p. 167.

şeffaftırlar ki derunlarında şule-feşan olan ziyâ'-yı elektriki güneş gibi parlar.<sup>540</sup>

Another author, Ahmed İhsan, was surprised to have electric lighting in a hotel room in Berlin while he realized that the room was lighted through an electric switch on the wall which he noticed when looking for candles to light the room: “bir hiss-i gayri tabii ile düğmeyi yerinde oynatınca odanın anı vahidde ziyâ'ya müstağrik olduğunu.”<sup>541</sup> He further observed the applications of electricity in Frankfurt Exhibition of Electricity:

Elektriğe müteallik her şey burada mevcûd idi, bir yandan elektrik tramvayları işliyor, bir yandan elektrik ile müteharrik arabalar dolaşiyor, ortadaki cesim havuz derununda elektrik vapurları yolcu taşıyor, her taraf elektrik ile münevver elektrikten şelale yapılmış, elektrik ile icra-yı muhtelif tahlil olunuyor, elektrik ile telgraf işliyor, çingiraklarla teati-i haber olunuyor, elektrik ziyâ'larıyla işaret veriyorlar.<sup>542</sup>

As seen in the above lines, travel accounts and utopias of Ottoman intellectuals had the admiration for technological developments and electricity. The reading of these literary works and the issue of admiration for the technology in them, may lead to think that Ottomans admiring technology would be inactive in the decision making process during the electrification projects in the Empire. However, the admiration for the technology did not prevent the Ottoman officials to make proper evaluations regarding the concession applications of electirification. They evaluated the applications in a professional manner by considering the positive and negative points of the issue in terms of its technical aspects and the budget needed to apply the technology.

For instance, in 1890 Ferdinand Rayzer of Germany applied for the electrification of some of the districts of İzmir. His proposal was evaluated in Şûrâ-yı Devlet (Council of State) and Meclis-i Mahsus-ı Vükelâ (Council of Ministers). According to the report of the Ministry of Public Works, electricity was better than the gas lighting. However, electrification was still in the experimental stage even in the major cities of Europe and the electrification of the whole country was not preferred. The report claimed that it would be better to wait for the further applications of electricity in

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<sup>540</sup> Ibid., p. 167.

<sup>541</sup> Ahmet İhsan, *Avrupa'da Ne Gördüm: Tuna'da Bir Hafta*, translated by Fahriye Gündoğdu and Alain Servantie, (İstanbul: Tarih Vakfı Yurt Yayınları, 2007), p. 303.

<sup>542</sup> Ahmet İhsan, *Avrupa'da Ne Gördüm*, p. 322.

European cities so that the certain outcomes of electrification would be experienced.<sup>543</sup>

The proposals regarding Damascus and Istanbul were rejected due to the same line of thought in 1893. In rejecting the proposal of Necib Habib and Reşid Esad Matran regarding Damascus, Hasan Tevfik, the Minister of Trade and Public Works mentioned about the case of Ferdinand Rayzer's proposal in relation to İzmir and due to the same reasons, he declared that it was not possible to assign a concession to Necib Habib ve Reşid Esad Matran.<sup>544</sup> Yanni Koletis, who applied for the electrification of Istanbul, was rejected due to the same reason as well.<sup>545</sup>

The reason for rejecting the lighting projects of three cities of the Empire grew out of the concerns of Ottoman officials regarding the technology, which was in experimental stage. Apparently, Ottoman Government did not want to invest in a technology, which was not applied properly. They took the option of waiting for the technology to develop further and then apply it in the Empire.

When the technological developments in electrification are considered, the Ottomans were right to think in that way. Development of the most efficient, economic, and user-friendly lighting technology; which would enable the transmission of electricity

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<sup>543</sup> “Ferdinand Rayzer tarafından vuku bulan istid’â üzerine ifa-yı muktezasına dair şeref sâdır olan irade-i seniyye mantuk-i âlisiyle Bab-ı Ali cânib-i samisiyle cereyan eden muhabere üzerine Şûrâ-yı Devlet’ten tanzim ve Meclis-i Mahsus-ı Vükelâ’da kıraat olunan mazbatada elektrik ziyâ’sı havagazı vesair vesait-i tenvîriyeye nisbeten daha latif olub ancak Avrupa’nın başlıca şehirlerinde bile sokakların elektrik ziyâ’sıyla tenvîri henüz tecrübe derecesinde olmasıyla bir memleketin tamamen elektrik ile tenvîri için imtiyâz i’tâsı tarafına gidilmemekte olduğundan tecarüb-i vakıanın netayici katiyen istihsâl edilmedikçe Memâlik-i Osmaniye’de şimdiden imtiyâz i’tâsı mahzurdan ...”: CCA NV, 34E/1 230-0-0-0 20 1 1 (10 November 1893).

<sup>544</sup> CCA NV 34E/1 230-0-0-0 20 1 1 (10 November 1893).

<sup>545</sup> “Dersaadet ve Beyoğlu ve Üsküdar ve Kadıköyü ve Boğaziçi mahallatının her tarafını ziyâ’-ı elektriki ile tenvîr ve mahallat-ı mezkûrede vaki her nev fabrika ve değirmenlerin makinalarını tahrik ve tedvir etmek ve Boğazici ve Marmara Denizlerinin münasib mahallerini elektrik ziyâ’sıyla münevver iki büyük deniz feneri inşa ve rekz eylemek üzere ve üç bab elektrik fabrikasının inşâ ve tesisi ile işledilmesi imtiyâzının uhdesine i’tâsına dair Yanni Koletis mühür ve imzasıyla Mâbeyn-i Hümayûn -ı mulukane baş kitabet celîlesine takdim olunub elden i’tâ ve taraf-ı bendeganeme havale buyrulan istidaname mütalaa ve tedkik olundu.”: CCA NV, 34E/1 230-0-0-0 20 1 1 (10 November 1893). The compliments of Koletis’ proposal were inadequate to win over the concession: “... Gerek Avrupa ve gerek Amerika kıtalarının her tarafında ahalinin tenvîr-i ihtiyacı ve def-i zarurâtı maksadıyla birkaç senelerden beri elektrik vasıtasıyla birçok fûnûn ve sanayinin tatbikatı tekessür ederek alem-i medeniyet bir temaşa-i hayret efza kesb edegelmekte olduğu halde memalik-i mahrusetül mesalik-i Osmaniye’nin dahi bu gibi terakkiyat-ı fenniyyeden hissemend olması muhli-i mülk-i devlet olan velinimet-i binimetimiz padişah-ı fûnûn-i iktizah efendimiz hizmetlerinin ahz-ı amallerinden bulunduğundan bu maksad-ı ariz ve rıza-i alulala min gayri haddim hizmet etmek niyet-i acizanesiyle pay-i taht-ı saltanat-ı seniyye olan İstanbul belde-i azimesi ve Beyoğlu ve Üsküdar ve Kadıköy ve Boğaziçi mahallatının her tarafını vesait-i fenniye ile tedarik olunacak ziyâ’-ı elektrik ile tenvîr etmek ...”.

in the long distances, took a considerable time. In the history of electrification, this phase of technological development could be named as the battles of lighting<sup>546</sup> between the enterprises as well as inventors-entrepreneurs between early 1870s and 1914.<sup>547</sup> This phase was composed of invention of electric light and current, then getting patents for the invention and fighting of the inventors-entrepreneurs for the application of electric light in cities or regions.

For the period of 1885-1893, direct current and alternative current became rivals for the electrification of different regions. The success of Edison's<sup>548</sup> direct current continued until Niagara Falls Project in 1893.<sup>549</sup> The aim was transmitting electricity in the long distances and a competition was held to select the best engine and production method. The winner was the project of Westinghouse Electric Company and Tesla, which used alternative current. After this date, alternative current was used in the electrification projects.

Considering the above development phases of electrification, it was the right thing to wait for the maturing of technology rather than investing immediately for an unmatured version which would be altered by a new technology soon after.

The electrification proposal cases of Istanbul, İzmir, and Damascus cities occurred in three years time. Although a considerable time passed from the first proposal and its evaluation stage, Ottoman officials made use of their former information and evaluations on the matter.

Ottoman officials had not only pure admiration regarding technology as seen in travel accounts or the utopic writings of the 19<sup>th</sup> century Ottoman intellectuals and

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<sup>546</sup> For detailed information on the battles of lighting, see footnote 51.

<sup>547</sup> 1876 is the date when Edison started to work in Menlo Park where he and his team invented incandescent electric lamp. 1893 is also a break point in the history of electrification. It was the year of Chicago World's Fair; where big companies such as General Electric or Westinghouse Electric Company had exhibitions of electricity. In those exhibitions, there was a competition between the currents: Direct current-DC and alternative current-AC. The symbol of the fair, Felix Wheel was lightened by electricity. In the same year, alternative current generator of Westinghouse Electric Company was the winner of the Niagara Falls electrification concession. 1914 is the year when World War I started. The war slowed down the developments and investments in the electrical industry.

<sup>548</sup> Edison was trying to get electrification concessions by clever public relations campaigns. He suggested alternative current to the New York Death Commission for using electricity in the executions rather than using gas. He argued that the alternative current had high voltage rates thus it was dangerous. His public relations campaign over alternative current, his brochures, and public speeches telling how alternative current was deathly, became successful: Jill Jones, *Empires of Light*, p. 152, 165-183, 187-188.

<sup>549</sup> Jill Jones, *Empires of Light*, p. 277-335.

authors but rather they had technological consciousness since they preferred to see the outcomes of electrification applied abroad which proved how far-sighted were the ottoman officials. They were aware of the financial limits of the country, and before applying a technology immediately, Ottoman officials tried to understand the state of the technology better and choose the most efficient one.

Apart from technological consciousness, Ottoman officials had technical competency during the decision making processes of concession applications and their evaluation. For instance, the conflict of interest between Tünel Company and Dersaadet Tramway Company was tried to be resolved through analyzing the technical details of contract of Tünel Company with the Ottoman Government.<sup>550</sup> According to the mazbata of Şurâ-yı Devlet (Council of State), Nâfia ve Maarif ve Maliye Dairesi (Branch of Public Works, Education and Finace), the rights of Tünel Company included the electrification of railways, which were driven by immovable machines. However, the construction of electrified tramways was different than the railways and included technical detail other than the railways.<sup>551</sup> That is why, the

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<sup>550</sup> British Embassy wrote a letter to the Ministry of Foreign Relations, which claimed that the rights of would be breached in case of a concession awarded to Dersaadet Tramway Company: “Dersaadet Tramvay Şirketi’nin şimdiki hutûtu ile Beyoğlu, Galata ve İstanbul cihetine temdid idilecek bazı aksâmı üzerinde elektrik isti’mâli hakkı bahş iden yeni imtiyâzı istihsâl itmek üzere bulunduğu evrak-ı havadiste görüldüğünden ve işbu imtiyâzın ifası ... Beyoğlu ve Galata Tünel Kumpanyası’nın ... menafiini ihlal”, “Mezkûr takrir-i şifahi cevabsız kalmıştır. Dersaadet Tramvaylarının elektrik kuvveti ile cerri için teşebbüsatta bulunulduğu anlaşılıyor. Tünel şirketinin haiz olduğu hakk-ı rûçhan nazar-ı dikkat ve itina ve itibâra alınmaksızın ahara bu kabil bir imtiyâz verilmesi İngiltere tebaasının menafiinin hakka müstenid olmayarak cidden ihlali demek olacağından sefaret bu hale nazar-ı endişe ile bakmaktadır”: COA BEO 2947/221010, 1324 C 10 (1 August 1906).

<sup>551</sup> “... mezkûr tezkirede Tünel Şirketi’nin 2 Şaban sene 1286 (7 November 1869) tarihli mukavelenamesinin 30. maddesinin Türkçe metni şirket-i mezkûrenin müddeiat-ı vakıasına tamamiyle celb eder sûrette sarahat-ı katiyeyi haiz olmakla beraber işbu maddenin Fransızca metni nazar-ı itabare alınsa bile Tünel Şirketi’nin hakk-ı rûçhanı münhasıran sabit makine ile cer olunur bu misûllü şimendiferlere aid olub tramvaylara katiyen şümûlü olamayacağı gibi tünelde sabit makinaya kayış sarılmak sûretiyle tatbik edilen usûl-i cerriyeye nazaran arabalar edevat-ı müteharrikeyi teşkil eylemekde ve sabit makinada muharrik vazifesini i’tâ etmekde bulunduğu cihetle sabit makinaya tabii olan şu usûlün kuvve-i elektrikiyyenin arabalara irsali ve tekerleklerle intikali sûretiyle doğrudan doğruya muharrik vazifesini ifa eden elektrikle cer usûlüne tatbik ve kıyas edilemeyeceği de bedihi bulunduğundan şu halde Tünel Şirketi’nin iddiası elektrikle müteharrik tramvaylar hakkında değil elektrikli şimendifer hakkında bile gayri varid görülmüş olduğundan bahisle istizanı keyfiyet kılınmıştır. Nezaret-i müşarunileyhadan celb ve mütalaa olunan dosya miyanında Nezaretin 23 Nisan sene 325 tarihli ve 29 (6 May 1990) numaralı tezkiresinin son fıkrasında Tramvay Şirketi ile elektrik kuvvetinin tatbiki için henüz müzakarata girilmediğinden bu babda müzakarata mübaşeret olunduğu zaman keyfiyetin arik ve amik tedkik edileceğine dair vukû bulan ifadenin ... Evvela atik mukavelenamenin Türkçe nüshasının 31. maddesi mucibince Tünel Şirketi’nin hakk-ı rûçhanı ancak bu türlü sabit makine ile cer ile icra olunur bir nev demiryolu için kabil-ı tatbik olub halbuki adi bir tramvay hattını böyle bir demiryoluna kıyas etmek mümkün olmaz. Zira tramvaylar ile demiryolları ? tefrik eden usûlden biri demiryollarının kendilerine mahsus ve ? mahallerden mürur edib tramvayların tarik-i amdan mürur etmesi keyfiyeti olmasına göre Tünel Şirketi’nin tarik-i am üzerinde ? adi

claims of Tünel Company regarding the rights over construction of trams, were rejected by the Ottoman administrators.

### 7.2.2. From Electricity to Urban Development

Ottomans considered electrification as a part of Empire's urban development. The issues of electrification, cartography works of the Istanbul as well as developing the city planning were mentioned together in the bureaucracy documents as they were dependent to each other.<sup>552</sup>

Especially, the attempts for the electrification of tramways necessitated the city planning since the routes of the trams had to be constructed in line with the city plan. Further, the trams had significant impacts on the city since the construction of them necessitated the enlargement of the streets. Additionally, some of the buildings had to be condemned since they stood on the tram routes according to a document dated 1907:

Şirketçe merci-i mahsusuyla beş seneden beri devam eden müzakarât ve münakaşat neticesinde kabul edilen beşinci ve onbirinci maddelerin sûretidir. Beşinci madde: Şirket hutût-ı cedidenin mürûr edeceği caddelerden tek hatlı olanların arzı on iki arşından dîn ise oniki arşına ve kezâlik hutût-ı cedideden çift hat ferç olunacak caddeler ile hutût-ı atıkadan dahi el yevm çift hat işleyen yollardan maada çift hatta tahvil edilecek caddelerin arzları on beş arşından dîn ise yine on beş arşına iblağa mecbûrdur ... Şöyle ki şirket hutût-ı cedide ve atıkadan vüsat-ı hazıraları 15 arşından dîn olmayan yollara emânet-i müşarünileyhanın inzimâm-ı reyî ve muvafakatıyla çift hat ferç edileceği gibi bakiyye-i mezkûrelerin hutût-ı cedide ve atıkadan kezâlik emânet-i müşarünileyhadan ati-i zikr onbirinci maddede tasrih olunan şerâit muktezasınca kuvve-i elektrikiyye isti'mâl eyledikte balada beyân olunan istimlâk-ı emlak muamelesinin tamamen icra ve ikmâlîne şimdiden müteahhiddir. İşbu tevsiat için kat ve mübâyaaşı hususunda sâhib-i imtiyâz ile eshâbı uyuşmadığı halde istimlâk kanuna tevfik-i muamele olunacaktır.<sup>553</sup>

Cemil Topuzlu, mayor of Istanbul (1912, 1919-1920), told about the framework of Istanbul's city plan which depicted the industrial and commercial districts of the city

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tramvay hatları hiç bir güne iddia dermiyan etmesi kabul şayan olamaz. ...": COA BEO 3750/281185, 1328 C 5 (14 June 1910).

<sup>552</sup> COA DH.MUI 42/66, 1328 Ca 29 (8 June 1910): The document contained information on the construction of electrified trams in Kadıköy and Üsküdar, works regarding the city map and the city plan. Full transcription of this document can be found in Appendix A.

<sup>553</sup> COA İ. HUS. 149/51, 1324 Za 16 (9 January 1907). Full transcription of this document can be found in Appendix A.

as well as the routes for the transportation system, rebuilding of the districts which were destroyed by the fires and the improvement of the unhealthy places such as Haliç. The plan included the protection of cultural heritage of the city as well:

Bu umumî projede büyük camilerimiz, asar-ı tarihiye ve nefise ve müessesat-ı cesime sabit kalmak üzere şehrin limanları, ticaret mevkileri, fabrika ve darrussınai mahalleri neresi olacağı ... tespit ve inşaatda kabul olunacak Şark usûl-i mimarisinin tarzı tayin edilecek ve şehrin atıyyen alacağı tamamen irae olunacaktır. Bu projenin tanzimini müteakib evvela harik mahalleri imar saniyen şehrimizin hastalık menbai bulunan Haliç'in iki sahilini bir taraftan Tophâne'den Azabkapu'ya ve diğer taraftan Sirkeci'den Eyüb'e kadar geniş caddeler açarak ve Yeni Cami-i şerifin etrafıyla Galata'nın tünel ve tramvay mevkiinde birer meydan vücuda getirerek şehrin en kalabalık mahalleri tevsi edilecektir.<sup>554</sup>

Mr. Auric, who was the chief architect in Lyon Municipality, was appointed to engage in the city plan of Istanbul in 1909 under the mayorship of Halil Edhem. Paris Tedkikat ve Ameliyât-ı Topoğrafya Cemiyet-i Umûmîyyesi became the mediator between Mr. Auric and the Ottoman Government in this issue.<sup>555</sup> Auric served as the chief officer in the technical affairs bureau (heyet-i fenniye reisi) of the municipality and worked for the city planning of Istanbul. In addition to that, he was employed in the electrification business of Istanbul as the chief inspector of electricity (Tenvîrat-ı Elektriki Serkomiseri).<sup>556</sup> Zehrab Efendi and Hamdi Bey were appointed as the assistants of Auric in the electrification project. Indeed, Hamdi Bey was appointed after the appointment of Zehrab Efendi since it was not possible to overcome the tasks regarding electrification by two people.<sup>557</sup> Later on, Mustafa Hulki Bey was appointed as the assistant of Auric due to the fact that Zehrab and

<sup>554</sup> Birge Yıldırım, *Belediye Başkanı ...*, p. 55.

<sup>555</sup> Osman Nuri Ergin, *İstanbul Şehreminleri*, A. Neziha Galitekin (eds.), (İstanbul: İstanbul Büyükşehir Belediyesi, 1996), p. 358.

<sup>556</sup> See CCA NV 34E/50 230-0-0-0 23 9 1, 22 Haziran 327 (5 February 1911) and CCA NV 34E/53 230-0-0-0 23 9 4, 19 Temmuz 1327 (1 August 1911): "Heyet-i Fenniye Reisi ve elektrik şirketi komiseri Mösyö Orık (Auric) bir buçuk ay müddetle mezunen Avrupa'ya azimet edeceğinden mûmâileyhin avdetine değin komiserliğe İmtiyâzat Şubesi Müdürü Mahmut Şükrü Bey vekalet edeceğine ve şirkete de o yolda tebligat icrâsı lâzım geleceğinin arz-ı beyânına müsaderet kılındı. Ol bâbda emr-i fermân hazret-i men lehü'l-emrindir."

<sup>557</sup> CCA NV 34E/44 230-0-0-0 23 8 5, 15 Safer 1329 (15 February 1911) and CCA NV 34E/50 230-0-0-0 23 9 1, 22 Haziran 327 (5 February 1911): "Şirket-i mezkûrece Boğaziçi'nin Rumeli sahiliyle İstanbul'u şâmil olmak üzere begayet vasi ve uzun bir sahada yapılacak imalâta aid tefişatın zatınız ile geçen sene tayin kılınan Zehrab Efendi tarafından icrâsı müşkil ve müteassır olacağına mebni indel iktiza muavenet eylemek ve maaşı Nezâretçe tesviye edilmek üzere bin gurus maaş ile bu kerre dahi Hamdi Bey tayin kılınarak taraf-ı velâmşiarilerin tevdi ve irae olunacak vezaif hüsn-i sûretle ifası zımında mûmâileyhimaya icrâ-yı tefhimata ve memuriyet-i vakıadan şirket-i mezkûreye de i'tâ-yı malûmat edilmiş olduğundan her iki komiserin istihdâmı sûretiyle ...": Full transcription of both documents can be found in Appendix A.

Hamdi proved to be insufficient to undertake their tasks.<sup>558</sup> The employment of Auric in the electrification business is another proof that the Ottoman officials considered electricity as a part of urban development.

Since the construction of infrastructures necessitated the city plan and a city map and the Ottoman Government and Şehremâneti aimed to have a modern capital, the efforts for the embellishment of the city accelerated after the Second Constitutional period. European cities were the most admired ones for the Ottomans that they visited some of the European cities. The travel accounts of Esad and Cevded of a considerable number of European cities is valuable in understanding the search Ottoman officials as a model to the capital city, Istanbul. Since Paris and Berlin was not preferred as the model cities due to the fact that they were planned and renovated a hundred years ago. However, Peşte was the city whose planning methods could be applied for Istanbul:

Binaenaleyh bu şehrin tanziminde tatbîk olunan bu usûlün şehrimizde dahi iyi netice vereceğini ümit ediyoruz. Şöyle ki, Peşte şehri birçok dar sokak ve küçük evleri havi olduğundan belediye evvela Peşte civarında mahalle teşkiline müsait arsaları elde etmiştir. Bunların vesait-i nakliye mürur ve uburunu temîn ettikten sonra kent dahilindeki mahallatı kamilen istimlak ederek ahalisine civardaki arsalardan yer göstermiş ve istimlak olunan mahallerin cadde ve sokaklarını dilediği gibi tanzim ve bir de modelini yaptıktan sonra icraata başlamış ...<sup>559</sup>

<sup>558</sup> CCA NV 230-0-0-0 24 11 8 (12 January 1914): “Dersaadet Tenvîr-i Elektriki Şirketi’nin komiserliğe müteallik umur ve hususatda zatınıza muavenet eylemek üzere evvelce tayin edilmiş olan ve birinin devamsızlık diğerinin kifayetsizliği öteden beri meşhur bulunan Zehrab ve Hamdi Efendilerin bu kerre makam-ı celîl-i Nezâretce memuriyetlerine hitâm verilerek her ikisinin makamına kaim olmak üzere Avrupa’da elektrik mühendisi mektebinde ikmal-i tahsil ile geçen sene avdet eyleyen ve bir müddet Konya Vilayeti kadastro işlerinde Şehremâneti umûr-ı fenniyesinde istihdâm edilmiş olan Mustafa Hulki Efendi 1500 gurus maaşla tayîn kılınmış ve bu babda şirket-i merkûmeye dahi icra-yı tebligat olunmuş idüğünün beray-ı malûmat beyânıyla ...”. By 1913, Mustafa Hulki worked in Sanayi Mektebi (Technical School) and taught “makine ve buhar kazanları ve türbinler dersleri (machines, steam boilers and turbines)”: “600 gurus maaşla ve Sanayi Mektebi makine ve buhar kazanları ve türbinler dersleri muallimliğine tayin olunub 4 Eylül sene 329 tarihinde vazife-i tedrisiye mübaşeret eylediği”: CCA NV 230-0-0-0 24 11 8 (12 January 1914). In 1918, he became the director of (*nazır*) of Sanayi Mektebi: İTÜ Kurum Arşivi (İTÜ KA), YMM 39/51, 1334.5.20 (20 July 1918). In the meantime, he also taught at *Mühendis Mektebi* (School of Engineering): İTÜ KA, YMM 38/67, 1334.3.27 (27 May 1918). According to a document dated 1923, Mustafa Hulki served as the head of industrial office in the municipality (Şehremâneti Sanayi Şubesi Müdürü): İTÜ KA, YMM 56/54, 1339.3.27 (27 May 1923). In 1925, Mustafa Hulki was assigned to do research on sugar factories in Europe: İTÜ KA, HMM 69/67, 1341.9.12 (12 November 1925). He became the director of İETT (Istanbul Electric, Tramway, and Tunnel Administration) between 1940 and 1946. Then, he became rector at İTÜ twice for the periods of 1946-1951 and 1951-1955 (the exact dates regarding the rectorship of Mustafa Hulki Erem are 24.6.1949-24.6.1951 and 25.6.1955-5.7.1956): <http://www.disiliskiler.itu.edu.tr/arsiv/itu-rektorleri>.

<sup>559</sup> C. Esad and A. Cevdet, Şehremânet-i celîlesi’ne 329 senesinde Avrupaya vuku bulan seyahatimiz esnasında tedkikat-ı fenniyeeye aid rapor, İstanbul, Ahmed İhsan ve Şürekası, 1912, p. 60: quoted from

Şehremâneti was involved in the urban development process as they undertook technical visits to some of the European cities. Topuzlu claimed that the reports were prepared after the technical visits. The municipality claimed to undertake infrastructure investments and would work for the lighting of the city and the construction of the sewerage system in the city:

Bütün bu düzenlemelerin sonuçları hakkında ayrı ayrı raporlar düzenlenmiştir. Belediye encümenine verilecektir. Bundan böyle belediye yolları müteahhitlere vermeyecek, kendi yaptıracak. Temizlik, ulaşım aletlerini ve araçlarını gördük. Bunların kataloglarını aldık. İstanbul'un aydınlatılmasına genel lağımların acilen inşasına çalışacağız. Sipariş vermedik. Amele getirdiğimiz için yanlış anlaşılmasın. Şehremânetinin 450 bin liralık geliri Avrupa'da 100 bin kişilik kasabaların gelirine denktir. En az İstanbul Belediyesi bütçesi iki milyon lira olmalı.<sup>560</sup>

As the above quotation shows, Şehremâneti was ambitious to be active in the urban infrastructures. It was Ministry of Public Works who had the power to evaluate the electrification concessions. However, the view of the Şehremâneti was taken as well.<sup>561</sup> Additionally, Şehremâneti was receiving income from the electrical works in Istanbul.<sup>562</sup> Yet, the municipality was not last party to deal with the whole electrification concession since electrification was an enormous urban infrastructure, which could not be left in the hands of municipality totally.

Although published in the early Republican years, the introduction of the book *Şehirlerin İnşası ve Islahı (Construction and Improvement of the Cities)* summarised the ideas of Ottomans on urban infrastructures by focusing on the facilitating role of infrastructures in peoples's lives and their supportive role in the industry and economy:

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Birge Yıldırım, *Belediye Başkanı ...*, pp. 29-30. Yıldırım transliterated this report in her MA thesis: pp. 144-190.

<sup>560</sup> Birge Yıldırım, *Belediye Başkanı ...*, p. 18. Yıldırım quotes from an article published in *Sabah* in 1914 by Reşit Saffet Atabinen. Unfortunately, she did not provide the full reference for her quotations.

<sup>561</sup> "Boğaziçinde mevcûd akıntıların kuvvetinden bilisiftade istihsâl kılınacak elektrik ile cadde ve sokakların ve emâkin-i emiriye ile büyü ve dekâkinin tanzîm olunacak mukavelenâme dâiresinde tenvîri ve arzu edildiği takdirde soba ve matbah mahallerinin de teshini zımnında elli sene müddetle uhdesine imtiyâz i'tâsı Halep valî muavin-i sabıkı Süleyman Sururi mührüyle verilen arzuhalde istida olunmuş ve vakıa umûm elektrik müessesatı hakkında Nezâret-i acizice bir kanun lâyihası tanzîm edilmekte ise de taleb edilen imtiyâzın İstanbul şehrine aid bulunmasına nazaran evvel-i emirde Emânetçe vaki olacak mütalaanın bilinmesine lüzûm görünerek mezkûr arzuhalin sûret-i Nâfia İdaresi ifadesiyle leffen irsâl kılınmış olmakla icâbının icrâ ve inbası babında ...": CCA NV 230-0-0 20 1 8 (1 February 1909). The law, which was mentioned in this document and which was prepared by the Ministry of Public Works, could probably be the Law of of Concessions, which was enacted in 1910.

<sup>562</sup> COA DH. İD. 215/3, 1332 B 25 (19 June 1914).

Şehirlerin inşâsında takip edilen gaye, ihtiraat-ı asriyeden istifade ederek insanların müştereken yaşamalarına saik olan ihtiyaçlarını en mükemmel bir sûrette tatmin etmek ve hayatla ticareti daha iyi bir teşkîlata tabi tutmaktan ibaretdir. Projeler de müstakbel yirmibeş ile elli senelik ihtiyacı ve ana göre icâb eden araziye nazar-ı itibare almalıdır.<sup>563</sup>

Though the electrification was imposed as a facilitator for the people and industry, the way it was applied still received some reaction from the public. For instance, the construction of electrified trams and destroy of forests and some of the archeological heritage:

Tekmil mukaddesatını yıkarak asar-ı dide ağaçları keserek ölülerin kemiklerini kırarak enkazını bir başdan öbür başa yarmak istedikleri bol ve çirkin uyun ve kasvetengiz yolların altına gömecekler. Bu da elektrik tramvayı mühendislerinin demiryollarının ve nakilllerini kolaylıkla ve ucuza fers ve inşa edebilmeleri için.<sup>564</sup>

As seen in the above lines, electrification was directly related with the urban development. Different parties; the officials of the Ministry of Public Works, the municipality administration, engineers, architects, cartographers were all involved in this process.

### 7.2.3. Politics of Concessions

Above quotation from *Şehirlerin İnşa ve Islahı* defined the public works within the framework of urban life and established the relationship between the industry and commerce and urban life. Moving from here, it will be good to deal with the ideas of Ottoman officials regarding the electrification and foreign investment.

There were a number of views regarding the concessions and foreign investment in the Empire. As quoted above, Şehremâneti was eager to undertake the public works of the city. Dersaadet Ticaret Odası (Istanbul Chamber of Commerce) was accepting to offer concessions to the foreign investors regarding high technology enormous public works such as electrification, water systems in the cities or construction of ports. However, it was against to assign concessions regarding the public works,

<sup>563</sup> Mehmet Refik (mütercim), *Şehirlerin İnşa ve Islahı*, (İstanbul: Ahmed İhsan Matbaası, 1927), p. 3. This book is the translation of *Städte und Hochbau* (Urbanism and Building Construction, 1927) published by Akademischer Verein Hütte, Berlin (Hütte Heyet-i Fenniyesi - an association based in Berlin, which published handbooks for the engineers/Des Ingenieurs Taschenbuch).

<sup>564</sup> Mimar Kemaleddin, *Türk Yurdu*, 3 Mart 1913: quoted from Birge Yıldırım, *Belediye Başkanı ...*, p. 62.

which did not require great deal of investment since these kind of concessions could lead establishment of monopolies and the withering of local industry and entrepreneurship:

Osmanlı topraklarında sanayinin yayılmama sebeplerinin başında ... her çeşit rekabeti bertaraf edecek ve yerli sanayimizin terakkisine mani inhisar teşkîl eyleyecek bazı imtiyâz ve müsaadelerin verilmesinden ibaret olduğunu itiraf ederiz. ... Ancak demiryolları ve şehirlerde su akıtılması ve liman, rıhtım ve tramvaylar inşası, gaz veyahut elektrikle aydınlatma vesaire gibi büyük bayındırlık işleri için rekabeti teşvike lüzum olmadığı cihetle, muayyen bir alan içinde bunlar için imtiyâz ve inhisar verilebileceğini kabul ederiz. Fakat yukarıda zikredilen teşebbüsler gibi büyük sermaye gerektirmeyen küçük sanayi için inhisara dönüşebilecek ayrıcalıklar verilmesi sanayi erbabının çalışmasını semeresiz bırakacağı gibi, ticaret ve sanayinin terakkisi ve kalkınmanın esası olan teşebbüs ve girişimcilik fikrinin mahvını mucip olur.<sup>565</sup>

Cavid Bey who was the Minister of Finance during 1910s wrote on the foreign investment and concession discussions extensively.<sup>566</sup> In one of those, he claimed that the Ottoman Empire needed foreign capital to carry out public works such as construction of roads, ports, telegraphy or transportation works in the rivers:

Ecnebi sermayelerinden müstağni kalamayacağımız taayyün ve tahakkuk etmiştir. Bunlardan mahrumiyet vesait-i medeniyeden mahrumiyettir. Yol, şimendifer, telgraf, liman, rıhtım inşası, nehirlerin kabil-i seyr-i sefâin hale ircağı, şehirlerimizin tenvîr ve tezyîni, bunlar birer birer arz-ı vücud edecek ihtiyacdır. Madem ki bu ihtiyaçlarımızı istifa edebilmek için ecânibe muhtacız, o halde ecnebileri celb edecek esbaba tevessül etmeliyiz.<sup>567</sup>

Cavid Bey had liberal attitudes regarding economy.<sup>568</sup> He told to the journalist that the Empire was not hostile to foreign capital, probably thinking about the integration of the Empire's economy into the world's economy. Further, he claimed that the home country of the capital was not a matter of concern since the home of the capital was the place where it served as long as the capital did not serve for the political ends. Apparently, this was an optimistic view:

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<sup>565</sup> *Dersaadet Ticaret Odası Gazetesi*, nr. 278. 14 Nisan 1306/26 Nisan 1890, Ufuk Gülsoy and Bayram Nazır (eds.), *Türkiye'de Ticaretin öncü Kuruluşu: Dersaadet Ticaret Odası, 1882- 1923* (İstanbul: İTO, 2009), p. 219-220.

<sup>566</sup> For the exact dates rearding Cavid Bey's ministerial positions : Deniz Karaman, *Cavid Bey ve Ulûm-ı İktisadiye ve İçtimaiye Mecmûası*, (Ankara: Liberte, 2001), pp. 1-5.

<sup>567</sup> Mehmet Cavid, "Ecnebi Sermayeleri 2", *Sabah*, 15 Teşrin-i evvel 1908, p.1: quoted from Deniz Karaman, *Cavid Bey ...*, p.17.

<sup>568</sup> Although he had libral economic views, he advocated the establishment of a national bank in the years of WWI due to the severe conditions of the war: Zafer Toprak, *İttihad-Terakki ve Cihan Harbi: Savaş Ekonomisi ve Türkiye'de Devletçilik, 1914-1918*, (İstanbul: Homer, 2003), pp. 58, 62, 217, 377-381.

We have need of foreign capital to carry out these works. We shall take the money where we need it under the best conditions. ... The home of capital is not the country whence it comes but the country whither when it goes. We only wish that the capital, which comes to us will serve for works and not for political ends. It is that to which we pay the greatest attention. We know very well that the capitalist does not give us the money except for profit and he is attached to the country where he gains.<sup>569</sup>

In another article, Cavid Bey told about the needs of the Empire in terms of public works. According to him, public works and economy were dependent to each other and the economic development would not be possible without the development of basic infrastructures. Further, he claimed that the public works should be developed immediately. Although it was necessary to examine the public works concessions, the development of the infrastructures was urgent as well. Therefore, it would be better for the Empire to offer public works concessions and not spend too much time for their evaluation:

Memleketimizin ne kadar şedid ihtiyaçları var! Bu ihtiyaçlar karşısında ise biz kollarımızı bağlamış duruyoruz. ... Verilecek imtiyâzlar hakkında tedkikat icra etmek, memleketimizin zararına bir muamele yapmamak için düşünmek lazım. Doğru. Fakat bu düşünceler ne kadar zaman devam edecek? Bu zamanların boş geçmesinden verilecek imtiyâzlarda beş on lira aldanılması bin kerre faidelidir. ... Teşebbüsât-ı mühimme-i nafia ise ancak ecnebi sermayesiyle vücuda gelebilir. Bundan mahrumiyet âlât ve vesait-i iktisadiyeden ilelebed mahrumiyet demektir. Medeniyete yeni açılacak olan memleketler yalnız kendi kuvvetleriyle tarîk-i hayatta ilerlemek isteyecek olurlarsa herhal sendelerler ve düşerler. Asrımızın icabat-ı zaruriyesinden olan sürat-i hareket için o kuvvet kifayet etmez.<sup>570</sup>

Along with the discussions of foreign investment, employment of foreign personnel in the public works investments was another issue that the Ottoman Government had to deal with. The employment of foreigners in the public works received critiques.

For instance, *Mühendis (The Engineer)* Mehmed Galib was critical to the employment of foreign experts regarding the cartography works of Istanbul. According to him, the map of Istanbul could be prepared in two or three years and the employments of foreign experts was not needed during this time:

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<sup>569</sup> Interview with Djavid Bey with the editor of a Salonica paper called Roumélie on the subject of the Government's program for public works, especially railways and Chester project (1912).

<sup>570</sup> Mehmet Cavid, "Neşriyat ve Vekayi-i İktisadiye – 4", *Ulûm-ı İktisadiye ve İçtimaiye Mecmûası*, vol.2, No: 5, pp. 123-135: quoted from Deniz Karaman, *Cavid Bey ve Ulum-ı İktisadiye ve İçtimaiye Mecmûası*, Ankara : Liberte, 2001, p. 216.

Her şeyi önümüze hazırlanmış görmeye alışmışız. Yapılacak ise bir göz gezdirub bizde yapılub yapılamayacağını anlamağa çalışmak ve ancak yapılamayacağını tahakkuk ettikten sonra Avrupalılara müracaat etmek lazım değil midir? ... Şehrin haritası laekal iki üç senede husûl bulabilecek bir teşebbüs-i azimdir. Harita ahz ve tersimi ile iştilal edilecek olan bu seneler zarfında Mösyö Bouvard ve mahiyeti gibi büyük mühendislere lüzum yoktur. Yerli mühendisler iş görür ve bu işe gayyurane hasri vücud etmiş olanların semere-i muvafakiyetlerini umum için badi-i iftihar olur. <sup>571</sup>

Ottoman Government was in the same idea with *Mühendis* Mehmed Galib since it was claimed that Papaduka Efendi who was educated as an electrical engineer could be employed for the examination of contracts. Papaduka as an Ottoman citizen was preferred to be employed rather than employing foreigners:

Bu fende hakikaten haiz-i ihtisas ve tecrübe olduğu anlaşılmakta ve ebnâ-i vatandan evsaf ve malûmat-ı matlubeyi cami olanlar mevcûd iken memalik-i ecnebiyeden mütehassıs taharri ve celbi muvafık olamayacağı ... ve kendisinin (Papaduka) Nezâretçe istihdâmı muktezi olunduğu halde Meclis-i Vükelâca müzakere olunmak üzere keyfiyetin işarı hususuna himmet. <sup>572</sup>

As the Ottomans preferred to employ Ottoman engineers, the benefits of the state were always considered during the electrification concessions. The development of modern infrastructure and the economy (*memalik-i Osmaniye'nin terakkiyat-ı iktisadiye ve medeniyesi*) was considered by the officials. <sup>573</sup> According to them, construction of electricity in the city was needed as soon as possible for the economy and progress of a a civilized country. <sup>574</sup> Further, the public works were associated with the idea of justice since to have the facilities of public works and modern urban infrastructure was the right of everyone. <sup>575</sup>

<sup>571</sup> Birge Yıldırım, *Belediye Başkanı ...*, p.17. Mehmed Galib could be Mehmet Galip Sinap (1888-1962) who was a graduate of École des Ponts et Chaussées (Paris). He taught at Mühendis Mekteb-i Âlisi and Sanayi-i Nefise Mektebi between 1919-1922. He is one of the founders of "Türk Mühendis ve Mimar Birliği" which was established in 1924, in İzmir. He ran "İnşaat İdare-i Fenniyesi" [Bureau Technique de Constructions Civiles] with İbrahim Galip Fesçi in İzmir: Şeref Etker, "Türk Mühendis ve Mimar Birliği Kanun-i Esasisi (İzmir, 1924)," *Osmanlı Bilimi Araştırmaları*, XIII/I, 2011, p. 110, 114. The coming of Bouvard was noted in a letter from the Grand Vizier to the Ministry of Interior Works (Dahiliye Nezâreti): "İstanbul'un planını tanzim etmek üzere Şehremâneti'nce celbi lüzum gösterilen mühendis Mösyö Buvar'ın Dersaadet Fransa sefâreti vesatıyla celbi ve kontratosunun tanzîmi zımmında Hariciye Nezâreti Vekâlet-i Aliyyesiyle bi'l-muhabere icâbının icrâsı babında emr-i fermân hazret-i veliyyül emrindir. Fi 24 Safer 1327 ve 4 Mart 1325 (17 March 1909), Sadrazam Halil": COA DH.MUİ 42/66, 1328 Ca 29 (8 June 1910).

<sup>572</sup> COA BEO 3657-274260 (H-19-10-1327 / 3 November 1909). Full transcription of the document can be found in Appendix A.

<sup>573</sup> COA, ŞD 1230/14, 1328 R 16 (27 April 1910).

<sup>574</sup> COA, BEO 3718/278846, 1328 Ra 2 (7 September 1910).

<sup>575</sup> American Archives II (College Park), Letter from A. Rüstem (Imperial Ottoman Embassy in Washington D.C.) to the Acting Secretary at Washington D.C. on October 1, 1909.

Additionally, Ottoman officials preferred electrification to be constructed in line with the honour of the Empire.<sup>576</sup> This aim was significant since it revealed the assertion of the Empire to survive. It was replaced by Turkish Republic in 1923 and these aims were defended at most fifteen years before the dissolution of the Empire. Therefore, I argue that the Ottoman officials worked for the Empire as if it would not come to an end but saving the Empire became the motto for the officials.

The years of the World War I changed the above picture to some extend. Saving the Empire was still the motto. However, the tone of the wishes regarding technological developments and the Empire became tough since the heavy burden of the wars that the Empire was dealing with gave rise to nationalistic views. For instance, Hüseyin Hilmi requested Muslims to be educated in electrical jobs while he was complaining about the absence of Turkish students in an electrical engineering school in France:

Memleketimizde elektriğin tatbiki ile vatandaşlarımıza vasi bir saha-i faaliyet küşade edilmiş bulunuyor. Elektrik işlerine çalışınız, elektrik mühendisi, ameleleri her ne olursa olsun yetişiniz. Yarın tramvaylara, fabrikalara, değirmenlere, tenvîrat-ı vesaireye mahsus olmak üzere müteaddit elektrik makinelerine ihtiyaç mersedecek. Elektrik fennine aşına olanlar mum ile aranacak, işte bu yeni işte olsun Müslümanların muvaffakiyetini temenni edelim.<sup>577</sup>

Nansi'nin o meşhur elektrik mektebinde üç tane Türk talebesi yok.<sup>578</sup>

### 7.3. Ministry of Public Works in Practice

The Ministry of Public Works transformed into a huge organization in the beginning of the 20<sup>th</sup> century. According to the personnel records of Ministry, dated 1907, it was composed of twelve bureaus.<sup>579</sup> In addition, inspectors (*komiser*) of the public utility companies (trams, water, railways, electricity etc.) as well as the Imperial School of Engineering, Kondüktor Mektebi, Chamber of Commerce (Ticaret Odası),

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<sup>576</sup> CCA NV, 34E/10 230-0-0-0 20 1 10, 1324 Z 24 (8 February 1907).

<sup>577</sup> Tüccarzade İbrahim Hilmi Çığıracan, *Osmanlı Devleti'nin Çöküş Nedenleri*, Başak Ocak (eds.), (İstanbul: Libra, 2014), p. 156-157. Regarding Tüccarzade İbrahim Hilmi Çığıracan, see Başak Ocak, *Bir Yayıncının Portresi: Tüccarzade İbrahim Hilmi Çığıracan*, (İstanbul: Müteferrika, 2003).

<sup>578</sup> Tüccarzade İbrahim Hilmi Çığıracan, *Osmanlı Devleti'nin Çöküş Nedenleri*, p. 100.

<sup>579</sup> These bureaus were: Secretariat (Mektubi Kalemi), Directorate of Accounting (Muhasebat Kalemi), Directorate of Personnel Affairs (Sicil-i Ahval Kalemi), Directorate of Legal Affairs (Hukuk Müsavirliği), Directorate of Statistics (İstatistik Müdüriyeti), Translation Office (Tercüme Odası), Directorate of Railways (Demiryolları Müdüriyeti), Directorate of Roads and Construction (Turuk ve Meabir Müdüriyeti), Directorate of Public Works (Nâfia İdaresi), Directorate of Commerce (Ticaret İdaresi), Directorate of Industry (Sanayi Şubesi), Technical Affairs Bureau (Heyet-i Fenniye).

and Bank of Agriculture (Zirâ't Bankası) were all attached to the ministry. The organizational structure of the Ministry continued in the early Republican period together with the addition of "Konya Ovası Erva ve İska İdaresi (Directorate for the Irrigation of Konya Plain)." <sup>580</sup> The concentration on the water works (*umûr-ı miyahiye*) as a separate directorate within the Ministry, should be considered as the contribution of Süleyman Sırrı Bey, the Minister of Public Works at the time, who extensively worked for the projects of water works in the Empire ranging from Konya Plain to Hindiye Seddi in Bağdat. <sup>581</sup>

As the organizational structure of the Ministry reflects, it controlled all the public works undertaken in the Empire ranging from construction of roads and bridges, railways, trams, harbors, water works, cartography works to the electrification. Besides, the ministry involved in the awarding of concessions, as well as controlling them through its *komisers*. The Ministry not only involved in the construction of public works but also dealt with inudstry within its Directorate of Industry and dealt with commercial development.

The Ministry of Public Works also managed the civil engineering education in the country. The ministry designed the programme of engineering education inline with the needs of the Empire. Most of the students received monthly salary during their studies, stayed in the dormitory of the school, and the school provided them with a meal plan as well as some of the course materials. In return, the graduates worked in

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<sup>580</sup> *TBMM Zabıt Ceridesi*, 18. İctima, 22.3.1340 (Devre: II, Cilt: 7/1, İctima senesi: 2, p. 960-975). Available at <https://www.tbmm.gov.tr/tutanaklar/TUTANAK/TBMM/d02/c007/tbmm02007018.pdf> (accessed 7 February 2019).

<sup>581</sup> Süleyman Sırrı Bey was trained as an engineer in Hendese-i Mülkiye (School for Civil Engineering). Upon graduation, he was appointed as "Umur-ı Nâfia Sermühendis Muavini" in Suriye Vilayeti. During 1906 and 1908, he worked for the project of Hindiye Seddi in Bagdad. Then he worked in the irrigation project of Konya Plain. In 1912, he was appointed as the chief officer for the public works of İstanbul (İstanbul Nâfia Müdüriyeti). He taught at Mühendis Mektebi as well. In 1924, Süleyman Sırrı published reports on Adana Plain, Gediz and Menderes Rivers: "Adana Ovası", "Gediz Çayı ve Ovasının Sulanması Hakkında Rapor", and "Menderes Çayı Hakkında Rapor", all of which are kept in the ITU Rare Books Collection. In 1924, he resigned from his position in the School of Engineering and became the minister of public works: İTÜ KA, MÜM 60/56 1340.1.20 (20 January 1924). In 1925, Süleyman Sırrı Bey issued "Su İdarelerinin Taksimat, Teşkilat ve Vezaifi Hakkında Talimatname" which initiated the establishment stations (sabit akım gözlem istasyonları) in order to examine the water sources of the country: Galip Büyükyıldırım, "1925 Talimatnamesi: Türkiye'de Akarsu Ölçümlerinin Başlangıcı", *Pamukkale Üniversitesi, VI. Ulusal Hidroloji Kongresi Kitabı*, (22-24 Eylül 2010). Galip Büyükyıldırım, "Türkiye'de Su Mühendisliğinin Öncüsü, Türkiye Cumhuriyeti'nin İkinci Bayındırlık Bakanı: Süleyman Sırrı", *Türkiye Mühendislik Haberleri (TMH)*, No: 453, (2009/1). Galip Büyükyıldırım, "Akarsu İstikşaf Seferberliği ve Genç Cumhuriyetin Mühendisleri", *Türkiye Mühendislik Haberleri (TMH)*, No: 447, (2008/1).

different directorates of the Ministry in various cities of the Empire.<sup>582</sup> For instance, Osman Tevfik (Taylan) worked in the construction of Hicaz Railways before securing his position in the School of Engineering as a professor<sup>583</sup> and Halil Ferdi Bey worked in Samsun-Sivas Railways as an engineer.<sup>584</sup> Or, *Mimar (The Architect)* Muzaffer Bey, graduated from Mühendis Mektebi in 1909, was first appointed as an architect in the Ministry of Post and Telegraphy, where he designed offices for post and telegraphy. Then in 1914, Muzaffer Bey was appointed to Konya, where he built some of the significant landmarks of modern Konya; Konya Darül Muallimin (Konya Erkek Lisesi) Konya Darül Muallimat (Kız Öğretmen Lisesi, contemporary Rectorate building of Selçuk University), and monument of agriculture (Zirâ'at Anıtı) in Konya.<sup>585</sup> It should be also noted that the students undertook their internships in the public works projects of the Ministry.<sup>586</sup>

Apart from the civil servants; who dealt with the written transactions, personnel and accounting issues, as well as the staff who were in charge of cleaning, all the other positions in the Ministry were held by engineers. Some of these engineers were educated in the foreign countries, either by their own means, or by the support of the Government. Yet, most of the engineers working for the Ministry of Public Works were trained at Hendese-i Mülkiye or its successor Mühendis Mektebi.

A survey<sup>587</sup> prepared by the United States Embassy concerning the Ottoman bureaucrats gives insights on the organization of the Ministry of Public Works, the

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<sup>582</sup> Appointment of graduates of Mühendis Mektebi in the public works positions, continued in the early Republican period: "Mühendis Mektebi ve Nâfia Fen mekteplerinde eğitim gören öğrencilerin nazari bilgilerini tatbîke koyabilmeleri ... Devlet Demiryolları ve Limanları İşletmesi'nde uygun ücretle göreve tayin edilmeleri ...": İTÜ KA, YMM 1/72 (1928.7.14). Since the students received scholarship during their education, they had to undertake compulsory service. On the appointment of graduates of the School of Engineering as deputy engineer (*mühendis muavini*) in the Ministry of Public Works, see İTÜ KA MÜM 2/14 1326.5.2 (15 May 1910). On the compulsory service (*mecburi hizmet*) of the graduates of the School of Engineering, see İTÜ KA, MÜM 84/61, (1928.5.9).

<sup>583</sup> İTÜ KA MÜM 9/87 1327.8.9 (22 August 1911), İTÜ KA MÜM 10/2 1327.8.11 (24 August 1911). Osman Tevfik Taylan became the first rector of Istanbul Technical University, after the conversion of School of Engineering into ITU in 1944.

<sup>584</sup> İTÜ KA YMM 2/53 (1928.9.9).

<sup>585</sup> Metin Sözen, Osman Nuri Dülgerler, "Mimar Muzaffer'in Konya Öğretmen Lisesi", *ODTÜ Mimarlık Fakültesi Dergisi*, Vol. 4, No. 1, (Spring 1978).

<sup>586</sup> İTÜ KA, MÜM 22/5 1329.12.2 (15 December 1913): "Bursa şehrinin kadastro usûlüyle yapılacak haritası ... Mühendis Mektebi Riyaziyye Muallimi Hasan Tahsin ve son sınıf talebelerinden bir fen heyeti oluşturulması ..."

<sup>587</sup> American Archives II (College Park), Enclosure to the Despatch No: 352 on May 19, 1911. The survey was prepared by William Walker Smith, the third secretary of the American Embassy in Istanbul upon the demand of Secretary of State at Washington D.C. concerning the "Prominent Men and the Press in the Foreign Countries". In the cover letter of the survey, it was expressed that the

posts in the Ministry and even attitudes of the bureaucrats towards the policies of the United States and European countries. The survey had eight questions regarding information on the Ottoman bureaucrats: Name / Position / Previous service (if record is in any published list mention of it will suffice) / Born / Educated / Politics / Pro or anti American / Remarks. The officer in the American Embassy, probably the Ambassador himself filled the survey for fifty Ottoman bureaucrats. Seven of those bureaucrats were related with the public works in the Ottoman Empire. Thus, these seven profiles present the lively accounts of the Ottoman bureaucrats at the time.

First of all, the Ottoman bureaucrats represented a multi-ethnic community of the Empire. For instance, Servicen Effendi (Technical Advisor in the Department of Public Works) was an Armenian born in Istanbul, while Naoum Pasha (Minister of Public Works after the Proclamation of the Constitution) was born in Aleppo, a Syrian Catholic. and he was Syrian Catholic. Additionally, Mehmed Hulusi (Houloussi) Bey (Under Secretary of State for Commerce and Public Works) was born in Istanbul and he was Turkish.

Second, Ottoman bureaucrats had different political attitudes towards European countries and the United States. For instance, Zihni Pasha was considered to be independent towards the countries which confronted the Empire, while Mehmed Hulusi Bey did not show himself as anti American, and Servicen Effendi was considered to be pro-German to an extreme.

Yet, it should not be forgotten that the above profiles were the interpretations of the American Embassy and the officer who prepared the survey may have considered the bureaucrats as pro-American who voted for American projects and investments in the Empire. However, supporting the projects which originated from the United States, to be realized in the Empire, does not necessarily mean that person is pro-American since one can support a project if he thinks it is convenient for the Empire or if that project is the best among the others.

Nevertheless, some of the thoughts in the survey seem to catch lively behaviors of the Ottoman bureaucrat. For instance, Servicen Effendi was considered to be bureaucrat by nature and most difficult to deal with. Further, his attitude in the

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facts in the survey were quite correct and the opinions were founded on the authority of the best sources of information.

Chester project was not friendly at first but in later negotiations, he was friendlier and did not raise many objections. Or, Rechad Bey (Legal Advisor of Department of Posts and Telegraphs) was very honest and upright while Naoum Pasha was known to be a hard worker, an official who knows his duties thoroughly and showed himself friendly to the American Embassy on many occasions. Furthermore, Mehmed Hulusi Bey was deemed to be very active and clever.

Another contribution of this survey is on the organization structure of the Ministry of Public Works. The positions revealed from the seven profiles who worked in the Ministry are “Accountant General of the Department of the Public Works”, “Technical Advisor in the Department of Public Works”, “Under Secretary of State for Commerce and Public Works”, “Director General Railways” and “Legal Advisor of Department of Posts and Telegraphs”. In addition to these posts in the Ministry, the Council of State had a section for the public works in the Empire.<sup>588</sup>

At this point, it is better to examine some of the examples for the technical, legal, financial aspects of the public works so that the role of the Ministry in administering the public works will be clarified.

For instance, the objection of the Swiss Group in relation to the electrification adjudication of Istanbul was examined in the Legal Affairs Bureau (Hukuk Müşavirliği) in the Ministry of Public Works.

The route that the document experienced among offices of the Ministry is worth to mention here since it shows the organization within the Ministry of Public Works and the process of solving a legal problem regarding the concessions.

The Swiss Group first applied to the Ministry of Public Works as the highest authority to decide for the problems regarding the public works. Upon the application, the ministry forwarded the document to the Ticaret İdaresi (Directorate

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<sup>588</sup> “List showing the changes which have occurred in the personnel of the Turkish Government”: American Archives II (College Park), Enclosure to the Despatch No: 198: Letter from ? (the name cannot be read) to the Secretary of State, Washington D.C., on May 16, 1912. In the list, there is information regarding some of the names which appeared in the survey of Ottoman bureaucrats such as: “Servicen Efendi is appointed Under Secretary of State at the Ministry of Public Works” or “Mehmed Houloussi (Hulusi Bey) Bey, Under Secretary and later Minister of Public Works, resigned”.

of Commerce).<sup>589</sup> Later, Ticaret İdaresi sent the document to the Ticaret Müdüriyet-i Umumiyesi (General Directorate of Commerce) since the commission established in order to examine the offers for Istanbul's electrification working on the projects submitted by the bidding companies at the time.<sup>590</sup> At this point, it should be stated that the document was sent to the related office, which was already working on the issue. Moreover, the document traveled among the offices as fast as possible since it arrived to the last office, which would solve the issue in nine days.

As the last step, the document was sent to the Legal Affairs Bureau of the Ministry of Public Works so that the Bureau would decide whether the Swiss Group had the right to submit the objection or not. If the objection was in the legal framework, the Ministry had to examine the Group's objection and come to a solution on the issue. However, if the Swiss Group did not have a legal right at all to engage in such an objection, the Ministry would not examine the objection and would just inform the Swiss Group that they did not have such a right of objection.<sup>591</sup>

The objection of the Swiss Group was examined in the Legal Affairs Bureau (*Hukuk Müşavirliği*) of the Ministry of Public Works. The result which, the Bureau came up, was that the objection of the Group was not in the framework of law at all so that the commission did not have to examine its objection. The commission was even free whether to answer the objection.<sup>592</sup>

As examined in the written transactions of the company, the offer of the Swiss Group submitted for the electrification for Istanbul was incomplete and some of the documents were submitted to the commission after the deadline. According to the Bureau, it was impossible to consider incomplete applications. Furthermore, it was impossible to submit further documentation regarding the application after its deadline. It was stated that the decree regulating this concession had strict rules regarding the incomplete applications and documentation submitted after the deadline of the adjudication. Furthermore, it was stated that the rules of the decree

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<sup>589</sup> COA BEO 3700/277478 1328 M 28 (9 February 1910); COA BEO 3800/284978 1328 § 27 (3 September 1910); CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910).

<sup>590</sup> COA BEO 3800/284978 1328 § 27 (3 September 1910); CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910).

<sup>591</sup> Ibid.: "Cevabdan müstağni olup olmadığı beyan olunmak üzere evvel-i emirde Hukuk Müşavirliği'ne (Fi 21 Ağustos sene 326)."

<sup>592</sup> COA ŞD. 1231/24, 1328 L 8 (13 October 1910).

had to be obeyed in order to protect the rights of the other bidders, so that the equality among the bidders would not be violated.

Above case, regarding the legal issues of the application process, reveals the existence of competent personnel dealing with the legal aspects of the adjudication as well as the well-established legal procedure designed for the concession in question so that the issue regarding the application of the Swiss Group was solved easily. It should be also stated that the legal framework of the concession was applied truly that the Bureau did not let for an exemption in the regulations. In addition, there were personnel who dealt with the management of the public works as such Muhtar Bey was the “Director General of the Railways” or Mehmed Hulusi Bey was the “Under Secretary of State for Commerce and Public Works.” Both Muhtar Bey and Mehmed Hulusi Bey were engineers and served in the Ministry for long years, which meant that they were competent for the job. Moreover, some of the Ottoman bureaucrats played significant role in the realization of the public works projects. For instance, in the survey, it was stated that Zihni Pasha was of great service in the realization of the Hicaz Railway.

Employment of the Ottoman engineers in the Ministry as well as the employment of personnel dealing with financial/technical/legal aspects of the matters, personnel who served for long years in the public works of the Empire and Ottoman directors in the public works projects pose a strong objection to the idea of Ottomans as the silent receptors of Western technologies. As I provided examples of the Ottoman bureaucrats welcoming Western technologies and labeling them with the words of progress, public good, development and necessity in the previous parts; the Ottoman bureaucrats were aware of the significance of the new technologies and eager to apply them in the Empire since they agreed on the necessity of them and they served as agents and experts of modernization. According to the Ottoman bureaucrat, country would be modernized by the application of new technologies providing progress and development to the country and the Empire would tear itself from vanishing.

### 7.3.1. Engineers as the Agents of Modernization

The 1910 concession of Istanbul's electrification involved various significant actors on the Ottoman side. Among these actors, Mehmed Hulusi Bey and Franghia Efendi will be examined in detail in order to provide lively portroyals of the main actors within Istanbul's electrification.<sup>593</sup>

#### 7.3.1.1. Mehmed Hulusi Bey

Mehmed Hulusi Bey served as the head of the adjudication commission of electrification concession (*münâkasa komisyonu reisi*) during the electrification concession.<sup>594</sup> Later, he participated to the administrative board meetings of the Ottoman Electricity Company starting from 1913.<sup>595</sup>

Mehmed Hulusi Bey was trained as an engineer in *Hendese-i Mülkiye Mektebi*. Later, he taught in *Mühendis Mektebi* and wrote three course books on engineering, especially on the construction of roads, harbours, and bridges.<sup>596</sup> While teaching at *Mühendis Mektebi*, he also worked in the "Directorate of Industry" (*Sanayi Şubesi*) within the Ministry of Public Works as the head of the department in 1899. Then, he began to work in the "Directorate of Roads and Construction" (*Turuk ve Meabir Müdüriyeti*) within the Ministry of Public Works as the head of the department by 1907. As an experienced engineer, he served as "*nafla müsteşarı*" and he acted as the

<sup>593</sup> Mehmet Refik [Fenmen] was a significant actor within Istanbul's electrification. Regarding his appointment in the electrification of Istanbul, see İTÜ KA HMM 1/21 1326.3.2 (15 March 1910). The biography of Fenmen by Meltem Akbas is a remarkable one: M. Akbaş, "Elektrik Mühendisi Mehmet Refik Fenmen: Osmanlı'dan Cumhuriyet'e Yenilikçi ve Yorulmaz Bir Aydın", *Osmanlı Bilimi Araştırmaları: Atilla Bir Armağanı*, Cilt IX, sayı 1-2, ed. Feza Günergun, İstanbul, 2007-2008, s. 101-118. On Einstein's theory of relativity and Mehmet Refik Bey see, M. Akbaş, "Einstein'ın Görelilik Teorisini Türkiye'ye Tanıtanlar (I): Mehmed Refik Fenmen ve Kerim Erim", *Osmanlı Bilimi Araştırmaları*, Cilt IV, sayı 2, ed. Feza Günergun, İstanbul 2003, s. 29-59. That is why, "men of Ottoman electrification" other than Fenmen were picked to be portrayed.

<sup>594</sup> CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910); COA ŞD. 1231/24, 1328 L 8 (13 October 1910).

<sup>595</sup> CCA, NV 34E/84 230-0-0-0 24 11 6 (19 November 1913).

<sup>596</sup> "*Fenn-i imalat-ı nâfiadan*" was published in 1893. The book focused on harbours and bridges (*limanlar ve müteharrik köprüler*). "*Fenn-i imalat-ı nâfiadan cüsür-u mütenevvia*" was published in 1894. The book involved six parts: 1. Kargir köprülerin hesabat ve tertibatı 2. Ahşap köprülerin hesabat ve tertibatı 3. Basit kirişli demir köprülerin hesabat ve tertibatı 4. Muvazenetin muayyen müvazi başlıklı kafes kirişli demir köprüler 5. Muvazeneten muayyen münhani başlıklı kafes kirişlerle gerber kirişleri ve üç mafsallı mukavves kafes kirişli demir köprüler 6. Muvazeneten gayri muayyen kirişli demir köprüler (iki mafsallı mukavves kafes kirişli ve mütemadi kirişli köprülerle asma köprüler). In 1895, he published his first book with the title: *Fenn-i imalat-ı nâfiadan limanlar ve müteharrik köprüler*, 1895. In 1897, "*Paratonerlerin sûret-i rekzi ve imalı*" was published. All of these books are stored in the ITU Rare Books Collection.

Minister of Public Works after resignation of Hallaçyan Efendi, the Minister in 1910. During Zihni Paşa's ministry of public works, Hulusi Bey acted as "*nafla nazırı muavini*". When the Grand Assembly records are examined, Hulusi Bey was more active than Zihni Paşa, since he generally replied the questions (*istizah*) of the deputies in the Assembly on various public works issues. For instance, Arisitidi Paşa requested an explanation regarding the revenues of İzmir Quay,<sup>597</sup> Mahmud Naci Bey requested an explanation regarding Trablusgarp Quay,<sup>598</sup> Mehmet Tahir Bey on the concession of electrification of trams in Bursa.<sup>599</sup>

Besides teaching at Mühendis Mektebi and his duties in the Ministry of Public Works, he was appointed to a several commissions, as well. For instance, he worked in a commission, which aimed to prepare city map of İstanbul.<sup>600</sup> Hulusi Bey, as the member of the higher commission for technical affairs "*Komisyon-ı Ali Heyet-i Fenniyesi*" at Hayfa Railways, acted as an inspector and prepared a report, which analyzes Hayfa Railways from the points of agriculture, economy, and politics.<sup>601</sup> Further, he was involved in the construction of water works in Kağıthane as the head of construction affairs (*inşaat müdürü*).<sup>602</sup> In 1910, Hulusi Bey was appointed as the head of the Administration for Imperial Mines in Ereğli (Ereğli Maden-i Hümayûn İdaresi).<sup>603</sup> By 1915, he became the director general of the Hedjaz Railways (*Hicaz Demiryolu Umum Müdürü*) and resigned from the School of Engineering.<sup>604</sup>

Hulusi Bey was also active in civil society activities. He was one of the founders of the "Society of Ottoman Engineers and Architects (Osmanlı Mühendis ve Mimar Cemiyeti)" in 1908 together with Mehmet Refik Bey, Mimar Kemaleddin Bey, Ziya Bey (professors at Mühendis Mektebi), Terziyan Efendi professor at (Sanayi-i Nefise

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<sup>597</sup> Meclis-i Mebusan Zabıt Ceridesi (MMZC), 1. Dönem, Cilt: 2, Birleşim: 35, pp. 50-53.

<sup>598</sup> MMZC, 1. Dönem, Cilt: 2, Birleşim: 35, pp. 48-50.

<sup>599</sup> MMZC, 1. Dönem, Cilt: 2, Birleşim: 35, pp. 53-56. MMZC, 1. Dönem, Cilt: 2, Birleşim: 40, pp. 280-84.

<sup>600</sup> COA DH. MUI, 42/66, 1328 Ca 29 (8 June 1910).

<sup>601</sup> COA Y.PRK.TNF. 9/2, 1325 M 16 (1 March 1907).

<sup>602</sup> Hüseyin Irmak (eds.), *Osmanlı Belgelerinde Kağıthane*, (İstanbul: Kağıthane Belediyesi, 2007), p.183, 187.

<sup>603</sup> "Ereğli Maden-i Hümayûn İdaresi'nin Bahriye Nezâreti'nden fekk-i irtibatıyla şimdilik Ticaret ve Nâfia Nezâreti'ne merbutan idaresi ve Turuk ve Meabir Müdürü Hulusi Bey'in muvakkaten müdür vekaletine tayini": COA İ..HUS. 166/14, 1326 R 14 (16 May 1908).

<sup>604</sup> İTÜ KA MÜM 29/81 1331.8.2 (15 August 1915) and İTÜ KA MÜM 29/90 1331.8.3 (16 August 1915).

Mektebi), and Agop Boyacıyan Efendi, deputy chair at Darül Fünûn (Darül Fünûn müdür yardımcısı).<sup>605</sup>

As the professional carrier of Mehmed Hulusi Bey reveals, there were multiple positions for a person: working in the Ministry of Public Works – teaching in the Engineering School – commission member in the electrification project – founder of society of engineers – acting in the General Assembly. No doubt, Hulusi Bey was a hard working person and successful engineer. Yet, engineers in the Ottoman Empire acted in several positions and carried multiple tasks during their professional carrier.<sup>606</sup> Franghia Efendi was such an engineer as well.

### 7.3.1.2. Franghia Efendi

Franghia Efendi acted as a member of the adjudication commission of Istanbul's electrification concession (1910).<sup>607</sup> He prepared a report during the decision making process of Istanbul's electrification.

Franghia was born in Istanbul, in 1886. He came from a noble family of the island of Chio.<sup>608</sup> He graduated from Beyoğlu Fransız Mektebi (French Highschool in Beyoğlu), Fenar Rum Mektebi (Greek Highschool in Fener) and Turuk ve Meabir Mektebi (The School of Roads and Construction). Franghia worked as the “Public Works Engineer” (*nafia mühendisi/umûr-ı nafia mühendisi*) and “Chief Engineer of

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<sup>605</sup> Information on the establishment of this organization, together with the first day photograph of the engineers and architects who founded the Society of Ottoman Engineers and Architects is available at <http://www.mimarlikmuzesi.org/Gallery/DisplayPhoto.aspx?ID=31&DetailID=1&ExhibitionID=13> (accessed 26 February 2016).

<sup>606</sup> There are numerous examples for the engineers with multi-tasks. For instance, a document found at ITU Institutional Archives provides the names of professors of Mühendis Mektebi, who also work for Directorate of State Railways: Osman Tevfik [Taylan] Bey, İrfan Bey, De Mayo, Mahmut Sadık Bey: İTÜ KA MÜM 84/84, (1928.5.27). Professors of Mühendis Mektebi taught in different schools, as well. For instance, Vahit Bey taught at Nâfia Fen Mektebi, Bekir Bey taught at Galatasaray Lisesi, Mahmut Şükrü Bey taught at Sanayi-i Nefise Akademisi: İTÜ KA YMM 1/8, (1928.6.9). Burhanettin [Berken] Bey, professor of hydraulics at Mühendis Mektebi, acted as the head of “Şirketler Muamelelâtı Tetkik Komisyonu” (Commission for the Investigation of Enterprises), as well: İTÜ KA MÜM 80/4, (1927.7.3). Apart from holding two or more positions, it was common that the professors of Mühendis Mektebi were appointed as the members of commissions established to undertake public works: Fikri [Santur], Galip and Burhanettin, professors at Mühendis Mektebi, were appointed as the member of the commission for the construction of bridges, which were damaged along Anatolia-Bagdad Railways (Anadolu-Bağdat Demiryolları): İTÜ KA MÜM 60/106, 1340.2.24 (24 February 1924).

<sup>607</sup> COA, ŞD. 1231/24 1329 Za 13 (5 November 1911).

<sup>608</sup> Vincent Lemire, *La Soif de Jerusalem, Essai d'hydrohistoire (1840-1948)*, (Paris: Editions of the Sorbonne, 2010). Lemire traces the work of Franghia in various references, especially in the 6<sup>th</sup> chapter of his book, pp. 291-351.

Public Works” (*sermühendis*) in various parts of the Empire. His tasks, as an engineer, included construction of roads and bridges (for instance, Şeria Köprüsü in Kudüs-Şeria Bridge in Jerusalem), as well as sewerage systems (*su yolları*) of the cities. As appeared in *Génie Civil Ottoman*, Franghia dealt with the sewerage system of Jerusalem.<sup>609</sup> Regarding his service in Jerusalem as “chief engineer of public works”, Franghia was awarded by the Greek Government. Lemire, documented the works of Franghia in Palestine as early as 1887, when he worked for the railway project of Jaffa and Jerusalem and in 1889 when he drafted water supply project of Jerusalem. Two years later, in 1891, Franghia prepared a report on the water works of Palestine: “*Avant-projet de distribution d’eau dans la ville de Jérusalem.*”<sup>610</sup> In the years of 1908 and 1912, Franghia prepared two reports on the water works of Jerusalem, focusing on Arrub region.<sup>611</sup> According to Lemire, Franghia made rightful and upto-date decisions in designing the water works of Palestine. For instance, his choice of Romema as the hydraulic reservoir would work even today.<sup>612</sup> Signoles identified Franghia as the “contributer to the modernisation of Jerusalem’s water network” while addressing “the question of water from a purely technical standpoint and, by the same token, worked towards secularising the issue of water by removing all biblical references from evaluation reports concerning the city.”<sup>613</sup> According to Abouali, Franghia proposed a regional development program which aimed to benefit from the the rivers for irrigation and generating hydro-electric power. However, the coming of British occupation prevented the realization of this plan.<sup>614</sup>

In conjunction with his works in Jerusalem, Franghia became the Director of Roads and Construction (*Turuk ve Meabir Müdürü*) in the Ministry of Public Works in 1904. Then in 1911, he was appointed as the Director of Public Works Department

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<sup>609</sup> “La canalisation de Jérusalem par Franghia,” *Génie Civil Ottoman*, No. IV, (December 1911).

<sup>610</sup> Georges Franghia, *Avant-projet de distribution d’eau dans la ville de Jérusalem. Rapport et devis descriptif et estimatif*, (Jérusalem: Imprimerie des P.P. Franciscains, 1891).

<sup>611</sup> Georges Franghia, *Rapport sur l’adduction des eaux d’Arroub*, Jérusalem, Imprimerie du couvent Grec Orthodoxe du Saint-Sépulcre, 1908. Georges Franghia, *Water Supply of the City of Jerusalem, Project on Water Supply Arroub*, (Constantinople: Imprimerie Gerard Frères, 1912).

<sup>612</sup> Vincent Lemire, *La Soif de Jerusalem*, p. 315.

<sup>613</sup> Aude Signoles & translated by Oliver Waine, “Jerusalem: a history of water”, *Metropolitics*, 29 February 2012. Available online at: <https://www.metropolitiques.eu/Jerusalem-a-history-of-water.html> (accessed 26 February 2016).

<sup>614</sup> Gamal Abouali, Natural Resources under Occupation: The Status of Palestinian Water under International Law, *Pace International Law Review*, Vol. 10, No. 2, (1998), p. 434 (pp. 411-574). Available online at: <http://digitalcommons.pace.edu/pilr/vol10/iss2/3> (accessed 26 February 2016).

(*Nâfia Müdürü*) in the Ministry. While he was working in the Ministry, in Istanbul, he also served as the inspector (*müfettiş*) in the public works of Jerusalem. He worked in several commissions such as construction works in Çırağan Palace to be used as the Parliament (*Meclis-i Milli Dairesi*) or worked in the construction of heating system for the Dolmabahçe and Beşiktaş Palaces.<sup>615</sup> He was appointed as a deputy to İdâre-i Mahsusa Company (Sea Transportation Company), for which he received 1.000 kuruş –a good amount of payment- monthly salary from the company. In addition, he was an entrepreneur since he ran a private business (Suni Taşlar Anglomera Anonim Şirketi) in 1923.

### 7.3.2. Portroyals of Foreign Engineers within Istanbul's Electrification

Three figures, Andre Joseph Auric, Karl Terzaghi and Vincenzo Caviano, played significant roles during the process of Istanbul's electrification, but they followed different carrier paths within this history. While Auric involved in the decision making process of electrification concession as well as urban planning issues as the head of Technical Commission at Istanbul Municipality, Terzaghi taught in School of Engineering (*Mühendis Mektebi*) and applied his findings on soil mechanics firstly in Silahtarağa plant. Differently from Auric and Terzaghi, Caviano pursued an entrepreneurship carrier after his railway engineering service in Edirne, Balıkesir, Bandırma, and Söke by smartly investing for the elite housing in Nişantaşı, a neighbourhood where the houses were equipped with modern facilities, most significantly electricity.

The examination of these “electricity people” sheds a light on the employment practices of foreign engineers/experts in terms of regulations concerning their employment, mechanisms of control exerted over the foreign experts by the Ottoman administration and different carrier pathways pursued by the foreign engineers. In addition to the personal histories of these three figures, the case of Andre Berthier, the civil engineer who served for Ottomans in the late 19<sup>th</sup> century will be examined

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<sup>615</sup> “La Turquie, Dix Ans de Béton Armé (1902-1912)” in *Le Béton Armé, Organe des Agents et Concessionnaires du Système HENNEBIQUE*, No. 180, (May, 1913), p. 73. The Library of the Imperial School of Engineering was subscribed to this journal. Full text issues of *Le Béton Armé* can be found online at <https://lib.ugent.be> (accessed 26 April 2018).

in detail while elaborating the working contracts between the foreign experts and Ottoman administration.

### 7.3.2.1. Andre Joseph Auric: An Administrative Carrier

Auric was one of the chief public works engineers (*Turuk ve Meabir Baş Mühendisi*) at Lyon Municipality where he served as the head of Roads and Construction Projects Section (*Turuk ve Ameliyât Müdürü*), before coming to Istanbul. He started to work for Istanbul Municipality in 1909 as the head of Technical Bureau in the municipality (*Şehremâneti Heyet-i Fenniye Müdürü*).<sup>616</sup> Auric would receive 3.000 Francs per month and he would serve for the duration of three years. Unlike the employment contracts done with Berthier to engage in specific tasks in Ottoman Navy in the late 19<sup>th</sup> century, municipality administration concerned about the longevity of the infrastructure projects, and probably because of this, they proposed three-year employment period for Auric.

According to the biographical registers of École Nationale des Ponts et Chaussées, where Auric taught at, he was born in 1866 and graduated from Ecole Polytechnique, he then earned PhD in mathematical sciences. “He was appointed knight of agricultural merit in 1900 and knight of the Legion of Honor in 1903”. He wrote many articles in the *Annales des Ponts et Chaussées* on various subjects such as trams, and construction calculations.<sup>617</sup> Two engineering books written by Auric could be identified. One of his books is stored in the Rare Books Collection of Istanbul Technical University, which inherited the collection of the Library of the School of Engineering. The book deals with the construction of bridges and mathematical calculations required for it, which was published in France, in 1911.<sup>618</sup> Also, the library of École Nationale des Ponts et Chaussées holds a coursebook of Auric on the construction of bridges.<sup>619</sup>

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<sup>616</sup> CCA NV 230-0-0-0 24 11 8 (12 January 1914) and CCA NV 34E/53 230-0-0-0 23 9 4, 19 Temmuz 1327 (1 August 1911).

<sup>617</sup> Biography of Auric is provided online in the digital collections of École Nationale des Ponts et Chaussées (Bibliothèque numérique patrimoniale des ponts et chaussées), accessed February 6, 2019: [https://patrimoine.enpc.fr/famille\\_des\\_ponts?id=875&show=doc](https://patrimoine.enpc.fr/famille_des_ponts?id=875&show=doc).

<sup>618</sup> A. Auric, *Ponts en maçonnerie (calculs et construction)*, (Paris: O. Doin et fils, 1911).

<sup>619</sup> André Auric, *Cours de ponts en maçonnerie. Notes prises par les élèves*, (Paris: École Nationale des Ponts et Chaussées, 1932). The book is available online in the digital collections of École

As an engineer of the bridges and roads, Auric's first work place became Nantes where he was attached to the service of the navigation. In 890, in Rochefort, he was involved in the hydraulic works to the harbor. He then worked for the hydraulic services of Montelimar and Nyons districts in 1891. In 1896, he was assigned to Mostaganem (Algeria) for hydraulic services and he was involved in controlling the construction of the Paris-Lyon-Méditerranée (PLM) railways. In 1906, he was appointed as the director of the municipal road service in the city of Lyon. Lyon municipality undertook large urban works such as construction of slaughterhouses and the hospital Grange-Blanche while André Auric worked there. In 1909, Auric was appointed as the director of road services of Istanbul municipality by the order of the Ottoman Ministry of Public Works.<sup>620</sup> As the registers of École Nationale des Ponts et Chaussées reveals, the coming of Auric to Istanbul was not solely a private act of his own, but French Ministry of Interior and Ministry of Foreign Affairs also requested him to work for Istanbul Municipality.

Cemiyet-i Umûmîye-i Belediye of Istanbul (Council General of Municipality)<sup>621</sup> proposed Auric to the Ministry of Interiors since they claimed the need of an experienced and successful engineer for Istanbul's public works due to the great importance of the city. It is worth to underline the wording of the archival document at this point, since the term "*İstanbul şehri*" (Istanbul city) was directly mentioned.<sup>622</sup> Meclis-i Mahsus-ı Vükela accepted employment of Auric and municipality was given discretion to employ of him.<sup>623</sup>

According to Osman Nuri Ergin, Auric was the chief architect in Lyon Municipality. Şehremâneti under the direction of Halil Edhem Bey, made a contract with Paris Tedkikat ve Ameliyat-ı Coğrafya Cemiyet-i Umûmîyesi<sup>624</sup> for 150.000 Francs, in

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Nationale des Ponts et Chaussées:  
[https://patrimoine.enpc.fr/document/ENPC02\\_COU\\_4\\_29270\\_1931](https://patrimoine.enpc.fr/document/ENPC02_COU_4_29270_1931) (accessed February 6, 2019).

<sup>620</sup> See the registers of Lyon Municipality regarding the service of Auric (accessed August 12, 2018): <http://www.archives-lyon.fr/static/archives/contenu/old/fonds/plan-g/67.htm>.

<sup>621</sup> For further information on the Cemiyet-i Umûmîye-i Belediye, see Osman Nuri Ergin, *Mecelle-i Umur-ı Belediyeye-IV*, (İstanbul: İstanbul Büyükşehir Belediyesi, Kültür İşleri Daire Başkanlığı Yayınları, 1995), pp. 2051-2060.

<sup>622</sup> COA, BEO 3705/277853, 1328 S 9 (20 February 1910): "... İstanbul şehrinin ehemmiyet ve kabiliyet-i mevkisiyle mütenasip sûrette tanzîm ve ıslahı emrindeki lüzum ve ihtiyaca nazaran Emânet-i müşarunileyhaca böyle müktedir ve mütehassıs bir mühendis istihdâmının muhassanatı bedidar bulunduğundan iktizasının ifası ...".

<sup>623</sup> COA, BEO 3705/277853, 1328 S 9 (20 February 1910).

<sup>624</sup> This society could be the "Société de Géographie" which was established in Paris in 1821. It was the earliest one of such geographical societies, which were founded in the 19<sup>th</sup> century, in the leading

exchange for the preparation of Istanbul's city map. In addition, Ergin claimed that Auric was employed within this contract and would receive 137 Lira per month. By this information, it is understood that Şehremâneti contacted with the Geographical Society of Paris for the preparation of city map of Istanbul and in the mean time, Şehremâneti proposed Auric a position in the municipality.<sup>625</sup> It is probable that Paris Tedkikat ve Ameliyât-ı Coğrafya Cemiyet-i Umûmîyesi consulted Ministries of Interior and Foreign Affairs regarding the matter and Auric accepted the position in Istanbul by the urging of these two ministries.

Unlike the archival records, Ergin claimed that Auric was an architect. Yet, Auric was trained as an engineer in France. Auric worked as a public works engineer in various cities of France and Algeria. His involvement in the electrification of Istanbul and the public works, which he undertook during his stay in Istanbul, shows that he worked as an engineer rather than an architect. Likewise, *Génie Civil Ottoman* published an article by him with the title of “*Ingénieur en Chef*”, on the organization of municipality technical services, rules and regulations for fast and proper working of the services, and on-going projects of the municipality.<sup>626</sup> According to Auric, beautification of Istanbul, electrification of trams, distribution of electricity, construction of larger streets, urban hygiene, water and sewerage services; were the public works, which would be held in the first instance. Further in the article, Auric included detailed description of the boulevards, which were supposed to be constructed: Pera-Pangaltı, Beşiktaş-Kabataş, Dolmabahçe-Tophâne, Tarlabası-Sişhâne, Galatasaray-Kasımpaşa. Auric also worked in the coverage project of the ravin in Kasımpaşa in 1912. The contractor of this business was Fouquian, one of the bidders of Istanbul's electrification project, in collaboration with Bureau Technique de François Hennebique in Istanbul.<sup>627</sup>

Auric worked in the decision making commission of Istanbul's electrification, and prepared a report, which evaluated the proposals of the bidding companies, for the electrification concession of Istanbul. This report together with the ideas of Auric on

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cities of Europe, such as Berlin in 1928, London in 1930, and Vienna in 1856 (accessed June 12, 2010): <https://socgeo.com/qui-sommes-nous/>

<sup>625</sup> Osman Nuri Ergin, *İstanbul Şehreminleri*, p. 358.

<sup>626</sup> A. Auric, “Rapport General du Service Technique de la Préfecture,” *Génie Civil Ottoman*, (1 July 1911b), pp. 8-10.

<sup>627</sup> Vilma Hastaoglou-Martinidis, The Building of Istanbul Docks 1870-1910, New Entrepreneurial and Cartographic Data, *ITU A|Z*, Vol. 8, No. 1, (2011), p. 94, (85-99).

the future of electrification in Istanbul was published in *Génie Civil Ottoman* as well.<sup>628</sup> According to Auric, Istanbul would be model city for the electrification projects in the different parts of the Empire. That is why, the concession of Istanbul, its technical details, contract done with the winning company and the rules and regulations for the proper working of electricity distribution were significant steps which would guide the electrification projects of other cities.

According to the archival documents, Auric was employed in electrification business of Istanbul as the chief inspector of electrical lighting (*Tenvîrat-ı Elektriki Serkomiseri*)<sup>629</sup>. Zehrab Efendi and Hamdi Bey, two electrical engineers, were appointed as the assistants of Auric in the electrification project. Indeed, Hamdi Bey was appointed after the employment of Zehrab Efendi since it was not possible to overcome the tasks of electrification project.<sup>630</sup> In 1914, Zehrab and Hamdi were taken from the assistantship and Mustafa Hulki was appointed as the assistant (*tenvîr-i elektrik komiser muavini*) of Auric.<sup>631</sup>

No doubt, two Ottoman subjects who assisted Auric were provided with the knowledge and skills of him on the issue. This should be also considered as a contribution to the knowledge accumulation process of the Ottomans regarding electrification. Additionally, Ottoman Government had the opportunity to control Mr. Auric on the job. It is clear that the Ottomans did not hesitate in hiring foreign experts, yet they made sure that these experts were under control by the Ottoman assistants who had scientific knowledge of electricity.

### **7.3.2.2. Karl Terzaghi: Diplomatic Agent of Austria in the School of Engineering or a Dedicated Scientist in Istanbul?**

Terzaghi was invited to the School of Engineering in 1915 by the distinguished professor of Graz Technical University, Philipp Forchheimer, who previously taught in the School of Engineering from 1891 to 1892.<sup>632</sup> Upon coming to Istanbul in 1916,

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<sup>628</sup> A. Auric, "Distribution publique d'énergie électrique à Constantinople", *Génie Civil Ottoman*, (Octobre 1911a), pp. 1-4.

<sup>629</sup> CCA NV 34E/50 230-0-0-0 23 9 1, 22 Haziran 327 (5 February 1911).

<sup>630</sup> CCA NV 34E/44 230-0-0-0 23 8 5, 15 Şafer 1329 (15 February 1911) and CCA NV 34E/50 230-0-0-0 23 9 1, 22 Haziran 327 (5 February 1911).

<sup>631</sup> CCA NV 230-0-0-0 24 11 8 (12 January 1914).

<sup>632</sup> Richard E. Goodman, *Karl Terzaghi: The Engineer as Artist*, (Virginia: ASCE, 1999), p. 61.

Terzaghi was welcomed by Abbas Pasha, the minister of Foreign Affairs. The friendship between the Pasha and Terzaghi continued in the later periods Abbas Pasha asked his advice on the feasibility of Turkey's irrigation schemes.<sup>633</sup> Therefore, Terzaghi became interested in planning water projects in arid Anatolia and later he published an article on the issue in a newspaper, in which he proposed "small, well thought-out and economically viable pilot schemes rather than politically appealing showcase attempts to open up vast dry areas to new agricultural development."<sup>634</sup>

During his stay in Istanbul, Terzaghi taught in the School of Engineering (*Mühendis Mektebi*) and later in Robert College on the roads and foundations until 1929 when he was offered a job at MIT, the United States.<sup>635</sup> Regarding electrification of Istanbul, Terzaghi involved in the construction works of Silahtarağa Plant where his findings on soil mechanics were first applied.<sup>636</sup>

Goodman argued that Germany and Austria had interests in the Ottoman Empire, and Austria "as an intellectual competitor of Germany" aimed at strengthening Austrian presence in Ottoman higher education. For this purpose, distinguished professor of Graz Technical University, Philipp Forchheimer, who also taught in the College of Engineering, was sent to Istanbul with a mission of reorganizing the engineering education. According to Goodman, invitation of Terzaghi to the engineering school by Forchheimer in 1915, could be considered as "a part of Austria's diplomatic effort to stay in the good graces of the Ottoman Empire, which though declining in stature and size still controlled the gates of Black Sea through the Dardanelles and the Bosphorous Straits" and to remind the Austria's existence to the Ottoman authorities.<sup>637</sup>

Foreign education institutions could be considered as an instrument of cultural penetration. Yet, foreign professors should not be necessarily regarded as diplomatic

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<sup>633</sup> Ibid., p. 62.

<sup>634</sup> Ibid., p. 62.

<sup>635</sup> According to the School of Engineering registers, Terzaghi taught "*İnşaatın Kavaid-i Umumiyesi* (General Principles of Construction)", "*Usûl-i Umûmiye-i İnşaat* (Construction Methodology)" and "*Arziyat*" (Geology) courses: İTÜ KA MÜM 32/79 1332.7.19 (1 August 1916) / İTÜ KA MÜM 43/50 1335.3.20 (20 March 1919) / İTÜ KA MÜM 67/103 1341.6.22 (22 June 1925).

<sup>636</sup> Kemal Özudoğru, *Yaşadıkça Öğrenmek: Karl Terzaghi'nin Hayatı*, (İstanbul: İnşaat Mühendisleri Odası İstanbul Şubesi, 2000), p. 45.

<sup>637</sup> Richard E. Goodman, p. 60-61.

agents. Likewise, I can argue that Terzaghi was a dedicated scientist rather than being a diplomatic agent of Austria.

Terzaghi is accepted as the scientist who developed the foundations of soil mechanics, which were described as “the opening of an avenue of progress” by *Engineering News Record* in 1919.<sup>638</sup> As derived from Terzaghi’s letters and diary, he described Istanbul as a marvelous city, where his findings on the foundations of soil mechanics developed.<sup>639</sup> In addition, in 1918, when the World War I was over, Terzaghi was called back to Vienna. He became nervous with this news since he thought that his research would be interrupted. Since he collected his data in the Ottoman lands for his research, he had to continue in the same geographical area to reach a conclusion.<sup>640</sup>

Frustrated with his research, Terzaghi tried to stay in Istanbul although he was in a difficult position to look after his family, which led the divorce of the couple. After hard times to earn his life, invitation from Robert College in 1919 provided Terzaghi with financial support and continued his research, even sleeping in his laboratory for most of the time. Based on his dedication to research, one can argue that scientific engagement was essential for him.

### **7.3.2.3. Vincenzo Caviano: An Entrepreneurial Carrier**

During his carrier as a railway engineer, Caviano worked in Greece, Austria, Hungary, Germany, and Ottoman Empire.<sup>641</sup> Caviano worked in the railway projects of various cities of the Empire such as Balıkesir, Bandırma, Söke, and Edirne. He did not directly work in the electrification project of Istanbul as an engineer. Yet, Caviano invested in housing projects of Nişantaşı, a neighbourhood, which hosted a new form of housing with modern facilities, such as heating, water, and electricity for Ottoman and European elite. Caviano could be regarded as one of the ideal figures of engineer investors/entrepreneurs since he smartly sensed the transformation within Istanbul’s urban setting as well as the potential profit in the housing market.

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<sup>638</sup> Richard E. Goodman, p. 60-61.

<sup>639</sup> Kemal Özüdoğru, p. 45.

<sup>640</sup> Richard E. Goodman, p. 69.

<sup>641</sup> Ali Esad Göksel, *Bir Sadakat Hikayesi: Maçka Palas*, (İstanbul: Körfezbank, 1999), p. 32.

When Caviano was in Edirne, he engaged in mining and coal business, by which he earned great deal of money. The wealth, which came with the coal business changed professional carrier of Caviano. He invested in housing business of Istanbul, a city on the way of transformation. The times (WWI years and after) were hard for the Ottoman elite who worked in the government service since the Empire itself was shaking. Therefore, the elite in need of money sold their valuables; houses or real estates, which were once granted them by Abdülhamid II.<sup>642</sup> Likewise, Mehmed Abdülkadir Pasha, due to his debts, first sold the plot of Maçka Palas to Mr. Felix Neumann. Then, Neumann had to sell it to Caviano, with no profit.<sup>643</sup>

In fact, the price was cheap for such a location in Nişantaşı, across the Italian Embassy. According to Caviano, this location would be an ideal place to rent for the people working in the Embassy. Expectedly, such a prestigious place always hosted elite of Istanbul. For instance, respected poet, Abdülhak Hamid Tarhan, and his wife Lüsyan lived in Maçka Palas. They hosted significant names of Turkish literature at their house, namely, Halid Ziya, Cenap Şahabettin, İbnülemin Mahmud Kemal, Ubeydullah Efendi, Mithat Cemal Kuntay, Sami Paşazade Sezai, Faruk Nafiz Çamlıbel, Necip Fazıl and Yahya Kemal.<sup>644</sup>

Maçka Palace presented a different form when compared with the renowned mansions of Prince Yusuf İzzeddin, Münire Sultan, and Said Halim Pasha. The building was situated on 1250 m<sup>2</sup>. While the inside architecture included four separate buildings, Mongeri designed the exterior architecture of the building as one and only façade. In return, Caviano obtained a place looking as a palace from outside. Inside, Caviano had several apartments to rent. Entrepreneurial mind of Caviano proved itself within the exterior and interior design of Maçka Palas as a living space. The sign of architectural genius of Mongeri was also significant that it

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<sup>642</sup> Abdülhamid II granted parcels to some members Imperial family and some of the civil servants close to him. These real estates were close to Yıldız Palace, in Beşiktaş, Ortaköy, Nişantaşı, and Teşvikiye districts. The telephone book of Istanbul for the year 1916 (p. 19), in a separate list, states the members of Imperial family as the subscribers of telephone at their homes as well as their residential addresses. According to this list, Kadriye Sultan, Şadiye Sultan and Abdürrahim Efendi lived in Nişantaşı, Burhaneddin Efendi lived in Teşvikiye, Ahmet Nihad Efendi and Selim Efendi lived in Beşiktaş, Abdülhalim Efendi, Fehime Sultan and Abdülmecid Efendi lived in Ortaköy, and Fatma Sultan lived in Posta Caddesi, Pera: Ali Esad Göksel, p. 29. Said Halim Pasha, Hayreddin Pasha, Süreyya Pasha and some of the respected foundations were also given real estate in Nişantaşı district: Ali Esad Göksel, p. 74.

<sup>643</sup> Ali Esad Göksel, *Bir Sadakat ...*, p. 32-33.

<sup>644</sup> Ibid., p. 54.

is for sure that Caviano thought about the marketing advantage of the name of Mongeri when renting the apartments.<sup>645</sup>

#### **7.3.2.4. Management of Foreign Engineers' Employment: The Case of Andre Berthier**

Execution of foreign engineers' employment was contract based, in which the articles of the contract designed and defined the legal framework regarding the service of foreign engineers in Ottoman lands. Employment contracts of Andre Berthier, who served as an engineer for the Ottomans in the late 19<sup>th</sup> century, offer insights regarding the rules and regulations and the execution process within the service of foreigners in the Empire.

Three employment contracts were signed between Ottoman administration and Berthier in 1892, 1895 and 1897.<sup>646</sup> All of the contracts had six articles and they were in the same format in which the articles were stated in two columns, one in Ottoman Turkish, and the other in French. The contracts were signed between the related Ottoman Minister and Andre Berthier who was identified as a French national who was serving as an engineer for the French State (*Fransa tabiyetinden mülkiye mühendisi Mösyö Andre Berthier*).

Further, the contract stated the employment duration with an exact starting date. For instance, in one of the contracts of Berthier, employment duration was determined as one year and his task would start on 1 December 1892. Upon the expiration of the contract, it could be renewed as long as both sides agreed to continue collaboration. In addition, the contract assured that Berthier would not dispose any information in relation to the Ottoman State that Berthier would keep his services in secret.

The salary offered to Berthier and the tasks he would undertake were the other issues mentioned in the contract. According to the contract, Berthier would work in the State Arsenal and could be assigned to any task regarding it, though the examples for

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<sup>645</sup> Ibid., p. 92-93.

<sup>646</sup> COA Y.PRK.HH 26/7, 1310 Ca 26 (16 December 1892) / COA Y.PRK.HH 28/77, 1313 C 25 (13 December 1895) / COA Y.MTV 160/200, 1315 M 16 (17 June 1897).

his tasks were usually related with the military issues, such as armament and manufacturing of the arms.<sup>647</sup>

The case of Berthier shows that the employment of foreign engineers was on purpose and planned from the beginning. The tasks of the engineer, the institution where he was attached and the salary were all defined in the contract so that any risks for dispute would be eliminated.

#### **7.3.2.4.1. An Engineer Wanted: Job Announcement by the Ministry of Public Works**

Selection process of foreign engineers to work for the Ministry of Public Works was held in different ways. For instance, Professor Forchheimer suggested Terzaghi to join Mühendis Mektebi or the collaboration of Istanbul Municipality with Association of Geographical Research of Paris opened the way for the employment of Auric in Istanbul Municipality. In addition, job announcements were posted in the newspapers and especially in two journals dealing with public works, construction business and technological developments such as *Génie Civil Ottoman* and *Revue Technique d'Orient*.

As an example for such job announcements, Ministry of Public Works, in *Génie Civil Ottoman*, announced that Ottoman and foreign engineers would be employed in the construction projects, in which the engineers would be attached to the General Directorate of Roads and Bridges (based in Istanbul).<sup>648</sup> Eligibility requirements of the candidates and the maximum salary proposed were stated in the announcement. When applying for the job, candidates had to sign a declaration in which the candidate stated that he would act in accordance with Ottoman law, rules and regulations, as well as the decision of the Government. Moreover, an exam would be applied to the candidates and the successful ones would be employed. In addition, employment of the engineers would be contract based.

It is apparent that the job announcement was prepared thoughtfully. The factors regarding the selection and employment process of the candidates such as the

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<sup>647</sup> COA Y.PRK.HH 28 77, 1313 C 25 (13 December 1895).

<sup>648</sup> *Génie Civil Ottoman*, Septembre 1911, p. 27.

declaration of the candidate when applying to the job, execution of an exam to determine the successful candidates and the contractual employment, were other elements which proved careful attention paid by the Ottomans when hiring personnel either Ottoman or foreigner.

#### 7.4. Evaluation of the Offers for Istanbul's Electrification

The evaluation process of the offers submitted for the electrification of Istanbul sheds a light into the involvement of the Ottoman personnel (officials and engineers) in the process.

Before the evaluation process of the electrification adjudication, the framework of the adjudication was determined. A commission in the Ministry of Public Works was established for this purpose. The commission included member from the Şehremâneti as well. The commission examined the contract of Gas Company and its concession's framework so that the conflict of interest would not occur between the gas and electricity companies:

Dersaadet elektrik imtiyâzının ne gibi şeraitle itası lâzım geldiğinin tedkiki için emânet-i aliyyelerinden dahi tayin edilen memurin dahil olduğu halde daire-i nezâretde teşkil edilen komisyonca İstanbul ve Üsküdar ve Kadıköyü Gaz Şirketi'nin daire-i imtiyâziyesinin nerelere kadar mümted olduğunun beyânına lüzum görülmüş ve Üsküdar ve Kadıköyü Gaz Şirketi'nin daire-i imtiyâziyesi Üsküdar ve Kadıköyü ve sekizinci daireye muhtevi olduğu mukavelenâmesinde münderiç olduğu halde ...<sup>649</sup>

In the report of Fen Müşavirligi, the conflict of interest between the gas and electricity concessions was discussed as well:

Dersaadette cer ve tenvîr-i elektriki tesisi ve kuvve-i elektrikiyyenin sanayiye tatbiki hakkında Nezâret-i aliyyelerine vuku bulan müracaat ve şerait-i imtiyâziyeye dair dermiyan olunan muhtelif teklifat biletraf mütalaa ve tedkik olundu. Mukaddema Dersaadet Tramvay ve İstanbul ve Kadıköy Havagazı Şirketleri'ne verilmiş olan gaz imtiyâzına aid mukavelatın mevadd-ı mahsusunda elektrik müessesatı için bazı kuyûd ve şurût muharrer olmasına ve bu sûretle mezkûr şirketler bu babda bazı hukuk-ı müktesebe istihsâl etmiş olmalarına mebni Dersaadette müessesat-ı elektrikiyye vücuda getirmek için salifulzıkr şirketlerin hukuk-ı müktesebeleri dahi nazar-ı dikkate alınarak memlekete en nafî olacak bir sûret-i tesviye bulmak lazım geleceğinden bu

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<sup>649</sup> CCA NV 34E/11 230-0-0-0 20 1 11 (17 July 1909).

maksadı temîn ve tanzim olunacak mukavele ve şerâitnâmenin mevadd-ı esasiyesini ol vech ile ta'yîn için teklifat-ı vakıadan şayan-ı tedkîk görülenlerin ber vech-i zir hûlasaten arz ve beyânına ve bu babdaki mûtaalat-ı acizanemin dahi ilaveten serd ve ityanına mecburiyet hasıl olmuştur.<sup>650</sup>

In order to eliminate the conflict of interest between the gas and electricity companies, Ottomans proposed the of consolidation of the companies:

... mukaddema teati edilmiş olan mukavelat ahkâmına nazaran gerek Dersaadet Tramvay Şirketi ve gerek İstanbul ve Kadıköyü Havagazı Şirketleri hukuk-ı müktesebenin birleştirilerek ba imtiyâz ki yalnız bir şirkete ihalesi ve bu sûrette Dersaadet tramvaylarına tatbîk olunacak cer ve tenvîr-i elektriki ile İstanbul ve Kadıköyü Havagazı Şirketleri hudud-ı imtiyâziyesi dahilindeki tenvîr-i elektriki ameliyâtının hudûd-ı imtiyâziye haricindeki mahallerle beraber şirket-i vahide tarafından icra edilebilmesi esbabının temînî<sup>651</sup>  
Doğrudan doğruya Dersaadet Tramvay ve İstanbul ve Kadıköyü Havagazı Şirketlerinin hudûd-u imtiyâziyesi haricinde olan mahallerin cer ve tenvîr-i zımında bir şirkete imtiyâz itasına birinci sûret yani bilumûm Dersaadet cer ve tenvîr-i elektriki tesisi ve kuvve-i elektrikinın sanayiye tatbîki hususunun ba imtiyâz şirket-i vahideye ihalesi için evvel-i emirde bu işi deruhde etmek isteyen şirketin Dersaadet Tramvay ve İstanbul ve Kadıköyü Havagazı Şirketleriyle itilaf etmesi ve işbu itilafı mutazamnın Hükûmete temînât-ı katiye vermesi lazımdır.<sup>652</sup>

According to the report Tramway Company and the Gas Company had to submit acquittance (*ibrâname*) and deposit (*temînât akçesi*) as proof that they agreed the conditions of the electrification concession:

Dersaadet Tramvay Şirketi'nin cer ve tenvîr-i elektriki ve İstanbul havagazı Şirketinin tenvîr-i elektriki tesisi için hakk-ı müktesebleri olduğu ve Kadıköyü Havagazı Şirketi'nin dahi tenvîr-i elektriki için şerâit-i mütesaviye ile hakk-ı rûçhana bulunduğu anlaşıldığından herhalde mezkûr şirketler hukuk-ı müktesebelerinin nazar-ı dikkate alınması lazım geleceği varest-i arz ve izahdır. Eğerçi, teklifat-ı vakıa imtiyâzında alelumûm Dersaadet cer ve tenvîr-i elektriki imtiyâzının ihalesi halinde mukavelenâmenin imza bulunduğu tarihten itibaren muvafakatlarını istihsâl ettiğine dair otuzbir gün zarfında Dersaadet Tramvay Şirketinden ve altı ay zarfında İstanbul ve bir sene zarfında Kadıköyü Havagazı Şirketlerinden birer ibraname ita edileceği ve bu taahhüdünü ifa eyleyeceğini temînen Tramvay Şirketi için ikibin ve İstanbul ve Kadıköyü Havagazı Şirketleri için dahi beşer yüz Lira temînât akçesi ita edeceği ve şayet müddet-i muayeneleri zarfında işbu ibranamelerden herhangiisini ibraz edemez ise ona aid temînât akçesinin Hükûmet tarafından zabtıyla beraber o kısmının daire-i imtiyâzdan ihraç olunması ve gerek hasılat-ı gayri safiyeden ve gerek hasılat-ı safiyeden bir mikdarın Şehremânetine verilmesi merkezinde bir teklif

<sup>650</sup> CCA NV 34E/15 230-0-0-0 20 2 3 (15 August 1909). The full transcription of this report can be found in Appendix A".

<sup>651</sup> CCA NV 34E/15 230-0-0-0 20 2 3 (15 August 1909).

<sup>652</sup> Ibid.

vaki ve bu teklif arz olunan suver-i erbaadan birincisine muvafık ise de bazı cihazları ve ezcümle Şehremânetine verilecek hisselerle marulzıkr temînât akçesinin mikdarları şâyân-ı tedkik ve tenkiddir.

As the report suggested, the consolidation of the companies was established in 1911. In order to eliminate the conflict of interest, which could be risen from the already acquired rights of the Dersaadet Tramway Company, Fen Müşavirliği suggested that the present concession would not engage in the routes of Tramway Company:

İkincisi mesarifi-i doğrudan doğruya tesviye olunmak üzere icâb eden mahallerde elektrik fabrikaları inşâsıyla taraf-ı Hükümetden işledilmesi ve tramvay şirketine ol bâbdaki mukavelenâme ahkâmına tevfikân cer ve tenvîr için bir bedel-i muayyen mukabili kuvve-i elektrikiyye fûruhtuyla beraber bunun İstanbul ve Kadıköyü Havagazı Şirketi hududu haricindeki mahallere dahi teşmili ...<sup>653</sup>

Ottomans wanted to be sure that the Tramway Company would buy the electricity from the Plant and would not produce electricity for itself:

Tramvay Şirketinin menafii kendi arabalarının kendi istihsâl edeceği kuvve-i elektrikiyye ile cer ve tenvîr etmekde veyahud kendi itimad ettiği bir şirketle akd-i itilaf eylemekde olduğundan ber minval-i muharrer fiyat kararlaştırılmak hususunda ika-i müşkilatdan geri durmaması melhuzdur.<sup>654</sup>

After designing the framework for the electrification concession, adjudication was announced in the newspapers published in Istanbul and Europe.<sup>655</sup> In the application process, the companies had to submit their proposal and project in line with the rules and regulations of the Ministry of Public Works.<sup>656</sup> The amount of the capital of the company as well the names and the nationality of the company's management board were requested within the application.<sup>657</sup> Additionally, the company had to submit a document called "*itibar-i mali şehadetnamesi*" which was a proof for its financial sufficiency.<sup>658</sup>

<sup>653</sup> CCA NV 34E/15 230-0-0-0 20 2 3 (15 August 1909).

<sup>654</sup> Ibid.

<sup>655</sup> "... şerait-i münâkasa ber mucceb-i talimat Dersaadet ve Avrupa Gazeteleriyle i'lân kılınması üzerine ...": COA ŞD. 1231/24, 1328 L 8 (13 October 1910). Full transcription of this document is provided in Appendix A.

<sup>656</sup> "... imtiyâza talip olan sermayedaran salifulzıkr lâyhalar ahkâmına tevfikân teklifat ve proje ve evrak-ı müteferria-ı sairelerine bittanzîm münâkasa ta'lîmâtının mevadd-ı mahsusasında muharrer şerait dairesinde nezârete tevdi etmeleriyle ...": COA ŞD. 1231/24, 1328 L 8 (13 October 1910).

<sup>657</sup> "... sermayeleri mikdarının ve meclis-i idâreleri hulefa a'zâsı esâmîsiyle cihet-i tabiyetlerinin izahen ışıarı ...": CCA NV 34E/2 20 1 2 (9 June 1894).

<sup>658</sup> CCA NV 34E/4 230-0-0-0 20 2 2 (10 August 1909): "Acizleri Paris Elektrik Şirket-i Umumiyyesi vekil-i mutlakı olub mezkûr şirket nâmına Üsküdar Kadıköy ve civarları ve Boğaziçi Asya

Deadlines and submitting all the papers in time in the application process were significant for the adjudication. The proposal of the Syndicat Suisse had some missing documents in the application. Yet, the proposal of the company was examined in terms of its technical quality, but it was not included in the last ranking of the companies. According to the commission, the proposal of Syndicat Suisse was not as qualified as it was requested. As understood from the technical specifications of the proposal, Swiss Syndicate had offered to construct a hydro-electric plant for Istanbul.<sup>659</sup> Rather than a hydro-electric plant, Ottoman officials preferred a steam-power plant for the city. At this point, I can infer that the Ottoman officials were aware the fact that hydropower was unreliable and inefficient source when compared with steam power. Technically, the capacity rate of hydroelectric plants is assumed to be low since water as a supply for the plant depends on climatic conditions. Thus, it is an unreliable means of electricity supply for city residences, transportation and industry, but it can be a complementary or alternative source for the electricity grid.<sup>660</sup>

Reading of a statement written by Dersaadet Tenvîr-i Elektrik Fen Komisyonu Reisi Mühendis Zühdü Bey (Mr. Zühdü, the engineer and the head of the commission for the lighting of Istanbul by the electricity)<sup>661</sup> enlightens the evaluation process of the offers submitted for the electrification of Istanbul since the document mentions about the commission which examined the offers, the reports and charts prepared by the

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sevahilinde dâire-i aidesince hasıl olacak ihtilâf-ı müttetikamız veçhile tenvîrat icrâ eylemek üzere kuvve-i elektrikiyye istihzâr ve furuhtu için imtiyâz i'tâsını istihâm eylerim. İşbu istid'â-i acizanâme istinaden nezâret-i celîle tarafına irâ'e edilecek numunesi veçhile on gün zarfında itibâr-i mali şahadetnâmesi ibrazına dahi hazır bulunduğumu arz eylerim. Ol bâbda emr-i fermân hazret-i men lehü'l-emrindir.”

<sup>659</sup> CCA NV 230-0-0-0 21 4 2 (23 May 1910).

<sup>660</sup> “... münâkasa komisyonu bunları ne sûretle kabulden istinkaf ederek menafî-i hazine zarara uğradığına ve bu sûretin ihtiyar-ı iza-ı hukuklarını da mucib olacağına dair bazı ifadat ve müstediâtı havi J. Vidmerştrak imzasıyla takdim olunan arzuhalin leffen irsal buyrulduğu beyân-ı âlisiyle bu babdaki muamele ve malumatın arz ve inbasını amir 19 Ağustos 326 tarihli ve üçyüzseksendokuz numaralı tezkire-i samiye-i sadaret penâhileri üzerine keyfiyet münâkasa komisyonuna ledel havale mezkûr sendikanın teklifat-ı ahiresinin kabûlü cihetine gidilemeyeceğini mutazammın olup mezkûr komisyon tarafından ittifak-ı ara ile tanzim edilmiş olan zabıtname sûreti leffen ve mürsel arzuhalî iadeten takdim kılınmış olmakla ol bâbda emr-i fermân hazret-i veliyyül emrindir.”: CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910). Full transcription of this document can found in Appendix A.

<sup>661</sup> In the document, Zühdü Bey appears as “the engineer and the head of the commission for the lighting of Istanbul by the electricity”. It should be noted that Zühdü Bey served as the head of the commission for the concerned meeting. At the time, Zühdü Bey acted as the chief engineer in the Undersecretariat of Technical Affairs in the Ministry of Public Works (*Nâfia Nezâreti Fen Mûşavirliği Sermühendisi*): İTÜ KA HMM 1/21 1326.3.2 (15 March 1910) and İTÜ KA, MÜM 2/20, 1326.8.31 (13 November 1910). Then, Zühdü Bey became the inspector responsible for the construction of roads in 1914 (*İstanbul Turuk ve Meabir Mufettişi*): İTÜ KA, MÜM 23/50, 1330.2.30 (13 May 1914).

Ottoman officials when examining the offers and the legal framework that the commission applied when examining the offers:

Dersaadetin Rumeli cihetinde kuvve-i elektrikiyye istihsâliyle tevzi imtiyâzına talib olanlar tarafından takdim olunan projeler münâkasa talimatnâmesinin sekizinci maddesine tevfikân komisyon-ı acizanemizce tedkik olunarak ve taliblerin ayru ayru i'tâ eyledikleri izahat bilistima nazar-ı mütalaaya alınarak tekelifatı vâkıyı tafsilen tanzim ve bunların yekdiğeriyle mukayesesinden olan netayici havi olarak tertib kılınan iki kıt'a cedvel ile heyet-i umumiyyesi hakkında kaleme alınan rapor ekseriyete bilmuhalefe azadan Mösyö Pikar cânibinden ayrıca tanzim olunan rapor ile mean ve esna-i müzakere ve münakaşada talibler tarafından vuku bulan itirazat ve işbu itirazata karşı alakadaranın serd eylediği müdafaatı havi evrak dahi merbutan takdim pişgah-ı ali-i nezâret penâhîleri kılınmış olmağla ol bâbda emr-i fermân hazret-i men lehü'l-emrindir.<sup>662</sup>

According to the above document, it is understood that the offers submitted by the companies for the electrification of Istanbul were evaluated by the commission for the lighting of Istanbul by the electricity. The technical and financial credentials of the companies and their appropriateness to the rules and regulations of the Ministry of Public Works were examined by the commission.<sup>663</sup>

As the methodology of the evaluation process, all the offers were examined by the commission and the information regarding the offers of eight companies/business groups were converted into a chart<sup>664</sup> which enabled the examiners to compare and analyse the bidding parties. The chart involved the comparison of the offers on five basic categories (the electricity plant, high tension network, low tension network, public lighting, and tariffs) and thirty eight issues (tariffs to be paid for the electricity, number of the lamps on the streets, the current type, the place proposed

<sup>662</sup> CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910). The takrir was issued in 1910 (Fi 21 Temmuz sene 326). On the same day, it was sent to the Adjudication Commission (*Münâkasa Encümeni*). In the document, a report prepared by Mr. Picard (Mösyö Pikar) was mentioned. A report by him could not be found in the archives. However, a chart showing the companies applied for the electrification adjudication which was signed by Mr. Picard was found. The chart did not include Swiss Syndicate which means the project of the Syndicate was not evaluated in the last evaluation of the proposals since their project was technically unqualified as indicated in the prior evaluations. The chart included the comparison of the 7 companies which applied to the adjudication in terms of technical issues: the plant, the electrical network, the number of the lamps and their gratitude, tension to be applied, distribution of electricity network and the feeders necessitated for the network).

<sup>663</sup> "... bunlardan her birinin iktidar-ı mali ve fennisi ve teklifatın mahiyet-i fenniye ve iktisadiyesi ve şerait-i mukarrereye derece-i mutabakatı keزالik mezkûr talimat ahkâmına ibtinaen teşekkül eden fen ve münâkasa komisyonlarınca bil etraf mütalaa ve tedkik olunarak ...": COA ŞD. 1231/24, 1328 L 8 (13 October 1910).

<sup>664</sup> Five categories in French: Usine d'Électricique, Réseau Haute Tension, Réseau Basse Tension, Éclairage Public, Tarifs.

for the construction of the plant, machines and engines to be used in the plant and etc.). The chart included an evaluation column for the basic five categories and an over all evaluation column which makes of six columns for each of the companies/groups.

After the examination of the proposals, the commission prepared a report (*takrir*), which provides clues to its working methods: *mukayese* (comparison), *müzakere* (consultation), *münakaşa* (discussion) and “*münâkasa talimatnâmesine tevîkan*” (inspecting if all the procedures are in line with the rules and regulations designed for the concessions).<sup>665</sup> That *takrir* was sent to the Adjudication Bureau (Münâkasa Encümeni) to check once more whether it was in line with the legal framework. The final stop for the *takrir* was the Ministry of Public Works as the authority in charge regarding public works.

From the archival documents, I can infer that the Ottoman officials first discussed the technical qualifications of each proposed plant, its capacity rate and whether its power source would be steam or hydro-electric power. In this evaluation, the officials insisted on the application of technologies that would serve to better the industrial development of the country as well as the electrification of trams.<sup>666</sup> Inline with this objective, Ottoman administration rejected the proposal of Syndicate Suisse, deeming its plant inadequate for the future development of Istanbul.

For better technological specifications, Ottoman officials asked revisions within the proposals of the companies. There were mainly two technical issues, which were demanded by the Ottoman authorities to be revised. One of these demands was about the voltage, which would be applied in the plant: whether it would be 110 volt or 150 volt. The other issue was about the phase, which would be applied in the plant: mono phase or triphase.

The discussion of the voltage or phase was present in many of the electrification cases, which took place in different parts of the world. Behind those discussions,

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<sup>665</sup> CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910).

<sup>666</sup> For the final version of the technical qualifications of each electrical plant, see the grant-agreement documents (*şartnâme and mukavelenâme*) of the concession in Osman Nuri (Ergin), *Mecelle-i Umur-ı Belediye*, vol. 5, pp. 2720-2729. See also the investigation report (*kabul-i muvakkat*) prepared by the Ottoman commissioners for the Silahtarağa power plant: CCA, NV 34E/93 230-0-0-0 24 11 15 (16 April 1914).

interests of the companies and the aims of the employers lied. On the one hand, company which invested in a certain technology stuck up for that technology and tried to apply it in its projects. On the other hand, the employers, who critically examined the proposals, could prefer a certain technology in line with her/his aims.

A great deal of transaction took place between the Ottoman authorities and the companies. The disputed technical issues were requested to be changed in line with the requests of the Ottoman Government. For instance, the commission asked Fouquian et Warnant to revise its proposal and apply a triphase power system (rather than monophase) so that the trams would work better.<sup>667</sup> Further, Ganz Electrical Comapny agreed to apply 110 volt in the plant:

Diğer taraftan dahi tekalifin heyet-i umumiyyesi yani ... münâkasaya esas olan mevad itibariyle Ganz Şirketi tarafından dermiyan olunan 150 voltu 110 volta tenzil etmek kaydıyla mezkûr şirketi birinci ve monofazeyi trifazeye tahvil sûretiyle de Fukyo Varnant Şirketi'ni ikinci olarak kabul ve bu şerait dairesinde imtiyâzın birinciye kabul etmediği takdirde ikinciye bu da kabul etmezse üçüncüye verilmesi teklif edilir.<sup>668</sup>

After Ganz revised its proposal at the requests of Ottoman officials, in the final version of the contract signed with Ganz Company, the power rate of the plant was upgraded to 3.400 kilowatts, and all the districts (*daire-i belediye*) of the European side of Istanbul were to be lighted by electricity, whereas the districts to be lighted were limited and the capacity rate of the plant was lower in the original proposal.<sup>669</sup>

The documents discussing the pros and cons of the voltage and phase issues were written by the companies and submitted to the Ottoman Ministry of Public Works. Although, the reason of the Ottoman part for demanding certain technical qualifications regarding the plant could not be found in a single written transaction, their way of thinking can be guessed through the examination of documents which reflect the preferences of the Ottoman authorities and their technical concerns. For instance, triphase was appropriate for the projects which included electrification of trams. That is why the Ottomans requested from Fouquou Varnant to change their proposal from monophase to the triphase system. Further, using 110 volt in the plant

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<sup>667</sup> CCA, NV 34E/36 230-0-0-0 22 6 3 (7 September 1910).

<sup>668</sup> CCA, NV 34E/36 230-0-0-0 22 6 3 (7 September 1910).

<sup>669</sup> For detailed information on this issue, see related sections of Chapter VIII of this dissertation: “8.1.2.1. The framework of the concession” and “8.2. Technology in the Silahtarağa Power Plant”.

was better for the industrial development and using 150 volt was good for the urban lighting. The preference of Ottomans to choose 110 volt rather than 150, can be due to the comparative advantage of 110 volt over 150 in terms of industrial development. The preference for the industrial development should be considered as the efforts of the Ottomans for an economically developed country. They still had the assertion for the long life of the Empire in an environment where the foreign powers were trying to be active over the Empire and penetrate it.

Apart from the comparison chart, reports were prepared analyzing the offers. The examination of these reports provides insights on the decision making process of the electrification adjudication.

#### 7.4.1. The Work and Report of the Commission

The commission was consisted of André Auric as the head of the commission, Zühdü Bey who was the chief engineer in the Ministry of Public Works, N. Constantinidès who was the electrical engineer in the Ministry of Public Works and Léon Efendi Zohrab, who was electrical engineer and government inspector (*hükümet komiseri*)<sup>670</sup> in the Société Anonyme d'Électricité. Zohrab was appointed as the assistant of Mr. Auric.<sup>671</sup>

The commission met five times. It evaluated the projects of the companies regarding the plant (*usine génératrice*), public lighting (*éclairage public*), primary network (*réseau primaire*), secondary network (*réseau secondaire*), and transformers (*postes de transformateurs*). Regarding secondary network, the commission argued that 110 volt would be used in the system though it was not necessary to construct the secondary network at the moment. As the customers arose and requested electricity, the network could be extended in line with the demand.<sup>672</sup>

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<sup>670</sup> “Nâfia Nezâreti esna-i imalâtta sur-u icrâyesini ve hitâmında kabul olunmazdan evvel bi-tekrâr imalât-ı vakıâyı ve müddet-i imtiyâziye zarfında idare ve işletme muamelatını ve ameliyâtın hüsn-ü halde muhafaza olunub olunmadığına mahsus komiserler vasıtasıyla muayene ve teftiş eyleyeceklerdir”: *İmtiyâz Defteri II*, p. 98.

<sup>671</sup> CCA NV 34E/44 230-0-0-0 23 8 5, 15 Safer 1329 (15 February 1911) and CCA NV 34E/50 230-0-0-0 23 9 1, 22 Haziran 327 (5 February 1911).

<sup>672</sup> CCA NV 230-0-0-0 23 9 3 (07 August 1911).

The commission requested petitions from the Directorate of Posts and Telegraphy, Gas Company, Tramway Company and Terkos Company since electrification as the urban infrastructure was related with the functioning of other city infrastructures.

In its third meeting, the commission, hosted representatives from several institutions, which were deemed to be affected by electrification project. The representatives were Mr. E. François, head of Gas Company and Mehmet Ragıp Bey, head of Dolmabahçe Gas Plant. The commission considered their concerns on the electrification project as it tried to consider every detail of the project.

Mr. E. François had concerns on the current during the distribution process. The commission replied his critiques by mentioning the application of alternative current in the Project so that it would not be a problem. Additionally, Ragıp Bey requested the plans of the Project he told that after examining the plans he would come into a decision.

#### **7.4.2. Report of Mr. Auric**

As mentioned above, Mr. Auric served as the chief architect at Lyon Municipality before coming to Istanbul to work for the Empire. Auric had two different ranking about the electrification candidate companies. The first one considered the candidates in terms of technical qualification of their proposals and the second one ranked the companies in terms of technical qualifications as well as the economic efficiency of their proposals.<sup>673</sup>

Table 2. Auric's Evaluation for the Adjudication of Istanbul's Electrification (1910) on the basis of the technical qualifications of the proposals

| <b>Rank</b> | <b>Company Name</b>            | <b>Points</b> |
|-------------|--------------------------------|---------------|
| 1           | Fouquiau – Warnant             | 2180          |
| 2           | Schneider et Cie               | 1980          |
| 3           | Ganz et cie and Union Ottomane | 1970          |
| 4           | Société Générale               | 1800          |
| 5           | Westinghouse                   | 1760          |
| 6           | Giros et Loucheur              | 1490          |

<sup>673</sup> The information for the tables concerning Auric's evaluation of Istanbul's electrification concession are compiled from two files: CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910). COA ŞD. 1231/24, 1328 L 8 (13 October 1910). The titles of the companies are provided exactly the same way as they were presented in the archival documents.

Table 3. Auric's Evaluation for the Adjudication of Istanbul's Electrification (1910) on the basis of the technical and economic qualifications of the proposals

| Rank | Company Name       | Points |
|------|--------------------|--------|
| 1    | Ganz et Cie        | 4770   |
| 2    | Fouquiau – Warnant | 4380   |
| 3    | Société Générale   | 3850   |
| 4    | Schneider et Cie   | 3280   |
| 5    | Union Ottomane     | 3245   |
| 6    | Giros et Loucheur  | 3065   |
| 7    | Westinghouse       | 2585   |

Auric considered the financial advantages of the proposal of Ganz Company. The expenditures for the construction of the plant were lower and the company offered favorable prices for street lighting since due to the considerable number of free of charge lamps. Therefore, Auric claimed that Ganz Company could be ranked as the first one and Fougiau Varnant could be the second one on the basis of economic qualifications of their proposal.

#### 7.4.3. Report of G. Franghia

Franghia Efendi was “*Fen Müşaviri*” in the Ministry of Public Works.<sup>674</sup> He argued that the most successful candidate in terms of technical quality would be determined at first. Then, he considered the extensity of street lighting (*sokak aydınlatması/sokak lambaları*), which would be offered by the company for free of charge. According to Franghia, free public lighting was significant and worth to be taken into consideration. He was also concerned about the tariffs to be paid by consumers. Apparently, Franghia was concerned on the consumer rights since he was thinking about reduced tariffs of electricity and free street lighting, with which the consumers would not have to pay for it.<sup>675</sup>

Franghia asserted that the most qualified candidate did not provide the best offer in terms of prices of electricity consumption. Franghia Effendi stated that Ganz had good technical specifications for the construction of the plant and could provide a more generous proposal in terms of free street lighting. In addition, Franghia recommended another meeting with Ganz so that the company could upgrade its

<sup>674</sup> İTÜ KA, MÜM 23/50, 1330.2.30 (13 May 1914). İTÜ KA, MÜM 23/96, 1330.4.10 (17 June 1914).

<sup>675</sup> CCA NV, 34E/36 230-0-0-0 22 6 3 (7 September 1910).

proposal.<sup>676</sup> Clearly the Ottomans evaluated the projects in terms of technical qualification and financial concerns of the Empire. In the last step, it was decided that the proposal, which offered the best technological alternative, would be accepted. However, it was necessary for the winner to revise its proposal and make it better in terms of both technical and financial qualifications. This was an example of a nice bargaining, which the Ottoman bureaucrats were good at it.

### **7.5. Final Decision regarding the Adjudication of Istanbul's Electrification (1910)**

While the commission and Ottoman experts were working hard for the evaluation of the electrification adjudication, Istanbul's electrification received responses from the European journals:

It is 27 July that the commission appointed, set the order of bids, as a result of invitations of the tenders for electric lighting of Constantinople. The first classified will be retained by the definite choice which belongs to the Minister of Public Works. It appears that the projects constitute major differences between them that we could believe that they do not apply to the solution of an identical problem. One of the competitors, the Société Havraise d'Électricité Group has made arrangements with Société du Gaz de Stamboul with a view to enable, if the concession is granted to it, to extend the territory of electric lighting network of Istanbul to Galata and Pera.<sup>677</sup>

The technical commission; responsible for the examination of different projects deposited for the electrical lighting of Constantinople, was composed of five members. The members of the commission split in opinion while evaluating the offers for Istanbul's electrification: Three members classified the project of Ganz as the first one, and a minority of two members submitted a contrary report. Finally, another commission, which has considered the projects from financial and administrative points of view, made another decision, in which the project Ganz ranked last. If it is not carried to a new tender, the choice of the minister will be, in some way, circumscribed between the Ganz project and the two tenders lodged by the French firms.<sup>678</sup>

After the harsh competition period between the companies in which the diplomatic manoeuvres of the embassies involved in the process as well as the efforts of the

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<sup>676</sup> CCA, NV 34E/52 230-0-0-0 23 9 3 (7 August 1911).

<sup>677</sup> *La Lumière Électrique*, July 23, 1910, vol. 11, p. 126.

<sup>678</sup> *La Lumière Électrique*, August 20, 1910, vol. 11, p. 255.

Ottoman engineers and administrators to design the framework of the concession aiming to choose the best alternative for the sake of the country and the city, the winner of the adjudication was Ganz Electrical Company.

One of the main reasons for the preference of Ganz over other competitors was the concern of Ottoman administrators regarding the monopolization of public works. Despite all the efforts of Germany and its business interests; the Union Ottomane, which aimed monopoly over Istanbul's electrification business, was not the winning party. As a counter move, Ottoman administration preferred to assign concessions for different tasks to different companies. In this way, one company would obtain the rights to produce electricity, and the other would engage in operating electrified trams. I can claim that all these efforts toward "separation of powers" in Istanbul's electrification business aimed to prevent monopolization of electricity-related public works, at the time.

In this regard, because Ottoman authorities considered monopolization a danger for the country, they did not grant the concession to Union Ottomane.<sup>679</sup> Instead, they chose the Ganz Electrical Company of Hungary, which they considered politically impartial.<sup>680</sup> Such a resolution to the concession process must have been surprising as no signs of any effort to influence the process by either the company or the embassy of Austria-Hungary could be found in the Ottoman archival records or in the records of other competitors in the concession process.<sup>681</sup>

In other respects, it is certain that the proposal of the Ganz Company met the criteria set by the Ottoman government. The company agreed to modify its proposal to include technology suitable for industrial development, namely, a powerful plant able to provide electricity to an enlarged and populated city in the long run; reasonable fees for consumers; reduced fees for the street lighting and free equipment, such as lamps, for the municipality during the initial phase of the project.

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<sup>679</sup> American Archives II (College Park, USA), "Foreign Interests, and Concessions in Turkey" 10 April 1923, 876/602 Microfilm No. 56, prepared by the Department of State, Division of Near Eastern Affairs. This report supports the opposition of the Ottoman government to a monopoly situation in electrification and argues that the Ottoman government desires the assistance of American capital to prevent the concession from becoming a German monopoly.

<sup>680</sup> COA, ŞD. 1231/24 1329 Za 13 (5 November 1911).

<sup>681</sup> The only example of a relationship between Ottoman and Hungarian counterparts is that in 1910 members of the Dersaadet Ticaret Odası (the Chamber of Commerce in Istanbul) organized a dinner at the Tokatlıyan Hotel for businessmen who came from Hungary. Further information on the exact date and any connection between the dinner and the electrification concession is not provided by Ufuk Gülsoy and Bayram Nazır, *Türkiye'de Ticaretin Öncü Kuruluşu: Dersaadet Ticaret Odası (1882-1923)* (İstanbul: İstanbul Ticaret Odası, 2009), p. 92.

The result of the electrification concession of Istanbul received attention from the European press. *La Lumière Électrique* announced the result of the electrification adjudication of Istanbul:

As reported in our last issue, a convention for the supply of electricity in this city has been signed between the Minister of Public Works and representative of a group composed of Hungarian (including Messrs Ganz & Co.) and French syndicates whose tenders were accepted. The concession is for 50 years.<sup>682</sup>

La Gazette Francfort writes that Turkish Council of State has granted the electrical lighting concession of Constantinople to Ganz Company. A union of the company for electrical and commercial enterprises was formed and a Hungarian bank (La Banque Générale Hongroise de Crédit) would be involved in the business to ensure the project.<sup>683</sup>

As the last words for this part of the dissertation, I can claim that the Ottomans were active in the electrification decision making process from the beginning to the end of the adjudication. The process of desingning the framework of the contract, determination of the rules and regulations regarding electrification as well as the consideration of conflict of interest between the companies and old and new technologies prove the competency of Ottoman bureaucrats and engineers on the issue and also prove how far sighted they were.

The whole process of the adjudication required both technical and legal competency in which the Ottoman engineers proved to be successful since they discussed the details of the issue, examined and evaluated the projects properly. They did not accept the proposals submitted for the concession immediately but they requested changes on the projects by considering the needs of the city and the Empire. The elimination of the Swiss Syndicate from the examination list and the consideration of the syndicate's project as inadequate for the construction of an electrical plant in Istanbul as well as issues around electrification of the trams shows that the Ottoman bureaucrat knew what they wanted.

Furthermore, Ottomans' efforts to transfer a new and modern technology to their country did not originate in European pressures exerted on them. Rather, they sprang from a belief in modernity as a remedy for contemporary problems that associated technological development with progress, civilization and both industrial and urban development. Modern institutions and infrastructures thus were conceptualized as needs of the empire that would make it once again a strong actor in the league of

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<sup>682</sup> *The Electrician*, September 30, 1910, p. 1043.

<sup>683</sup> *La Lumière Électrique*, September 1910, vol. 11, p. 319.

Western nations. While seeking Empire's old power through technological development, the motive for Ottoman authorities was the motto in their minds, which was "saving the Empire".

Mühendis Mektebi was taught to be the institution, which would realize this ideal as the executor of public works in the Empire. In addition to the role of execution of the public works, Mühendis Mektebi became the authority to award the degree of 'engineer' in the Empire. That is why, final examinations of Robert College students were undertaken by the professors of Mühendis Mektebi.<sup>684</sup> In case of success in the examinations, the students would be rewarded the degree of 'engineer'. By no means, this provided Mühendis Mektebi with the authority of controlling of engineering education as well as the criteria for being an engineer in the relevant field.<sup>685</sup>

Aiming for development and progress, Ministry of Public Works initiated a deliberate programme so that the school would better serve for the development of the country.<sup>686</sup> It should be underlined that the reorganization of the School of Engineering, as "Mühendis Mekteb-i Âlisi" in 1909 was not just the reorganization of its educational system but this was a decisive action taken by the Ministry of Public Works.

In addition to deliberate reorganization of School of Engineering for the sake of country, the timeline of this action should also be taken into consideration. It was fragile years for the Empire. Balkan Wars and World War I were on the door. No doubt, the impact of the conditions of the country affected professors and the students of Mühendis Mektebi. The students of Mühendis Mektebi voluntarily involved in the battles of Çanakkale and Balkan Wars.<sup>687</sup> Yusuf Razi Bey, one of the

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<sup>684</sup> Regarding the appointment of Burhaneddin Bey and Osman Tevfik Bey in the final examinations of Robert College, see İTÜ KA MÜM 44/17 1335.05.3 (3 May 1919).

<sup>685</sup> İTÜ KA MÜM 44/36 1335.05.20 (20 May 1919). The reports of Burhaneddin and Osman Tevfik are provided in the Appendix to Chapter VII section of the dissertation.

<sup>686</sup> "Mühendis Mektebi'nin memleket menfaatine ilerletilmesi için Nâfia Nezareti memurları ve muallimlerinden mürekkep bir Heyet-i Tekamüliye kurulması ...": İTÜ KA HMM 1/36 1326.4.14 (27 June 1910). Regarding kararname for the establishment of Heyet-i Tekamüliye: İTÜ KA HMM 1/23 1326.3.28 (10 June 1910). "Savaşlar esnasında büyük bir tahribata uğrayan memleketimizin yeniden i'mârında Mühendis Mektebi ...": İTÜ KA MÜM 61/84 1340.5.19 (19 July 1924).

<sup>687</sup> "Savaş dolayısı ile gönüllü olarak orduya katılıp sonra terhis olan Mühendis Mektebi talebeleri" İTÜ KA MÜM 17/68 1329.4.2 (15 April 1913) and İTÜ KA MÜM 17/71 1329.4.2 (15 April 1913). Regarding the decrease concerning the number of students in the School of Engineering: İTÜ KA MÜM 57/79 1339.7.21 (21 July 1923). "Şecaatin Efendi; admitted to the School of Engineering in 1910, attended classes until the third year and recruited under arms during the World War I, did not continue his studies: İTÜ KA MÜM 58/95 1339.10.15 (15 October 1923). On the front, the students of the

professors of the school, joined a group of journalists, who were organized by Harbiye Nezâreti (Ministry of War) and went to the battle of Çanakkale as an observer. After his return, he published his battle diary in *Tanin* Newspaper.<sup>688</sup> Yusuf Ziya Bey was awarded with “*ikinci rütbeden Maarif Nişanı*” since he donated his personal library to Mühendis Mektebi.<sup>689</sup> In addition, through an advertisement in the newspapers, the administration of Mühendis Mektebi expressed its mercy to Yusuf Razi Bey, Şakir Efendi and Mehmed Galip Efendi for donating books to the library of Mühendis Mektebi.<sup>690</sup> Further, the students of Mühendis Mektebi donated great deal of money to the Donanma Cemiyeti although they lived off the scholarship paid by the school.<sup>691</sup> In another case, the personnel of Mühendis Mektebi donated for the injured people of İzmir.<sup>692</sup> Ali Ziya Kocainan’s (graduate of Hendese-i Mülkiye, professor of Mühendis Mektebi and chief architect in the Ministry of Pious Foundations)<sup>693</sup> statement, while he was giving a speech for the memory of Sinan, the architect, is worth to note at this point:

Çok acılar gördünüz, ama on bu kadar yıldır Türk eline yeni bir ışık doğdu, bu ışık yolunuzu aydınlatıyor, okuyunuz, bakınız, yapınız, şuurla bilgi ile teknik ile çalışınız, yurdun bayındırlığı için emekler veriniz.<sup>694</sup>

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School of Engineering performed their profession (for instance, they were employed in the railway logistşcs department/*şimendifer taburları*) besides combatting: İTÜ KA MÜM 24/85 1330.6.3 (16 June 1914).

<sup>688</sup> Beşir Ayvazoğlu, *Edebiyatın Çanakkale’yle İmtihanı: Arıburnu ve Seddülbahir’de 10 Gün*, (İstanbul: Kapı Yayınları, 2015), p. 12.

<sup>689</sup> İTÜ KA MÜM 52/51 1337.10.1 (1 October 1921).

<sup>690</sup> İTÜ KA MÜM 3/56 1326.11.6 (19 November 1910).

<sup>691</sup> “Donanma-yı Osmani Muavenet-i Milliye Cemiyeti’nin açmış olduğu yardım kampanyasına çoğu fakir olan ve mektepten aldıkları az miktardaki tahsisatla geçinen talebelerin iki defada toplam bindörtüyüzirmin kuruş otuz para toplamış olmaları takdire şayan olduğundan”: İTÜ KA MÜM 3/90 1326.11.25 (8 December 1910).

<sup>692</sup> “İzmir felaketzedelerine Mühendis Mektebi çalışanlarınca Hilal-i Ahmer Cemiyeti vasıtasıyla yapılan yardım”: İTÜ KA MÜM 84/49 (1928.5.5).

<sup>693</sup> Born in 1881, son of Kamil Bey (Ticaret Mahkemesi zabıt katibi), died in 1952. Graduated from Hendese-i Mülkiye in 1906 and appointed as “*muallim muavini*” in the same school. He assisted to the courses of Mehmed Hulusi Bey. Kocainan wrote four course books which are kept in the Rare Books Collection of ITU: *Kat-ı Ahcar* (1923), *Demir İnşaat* (1923), *Hendese-i Tersimiye* (1923), *Menazir-i Hattiye* (1923). Besides, teaching at Mühendis Mektebi, he worked in different positions in several ministries and municipality of İstanbul as an engineer and architect (ordered according to timeline): İstanbul Emlak Bidayet muavini, Defterhane (Tapu ve Kadastro İdaresi) mühendisi, Nâfia Nezareti Demiryollar İdaresi mühendisi, Köprüler Dairesi mütercimliği, Meclis-i Kebir maarif azalığı, İstanbul Evkaf İdaresi başmimarı, İstanbul Belediyesi İmar Bürosu şefliği. He was also involved in consruction and contracting business for his own account. The carrier pathway of Kocainan provides us with significant information on the job opportunities for the graduates of Mühendis Mektebi. His biography also shows evidence for engineers carrying multi-tasks; professor/bureaucrat/free lance engineer: SALT Research (Said Bey ve Ailesi Arşivi), Document no: AFMSBKDOC05501-AFMSBKDOC05506, AFMSBKDOC008, AFMSBKDOC008E1, AFMSBKDOC033, AFMSBKDOC126, AFMSBKRE0446.

<sup>694</sup> SALT Research (Said Bey ve Ailesi Arşivi), Document no: AFMSBKDOC05506.

Above evidences shows the devotion of students and professors of Mühendis Mektebi to their nation as well as their motto “working for the nation”. In another way of saying, devoted people of this educational institute can be called as “learned patriots”.<sup>695</sup> Therefore, patriotism along with other credentials of Ottoman engineers of 19<sup>th</sup> and 20<sup>th</sup> centuries, should be taken into consideration, which makes part of identity of engineers.

## 7.6. Conclusion

This chapter dealt with the decision making process of Istanbul’s electrification concession in detail. The perception of Ottoman administrators and engineers towards electric technology and foreign capital was analysed together with the personal stories of Ottoman engineers, as well as the organizational structure of Ministry of Public Works, the authority which managed the decision making process.

Additionally, personal histories and the carrier paths of the foreign engineers provide significant insights on the employment practices of foreign experts in the Ottoman Empire. Contract based employment of the foreigners, control mechanisms exerted over them, and their contribution to the engineering practice of the Empire, all add to the working history of the Empire in the early 20<sup>th</sup> century. Further, tracking the personal histories of these foreign engineers show that they all followed different carrier paths through their profession. While one combined his engineering experience with his entrepreneurial mind, the other preferred a life in his laboratory and the third was involved in the decision making and execution processes of engineering projects.

The period of 1910s and early 1920s, affected the lives of the engineers as well. On the one hand, those were the fragile years for the Empire, on the other hand, Ottoman administration aimed at modernization of the country, where occurred a boom in the infrastructure projects, and a prolific environment for an engineer. On the other hand, those were the years while some could make fortunes while the others lost their wealth. Therefore, these five engineers pursued different engineering carriers and were involved differently in the electrification history of Istanbul.

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<sup>695</sup> The term is derived from M. Alper Yalçinkaya, *Learned Patriots: Debating Science, State, and Society in the Nineteenth Century Ottoman Empire*, Chicago: University of Chicago Press, 2015.

Upon this lively analysis of decision making process, next chapter will leave the scene for the examination of implementation process of the concession. At first, legal documents of the concession will be dealt with. Second, realization of the issues which were covered in the legal documents will be examined. For this purpose, the process of the construction of the plant will be on the focus. Further, the consumption of electricity including details on the prices, consumers, the conditions of World War I and its impact on production and consumption of electricity will be examined through the analysis of assembly meetings of the company, reports on the construction of the plant, subscription contract for the consumers, and financial records of the company.



## CHAPTER VIII

### SİLAHTARAĞA POWER PLANT

This chapter focuses on the contracts, rules, and regulations about Silahtarağa Plant. The chapter also gives further information about the plant itself and the technology employed. Further, the chapter portrays the consumption of electricity in Istanbul through the archival documents such as subscription contracts held with consumers, both with individuals and commercial enterprises. In addition, the examination of the financial documents of the plant would reveal significant information regarding consumption of electricity during the World War I.

#### 8.1. Legal Documents of Istanbul's Electrification Concession: Rules and Regulations After the Concession

Charte (*Nizamnâme-i dahili*),<sup>696</sup> cahier des charges (*şartnâme*),<sup>697</sup> convention (*mukavelenâme*),<sup>698</sup> and regulation concerning technical specifications (*şerait-i fenniyyeyi mübeyyin nizamnâme lâyihası / teknik nizamnâme*)<sup>699</sup> are the legal documents of the concession which all form the future rules and regulations of

<sup>696</sup> Osmanlı Anonim Elektrik Şirketi Nizamnâme-i Dahilisi (consisted of 44 articles): Osman Nuri Ergin, *Mecelle-i Umur-ı Belediye-V*, (İstanbul: İstanbul Büyükşehir Belediyesi, Kültür İşleri Daire Başkanlığı Yayınları, 1995), pp. 2720-2728.

<sup>697</sup> Dersaadetin Rumeli cihetiyle civarında ve telgraf ile telefonun ve umumi vesait-i nakliyyeye aid kuvve-i muharrikenin gayrı bilcümle hususatda isti'mâl edilmek üzere Hükümet-i Osmaniyece i'tâsı mukarrer kudret-i elektrikiyye tevzi'at-ı umumiyyesi imtiyâzının münâkasasına dair şartnâme (consisted of 62 articles): Osman Nuri Ergin, *Mecelle-i Umur-ı ...*, pp. 2695-2720.

<sup>698</sup> Dersaadetin Rumeli cihetiyle mülhakatında telgraf ve telefonla nakliyat-ı umumiyye umuruna muktezi kuvve-i muharrikeden maada hususat-ı saireye şümülü olan kudret-i elektrikiyenin tevzi'at-ı umumiyyesi imtiyâzına dair mukavelenâme (consisted of 6 articles): Osman Nuri Ergin, *Mecelle-i Umur-ı ...*, pp. 2690-2695.

<sup>699</sup> Kudret-i elektrikiyye tevziâtının tabi olacağı şerait-i fenniyyeyi mübeyyin nizamnâme lâyihası (consisted of 38 articles): Osman Nuri Ergin, *Mecelle-i Umur-ı ...*, pp. 2729-2744. Since this document is directly related to the issue of application, installation and maintenance of electrical technology, this document will be examined within the "Technology in the Silahtarağa Power Plant" section of this chapter.

construction, management, maintenance and production processes of the Silahtarğa Power Plant. Since these documents state all the rights and responsibilities of the concessionaire and the Ottoman Government after the accomplishment of the concession, every move of both sides depended on these documents and any dispute in the future would be dissolved in line with those legal documents. It is for sure that the binding character of the documents forced the sides to act carefully during the legal negotiations. In such a situation, I can infer that the company tried its best for better profits and Ottoman Government targeted and obtained lowest prices in return of the best quality and services.

Yet, electrification did not mean only the lighting of the city with affordable prices for the Government. It was rather a matter of industrial development of the country, consumer, and urban rights of the public, a well-organized and proper working municipality, and a modern urban space in the final stage. Since electrification had multi-dimensional meaning in the overall modernization project of the Empire, the legal documents of electrification concession could be examined from the standpoint of how successful Ottomans were in the negotiation of these legal documents.

Further, examining the legal documents in the light of contemporary debates of concession process; on profit sharing, services rendered for free, price determination for the services, rebuying the concession before its stated deadline, turning over the business within its deadline and the responsibility of technology transfer during the concession period, would also provide us to see how far-sighted the Ottomans were and have an idea on their level of legal and technical expertise.

#### **8.1.1. Charte (Nizamnâme-i Dahili)**

“*Nizamnâme-i dahili*” includes information on the establishment of the company for Istanbul’s electrification, the regulations of the concession concerning the capital (*şirket sermayesi*) as well as the shares of the company (*hisse senetleri*). Furthermore, “*nizamnâme-i dahili*” regulated the rules regarding the management of the company, meetings of General Assembly, and financial issues such as keeping financial records of the company or dividends (*temettüat*).

According to “*nizamnâme-i dahili*” the title of the company would be “Osmanlı Anonim Elektrik Şirketi” and it would be subject to Ottoman laws. The center of the company would be in Istanbul and it could establish branch offices in the other cities of the Empire. Further, the period of the concession was for fifty years and the company had capital of twelve million (528.000 Lira-i Osmani) Francs.

The administration of the company would be handled by an administrative committee (*meclis-i idare*) of at least seven and at most fifteen people, who were assigned by the general assembly (*heyet-i umumiyye*). In addition, it was imperative for the members of the committee to hold twenty shares of the company.

The council would meet once in a month, and the records of the meeting had to be kept. Majority of the votes (*ekseriyet-i ara*) among the members, who were present in the meeting, was needed during the decision making process. The committee could render its authority to a commission for a determined period or the committee could assign experts outside from the company.

The shareholders (*umum hissedar*), who had at least ten shares of the company constituted the general assembly. The administrative committee before the general assembly would check the shares. For every ten shares, each member of the assembly had one vote and total number of votes per person could not be higher than twenty. The assembly met once in a year, in the end of June. Additionally, a commissioner assigned by Ministry of Public Works would attend at the meetings of the assembly. For instance, Dilberzade Efendi Hazretleri and Mustafa Nail Efendi attended to the general assembly, which met on the 28<sup>th</sup> of June in 1916.<sup>700</sup>

The administrative committee and the shareholders who had at least one thousand shares of the company would set the agenda of the general assembly. In the meeting, the report of the administrative committee and the report of the account officers (*hesap komiserleri*) was either approved or rejected by the assembly. As the reports of general assembly meetings reveal, the most important agenda was the discussion

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<sup>700</sup> CCA NV 230-0-0-0 26 16 8 (22 June 1926): “Osmanlı Anonim Elektrik Şirketi, İşbu 1916 Sene-i Efrenciyesi Haziranı’nın 28. Günü İçtima Eden Hissedarın Meclis-i Umumi-i Adiyesinde Kıraat Edilen Meclis-i İdare Raporudur”. The names of Dilberzade and Mustafa Nail was mentioned in “31 Kanun-i Evvel sene 1915 tarihinde Meclis-i İdare Heyeti”.

of the financial tables of the company and the issue of income distribution.<sup>701</sup> Election of new members to the administrative committee constituted the other topic that the assembly usually discussed.

### 8.1.2. Convention (Mukavelenâme)

*Mukavelename* included the very basic information regarding Istanbul's electrification concession such as the framework of the concession in terms of the districts to be electrified, the technology to be applied in the plant and urban electrical network, the prices to employed for electricity consumption at homes, in the industry, in the shops and for street lighting and company's tax liabilities towards Ottoman Government.

#### 8.1.2.1. The framework of the concession

According to first article of *mukavelenâme*, the grant included the electrification of all districts between the first and twelfth municipality districts of Istanbul city as well as the twentieth municipality district. Therefore, the districts to be electrified were Bayezıd, Sultan Ahmed, Fatih, Samatya, Eyüb, Beyoğlu, Hasköy, Beşiktaş, Arnavutköy, Yeniköy, Tarabya, Büyükdere, and Makri Köyü (Bakırköy).<sup>702</sup> The districts, which the concession did not include, were the ones in the Asian side of Istanbul and the Prince Islands.

At this point, the first article of *şartnâme* should be mentioned. The article offered two regions to be electrified. On the one hand, first region included 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> municipality districts to be electrified. On the other hand, second region covered the municipal districts of 1<sup>st</sup> to 12<sup>th</sup> and included the 20<sup>th</sup> district as

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<sup>701</sup> See "Reading Financial Tables of the Silahtarağa Power Plant" section of this chapter for a detailed analysis of the financial tables of the company.

<sup>702</sup> For a detailed description of the municipality districts such as "Birinci Daire, "Bayezıd Dairesi"dir. Sahil yoluyla Ahırkapı'dan Unkapı iskelesine ve içeride Zeyrek, Saraçhanebaşı, Sehzadebaşı, Merkepciler kapısı, Hasanpaşa karakolundan Divân Yolu ile Sultan Ahmed ve oradan Ishak Paşa caddesiyle Ahırkapı'ya kadar olan hattın içinde kalan mahalleleri kapsar", see: Halil İbrahim Koca, *Kanun ve Nizamnâmeler Işığında Dersaadet Belediye Teşkilatı (Şehremâneti) (1855-1913)*, Unpublished M.A. Thesis, İstanbul Üniversitesi Sosyal Bilimler Enstitüsü, Sosyal Siyaset, İstanbul, (1996), s. 25. Nurgül BOZKURT, "İbrahim Hakkı (Paşa)'nın 1877 Tarihli Dersa'adet Belediye Kanunu'na Dâir Lâyihası" *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, 18, August 2007 (<http://sbe.dumlupinar.edu.tr/18/21.pdf>).

well. As understood from the *mukavelenâme*, second offer of the *şartnâme* and a plant of higher capacity were accepted. Therefore, I can conclude that the Ottomans considered the future development of the city and rather than choosing a limited one opted for a higher capacity plant which would electrify European side of Istanbul.

Apart from the districts to be electrified, Ganz Company was granted to engage in distribution of electricity other than telegraphy, telephone, and public transportation vehicles, according to the first article of *mukavelenâme*.

The issue of producing and selling of electricity for specified purposes is extremely important. Since the *mukavelenâme* did not include the distribution of electricity for transportation vehicles, telegraphy, and telephone, the companies of trams, telephone, and telegraphy were not obliged to buy electricity from Ganz Company. This issue was one of the most discussed matters between the Dersaadet Tramway Company and the Ottoman Government during the decision making process of the concession. The Government did not grant the concession to the Tramway Company in the end and monopoly situation in the electrification and city transportation was avoided. Yet, the rights of Tramway Company were protected within this *mukavelenâme* since the company was not force to buy electricity from Ganz Company. However, according to financial records of the company for the year 1915, the plant provided electricity to the trams of the city. Then, I can conclude that although Tramway Company did not have to buy the electricity from Ganz Company, anyway, Ganz provided electricity to the trams in 1914 and 1915.<sup>703</sup>

#### **8.1.2.2. Regulation on street lighting**

Further, the number of the street lamps was stated in the *mukavelenâme*, which had been another discussion issue among the company and the Government. Although, the number of street lamps stated in the *şartnâme* was a hundred, *mukavelenâme* informed that six hundred street lamps would be furnished. Besides, half of these lamps would run for four thousand hours in a year, and the other half would run for three thousand hours in a year.

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<sup>703</sup> "... Şehrimiz tramvaylarının cerri için ali tevettürlü kudret-i müessese 1915 senesinde 3200 kilovat, 1914 senesinde 2800 kilovat ..." or "Tramvay Şirketi tarafından sarf olunan ali tevettür 1914 senesinde 3167892 kilovat saat, 1915 senesinde 4295202 kilovat saat": CCA NV, 230-0-0-0 26 16 8 (20 June 1918).

### 8.1.2.3. Regulation on tax liabilities of the company

The issue concerning tax liabilities of the company was another acquisition of the Ottoman Government. Although, the company would not pay taxes for initial investment (*tesisat-ı ibtidaiye*) according to *şartnâme*, *mukavelenâme* stated that the company would pay taxes for its initial investment.

### 8.1.3. Cahier des Charges (Şartnâme)<sup>704</sup>

*Şartnâme* was the most detailed legal document of Istanbul's electrification. It regulated the technological constraints of the plant, submission and evaluation criteria of the plans and projects regarding electrification of the city, the issues of profit sharing between the Ottoman Government and the company, price determination, land and expropriation issues, safety issues regarding urban electrical network, and regulation on consumption of electricity.

Among above issues, I believe that regulations concerning the profit sharing issues and consumer relations are of vital importance. On the one hand, profit sharing regulated financial pros and cons of the concession. On the other hand, electricity consumption could be perceived as turning point in Ottoman consumption culture since the urban dwellers began to buy this public utility with the terms of a contract between the company and the consumer. Monthly payments, repair works of electric apparatus, liability to the company through a contract were all recent changes in the consumption culture of Ottoman society, which were all brought by electrification.

#### 8.1.3.1. Regulation on the submission and evaluation of the plans and projects of electrification

According to 5<sup>th</sup> article of *şartnâme*, the concessionaire had to provide Ministry of Public Works with the required plans, maps, table of expenses (*masraf cetveli*) and technical drawings in six months after the company was awarded with the concession. Further, the plans and projects would be examined and approved or

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<sup>704</sup> Some of the articles of *şartnâme* were already covered when analyzing *mukavelenâme*. In addition, the articles of *şartnâme* regarding technology are examined in “Technology in Silahtarağa Power Plant” section of this chapter. Therefore, the articles which were already covered in different sections, will not be included in this part of the chapter.

necessary corrections would be undertaken in three months after the submission of the documents. During the process, the ideas of Şehremâneti, Posts and Telegraphy Directorate (Posta ve Telgraf Müdüriyeti) and the companies of water, trams, gas and telephone would be considered.

#### 8.1.3.2. Regulation on land, real estate and expropriation issues

*Şartnâme* regulated the issues of land and real estate, which was another significant matter. The State lands on which the construction and distribution activities would be undertaken, would be granted to the concessionaire for free. As stated in the “*kabul-i muvakkat*”<sup>705</sup> report, Şehremâneti provided land to the company for constructing transforming stations and feed-in points (*tagaddiye/besleme merkezi*) in Beyoğlu, Hasköy, and Haliç Halıcıoğlu districts. If the required land was owned by a third party, the company would buy the property in line with the Ottoman laws. In case of any disagreement, the land would be expropriated since electrification aimed public good at large (*menafi-i umumiyye*).

Although it was not stated in *şartnâme*, the rise in the property prices should be mentioned at this point. It is no doubt that prices of property, which were located closer to electrified districts, would rise. There appeared entrepreneur individuals who smelled the real estate market. For instance, electric and mechanical engineer Hasan Efendi and Mehmed El-Mahrûki established a real estate company in Beyrut in 1916. Thinking about the construction of electrified trams and future urban development of the city and it was logical to run real estate business in Beyrut. Besides, Hasan might be informed about the future development of the city since he was already involved in the public works business.<sup>706</sup>

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<sup>705</sup> CCA, NV 34E/93 230-0-0-0 24 11 15 (16 April 1914). For detailed information on “*kabul-i muvakkat*” process, see “Technology in the Silahtarağa Power Plant” part of this chapter. Full transcription of the document can be found in Appendix A.

<sup>706</sup> COA ŞD. 1247/36, 1332 S 28 (26 January 1914).

### 8.1.3.3. Regulation on profit sharing

Article 39 of *şartnâme* regulated the sharing of profits between the shareholders and Şehremâneti.<sup>707</sup> According to the article, the company acquired the right to cover its capital expenditures of investment with an interest rate of 5 % annually. However, the Government did not pay the losses to the company in cash. Rather, the losses were registered into the financial tables of the company as “accounts receivables from the State”.

The company was eligible to receive this annually 5 % interest rate for the first three years of its investment. If the investment period exceeded three years, the company would not benefit from the annually 5 % interest rate for its capital expenditure. By this rule, the Government encouraged the company to finish the power plant investment within three years period. In case of a delay in the construction of the plant, the company would not receive annually 5 % interest rate. I can argue that this must have forced the company to finish the construction of the plant on time.

In case the company suffered from losses when the plant started to operate, the company acquired the right to cover its losses with an interest rate of 5 % annually, according to article 39. This was possible through charging its losses to Şehremâneti with an interest rate of 5 % annually. However, Şehremâneti did not pay the losses to the company in cash. Rather, the losses were registered into the financial tables of the company as “accounts receivables from the State”. By this rule, the company had the right to cover the loss periods with minimum profit guarantee and did not take the risk of operational losses.

On the contrary, when the company was profitable, Şehremâneti had the right to receive 50 percent of the gross (*gayr-i safi*) profit. This amount of profit was registered and credited to the “accounts receivables from the State” (*alacak*). In this way, Şehremâneti would not receive its profit in cash until the register of “accounts receivables from the State” was equal to zero.

On the contrary, when the company went through losses, Şehremâneti had to compensate the loss. During the war years, due to the rising of the prices in

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<sup>707</sup> Although it was not mentioned in the *şartnâme*, 36<sup>th</sup> article of the *nizamname-i dahili* offered a share in the profit (3 %) to the administrative committee of the company.

incredible amounts, the company faced with losses as revealed from its financial tables. Although the loss of the company was also the loss of Şehremâneti and Ottoman Government in the end, the State did not increase the electricity tariffs. Only when the company applied to Ministry of Public Works and complained about the rises in the prices of the supplies as well as the workers' wages, redetermination of the tariffs were considered by the Government. Therefore, I argue that the State opted to provide electricity to the public and in return it was exposed to the losses.

#### 8.1.3.4. Regulation on the Consumption of Electricity

According to article 35, Şehremâneti would determine the exact hours for the street lighting. Although, the electricity had to be provided to the city in the daytime as well as at night, the concessionaire had the right of cutting the electricity for two days in a month in order to undertake infrastructure works. Nevertheless, the concessionaire had to inform the customers about the situation beforehand. The exact hours for the electricity cut were already determined in the *şartnâme*. In Winter, between October and March, electricity cut would last from 9:00 in the morning to 15:00 in the afternoon. In Summer, electricity cut would last from 7:00 in the morning to 17:00 in the afternoon.<sup>708</sup>

According to article 30 of *şartnâme*, in case of a dispute between the company and the subscriber regarding the operation of electricity meter, *ehl-i hibre* (bilirkişi/expert) would be assigned by Şehremâneti to overcome the dispute, if the parties could not come to a solution. If the expert found out that the ill working electricity meter put the subscriber into disadvantaged position, the company would pay the fees of the expert and compensate the loss of the consumer.

The company owned the electricity meters and the customer had to undertake advance payment (*avans*) for the lighting installation. However, an amount of ceiling fee<sup>709</sup> for the advance payment was set, so that charging excessive amounts to the consumer was avoided.

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<sup>708</sup> Article 33 of *şartnâme*. The term "*alafranga saat*" is used for the hours.

<sup>709</sup> 10 *kuruş* per *hektovat*, Article 30 of *şartnâme*.

The 24<sup>th</sup> and 31<sup>st</sup> articles of the *şartnâme* regulate the tariffs to be employed between the consumers and the company. The 24<sup>th</sup> article in particular, determined the maximum rates that the concessionaire could impose on the customers. Further, the article makes a differentiation between the consumers at homes and the industrial enterprises. According to the article, customers at homes would pay twice of the fee, which would be paid by the industrial enterprises. The rates applied for the regular individuals at homes and the rates applied for the industry reflect the governmental policy of electrification.

It is clear from the *şartnâme* that the electricity to be used for the industrial purposes was cheaper and the industrial entrepreneurs were awarded price reduction for their electricity usage. Moreover, the maximum rates to be imposed on the customers were not arbitrary but they were determined by the contract in the beginning of the business.

However, in the 4<sup>th</sup> article of *mukavelenâme*, the tariffs regulated in the *şartnâme* were redesigned in favour of the customers since both individuals at homes and the industrial enterprises would pay less than the fees stated in the *şartnâme*. The reduction in the *mukavelenâme*, shows that the negotiations continued until the signing of *mukavelenâme* and the Ottomans succeeded in reduction in the fees.

The tariffs of electricity, the way that the disputes solved between the company and the consumer and the responsibility of the concessionaire to light the city day and night when the construction process was on the way, all constitute the efforts of the Ottoman Government and municipality in order to establish lighting service in the favor of the consumers.

The contractual character of the electricity consumption and payment system, points a different mode in the consumer relations in the Ottoman society. As the modernization of urban infrastructure is materialized, modern ties between the consumers and the companies increased.

In this respect, electrification is deeply related with the Ottoman modernization. Introduction of electricity in the Ottoman Empire and further developments in the way of electrification of Istanbul in the late 19th and early 20th century must be placed within the discussion of modernization process of the Empire.

Earlier studies on Ottoman modernization mostly dealt with two major issues; one, the modernization of army and state apparatus, and the other one is modernization of Ottoman society. Little attention has been paid on the transfer, use, reproduction, and consumption of Western technology. I argue therefore that the electrification of Istanbul, along with other major cities, although late, demonstrates a major step in history of Ottoman modernization. The only thing is that the Empire did not have enough time to further apply and develop technologies since it ended in 1923 after the World War I.

## 8.2. Technology in the Silahtarağa Power Plant

In this part, legal documents of Istanbul's electrification concession will be put forward and analyzed through their related articles concerning technology. These legal documents are *mukavelenâme*, *şartnâme* and technical *nizamnâme*. “*Nizamnâme-i dahili*” did not deal with the technology specifically, therefore, in this part, I did not take it into account.

The 3<sup>rd</sup> article of *şartnâme*<sup>710</sup> included the main technical details of the plant. The article had two proposals concerning the technical details of the plant. The first proposal offered a plant of at least 2.000 kW. The second proposal offered a plant of at least 3.000 kW. As understood from the second article of *mukavelenâme*,<sup>711</sup> a plant of 3.400 kW was decided to be constructed. Thus, the capacity (*iktidâr-ı elektriki / kudret-i asgarîye*) of the plant, which was decided in the end, was higher than the two proposals stated in the *şartnâme*. The increase in the capacity of the plant shows the intention of the Ottomans for a powerful plant for the lighting of the city as well as the industrial development of the country, which would provide service for long years.

Article 27 of the *şartnâme* supports the idea that the Ottomans were keen on the capacity of the plant. The article required the establishment of a second plant (*ihtiyat fabrikası*) when an increase in the capacity was needed. The new plant would be a hydro-electricity (*sukut-ı miyahdan istifade*) plant. However, the statistics of

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<sup>710</sup> “İktidâr-ı elektrikisi üç bin kilovattan dün olmamak üzere merkez fabrikası tesis olunacaktır”.

<sup>711</sup> “Merkez fabrikasının kudret-i asgariyesi şartnâmede gösterildiği vechile üç bin kilovat olmayıp üçbindört yüz kilovat olacaktır”.

“Annual Development of Turkey’s Installed Capacity”<sup>712</sup> reveals that the hydro electric capacity of the country did not change between the years 1913 and 1923. Therefore, I can conclude that hydro-electricity capacity was stable during the Ottoman period and the only hydro electricity plant was the one, which was established in Tarsus. Besides the capacity of the plant, three-phase (*trifaze*) system would be applied in the plant. This system was better for the electrification of trams, which was in the agenda of the Ottoman government.

In addition to the capacity of the plant and the concerns related to the operation of the trams, the 3<sup>rd</sup> article of *mukavelenâme* stated that the “*mikdar-ı tevettür*” between “*bi-taraf tel*” and “*faze*” would be 110 volt. During the concession negotiations, this issue became a matter of discussion between the company and the Government since the company proposed 150 volt while the Government preferred application of 110 volt in the plant. Depending on the *mukavelenâme*, it is understood that the discussion was resolved and the company accepted the cause of the Ottomans.

Opting 110 volt rather than 150 volt was a deliberate choice of the Ottomans since the plants of 110 volt were preferred due the fact that they provided better production facilities for the industrial development.<sup>713</sup> Besides the aim of industrial development, Burhaneddin Bey’s focus on the efficiency while producing electricity should also be underlined at this point:

Bir hatt-ı hevâî tesis edilmesi lazım gelip bunun tulu malum olup ne miktara kudret nakil edilmek istenildiği dahi malumdur. Binaenaleyh, yalnız hatta verilecek tefazül-i iktidâr hattın ve müstaid ve maktânın tayini lazımdır. Bunların tayininde, yalnız, iktisat nokta-ı nazarından en ehven olanını intihâb lazımdır.<sup>714</sup>

<sup>712</sup> The statistics on the installed capacity of Turkey is provided by the Turkish Electricity Transmission Corporation (TEİAŞ) and available online at: <https://www.teias.gov.tr/tr/i-installed-capacity> (accessed 7 February 2019).

<sup>713</sup> I am grateful to Prof. Stathis Arapostathis (National and Kapodistrian University of Athens, Greece) since he provided me with technical information regarding electrical plants. Otherwise, I would not interpret the choices of technology within their ties to the long-term policies of Ottomans. I am also grateful to the the Institute for the History of Medicine and Science “López Piñero” and Prof. José Ramón Bertomeu Sánchez (University of Valencia, Spain) who invited me to the “Experts in the Periphery in the 19<sup>th</sup> and 20<sup>th</sup> Centuries Workshop” in Valencia and provided me with financial support to attend at the workshop.

<sup>714</sup> Elektrik Mühendisi, Müderris Burhaneddin Ferid [Sezerar] Bey, “*Mühendis Mektebi Elektrik Notlarından Hatt-ı Hevâî Hesâbâtının Esâsâtı*”, (Matbaa-i Askeriye, 1339/1923), p. 17. At this point, it should be underlined that Burhaneddin Bey focused on the efficiency of electric production, not only from the point of an engineer but also from the point of an economist. It can be argued that the engineer had to engage in the efficiency, longevity, and profitability of the business, therefore engineers of the time acted like an economist when needed. The same tendency can be seen in the

Farz edelim ki bir mahalde eksernatörler vasıtasıyla bir cereyân-ı mütenâvib istihsâl edelim. Ve bunu mahall-i sarf olan 100 veya 200 kilometre mesafeye veya daha uzağa nakil etmek isteyelim. Yoldaki zâyiâtın büyük olmaması için bunu 25 ila 100 bin volt tahtında icra etmek mümkündür. Lakin ... büyük iktidar tahtında tevziat icra etmek için malum olduğu üzere tevettürü yükseltecek bir transformatör vaz'ı icab ederse de büyük masraf dai olur. Bundan dolayı ... gerek kendi inşaatları ve gerek muhafaza aletlerinin fiyatlarından ve gerek kullanılacak amelenin ehil olması için yevmiyelerinin fazlalığından dolayı ? da gayet âli tevettür isti'mâl etmekten tevakki etmelidir. Ancak muhtelif tefazül-i iktidârlar ile hesaplar yaparak neticede en muvafığıntı intihâb etmelidir.<sup>715</sup>

As revealed from the choices of technology, opting one rather than another affected the future operation of plant. Thus, I claim that the choice of technology made by the Ottomans was the result of their deliberate preferences and long-term policies concerning urban and industrial development. Further, it is no doubt that the Ottoman officials and engineers mastered the knowledge of electricity and chose the appropriate technology, which would suit to the long-term policies. Moreover, I can assert that technology transfer is a dynamic process shaped by both parties as the result of negotiations.

Turning back to the legal documents of electrification in relation to technology, article 9 of *şartnâme* required best quality of tools and materials to be used during the construction process and all the process had to be in line with the scientific regulations. Moreover, any harm to the public or any trouble regarding the other public utilities such as trams, water, or telegraphy had to be avoided. The concessionaire had to work with Şehremâneti for the smooth operation of other public utilities. It is no doubt that this mechanism would provide coordination between the concerned institutions. In case of a repairs activity on the public roads, the control office (*kontrol memurluğu*) had to be informed by the concessionaire before four days from the activity. Besides, control office could force the concessionaire to cut the electricity if there occurred an emergency, according to article 12 of *şartnâme*.

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works of Hasan Halet Işıkpınar since he wrote on the principles of accounting in the power plants as well as the management of the plant: Hasan Halet Işıkpınar, *Elektrik santralleri serisi - Lokomobili elektrik santrallerinin işletme teşkilatı - Elektrik tesisatı işletmeleri muhasebe usûlü*, (İstanbul: Hüsniyat Basımevi, 1939).

<sup>715</sup> Ibid, p. 17.

*Şartnâme* envisaged possible technological developments in the long run. Thus, it regulated the application of technological change in the future. According to the article 40, after fifteen years following the concessionaire was awarded with the concession of electrification, the Government could request the application of recently developed technologies in the plant from the concessionaire. However, technological change depended on some conditions. First of all, the technological change had to be applied in a city, which had population more than 100.000, at least for two years. Additionally, savings of at least 20 percent when compared with the previous technology, had to be earned as a result of the new technology. Further, the article 40 of the *şartnâme*, proposed discount concerning the fees of electricity, if 20 percent savings occurred in the average price of 1 kW/h current after the application of the technological change, in every ten years after the end of the first fifteen years.

Approach for the application of technological change reflects the cautious behaviors of Ottomans towards technological change. They wanted to be sure that the new technology operated well and profitable. Longevity of the technology was the determining factor for the Ottomans to invest in technological change.

Furthermore, Ottomans considered discount in the fees of electricity when producing electricity with lower costs became possible by the application of new technology. The company and the Government had to decide for the rate of the discount. If the sides could not come to a decision regarding the discount rate, court of appeals (*mahkeme-i temyiz*) would form a commission and assign three experts (*ehl-i hibre/bilirkişi*) to determine the discount rate. Moreover, the savings more than 20 % within the new technology could add to the revenues of Şehremâneti depending upon certain conditions. Therefore, I claim that, following the application of a new technology; Ottoman Government employed a mechanism in which the company shared its earnings with the consumers and municipality. In this mechanism, the company shared its profits with the consumers and the municipality.

Further, Ottoman courts were the place of resolution for the determination of the discount rate, which is an important aspect of application of new technologies. Moreover, according to the article 60, the plant was subject to the regulations concerning the construction and maintenance of factories.

*Teknik nizamnâme* included detailed regulation regarding the production of electric power, installation of urban electrical network and safety issues of technology concerning the urban dwellers and the workers.

According to *nizamnâme*, the machines, and other technical apparatus in the plant had to be kept within their cases, covers, or fences. The workers would wear gloves and use other equipment such as leverage when working in the plant. Furthermore, it was forbidden for the workers to stand closer to the running equipment. The equipment had to be operated by the worker in charge. Additionally, there would be signs of attention so that the personnel would act carefully in the plant. Wooden parquet would be furnished in the plant so that the floor would not be slippery.

In addition to the safety precautions in the plant, *nizamnâme* included regulation in relation to urban electrical network. First of all, electricity cables of good quality would be used in the urban network. Already existing infrastructure such as telegraphy lines, water and gas network or tram-lines would be taken into consideration during the installation. For instance, underground cables would be installed at least three meters away from the railways. Additionally, there would be at least one meter between the telephone and electrical networks. If the network was not installed in line with the regulation, the electric lines had to be reconstructed.

In order to assure public safety, electric cables would not be constructed close to factories, which produced military equipment such as munitions, gunpowder or explosive materials. Moreover, the effects of natural disasters were taken into consideration when urban electrical network was installed.

Analyzing the legal documents of Ottoman electrification demonstrate the efforts of Ottoman officials in the decision making process of technology transfer and application. Apparent from the detailed legal documents, Ottomans were not silent acceptors of the electricity, but rather actively engaged in the selection, evaluation, and implementation of this new technology. Moreover, Ottoman authorities generated rules and regulations concerning public health, workers' safety and security, issues dealing with consumer rights; all of which prove the local dynamics in the process.

### 8.2.1. Determination of the Technical Equipment for the City Network: The Case of Electricity Meters (*elektrik saati*)

During the application of technology in the main plant, legal documents of the concession were used. As stated above, application of technology in Silahtarağa Power Plant involved the preferences and decisions of the Ottomans.

However, electrification is a complicated urban infrastructure and it was not possible to state every single technical detail to be applied in the legal documents. Since the electrification process within the responsibility of the Ministry of Public Works, although such issues which were not stated in the legal documents, they were evaluated and controlled by the Ministry, as well. The case of electricity meters could be an example for this issue.<sup>716</sup>

Ganz Company sent three electric meters to the Ministry of Public Works to be examined and requested the confirmation of the Ministry to employ the appropriate one in the urban electrical network. The electric meters were examined in the Ministry of Public Works by a technical commission.

However, the commission did not find any of the electric meters appropriate to be installed in the urban network. According to the report of the commission, the proposed meters were the products of Ganz Manufacturing Company and they had single-phase (*mono faze*) system. However, in the report, the commission stated that three-phase system would be applied in Istanbul. Although “three single-phase meters” could be installed in the urban network, the commission reported that this would cost much to the subscriber. Moreover, maintenance of the three-phase meters would be costly for the subscriber, as well. Therefore, the commission requested three-phase electric meters to examine from Ganz Manufacturing Company.

The decision of the commission reflected the expert knowledge of Ottomans on the electrification process since it is apparent that the commission was knowledgeable about the already existing urban network and they were aware of the advantages and disadvantages of appropriate tools to the city infrastructure. Another significant issue is that the commission took consumer rights into consideration while evaluating the

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<sup>716</sup> CCA NV, 34E/90 230-0-0-0 24 11 12 (6 March 1914): “Trifaze sisteminde bir elektrik saati numunesinin beray-ı tetkik için irsali lüzumuna dair”.

electric meters case. Thus, the commission opted for a less costly solution to the problem in favor of the consumers.

### **8.3. “*Kabul-i Muvakkat*” Process as a Control Mechanism to Investigate the Construction and Technology Application Processes in the Plant**

“*Umumi Kabul-i Muvakkat Muamelesi*” is the control mechanism in order to investigate if the construction activities of the concessionaire and as well as the technology employed in the concerned establishment such as the plant, factory and the electrical network of the city, was in line with the contract and the proposed projects. In the meantime, I should express that the concessionaire had to provide Ministry of Public Works with the required plans, maps, table of expenses (*masraf cetveli*) and technical drawings of the equipments in six months after the company was awarded with the concession. Moreover, the concessionaire had to provide reports in relation to ongoing construction process in the plant as revealed from the archival documents. However, “*kabul-i muvakkat*” refers to the investigation of already finished works in the plant and urban electrical network. Thus, analysis of this document would be helpful rather than focusing on the construction development reports.<sup>717</sup>

This control mechanism is named as temporary since in one year’s time, after the successful completion of “*kabul-i muvakkat*”, a second investigation of the construction activities and the technology employed in the plant is undertaken. This second investigation is called “*umumi kabul-i kati muamelesi*”<sup>718</sup> and it is deemed as the final investigation for the proper working of the plant and city’s electrical network.

According to the article 48 of *şarnâme*, the concessionaire had to cover the investigation costs (*masarif-i teftişiye*) and was obliged to pay 200 Lira-i Osmani every year. In addition to that, 0,5 Lira would be payed for every kilometer of the electrical network.

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<sup>717</sup> See CCA NV 230-0-0-0 50 79 1 (5 October 1912) as an example for the ongoing construction works of electrification (Monthly report regarding construction works of Silahtarağa).

<sup>718</sup> *Şarnâme*, Article X.

It was the responsibility of Ministry of Public Works to undertake the “*kabul-i muvakkat*” process upon the report technical commission (*fen komisyonu*), according to the article 10 of *şartnâme*. In the case of Silahtarağa, the company requested “*kabul-i muvakkat*” investigation on the 21st of February, 1914 by writing to the Ministry of Public Works. On the 25th of February, the Ministry requested from Şehremâneti to assign two experts to the commission in order to undertake the “*kabul-i muvakkat*” process. Four members from the Ministry and two members from the Şehremâneti, in total, a commission of six members, investigated the plant’s construction activities and its technical equipment as well as the urban network of electricity such as transforming stations (*muhavvele merkezleri*) or the electricity distribution infrastructure network (*tevzi-i elektriki şebekesi*) in Beyoğlu, Galata and İstanbul (the old city) neighborhoods on the 3rd and 4th of May, 1914.<sup>719</sup>

According to the report, the commission was headed by Süleyman Askeri, the head of the Public Works Department in the Ministry of Public Works (*Nâfia İdaresi Müdür-i Umumisi Reisi*). Other five members of the commission were, the electrical engineer Mustafa who was employed in the Ministry of Public Works, the engineer Abdülkerim who was employed in the Ministry of Public Works, inspector Mustafa of İstanbul’s electrification (*Tenvîr-i Elektriki Komiseri Mustafa*), deputy chief Sezai in the municipality (*Şehremâneti Muavini Sezai*), and the head of the technical bureau in the municipality (*Şehremâneti Heyet-i Fenniye Reisi*)<sup>720</sup>.

### 8.3.1. Issues Covered in the “*Kabul-i Muvakkat*” Report: The Plant

In the first place, the technical commission checked if the company finished its work within the proposed time limit. According to the report, construction of the plant was delayed for 510 days. This was due to the strikes, which took place in the factory of Ganz Company in Budapest, the flood in 1913 (1329) and the Balkan Wars. The impact of the Balkan Wars was the most serious issue, which delayed the

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<sup>719</sup> CCA, NV 34E/93 230-0-0-0 24 11 15 (16 April 1914): “Dersaadet Osmanlı Anonim Elektrik Şirketi’nin 8/21 Şubat 1329/1914 tarihli mektubu ile Silahtarağa’da inşa edilen müvellid-i elektriki fabrikası ve İstanbul ve Beyoğlu ve Galata cihetlerini tagaddiyeye (besleme) mahsus ana kabloları ve İstanbul cihetindeki 107, 116, 117, 123 ve Beyoğlu ve Galata cihetindeki 28, 32, 34, 35, 39, 41 ve 42 numaralı muhavvele merkezleri (trafo/indirme/dönüştürme merkezi) ve işbu muhavvele merkezlerine merbut büyük ve küçük tevettürlül tevzi’-i elektriki şebekesinin (elektrik dağıtım şebekesi) ikmal edilmesinden naşi kabul-i muvakkat muamelesinin icrası ...”

<sup>720</sup> The name could not be read.

construction of the plant for 395 days since the workers employed by the company were conscripted and sent to the front. Since above mentioned incidents were force majeure (*mücbir sebep*), the commission did not consider the delay as a violation of the contract.

In addition to that, the commission checked if the company was on time with the construction of the electricity distribution network, as well. Regarding the network, the commission rested on the Ministry of Public Works' and Şehremâneti's approval date concerning the project and plans since the approval of these institutions was a must for the company in order to start the business. Considering the approval date of the related institutions, commission decided that the company finished its work on time.

“*Kabul-i muvakkat*” report contained information about the sections of the plant and the electrical network. These sections were *ameliyat-ı vakıa*, the main plant building [*fabrika binası* consisting of engine room (*makinalar dairesi*), boilers (*kazanlar*) and technical equipments (*makinalar*)], dock (*rıhtım*), railroad and decauville (*şimendifer ve dekovil*), (*şose*), administration building (*idare binası*), workshop (*tamirathâne*), housing for the administrators, engineers, workers and gate keepers (*memurin ve kapıcı ikametgâhı*), electricity distribution network (*tevzi şebekesi*).

According to the “*Ameliyat-ı vakıa*” section of the report, it was stated that the plant was constructed in the location in line with the 3<sup>rd</sup> article of the *şartnâme* and within the approval of Ministry of Public Works. The plant had turbines and alternators, which worked by steam power. This type of plant was called as thermal power station (*termik santral*) or steam turbine plant. As read in the report, the outcome of the steam turbine and the alternator was three-phase (*trifaze*) current, which could be transmitted in the long distances by 10.000 volt.

At this point, a detail should be mentioned. As put out in the *mukavelenâme*, the generators of the plant produced 3.400 kW load. Since the transmission of high voltage current was faster and thinner electric wires were used which lowered the costs, 3.400 kW was converted into 10.000 volt in the transmission of the load to the long distances. Due to the safety of the consumers, the high load of 10.000 volt was diminished into 190 volt before reaching to the houses. The report mentioned about

the power transforming stations (*muhavvele merkezleri*) in which 10.000 volt was converted into 190 volt. However, the report skipped the information concerning the conversion of 3400 kW into 10.000 volt.<sup>721</sup>

Above technical details reflect the choices of the Ottomans regarding the technology to be employed in the plant. First of all, the load of 3.400 kW shows the motive of the Ottomans to establish a powerful plant, which would serve for the industry as well as lighting of the city. Ottomans, in the consciousness of the need of energy for the industrial development, opted for a 3.400 kW plant. This behavior is a proof regarding their aim of industrialization since the 3000 kW plant which was stated in the *şartnâme*, was upgraded into 3.400 kW. Moreover, Ottoman Government did not approve the proposals, which aimed for less powerful stations. For instance, the proposal of the Ottoman Tramway Company was not accepted since the company offered to build a plant of 1.000 kW, which would be inadequate lighting of the city.<sup>722</sup>

“The main plant building” section mentions about the engine room (*makine dairesi*), boilers’ room (*kazan dairesi*) and technical equipments. Since the flood of 1911 destroyed the building badly, much attention was paid to the basement construction of the building. That is why “*radye temel*” as the most recent technology was applied to the plant. Karl von Terzaghi who worked as a professor of soil mechanics (*zemin mekaniği*) in the *Yüksek Mühendis Mektebi* was responsible for the basement of the plant’s main building.<sup>723</sup>

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<sup>721</sup> “... fabrikada buhar kuvveti ile işleyen türbinler ve alternatörler ianesiyle hasıl edilen üç safhalı ve 10.000 volt tevettür mütenavib elektrik cereyanını tahtel arz ana kabloları vasıtasıyla şehir dahiline sevk ve nıkat-ı müteaddide ve muhtelifede tesis edilen muhavvele merkezlerinde saliful zıkr 10.000 volt büyük tevettürü 190 volta yani küçük tevettüre bittahvil bitaraf teli havi olmak üzere kezalik tahtel arz dört nakilli kablolar vasıtasıyla etrafa tevziden ibarettir.”

<sup>722</sup> COA Y..PRK.ASK. 252/63 1325 C 24 (4 August 1907): “... inşa ederek Tophâne-i Âmire’ye teslim etmek istediği fabrika 1.000 kilovatlık olup bu ise ... ihtiyacat-ı tenvîriyeye ve cerr-i elektrikiyyeye asla kifayet etmez”.

<sup>723</sup> See “*fabrika binası*” section of “*Silahdarağa Elektrik Fabrikası Kabul-i Muvakkat Raporu*”: CCA, NV 34E/93 230-0-0-0 24 11 15 (16 April 1914). Karl von Terzaghi is considered to be the founder of soil mechanics. He established a laboratory of soil mechanics at the School of Engineering, where he wrote his famous book *Erdbaumechanik auf Bodenphysikalischer Grundlage* (*Earthwork Mechanics based on the Physics of Soils*). The success of this book led to positions at Technical University of Vienna and MIT: Kemal Özüdoğru, “Modern Zemin Mekaniğinin Kuruluşu: Karl Terzaghi ve Türkiye,” *İTÜ Dergisi-Mühendislik*, Vol. 2, No. 5, (October 2003), pp. 7-8. Mehmet Karaca (eds.) Mustafa Kaçar, Tuncay Zorlu, Burak Barutçu, Atilla Bir, C. Ozan Ceyhan, Aras Neftçi, *İstanbul Teknik Üniversitesi ve Mühendislik Tarihimiz*, (İstanbul: İTÜ Vakfı Yayınları, 2012), pp. 205-206.

“*Kabul-i muvakkat*” commission determined some of the deficiencies concerning the construction in the engine room. For instance, some of the walls were not plastered in the plant or some of the wall tiles were not finished, yet. In addition to that, the boilers’ room was not electrified. Apart from these deficiencies, both the engine room and boilers’ room were constructed in line with the project and the legal documents.

Transportation of the plant was undertaken through the dock, railroad and decauville, and *şose*. The coal and the equipment were carried from the dock to the railroad and decauville by a crane. Then the coal was delivered inside the plant by pipes. The ashes formed due to combustion were carried by the decauville, as well.

Administration building, workshop, housing for the administrators, engineers, workers and gate keepers constituted living, working and management places of the plant.

The chief engineer of the plant resided in the administration building. For the easy transfer of the chief engineer, a bridge between the plant and the building was constructed. In the ground floor of the administration building, the workshop was located. Two buildings for the residence of the workers and gatekeepers were constructed. Moreover, there was a restaurant and a canteen in the plant as well.<sup>724</sup> Thus, the plant was not only working place for the workers but it served as a living place, as well. People both worked and lived collectively in the plant, which was new to the Ottoman workers. When the families of the workers were taken into account, the plant could be considered as a neighborhood where the houses, workplaces, shop, and restaurant were located.

### **8.3.2. Issues Covered in the “*Kabul-i Muvakkat*” Report: The Urban Network of Electricity (*Tevzi şebekesi*)**

The report provides valuable information concerning the electrical infrastructure of Istanbul city. According to report, first electrified places were Beyoğlu and Istanbul districts (old city). Two main cables (*ana kablo*) enabled the distribution of

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For a brief biography of Terzaghi, see the website of American Society of Civil Engineers (ASCE): <http://www.asce.org/templates/person-bio-detail.aspx?id=11224> (accessed 4 February 2019).

<sup>724</sup> Ali Cengizkan, *ODTÜ Mimarlık ...*, pp. 29-56.

electricity to these districts. The contract required two feed-in points (*tagaddiye/besleme merkezi*), one in Beyoğlu, and one in Istanbul district. However, the feed-in point for Istanbul district was not constructed yet. Electricity coming from the plant went through the transforming stations (*muhavvele merkezi*), which enabled to convert high voltages of electricity into lower ones.

As revealed from the report, Şehremâneti assigned land to the company for constructing transforming stations and feed-in points. These stations were constructed in Beyoğlu<sup>725</sup>, Hasköy, and Haliç Halıcıoğlu districts. The company also bought lands or rented the estates to construct some of the stations. Ottomans requested a special contract concerning the rented places, so that the Ottoman Government would assure the right of these stations in case of a breach in the contract done with the landowner and company or in case the company terminated the concession. Yet, according to report, this contract was not signed by the company and it was imperative to accomplish the signing of such a contract.

The commission reported that some of the distribution cables (*küçük tevettürlü tevzi kabloları*) were not installed as stated in the plans and project. This was due to the fact that there was no demand for electricity in these streets. Nevertheless, the company agreed to install the cables in these streets upon demand. At this point, I can infer that the company first did a research for the determination of the demand for electricity. The meeting report of the company for the year 1915 supports this claim, as well. According to report, the company could not provide electricity for some of the consumers due to the problems in the provision of electrical supplies although these consumers demanded electricity. Knowing the demand for electricity must have acknowledged the company to determine the prices for electricity consumption and assure its profits. However, in the archives, there was no sign of such a report, which included the demand search by the company.

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<sup>725</sup> One of the stations was located in Galata quarter, one was close to the Pera Palas Hotel, and the other was located in Tunnel area.

#### 8.4. Administrative Committee & General Assembly Reports of Silahtarağa Power Plant

The reports of administrative committee and the general assembly are significant documents to be dealt with in this part.

The reports of administrative committee and the general assembly described the investment and construction works undertaken by the company. In addition, the reports provided information on the conditions of the period such as the impacts of war on the business, rising prices of the supplies, or the workers' strikes.

An Ottoman official attended to the meetings to represent Ottoman Government. I can argue that the participation of an Ottoman bureaucrat in the meetings could be considered as a control mechanism for the company. In addition, the company was obliged to submit two copies of the meeting report in Turkish and in French to the Ministry of Public Works. Further, the list of the people who attended at the meeting and the list of the decisions taken in the meeting had to be attached to the copies of the reports.<sup>726</sup>

An evaluation of the meeting report and the decisions of the meeting was prepared by the Clerical Office in the Public Works Administration (*Nâfia İdâre-i Umumiyesi Heyet-i Tahririyesi*) and submitted to the Minister of Public Works for his evaluation. Regulations of the *nizamnâme-i dâhili* of the company became the criteria for this evaluation and it was checked whether or not the meetings were held in line with the *nizamnâme*. As revealed from the file of the company reports, *nizamnâme* regulations were studied by the Ottoman bureaucrats in detail with notes on the document. It can be seen clearly that Ottoman bureaucrats followed and evaluated the meetings of the company.

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<sup>726</sup> “Meclis-i idarece tanzîm edilen rapordan iki nüsha”, “Heyet-i umumiyyede hazır bulunanların esami ve evsafı ve hisseleri miktarını mübeyyin cetvel”, “Cereyan eden müzakeratla mukarrerat-ı müttehazayı natık zabıtname sûreti”: CCA NV 230-0-0-0 26 16 8 (22 June 1926). Full transcription of the reports are provided in the Appendix A.

#### 8.4.1. Procedures for the Meetings<sup>727</sup>

As stated in the *nizamnâme-i dahili*, the meeting of the shareholders was held once in a year, in the end of June. Shareholders who had at least ten shares of the company were eligible to participate in the meeting. According to the reports of the meetings, the shareholders had to submit their shares either to the company in Istanbul or Banque Générale de Crédit in Budapest. Before the general assembly, the administrative committee would check the shares in order to control the participation of the shareholders.

According to *nizamnâme-i dahili*, administrative committee and the shareholders who had at least one thousand shares of the company would set the agenda of the general assembly. In the meeting, the report of the administrative committee and the report of the account officers/auditors (*hesap komiserleri*) was either approved or rejected by the assembly. As the reports of general assembly meetings reveal, the most important agenda was the discussion of the financial tables of the company and the profitability of the business. Election of new members to the administrative committee constituted the other topic that the assembly usually discussed.

#### 8.4.2. The Report of 1915

The administrative committee met on the 28<sup>th</sup> of June, 1916 in the administrative office of the company.<sup>728</sup> Seventeen people attended at the administrative committee. Two of them were Dilberzade Efendi Hazretleri and Mustafa Nail Beyefendi Hazretleri, Ottoman officers who were assigned by the Ministry of Public Works to represent Ottoman Government.<sup>729</sup> Dilberzade Efendi resided to the meeting since the president of the administrative committee, Comte Louis de Batthyany, did not attend to the meeting.

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<sup>727</sup> Regular meetings of the company had different titles in the documents such as “Osmanlı Anonim Elektrik Şirketi Hissedarlar Meclis-i Umumi-i Adiyesi”, “Hissedarlar Meclis-i Umumi-i” and “Hissedarlar İçtima-i Umumi-i”. Extraordinary meetings of the company had the title of “Hissedarlar Meclis-i Umumi-i Fevkaladesi”: CCA NV 230-0-0-0 26 16 8 (22 June 1926).

<sup>728</sup> CCA NV 230-0-0-0 26 16 8: “... Dersaadet’te Galata’da Billur Sokağı’nda Taptas Hanı’nda kain Merkez’i İdaresi’nde ...”. The street where the company’s administrative building was located was called ‘Billur’. It can be guessed that the name of the street could be attributed to the company.

<sup>729</sup> According to *nizamnâme-i dahili*, administrative committee (*meclis-i idare*) of at least seven and at most fifteen people, were assigned by the general assembly (*heyet-i umumiyye*). Although 17 people attended at the meeting, 2 of them were Ottoman officers. Therefore, I can conclude that 15 people to represent the company attended at the meeting.

According to the report, the company suffered from the conditions brought by World War I. For instance, finding workers for the construction works was not easy for the company. Considering the flood during the construction and the delay of Ottoman Government in approving the final projects and plans for the installation, Ottoman Government extended the period of construction after “*kabul-i muvakkat*” investigation.

In addition, it was hard for the company to undertake the provision of initial supplies. For instance, the company could not finish urban electrical network as planned in the project. Thus, the report argued that the company could not provide electricity for some of the consumers although these consumers demanded electricity.

At this point, I can infer that the company undertook a market search for electricity demand. The “*kabul-i muvakkat*” report supports the claim of market research for electricity demand, as well. According to “*kabul-i muvakkat*” report, it was reported that some of the distribution cables (*küçük tevettürlü tevzi kabloları*) were not installed as stated in the plans and project.<sup>730</sup> This was due to the fact that there was no demand for electricity in these streets. Therefore, I can conclude that the company had an opinion for the degree of demand for electricity.

In addition, counters (*muaddid*) could not be provided due to World War I. However, the company provided electricity for a specific fee to the places, which were finished with the electrical infrastructure but did not have a counter, yet. Therefore, I can conclude that rather than earning nothing, the company chose to sell electricity for specified fees, but risked overconsumption by the customers.<sup>731</sup>

The lack of the supplies for electrical installation of the city affected the length of lines in the city network. For instance, the length of high voltage cables reached 123.722 kilometers in 1915 whereas the length of high voltage cables was 118.780 kilometers in 1914. Furthermore, the length of low voltage cables reached 85.815

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<sup>730</sup> CCA, NV 34E/93 230-0-0-0 24 11 15 (16 April 1914).

<sup>731</sup> “Eğer tesisat-ı cedidenin iltisak (eklemek) için muktezi mevadd-ı mevcûde olup da kablolarımıza hemcivar bulunan tesisatın iltisakına hasr-ı muamele etmekle (tesisat çalışmalarına zaman harcamak) mecbur olmasa idik neticenin daha memnuniyet bahş olacağına şüphe yoktur. Hatta, bu sebeple cereyan-ı elektrikeyi almak isteyen pek çok müşterilerin taleplerini red etmeğe ve fazla olarak Avrupa’ya sipariş edilip de ahvali hazırda dolayısıyla getirilemeyen muaddidlerin bulunamaması yüzünden şebekemize rabt ve iltisak edilmiş olan bir takım tesisat-ı elektrikeye bir ücret-i maktua mukabilisinde cereyan i’tâsına bile mecbur olduk”.

kilometers in 1915 whereas the length of high voltage cables was 84.549 kilometers in 1914.

In the report, it was argued that the company could save the amount of coal used in the plant for the year 1915 when compared with the consumption amount occurred in 1914. However, due to the rises in the coal prices, the costs of the company did not decrease.<sup>732</sup>

Revealed from the report, inflationist impacts of World War I affected consumption of electricity for some of the consumers since 487 subscribers quit from buying electricity in December of 1915.<sup>733</sup> Nevertheless, the overall consumption of electricity increased. For instance, when compared the rates of 1914 and 1915, it is apparent that the electricity consumption by the industry tripled, the consumption of electricity at homes in 1915 was the twice of the sum in 1914 and the consumption of Tramway Company increased with the proportion of 50 percent.

According to the report, the rise in the consumption rates depended on the reasonable fees of electricity when compared with gas lighting prices.<sup>734</sup>

Public buildings such as hospitals received reduction in the fees for their electricity consumption according to 4<sup>th</sup> article of *mukavelenâme*. However, as revealed from 1915 report, the company provided free electrification to the military hospitals established by Hilal-i Ahmer.

In the meantime, Ministry of Public Works checked whether or not the procedures of the meetings were handled in line with the rules and regulations. For this purpose, Abdülhalim Efendi, the head of “*Nâfia İdare-i Umumiyesi Heyet-i Tahririyesi*” checked the eligibility of the shareholders who attended at the meeting. Further, he checked if the invitation of the meeting was published in the newspapers. He reported that the meeting was organized and undertaken in line with the *nizamnâme-i*

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<sup>732</sup> “Bu sene, sene-i sabıkaya nispetle kömür sarfiyatında kilovat üzerinde tasarruf icrasına dair olan mesaimizde muvafık olduk. Fakat işbu tasarruf harb-i umuminin kömür fiyatları üzerinde hasıl ettiği tezayüt-i fevkalade hasebiyle işletme hasılatımız da maatteessüf büyük bir tesir icra edemedi”.

<sup>733</sup> “1915 senesi Kanun-i Evvel mahı nihayetinde 487 müşterinin esamisi defterden tayy edilmiştir”.

<sup>734</sup> “... Tesisat-ı elektrikiyye inşasına muktezi malzeme tedariki hususunda tesadüf edegeldiğimiz müşkülata rağmen arz ve irae eylediğimiz erkandan ve miktardan dahi anlaşılacağı veçhile müşterilerimizin ... his olunacak derecede tezayüd etmiştir. Bunu da kısmen tenvirat-ı elektrikiyye fiyatının vesait-i saire-i tenviriye fiyatları ile mukayese edildiği halde elektrik fiyatında aşikâr olan ehveniyete (uygunluk) atf etmek lazım gelir ...”.

*dahili*. In addition, the list of the people attended in the meeting, the decisions taken in the meeting as well the report of the meeting were summarized by Abdülhalim and submitted to the Minister of Public Works, Abbas Halim Paşa for his approval.

#### **8.4.3. The Report of 1917**

The administrative committee met on the 20<sup>th</sup> of June, 1918 in the administrative office of the company.<sup>735</sup> Dilberzade Efendi resided to the meeting since the president of the administrative committee, Comte Louis de Batthyany, did not attend to the meeting.

The disadvantages that World War I brought continued in 1917 as well. Thus, as revealed from 1917 report, the company still suffered from the conditions of war. However, as it was the case for 1915, the company continued to provide free electrification to the military hospitals established by Hilal-i Ahmer.

Due to the rises in the coal prices, the company requested reduction in the prices. However, it could not succeed in its cause as stated in the report. Reduction in the coal prices could only be possible in 1920 when the company went through loss of 420.000 Lira-i Osmani.<sup>736</sup> However, the amendment was not designed as a life time act for the company since the amendment would be applied until the company covered its losses of 420.000 Lira-i Osmani.

The number of the subscribers was 4.544 in 1915. This number increased to 10.821 in 1917. Nevertheless, 878 subscribers quit from buying electricity in December of 1917 due to economic conditions of the period. Yet, the overall consumption of electricity increased. For instance, electricity consumption at homes doubled in 1917 when compared the consumption rates for 1915.<sup>737</sup>

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<sup>735</sup> CCA NV, 230-0-0-0 26 16 8 (20 June 1918).

<sup>736</sup> COA İ.DUİT 34/21, 1336 B 24 (5 May 1918), COA İ.DUİT 34/22, 1337 Ra 4 (8 December 1918).

<sup>737</sup> The consumption rates for 1916 and 1917: “Beyy olunan (satılan) kudret-i elektrikiyye ber veçhi-i zir tasnif edildigi üzere 16585404 kilovat saate balıg olmuştur. 1916’da 11978450 kilovat saat”. The consumption rates for 1914 and 1915: “Beyy olunan (satılan) kudret-i elektrikiyye 1914 senesinde: 4694073 kilovat saatten ibaret iken 1915 senesinde 8347839 kilovat saate balıg olmuş ...”: CCA NV, 230-0-0-0 26 16 8 (20 June 1918).

The evaluation process of 1917 meeting was the same with the one in 1915. This time, Süleyman Sami, the head of “*Nâfia İdare-i Umumiyesi Heyet-i Tahririyesi*” checked the eligibility of the shareholders who attended at the meeting. Further, he checked if the invitation of the meeting was published in the newspapers. He reported that the meeting was organized and undertaken in line with the *nizamnâme-i dahili*. In addition, the list of the people attended in the meeting, the decisions taken in the meeting as well the report of the meeting were summarized by Süleyman Sami and submitted to the Minister of Public Works for his approval.

## **8.5. Reflections from the Financial Records of the Company between 1915-1921**

Financial tables of the company provided information on the profitability of Istanbul’s electrification business. Besides, the investment in the plant and urban network of the city could be followed through financial papers of the company since the financial tables of the company were equipped with the reports, which helped to evaluate the “numbers” in the balance sheets.

As understood from the meeting reports of the company, account officers audited its financial accounts. At this point, I can argue that the company benefited from external accounting so that the external auditors who were not affiliated with the company examined its financial records and business transactions. Auditing mechanism enabled the examination of the records in forthright manner.

### **8.5.1. Financial Records in 1915 and 1917**

According to the balance sheets of the company for the years 1915 and 1917, the company had paid-in capital of 528.000 Lira-i Osmani. Of this capital, there were 24.000 shares, each of which had a nominal value of 22 Lira-i Osmani.<sup>738</sup>

Non-current assets of the company had a total value of 528.000 Lira-i Osmani. Power plant equipment and urban electrical network infrastructure constituted the lion’s share. Power plant equipment costed 276.568,39 Lira-i Osmani and urban electrical network infrastructure costed 211.413,66 Lira-i Osmani. In addition, land

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<sup>738</sup> “Sermaye-i Şirket: Beheri 22 Lira’dan kamilen tediye edilmiş 24.000 hisse senedinin kıymet-i itibariyesi: 528.000 Lira-i Osmani”

property, electricity meters and other electrical apparatus costed 61.178 Lira-i Osmani.<sup>739</sup>

Balance sheets provide valuable information on the financing mechanisms of the companies. Concerning the balance sheet of the company for 1915 financial year, it is apparent that the company's lending from financial institutions constituted small part. This means that the power plant equipment and the investment for urban electrical network infrastructure were financed by the company capital. However, when the balance sheet of 1917 financial year is analyzed, it is observed that lending from financial institutions increased threefold. At this point, I claim that the company suffered from operational losses during the war years<sup>740</sup> and in order to cover these losses, it had to lend from financial institutions. Therefore, I can claim that debts of the company to the financial institutions increased due to the economic conditions of World War I.

Regarding the year 1915, financial records of the company were approved in the meeting. In addition, J. Comes, A. Fernandez, S. Szego, and F. Wiener as the account officers were assigned for the year 1916 in order to undertake auditing of the company.<sup>741</sup> Each of them received 500 Francs for their service.

According to the "statement of profit and loss"<sup>742</sup> concerning the year 1915, the company rendered profits of 2417,28 Lira-i Osmani. By such an amount of profit, dividend (*temettuat*) procedure could not be possible. That is why this profit amount was transferred to the financial accounts of the year 1916.<sup>743</sup>

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<sup>739</sup> Tesisat-ı İptidaiye (31 Kanun-i Evvel sene 1915 tarihinde işletilmeye başlanılan tesisat kısmının kıymeti):

1. Fabrikanın arsası 22195,19 Lira-i Osmani
  2. Fabrikanın ebniyesi (binalar) 78840,17 Lira-i Osmani
  3. Fabrikanın elektrik aksamı ve makineler 276568,39 Lira-i Osmani
  4. Ali ve hafif tevettürlü şebeke ve muhavvile merkezleri 211413,66 Lira-i Osmani
  5. Şuabat-ı tevziye, muaddidler ve muhaddidler 24330,92 Lira-i Osmani
  6. Alat, mefruşat ve muhtelif masarifat 14651,67 Lira-i Osmani
- Yekun 528.000 Lira-i Osmani

<sup>740</sup> "Hasılat-ı gayri safiye'nin adem-i kifayesinden (yetmezlik) naşi (dolayı) intizar hesabı: 152.770,18 Lirai Osmani": Balance sheet of 1917 financial year. This account held an amount of 44.331,25 Lira-i Osmani in the balance sheet of 1915 financial year.

<sup>741</sup> A. Fernandez, J. Comes, and S. Szego were the accounts officers in 1915. They were reelected for the year 1916.

<sup>742</sup> "Kar ve Zarar" in Ottoman Turkish and "Profits et Pertes" in French.

<sup>743</sup> "... Şirketin mesarifat ve varidat hesabâtını ve balada arz olunduğu veçhile sene-i atiyeye ancak 2417,28 Lira'nın kar olarak devir edilebilmesine göre bir senelik hasılattan temettü istihsâl ve tevzii

For the year 1917, financial records of the company were approved in the meeting. In addition, account officers were assigned for the year 1918 in order to undertake auditing of the company. Each of them received 500 Francs for their service.

According to the “statement of profit and loss” concerning the year 1917, the company rendered loss of 5.239,83 Lira-i Osmani<sup>744</sup> in 1916 and loss of 44.521,44 Lira-i Osmani<sup>745</sup> in 1917.

## **8.6. Determination of Electricity Tariffs**

Determination of the tariffs concerning electricity consumption at homes was one of the most significantly debated issues in the concession contracts between the company, which produced and provided electricity and the Government along with the tariffs for the electricity consumed by the trams and the number of free street lamps.

On the Government side, fewer tariffs were preferred as long as the consumers received the same quality service with a better price. The company on the other side, had to take into account about the costs of the supplies, workers and management. The economic up and downs, stability of the currency, strikes, conditions of war and coup d'états or the stability of the political system all make up the risks that were undertaken by the company.

As a smart step to take in the beginning and in order to eliminate the risks that the company is confronted and for better profits, the undertakers of the business try to design a foresighted contract, which ensures the profits of the company. In this framework, the capacity of the company to ensure its benefits through the contract depends on the bargaining abilities of both sides and their legal and technical knowledge.

On the occasion of a technology transfer from an industrialized country to the less developed one, it is usually thought that the technology transferring party whose in

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gayri kabil bulunmuş ...”. The exact name of the account in Ottoman Turkish is “Sene-i atiyeye devr edilecek olan” and “Solde a reporter a nouveau” in French.

<sup>744</sup> “Sene-i sabıkadan müdevver bakiyye” in Matlubat (credit) section of Profit and Losses Statement.

<sup>745</sup> “Sene-i atiyeye devr edilecek bakiyye” in Matlubat (credit) section of Profit and Losses Statement.

lack of necessary technical knowledge and due to its inferior position, may not be in a winning position since the relationship is not between the equals.

In this part, I will be acknowledging the role of Ottoman bureaucrat regarding the determination of the tariffs concerning electricity consumption with a special focus on their legal, financial and technical knowledge on the issue and their bargaining ability in the negotiation process of the tariffs by following mainly the *irades* and the subscription contract made between the customer and the company. Special attention paid by the Ottoman bureaucrat on the notions of “*nâfia*” and the “people’s (and customers’) benefits” will be the other dimensions to be examined in this part. In this way, marginalisation of local dynamics and overlooking to the knowledge and abilities of the “inferior” party will be avoided.

#### **8.6.1. Determination of Lighting Fees**

Determination of the lighting prices is a complex issue, which is affected by the prices of the supplies such as coal, workers’ wages and strikes, economic conditions, technological change and demand for gas lighting. The actors of this process are the company, the State, Council of State, the municipality, and the workers.

The case of price determination negotiations for gas lighting between Kadıköyü Üsküdar Havagazı ve Elektrik Şirket-i Tenvîriyesi and Ottoman Government is a good example, which covers all the aspects of the issue. Therefore, the request of the company for a new regulation in the gas lighting prices will be dealt with as a case for the determination of lighting prices in this part.

The company requested amendment in the *mukavelenâme* dated 1307 concerning the fees of gas lighting due to the financial crisis in the economy (*buhran*), conditions of war and increase in the workers’ wages and prices of the supplies.<sup>746</sup> Especially the increases in the workers’ wages and maintenance expenses of the plant and urban network affected the gas lighting costs of the company. The workers’ strikes and increases in the wages as a result of the strikes were apparent according to the report

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<sup>746</sup> COA İ.DUİT 34/29, 1338 C 7 (27 February 1920): “... ahval-i sabıka ve haziranın tevliid ettiğı buhran neticesi olarak kömür ve ameile ücuratının nispet kabul etmeyecek derecede tezayüdüne ve bu itibâr ile gazın maliyet fiyatının pek ziyade teraffuna mebni ...”.

of Council of State.<sup>747</sup> Yet, these increases could not be reflected in the lighting fees since this issue was not covered in the *mukavelenâme* of 1307.<sup>748</sup> The company and the municipality worked together in order to determine the new regulation for the prices.

The Department of Legal Affairs (Şehremâneti Umur-i Hukukiye Şubesi) and the Department of Technical and Industrial Affairs (Şehremâneti Makina ve Sanayi Şubesi)<sup>749</sup> in the municipality were involved in the negotiation meetings with the company concerning the price determination for gas lighting. Two regulations (1335 and 1336) for gas lighting prices were initiated as a result of the meetings.

However, street lighting was not considered in this revised regulation. Due to the absence of street lighting in the 1335 and 1336 regulations, prices were set according to the *mukavelenâme* dated 1307 in which the changes in the workers' wages was not reflected in the gas lighting prices.<sup>750</sup> The losses occurred regarding the street lighting led another discussion between the Company and the State on the gas lighting prices. Thus, the company requested new regulation to overcome the losses. Upon the request of the company and within the approval of the Şehremâneti supporting the cause of the company, the Ministry of Public Works sent the issue to be discussed in the Council of State, Department of Finance and Public Works<sup>751</sup> since the issue was related with the legal affairs of the concession such as the contracts and the regulations.<sup>752</sup> Department of Finance and Public Works in the

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<sup>747</sup> COA İ.DUİT 34/29, 1338 C 7 (27 February 1920): "... bilakis amelenin grevler i'lânına teşebbüs etmeleri dolayısıyla üçurata zamaim icra edilmiş olduğundan ..."

<sup>748</sup> Ibid, "Bu husus hakkında memalik-i müterakkiyede cari usûl gaz tenvîr şirketlerinin bilcümle sarfiyatı biri kömür üçüratı diğeri memurin ve müstahdemin ve amele ile makinelerin tamir ve hüsn-i muhafazası için vaki mesarif-i umumiye olmak üzere iki kalemden ibaret olmasına mebni ... iki amilden biri üzerine müesses olarak diğeri amilin yani mesarif-i umumiyenin asla nazar-ı itibare alınmamasından neşet etmektedir."

<sup>749</sup> Ibid, The names of the officials were mentioned in the document as well: "Şehremâneti Umur-i Hukukiye Müdürü Muhlis ve Makina ve Sanayi Şubesi Müdürü Mustafa Beyler ..."

<sup>750</sup> Ibid, "...19 Nisan sene 335 tarihli madde-i müzeyyelede ... tenvîrat-ı umumiye fiyatı meskut bırakıldığı cihetle şirketin ve nev-i bedelat taleb-i tahririsi üzerine tenvîrat-ı umumiye için dahi 3 kuruş istifası tensip edilerek bu sûretle tediyatta bulunulduğu anlaşıldığından ve 15 Haziran sene 336 tarihli madde-i müzeyyele-i saniyede yine tenvîrat-ı umûmiyenin meskutun an bırakılması 15 Temmuz sene 307 tarihli mukavelenme ahkâmının tatbîkini istizan edeceğine göre tenvîrat-ı umumiye için tespit edilmiş 3 Kuruş'un tesviye imkânını ref etmekte ...".

<sup>751</sup> Şûrâ-yı Devlet, Maliye ve Nâfia Dâiresi: This commission of Şûrâ-yı Devlet, which dealt with the public Works issues of the Empire.

<sup>752</sup> The bureaucratic process between the Ottoman bureaucracy circles upon the company's request was defined in the report: "...madde-i müzeyyele-i mezkûriyenin ta'dili esbabının istikmâli lüzumu Şehremâneti'nden izbar kılınmış olduğu beyânıyla keyfiyetin Şûrâ-yı Devletçe tetkiki istizânına dair Dâhiliye Nezâreti'nin Şûrâ-yı Devlet'e havale buyrulan 12 Mart sene 337 tarihli ve umumi 11944 ve

Council of State examined the case within a commission of thirteen people<sup>753</sup> and prepared a detailed report.

While preparing the report, a careful and neat investigation of the matter was undertaken. In the first place, the opinion of Şehremâneti was taken. Further, financial tables of the company were requested and examined in order to understand if the company was really suffering from the losses depending on the prices.<sup>754</sup> Additionally, some of the requests of the company was investigated and then evaluated. For instance, the request of the company concerning the daily lighting period of the street lamps were first investigated and then the commission came into a decision regarding the matter.

Moreover, the methods for the determination of the prices in the European countries were examined. Especially the methods and rates for the gas lighting in Belgium and France were taken into consideration and the report provided examples from these countries. The exact rates of gas lighting in the European countries were determined and compared with the ones in Istanbul. According to the price comparison, it is concluded that the prices in Istanbul were lower than the European counterparts.<sup>755</sup>

Provision of coal was another issue related with the gas lighting prices. The commission assured the consumption of the coal from Ereğli region in the gas plant. For this purpose, the coal with a calorific value of 4.200 and 4.500 kgc/kg would be preferred in the plant. Since the coal of Ereğli region had calorific value of 4.200 kgc/kg, Ottoman coal would be used in the plant.<sup>756</sup>

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hususî 163 numaralı tezkiresi ve melfûfları Maliye ve Nâfia Dâiresi'nden kıraat ve Şehremâneti ile icrâ-i muhabere olunarak aboneler ile mebanî-i emiriye ve tenvîrat-ı umûmiyeye ait üçrâtın tezyîdi husûsunda Şehremâneti ile şirket-i mezkûre beyninde takarrür eden itilâfat (treaties) tarafeynce kabul ve imza edilmiş olacağına göre ...”

<sup>753</sup> The report was signed by 13 people. There were 19 names in the signature part of the document. However, six of them did not participate at the meeting and did not sign the report. One of these six people was ill and that is why he could not attend at the meeting. One of the signatures belonged to Reşit Saffet. This person can be Reşit Saffet Atabinen who also wrote extensively on the urban and public works developments of Istanbul in *Sabah* Newspaper. For the examples of the articles of Atabinen, see: Birge Yıldırım, *Belediye Başkanı ...*, pp. 17-19, 29-31, 35-36, 45, 49, 88-89.

<sup>754</sup> COA İ.DUİT 34/29, 1338 C 7 (27 February 1920): “... Şirket müdüriyetinden celb edilen 1920 ve 1921 seneleri Haziran, Temmuz, Ağustos, Eylül şuhuru varidat ve mesarifatını mübeyyin muvazene cetvellerinin tetkik ve mukayesesinden ...”

<sup>755</sup> COA İ.DUİT 34/29, 1338 C 7 (27 February 1920): “... Avrupa'daki emsali gazhane zamlarından hayli dün olduğuna kanaat hasıl olmuş ...”

<sup>756</sup> Ibid: “Avrupa'da yapılan müteaddit tecrübelerden en iyi ziyâ' veren gazın kuvve-i hururiyesinin 4200 ile 4500 kalori olması lazım geldiği tahakkuk etmiş olmasıyla memalik-i Osmaniye

Coal as a raw material is still among the mostly used energy sources and it directly affects the prices of lighting. Dependency to the foreign energy sources may cause high burden for the economy of a country. The case of Greece and its dependency on British coal for electricity production during and shortly after the World War I can be a good example for the significance of dependency on foreign raw materials as the source of energy.

According to Nicos Pantelakis, Greece was dependent on British coal for the electricity production. The Greek Government concerned on the establishment of a hydroelectric plant in 1920s. Yet, British manufacturers did not have expertise on hydroelectricity. The British Government forced Greece to continue to buy British coal and not to establish a hydroelectricity plant otherwise the British would not offer the loans demanded by the Greek Government.<sup>757</sup> Relying on the financial situation of the country, Greece had to avoid the hydroelectricity project and continued to buy British coal, which was, in fact expensive one.

Above example shows the interference of politics and balance of power on the technological change and provision of supplies in the electricity production. Instead accepting the proposal of the company, Ottoman bureaucrats analysed the matter in detail and formed a commission to resolve the issue. Finally, the commission's proposal was accepted since it offered a more scientific and cheaper solution when compared with the proposal of the company. In this respect, the efforts of the Ottoman bureaucrat in favour of the State and the consumers are remarkable.

Additionally, it is apparent that Ottoman bureaucratic circles either, Council of State and Ministry of Public Works or Şehremâneti employed experienced personnel to deal with the legal, financial and technical issues of the matter. The high quality of the personnel resulted in the detailed analysis of the issues and no doubt this added to the Ottoman party during the negotiation process for the gas lighting prices.

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kömürlerinin isti'mâlini tergiben şirketin teklifi veçhile asgari kuvve-i hururiyesinin 4200 kalori olması muvafık görülmüş olduğu ...”

<sup>757</sup> Nicos Pantelakis, *The Electrification of Greece (1889-1956)*, (Athens: National Bank of Greece, 1991), (in Greek). The book “The Electrification of Greece” was in Greek language. However, Nicos Pantelakis welcomed me in his office at the National Bank of Greece Historical Archives and told me the story of electrification of Greece in detail (November 2, 2012). I am grateful to him in accepting me for a discussion on the electrification issues and provided me valuable information, which otherwise I would not be able to learn.

### 8.6.2. Consuming Electricity: The Subscriber, the Company and the State in the *Mukavelenâme*, *Şartnâme* and the Subscription Contract

The 24<sup>th</sup> and 31<sup>st</sup> articles of the *şartnâme* regulate the tariffs to be employed between the consumers and the company. The 24<sup>th</sup> article in particular, determined the maximum rates that the concessionaire could impose on the customers. Further, the article makes a differentiation between the consumers at homes and the industrial enterprises. According to the article, customers at homes would pay twice of the fee, which would be paid by the industrial enterprises. The rates applied for the regular individuals at homes and the rates applied for the industry reflect the governmental policy of electrification.

It is clear from the *şartnâme* that the electricity to be used for the industrial purposes was cheaper and the industrial entrepreneurs were awarded price reduction for their electricity usage. Moreover, the maximum rates to be imposed on the customers were not arbitrary but they were determined by the contract in the beginning of the business.

However, in the 4<sup>th</sup> article of *mukavelenâme*, the tariffs regulated in the *şartnâme* were redesigned in favour of the customers since both individuals at homes and the industrial enterprises would pay less than the fees stated in the *şartnâme*. The reduction in the *mukavelenâme*, shows that the negotiations continued until the signing of *mukavelenâme* and Ottomans succeeded in reduction in the fees.

According to the 31<sup>st</sup> article, distribution of electricity would be regulated by the subscription contract (*abone senedi*)<sup>758</sup> signed by the customer and the company. The articles of *mukavelenâme* and *şartnâme* concerning the consumption of electricity were all reflected in the subscription contract and its *nizamnâme*. These two documents regulated the repair and alteration works of the installation, determination of the consumed electricity, tariffs and the payment rates for specific amounts of electricity.

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<sup>758</sup> COA T.. 1418/91/74 (The file contains the examples of the contracts, that is why it does not have date) has an example of the subscription contract (Dersaadet'de müesses Osmanlı Anonim Elektrik Şirketi saat ve abonman senedi) and regulation concerning the subscribers (Dersaadet'te müesses Osmanlı Anonim Elektrik Şirketi Abonelere Mahsus Nizamnâme). Full transcription of the document can be found in the Appendix A”.

The electricity subscription contract made between the consumer and the company should be considered as a significant change for the Ottoman consumers and consumption culture. According to the contract, the consumer would benefit from electricity in line with the conditions of the contract.

In the contract, the customer had the title of subscriber (*abone*) and admitted the articles of the subscription contract. Further in the contract, the name and the full address of the subscriber as well as his/her professional or identification title were present.

It is interesting to note that the title-consumer was stated in the contract. Contract for the use of a service, the status of being consumer, to be responsible to engage in regular payments to the company in exchange of the service rendered were all recent changes for the Ottoman consumers after the introduction of electricity in the city life.

The contract had to be signed for the duration of minimum one year. The industrial subscribers had to consume electricity minimum 400 hours and it was minimum 150 hours for the consumers at homes. Further, the shop owners who did not work after 20:00 in the evening, had to consume minimum 300-hour electricity. Within these guarantees, the customer was obliged to consume electricity for specific hours. Nevertheless, the minimum amounts to be consumed in a year are not exaggerated ones since 150 hours in a year for a home or 400 hours in a year for an industrial undertaking could be considered as moderate amounts.

Besides minimum consumption amounts, the load rates to be consumed were significant as well. If the load of electricity consumed by the customer was between 30 and 33 kW, the subscription period would be for two years. Further, if the load of electricity consumed by the customer was more than 60 kW, the subscription period would be for three years. The periods offered in the subscription contract constituted guaranty of electricity consumption for specific periods. Therefore, I can argue that, the company wanted to make sure that the subscribers would consume electricity for minimum amounts and periods, since electricity was new technology of lighting.

Further, the subscriber could not consume electricity for any other purpose, which was stated in the contract. By this article, the company made sure that the subscriber in his/her home would not take the price advantage of industrial enterprises.

Regarding the prices, in the *nizamnâme*, it was stated that the schools, hospitals, places of worship and the municipality establishments would receive forty percent reduction in the price for their electricity consumption. Yet, according to *mukavelenâme*, the discounts for the public institutions would be calculated according to the rates stated in the *şartnâme*. Therefore, it is understood that the reduced fees of *mukavelenâme* were not applied to the public institutions since they have already received forty percent discount.

Another important issue that the *mukavelenâme* brought in its 5<sup>th</sup> article was the issue of street lighting (*tenvîrat-ı umumiye*). As recalled from the case of street gas lighting and the determination of its fees, the absence of regulation in the amendments of the contract concerning the issue constituted dispute between the company and the Ottoman Government. Unlike the gas lighting, fees for street lighting by electricity were regulated in the *mukavelenâme*.

The contract was not only concerned with the payment procedure and its duration but also with the lighting installation of the building. The technical details of the installation (“*tesisat-ı dahiliye*” and “*abonenin tesisatını şebeke-i tevziyyeye rabt eden şube*”) and the electricity meter (*elektrik saati*) were stated in the contract. The company owned the installation. However, the customer had to undertake advance payment (*avans*) for the lighting installation and admit to allow the installation to be used by other subscribers. This payment would be paid back to the subscriber if the contract is cancelled.

The owner of the building was the authority to decide for the lighting installation. However, the tenant was obliged to undertake advance payment. In terms of the change of tenant, the situation had to be informed to the company and the new tenant had to sign a contract with the company. Since electrification was not yet spread in the city, it is logical to get the permission of the house owner for the lighting installation.

Regular working of electricity meters were significant in order to measure the exact amounts consumed by the customer. In case of a failure in the electricity meter, the company would undertake the repair works in exchange of 35 *Kuruş* and had to inform the customer forty-eight hours in advance from the repair works. If the seal of the meter was by anyone than the company worker, the subscriber had to pay the same amount with the previous month's fee to the company. Furthermore, the company had the right to sue the customer due to stealing of electricity.

It was for sure that there were consumers of electricity not willing to do payments for it. Those consumers stole electricity, which resulted in the electricity leakages. Of course, there were punishments imposed by the State who engaged such activities.

### **8.6.3. A Special Electricity Subscription Contract (Dual Contract)**

According to the article 24 of the *şartnâme*, the company and the subscriber could design a special contract for the electricity service between themselves. The subscription contract<sup>759</sup> between the company and Tokatlıyan Hotel is an example for such a dual contract.

“Tokatlıyan Hotel, Brewery and Confectionery” was among the most luxurious hotels, which were located in Pera district along with Pera Palas and Kroecker Hotel. The hotel had a branch in Tarabya as well. This hotel provided luxurious service, as well.

The contract was signed by Mr. Nikola Medoviç, the owner of “Tokatlıyan Hotel, Brewery and Confectionery” and Mr. Raymond Fris, the manager of the company. According to the contract, Tokatlıyan Hotel had to buy electricity service only from the company and the contract would be active from the February of 1915.

The article 7 of the contract regulated the amount of electricity to be consumed in a year. According to article 7, Tokatlıyan Hotel had to consume electricity of at least

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<sup>759</sup> COA ŞD 3157/16,1338 B 7 (27 March 1920): Bir taraftan Beyoğlu Cadde-i Kebirinde 175/184 numaralarla murakkam ve zirde yalnız Tokatlıyan Otelı namıyla zıkr edilecek olan Tokatlıyan Otel ve Birahanesi ve şekerlemeci dükkânı sahibi Mösyö Nikola Medoviç ile diğér taraftan Galata'da Billur Sokağı'nda kain olup müdür-i murahhas Mösyö Raymond Fris tarafından temsil edilmekte olan ve zirde Osmanlı Elektrik Şirketi namıyla zıkr edilen Osmanlı Anonim Elektrik Şirketi beyninde ber veçh-i zir akd-i mukavele olunmuştur.

60.000 kW in a year. If the Hotel needed extra electricity consumption,<sup>760</sup> it had to request it by informing the company two months in advance. If the requested electricity was more than 50 kW, the Hotel had to inform the company four months in advance.

Above type of contract was called “take or pay contract”. “Take or pay” is the agreement obligating the buyer to pay the amount specified in the contract for an energy carrier (electricity, natural gas), even if the product was not obtained in the quantity specified. Such agreements are often used to generate minimum revenues for an expensive infrastructure in order to be able to finance the investments.<sup>761</sup>

The article 8 of the contract regulated the fees for electricity. These fees were lower than the fees paid by the industry and individual homes. However, the minimum amount to be consumed in a year was higher than the consumption rates of the industry and individual homes. According to article 10 of the contract, even the hotel was taken over by someone else, the contract would be active.

The financial tables of the company reveal that the costs of the supplies increased whereas the fees of electricity stayed the same. On the one hand, the company sought for regular consumers of electricity in such a situation. Moreover, the company guaranteed the payment for 60.000 kW by the customer. On the other hand, Mr. Nikola Medović needed continuous provision of electricity for his hotel, brewery, and confectionery. Additionally, Tokatlıyan Hotel guaranteed best lower prices for its electricity consumption compared to the industry and individual homes.

#### **8.6.4. World War I and the Tariffs on Electricity**

Istanbul city was electrified in 1914 in which World War I started. During the war years, the price of the supplies and the workers’ wages increased in incredible amounts.

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<sup>760</sup> Requesting additional capacity is called “Capacity Options”: Options to purchase or sell additional capacity: *Glossary for Terms of Energy (Enerji Terimleri Sözlüğü)* prepared by RWE (Rheinisch-Westfälisches Elektrizitätswerk) Turkey (İstanbul: 2011), p. 32. The glossary is available online at: <http://www.etd.org.tr/tr/sozluk> (accessed 8 February 2019).

<sup>761</sup> *Glossary for Terms of Energy*, p. 72: <http://www.etd.org.tr/tr/sozluk> (accessed 8 February 2019).

Due to increasing costs in electricity production, the company suffered losses during the war years. Thus, Ottoman Electricity Company applied to the Ministry of Public Works for an amendment in the electricity tariffs.<sup>762</sup>

According to the letter of the company, 1 *tonilato* of coal was 1 Lira-i Osmani in 1914. However, in 1918, 1 *tonilato* of coal was equal to 8,5 Lira-i Osmani. When the company determined the electricity fees in 1914, it had foreseen the increases in the costs. According to the company, even if the coal prices rised to 3 Lira-i smani per *tonilato*, it would not suffer from the losses. Nevertheless, the company could not predict the rise of coal prices from 1 to 8,5 per *tonilato*.<sup>763</sup>

Moreover, the company suffered from the increases in the workers' wages as well as the increases in the prices of supplies other than coal and tools and equipments in the plant. Furthermore, the company could only meet the expenses for the plant and workers' wages in the years 1914, 1915 and 1916. Yet, in 1917, the company could not meet the expenses of the plant. In 1918, the company's capital could only meet 60 percent of the expenses of the plant.<sup>764</sup> Additionally, the company argued that its loss reached 800.000 Lira-i Osmani, which was twice of its capital.<sup>765</sup>

A commission was established in order to investigate and solve the issue. The members of the commission were the officials working either in the Ministry of Public Works or in the Şehremâneti. The commission examined the company's financial records. Although the company argued for a loss of 800.000 Lira-i Osmani the commission found out the company's loss was about 420.000 Lira-i Osmani.

According to the commission, lighting of the city and regular working other public utilities whose operation depended on electric power, were important for the urban life. The commission concerned about the urban dwellers and did not wish them to

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<sup>762</sup> COA İ..DUİT 34/21, 1336 B 24 (5 May 1918), COA İ..DUİT 34/22, 1337 Ra 4 (8 December 1918).

<sup>763</sup> COA İ..DUİT 34/21, 1336 B 24 (5 May 1918).

<sup>764</sup> COA İ..DUİT 34/21, 1336 B 24 (5 May 1918).

<sup>765</sup> COA İ..DUİT 34/22, 1337 Ra 4 (8 December 1918).

complain about the public utilities.<sup>766</sup> Furthermore, lighting was needed more than ever in order to keep the safety of the urban dwellers in those days.<sup>767</sup>

Therefore, the commission offered an amendment in the electricity tariffs until the company covered its losses of 420.000 Lira-i Osmani. Finally, a decree (*irâde*) by Meclis-i Vükelâ was enacted according to the report of this commission.<sup>768</sup>

According to *irade*, the amendment would be applied until the company covered its losses of 420.000 Lira-i Osmani. Furthermore, the Ministry of Public Works would be responsible from the fulfillment of the *irade*. Upon covering the losses, the original *mukavelenâme* dated 1910 would be active. The amendment lasting for a certain period should be considered as a smart step taken by the Ottoman bureaucrat. By this method, provision of electricity continued in the city. However, the amendment was not designed as a life time act for the company. Therefore, it was not possible for the company to benefit from the amendment when the economic conditions improved.

Moreover, the prices of electricity increased. It is for sure; this was a burden for the customers. Yet, Ottoman State accepted to sell the coal to the company for 2 Lira-i Osmani per *tonilato*.<sup>769</sup> In this way, the State shared the company's losses and did not reflect the entire burden to the shoulders of the customers.

Ottoman State's sharing of the burden of electricity prices should be underlined at this point. It is for sure that the well operation of the public utilities and provision of public works to the city was significant for the Ottoman bureaucrats. That is why in every phase of electrification (selection, application, management), Ottoman bureaucrat favoured the rights of consumers and *nâfia* ideal which was considered in the Government programme of 1910 as well:

Meşrutiyetin akvam-ı saireye ne büyük saadetler bahş eylemekte olduğunu görmekte olan Osmanlı milleti umur-i nâfiaya ait tasavvurlarında bir an evvel kuvveden fiile çıkmasına artık sabırsızlıkla intizar ediyor. Talep olunacak imtiyâzların menafi-i

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<sup>766</sup> COA İ..DUİT 34/22, 1337 Ra 4 (8 December 1918): "... şirket-i mezkûrece vukuu tahakkuk eden zarar ve ziyandan dolayı muamelatı duçar-ı tevakkuf olur ise bu sûret elektrik kuvvetini esas veya fûuat muamelesi için amil ittihaz eden diğer müessesat-ı nâfia-ı memleketçe tesirat-ı makuse hasıl eyleyerek şikâyat ve müracaat-ı mütevaliyi ve halkça da birçok zırlıdıyı müstelzim olacağından ..."

<sup>767</sup> Ibid, "... her zamandan ziyade şu aralık ehemmiyeti fevkalhad tezayüt eden emr-i inzibat ve emniyet hususunda gayri marzi netayıç hasıl eylemesi tabii ve bu misüllü halata meydan ve imkan verilmemesinin elzemiyet ve mübremiyeti ise bedihi bulunduğuna ..."

<sup>768</sup> Ibid.

<sup>769</sup> Ibid.

memlekete muvafık şerait ile ifasında hükümetçe tereddüt ve tenni edilmemek ve taleb-i imtiyâz olanların müracaatları tesri olunmak mukarrer ... efrad-ı millet bu sırada hem vatana hem kendilerine faide bahş olacak iştigalata sevk edebilmek için menabi-i say-ı ameli acilen küşad etmeğe de mecburuz.<sup>770</sup>

## 8.7. Conclusison

This chapter dealt with the implementation stage of Istanbul's electrification concession. For this purpose, first the legal documents of the concession were examined. These documents were useful to understand the construction process of Silahtarağa Plant, as well as the technology applied there. The mechanisms for the management of plant such as the administrative committee and general assembly meetings were examined in detail. In this way, a close look to the management process of such an industrial undertaking is provided to the reader. Second, the control mechanisms employed by the Ottoman administration was on focus. Ottoman officials employed inspectors in the committee and assembly meetings of Silahtarağa while they carried out an inspection process (kabul-i muvakkat) before receiving the plant.

The examination of the generation and consumption practices of Silahtarağa became another contribution of this chapter. Electricity as a commodity and the subscriber as the customer of this new technology adds to the study of social life in the Empire. The impacts of the World War I and clever solutions to overcome these, all provide insight to the history of consumption in the Ottoman Empire. In addition, detailed examination of the financial records of Silahtarağa enlarges the reader's vision of business history. Lastly, the control mechanisms employed by Ottoman officials, competent reports on the development of construction process as well as the mindful evaluations of the financial records of the plant, their competency in choice of relevant technologies, prove the comprehensive job undertaken by Ottoman engineers and administrators.

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<sup>770</sup> İhsan Güneş, *Meşrutiyet'ten Cumhuriyet'e Türkiye'de Hükümetler (Programları ve Meclisteki Yankıları 1908-1923)*, (İstanbul: İş Bankası Kültür Yayınları, 2012), p. 101.

## **CHAPTER IX**

### **CONCLUSION**

Studying electrification of Istanbul in the last quarter of the 19<sup>th</sup> and early 20<sup>th</sup> centuries drew a number of significant results for the history of Istanbul's electrification and late Ottoman history in general.

This study endeavoured to invite the reader to rethink the last fifty years of the Ottoman Empire, a period which is usually depicted as an era of underdevelopment, dependency and intense European political, diplomatic and economic involvement in the Ottoman territories. The study does not deny the shadow of European intervention over the Ottoman Empire, yet it is insufficient to consider the Ottomans just as a passive actor and to label this period by concrete political, financial, and technological sovereignty of Europe. Trying to go beyond the generalizations and linear narratives, this study attempted to understand local dynamics by focusing on a concrete case (electrification of Istanbul) and carried out research in detail by using archival sources.

The introduction of electricity into the Ottoman Empire and the construction of the first electric plant in the capital of the Empire constituted an example for such technology transfer in which both parties assumed roles in the process. Rather than being an ineffective appropriation of technology, the Ottoman administrators and engineers took active roles in the selection, construction, regulating, and management phases of this technology.

This dissertation paid attention to the appropriation, use, and reproduction of Western technology –electricity-, placed electrification of the cities among the

modernization efforts of the Empire, and further aimed to shed a light on the larger problem of modernization of the Ottoman Empire.

Considering the projects of urban infrastructures ranging from construction of roads to the gas lighting and from trams to electrification, it is clear that Istanbul went through a huge urban development process. As this dissertation demonstrated, Ottoman efforts in the way of modernization were not a result of the European pressure exerted on them but it situated from their belief in modernity as a remedy for the contemporary problems that the Empire was dealing with at the time. Modern institutions as well as the modern infrastructures were all conceptualized as the needs of the Empire by which it would be an active actor again in the league of Western nations. Therefore, technological development was associated with the progress, civilization, industrial and urban development according to the Ottomans.

Another point that should be underlined is that the electrification as the latest technology, which was introduced to the Empire in the early 20<sup>th</sup> century, constituted the last step of these urban development activities in Istanbul. Electricity; providing lighting to the city, easing the lives of people at homes and workplaces by the usage of electrical appliances, providing comfortable transportation by the electrified trams and accelerating the industrial development of the country is considered to be the most significant technological development of the 20<sup>th</sup> century.

A deeper understanding of modernity in the Ottoman world cannot be complete without analyzing the role of new technologies in society. Since modernity can also be evaluated by the degree of development in the public works in a country, introduction of electricity to the Ottoman Empire should be considered as a major stage forward in modernization adventure of the Empire. By treating technology as a prominent factor in modernity, this study demonstrated that the Ottoman decision makers did every effort in bringing and applying modern construction projects into the Empire, ranging from building new roads and trams to lighting their streets. Their vision of modernity, however, encountered two major problems, limitations in financing such big urbanization projects and approaching of the Great War.

Examining the electrification as an example of technology appropriation and focusing on its decision making and application processes, this research highlighted

significant involvement of Ottomans as the active actors during the electrification of Istanbul. Besides, demonstrating that the technology transfer is a twofold business; this study traces and shows the local response against penetration of Europe around the case of Istanbul's electrification.

Going further from this point, this study goes beyond "reluctant modernization" approach. The Ottomans not only had the will for modernization, but also were so proactive in bringing new aspects of modern life into the Empire. As we cannot think modern cities without urban technologies, it is for sure that electrification is an indispensable part of Ottoman modernization project. In addition to the active role played by the Ottoman engineers and bureaucrats; since electricity was so crucial for the economic, industrial, and social life electrification of Istanbul demonstrated a new level in the modernization of urban infrastructure. Although the World War I interrupted this new level, the case of electrification presents a genuine experience within Ottoman modernization, in which deliberate aim was present in transferring new technologies yet the Ottoman administration had the control of the whole process.

Apart from the role of the Ottoman administrators and engineers in Istanbul's electrification, the case of Ottoman electrification and its place in Ottoman economic history cannot be truly explained without the portrayal of electrification business in global scale. Therefore, this study showed the prominent role of international finance and multinational companies in the development of electrical technology. For this purpose, the strategies of foreign capital in order to organize and diffuse in the Ottoman territories and their tactics to win the concessions were sought in detail. Besides, the legal and financial structure of the enterprises, which won the concessions were identified. Going beyond the information regarding the legal registry of the enterprises and their domiciles when identifying the nationality of the foreign investment this study paid attention to the partnership structure of the enterprise in question through the archives of the relevant countries.

Detailed examination of the partnership structure of the enterprises revealed that foreign capital came together within a consortium, which was managed by a major financial institution, and applied to the Ottoman Government to obtain concessions in the Empire. As a contribution to the business history of the Ottoman Empire, this

study found out that the consortium formed by various partners, had multinational character and the center of registry do not necessarily identify the nationality of the company, but it just reflected the place which provided tax advantages to the businesses. Furthermore, financial institutions; pursuing major concessions in the Empire, had the managing role from the beginning of the business as revealed with the dominant administrative role played by Deutsche Bank in Istanbul's electrification.

Multinational and multi-partnered character of the consortiums, as well as the management role of financial organizations, should be considered as the main characteristics of the business environment of late 19<sup>th</sup> and early 20<sup>th</sup> century. Therefore, this study underlines the significance of main characteristics of late 19<sup>th</sup> and early 20<sup>th</sup> business history within the diffusion of foreign investment into the Ottoman lands. This endeavour of the study is important since it introduced an explanation regarding how the foreign investment flourished and organized in the Ottoman Empire.

Apart from the place of multinationals and financial institutions in acquiring concessions, this dissertation revealed the place of diplomacy by presenting accounts of embassy reports. The public works concessions offered by the Ottoman Empire became a fierce battlefield among the rival companies, (read this as countries such as Germany, France, or the United States), who are bidding for these projects.

Examination of foreign capital and their diffusion strategies through public works concessions, revealed insights on the working system of concessions in the Ottoman Empire, as well. This study examined the concession process step by step; from its beginning (announcement of the concession) to the last phase (accomplishment of awarding process). It was common to establish a commission in order to evaluate the concession requests by the companies, which would like to undertake a business in the Empire.

Likewise, during the decision making process of Istanbul's electrification, a technical commission worked in order to determine the winning party among the eight bidding parties who were the candidates to undertake the electrification of the city. The commission was composed of five people; a member from the Ministry of Public

Works, a member from the Council of State in order to determine whether the projects proposal was in line with the rule of law or not, a member from the Ministry of Finance to deal with the financial aspects of the issue, a member from the Municipality in order to take into consideration of its ideas and an engineer either working in the bureaucracy or an engineer who was a professor in the engineering school.

Besides the method of establishing concessions, the rules and regulations (*nizamnâme*) to be employed for the electrification were carefully and neatly determined by the Ministry of Public Works. For the 19<sup>th</sup> century, designing *nizamnâmes* were a popular management method to set the rules and regulations to be applied in the concessions, schools, factories, or bureaucracy circles. Tradition to formulate *nizamnâme* also contributed to the knowledge accumulation on electricity. Discussions in the commission when preparing the *nizamnâme*, doing necessary corrections and re-discussion of the disputed issues in the commissions all provided a base for the Ottoman bureaucrats to develop knowledge accumulation on electricity. Besides, the decision making process shows that Ministry of Public Works had well organized structure, involving legal and financial experts as well as competent engineers to undertake various public works of the Empire. It reflected multi ethnic structure of the Empire, where Muslim and non Muslim Ottoman subjects were employed.

The close examination of the decision making process of Istanbul's electrification concession brought the actors involved into the scene. Portrayal of personal stories of these engineers, especially Mehmet Hulusi Bey and Franghia Efendi shows educational and professional career paths of Ottoman engineers in the Empire. Since the study revealed the perceptions of Ottoman engineers and administrators towards new technologies and foreign investment and pictured the professional careers of these "learned patriots."<sup>771</sup> In sum, Ottoman electrification clearly demonstrated the nature of Ottoman administration as active agency in the process of modernization.

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<sup>771</sup> M. Alper Yalçınkaya, *Learned Patriots: Debating Science, State and Society in the Nineteenth-Century Ottoman Empire*, (Chicago: The University of Chicago Press, 2015).

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## APPENDIX

### APPENDIX A. Transcriptions of the Archival Documents

#### 1. CCA, NV 34E/6 230-0-0-0 20 1 5 (13 December 1906)

Tophâne-i Âmire Müşiriyeti

Tercüme Kalemî

Berlin’de kain Siemens Şirketi Elektrik Fabrikası Direktörü Mösyö Pişker tarafından mürsel tezkirenin tercümesidir.

Hususat-ı atiyenin arzına müsaade buyrulmasını istirham eylerim. Yıldız Saray-ı Hümayunu, Beyoğlu, Galata ve civar mahallatının elektrikle tenvirine dair Hükümet-i seniyyeye bir proje ve keşif defteri takdimi emir buyrulmuş olduğundan Berlin’de kain Siemens Şukert nam şirketimiz tarafından tedkikat ve mütalaat-ı lazime bilicra bu yolda bir plan tanzîm ve taraf-ı sami-i müşirilerinden vuku bulan emir üzerine Tophâne-i Âmire Meclis-i Harbiyesi’ne takdim edildi. Tophâne-i Âmire Meclisi taleb üzerine cereyan-ı elektriki nakilleri şebekesince bazı tadilat ifa ve bu vesileyle yeniden tanzîm eylediğimiz keşif defterinde her nev malzeme için alel infirad ve kemal-i dikkatle hesap eylemiş olduğumuz fiyatlarda imkânın müsaadesi nisbetinde tenzilat icra kılınmıştır. İşbu plan ve keşif defteri Tophâne-i Âmire Meclisinde bir çok defalar vuku bulan müzakerat esnasında tamamiyle tedkik edilmiş olduğundan bu babda bir mukavelenâme arzı zımında Hükümet-i seniyyenin acizleriyle müzakerat-ı cedideye girişeceğini hükm eylemiş idim. Sair rakib fabrikalar tarafına da verilmiş olan fiyatlara tekabül eylemek üzere fiyatça tenzilat icra eylemekliğim hakkında vuku bulan emir ve teblîğe bir çok delail ibrazıyla bu hususun gayri mümkün olduğunu beyân ve malzemenin fiyat-ı asliyeleri Eylül ayı zarfındaki piyasa fiyatı üzerine hesap edilmiş olduğunu ve ol vakitden beri malzeme fiyatlarınca teraffu husule gelib mesela keşif defterinde bakır için verilen fiyat müddet-i mezburun Londra piyasası mucebince beher tonası/tonu doksan Lira-yı İsterlin olduğuna nazaran hesap olunmuş iken işbu fiyatın elyevm yüzdokuz İsterlin Lirasına suud eylediğini ityan ve mahdud bir zaman için verdiğimiz fiyatlarda sebat mümkün ise de malzeme fiyatının hal-i hazırdaki istidat-ı terakkisine göre iş uzadıkça fiyatlarımızı tezyide mecbur olacağımızı dahi ilaveten dermiyan eylerim. Diğer rakib fabrikalara gelince gerek ehemmiyetçe dun olan bu fabrikaların ve gerekse hiç elektrik ile iştilal etmeyib ancak sair elektrik fabrikalarıyla biliştirak iş görececek olan bazı şirketlerin teklifatı bizim fabrikamızın teklifatına asla muadil olamayacağını bildiririm. Şüphesiz ki imal ve ita olunacak makina, alat ve malzeme kuvvet ve tesirce biraz noksan olsa fiyatlarımızca ona göre tenzilat yapmak mümkün olacaktır.

Fakat Hükümet-i seniyye tedarik edeceğimiz tertibat-ı elektrikiyyenin ezher cihet en birinci nevden olması bizce musammem ve mukarrer olduğundan bittabii bu hususa muvafakat edemeyeceğimiz derkardır. Baladaki ifadat-ı acizanemin arzından sonra

bir haftadan ziyade zaman mürur eylediği halde mukavelaname-i katiyenin ifası zımnında bir müzakereye davet olunmadım. Bu iş için altı haftadan ziyade vaktimi vakf etmiş olduğumdan keyfiyet bir hüsn-i neticeye müncer olamayacak ise daha ziyade beklemek mümkün olmadığını ve mateessüf derhal Berlin'e avdete mecbur olduğumu ve şeraitimizin en nafi ve Hükümet-i seniyye için pek ziyade şayan-ı emniyet olduğunu takdir buyrulacağına ümitvar bulunduğumun arzını ihtiramat-ı mahsusa-i bendeganemin takdimine vesile ittihaz eylerim.

Aslına mutabıktır.

30 Teşrin-i sani 322



## 2. CCA, NV 34E/27 230-0-0-0 20 2 15 (10 October 1910)

Fransa şirketleri refakati hakkında malumat

Dersaadetin tenvîri hakkında hükümet-i seniyye-i osmaniyeye mükemmel bir keşifname takdimiyle kesb-i şeref edecek olan Fransa şirketler refakati inşaat mihanikiyye ve elektrikiyye ile müştâğil en meşhur ve en büyük ve eski üç şirketin ittiheadından müteşekkildir ki mezkur şirketler de şunlardır:

Sosyete anonim dö forje et şantiye dö la mediterrane

Sosyete eklaraj elektrik

Sosyete indüstriel dö telefon

Birinci şirketin mevcudiyeti 50 seneye karib olub tesisinden 1905 senesi nihayetine kadar ... franklık ecnas-ı muhtelifeden eşyayı muhtelif imal itmiştir.

Şu şirketin değil sade sanayi-i muhtelifeye ve bilhassa ticaret-i bahriye ve donanmalara mahsus olarak Fransa bahriyesine ve memalik-i ecnebiyesine inşa ve teslim etmiş olduğu zırhlı kruvazör, torpido vesair gibi sefain-i harbiyenin hatta nakliye-i vesaire sefaininin burada tadadı pek uzun sürer yalnız şurasını zikr edelim ki Forje et Şantiye şirketi lanus? makinelerini kendine mahsus bir suret-i mükemmelede inşa etmekte olub bu şirket mamulatından bir çok makineler Fransa ve memalik-i sairede müteaddid elektrik fabrikalarında el haletü hazihi mükemmelen işlemektedirler.

Şirketin mamulatının tadadı gayri mümkün derecesinde çok olduğundan mamulatının nefaseti hasebiyle 1867, 1878, 1889 meşher-i umumilerinde büyük mükafata nail olduğunu ve 1900 sergisinde de şirketin hariç anil müsabaka ve heyet-i adl aza-i miyanına vaz olduğunun beyânı kafidir.

Sosyete indüstriel dö telefon (telefon şirket-i sanaiyyesi) Paris, Londra ? gibi müteaddid şehirlerde tesis olunmuş olan büyük telefon şebekelerinin inşasına muvafakatiyle bütün dünyada tanınmıştır. Şu telefon meselesinden başka aynı şirket alal umum elektrik alat ve edavatı ile kablo imalatında da ihtisas sahibi olmuştur. Ve birçok inşaat-ı elektrikiye şirketleri tevzi levhalarını telefon şirket-i sanaiyyesine inşa ettirmektedirler. Aynı şirketin altı fabrikasından ikisi münhasıran elektrik kablosu ve hususi olarak da zırhlı ve tahtel arz kablolar imala mahsustur. Fransa'da ve bir çok memalik-i ecnebiyyede yüksek tevettürde tevzi-i elektriki şebekeleri telefon şirket-i sanaiyyesi tarafından ya doğrudan doğruya veyahud diğer tesisat-ı elektrikiyye şirketleri namına teşkil olunmuştur. Tenvîr-i elektrik şirketi (Sosyete Eklaraj Elektrik) Fransa inşaat-ı elektrikiyye şirketlerinin en eskisi olup isminden dahi anlaşılavağı üzere başlıca tenvîr ve cerr-i elektrik fabrikalarının şebekelerinin tertib ve tesisi ile iştigal etmiştir. Avrupa şirketlerinin en birincilerinden olan bu şirket cereyan-ı mütenavib ve müvellidler ve yüksek tevettürde cereyan-ı mütenavib mahvellerinin/mahvillerinin mütalaa ve inşasında ve aynı vechile yüksek tevettürde cereyanların uzak mesafata nakil için hutut-ı elektrikiyye inşasında ihtisas sahibidir. Şirket tamamen veya kısmen atideki şehirlerin tenvîratını icra etmiştir. Bunlar Fransa'da vil dö ..., Cannes, Marsilya ... ve bir çok ehemmiyeti tali şehirler ? memalik-i sairede Cezayir, Tibet Çin İskenderiye Kahire ... Bu anüfûl beyân tesisatın ekserisinde yüksek tevettürde nakl-i kuvvet dahildir. Bunların her biri hakkında malumat itası mümkünsüzdür.

Yalnız 10.000 volttan ziyade tevettürle işleyen nakl-i kuvvet müessesatdan bazılarının ber vech-i ati zikri ile iktifa olunmuştur. ? şehrinin tenvîr şirketi fabrikası

?de tesis olunmuştur. 50 kilometre mesafeye 12.000 volt kudret-i elektrikiyye şirketi fabrikası anjende tesis olunmuştur. 1.100 kilovatın 45 kilometreye 15.000 volt tevettür ile nakli Lyon elektrik şirketi Belgrad'dan ?e 35 klometreye 15.000 volt tevettür ile nakl-i kuvvet ? Kumpanyası Saybandan? ?e kadar 20 kilometreye 10.000 volt tevettür ile nakl-i kuvvet tenvîr ve nakl-i kuvvet şirketinin şirket-i merkeziyesi Sabyan'dan Limoja kadar 2.400 kilovatın 80 kilometreye 20000 volt tevettür ile nakl-i kuvvet tesisatının en büyüklerinden birisi olan iş bu tevkif sayesinde tenvîratı temin olunan Limoj şehrinin tramvayları dahi keza Tenvîr-i Elektrik Şirketi tarafından imal ve vaz olunmuş olan müteahhid muhavvel takımları sayesinde cer olunmaktadır. Lil şehrinin elektrik merkez fabrikasında Tenvîr Şirketi tarafından verilmiş olan 1.600 kilovatluk eşyay-yı elektrikiyye bulunmakta idi. Bu fabrika el yevm şirketimiz tarafından tevsi olunmaktadır. Filhakika şirkete 1.000'den 1.500 adete kadar devir icra eden büyük süratte buhar dolaplarıyla türübünleriyle müteharrik dört takım müvellid sipariş olunmuş plup bu alat 10.000 voltluk tevettürde cereyan-ı mütenavib husule getireceklerdir. Müvellid takımlardan üçününün her biri 2.000 kilovat yani 2.700 kilovat bargir iktidarında ve dördüncüsü 5.000 kilovat yani 3000 bargir iktidarında olacağından fabrikanın mecmu-ı iktidarı 15.100 bargir kuvvetine irtika edecektir. Paris şehrinde elektrik tevzi eden birçok şirketler bulunduğu alel ekser Tenvîr-i Elektrik Şirketi tarafından inşa olunmuş olan alat ile icra etmektedirler. Filhakika Paris ? noktasını tenvîr eden şirket ki en büyüğüdür, beheri 700 bargir kuvvetinde olmak üzere beş adet cereyan-ı mütenavib makinası ve müteahhid muharrik müvellidler ile muhavviller teslim olunmuştur. Şanzelize kıtasının bütün muhavvilleri de el haletü hazihi münhasıran Tenvîr-i Elektrik Şirketine sipariş olunmakta olup şimdiye kadar yekünen 30.000 kilovatluk alat teslim edilmiştir. Paris şirketlerinin en eskilerinden olan Edison Şirketi'ne de beheri 800 bargir kuvvetinde ve 10.000 voltluk üç safhalı cereyan-ı mütenavibe ile tagaddiye olunan müteahhid ve muharrik müvellid takımlar satılmıştır. Velhasıl Paris'te müteaddid edevat ile mağazalar vesairenin tenvîratı ve elektrik müvellidlerinin vazı Tenvîr-i Elektrik Şirketi tarafından yapılmıştır. Fransa Harbiye ve Bahriye Nezâretleri için de Tenvîr Şirketi müteaddid siparişat almıştır. Bunlar içinde müteaddid zırhlılara mahsus müvellid-i elektrik takımlar dahil olduğu gibi bir çok tahtel bahir sefaininin tertibat-ı elektrikiyye-i ? ve Serburg? Tersânesi'nin elektrik fabrikası için büyük kuvvetde müvellid-i elektrik takımları dahildir. Mesheri umumilere Tenvîr-i Elektrik Şirketi iştirak ederek bunlar da büyük mükafatlara nail olmuştur. Ez cümle geçen 1900 sergisinde Şirket iki cereyan ve mütenavib makinası teşhir etmiştir ki bunlardan biri doğrudan doğruya 30000 voltluk bir cereyan husule getirmekde idi. Sen Lui? Sergisi'nde 1800 bargir kuvvetinde ve Lij? Sergisi'nde 800 bargir kuvvetinde bir müvellid-i elektrik teşhir olunmuştur.

### 3. CCA, NV 34E/7 230-0-0-0 20 1 6 (11 March 1907)

Tophâne-i Âmile Müşiriyet-i Celilesine,

Devletlü Efendim Hazretleri,

Suret-i müterceme

Fransa'nın en eski ve en mühim üç şirketinin refakatinden müteşekkil "Fransa Şirketleri Refakati" Hükümet-i Seniyye-i Osmaniye'ye vesakat-i cenab-ı müşir-i efhamileriyle Dersaadette kudret-i elektrikiye tevzii için bir şebeke ve bir de elektrik fabrikası tesisi hakkında teklifat takdimi arzusundadır. Evvel-i emirde mar'ul-arz şirketler refakatinin tarif zımnında melfuf muhtıra takdim-i huzur-ı nezâret penahileri kılınmıştır. Muhtıra-i mezkurenin mütalaasından ? asafaneleri olduğu üzere refakat-i mezkureyi teşkil eden şirketlerin alem-i sanatta ihraz etmiş oldukları mevki-i mühim hükümet-i seniyye için mali ve fenni her nev teminatı ita eder. Şirketler refakatinin Dersaadete göndermiş olduğu mühendisler tenvîr ve tevzi-i elektriki meselesinin mütalaası için kanvatın/kanavatın (current) geçirilmesi lazım gelen sokaklar hakkında bir fikir edinmişler ve şehrin muhtelif mahallatını mütalaa ile bu mahallatın ihtiyacat-ı haliye ve atiyesini ve yakinen şehrin tramvaylarının elektrikle cerri lazım geldiği takdirde hükümet-i seniyye elektrik fabrikasının bu ihtiyaca da karşı koyabilmek için ne derecede olması iktiza ettiğini tayin etmişlerdir. Şu mütalaa ve tayin uzun bir zamana tevakkuf etmiş ve mamafih nıkat-ı tevziye-i muhtelifeye kuvve-i elektrikiyenin miktarı ve fabrikanın ne halde işlemesi lazım geldiği ve binaberin fabrikanın makinalarının adet ve iktidarının ne olacağı hakkında malumat-ı yakiniyye istihsaline hizmet etmiştir. Takdim olunacak projenin esası ber vech-i ati olacaktır. Şöyle ki:

- 1) Tenvîr ve cer için yalnız bir elektrik fabrikası tesis olunacak ve ameliyatın şöylece temerküzü ile katı ve tasarrufu bir işletme hasıl olacaktır. Filhakika en çok tenvîrat talep olunduğu zamanlar alel umum cer şebekesinin pek mahlul olmama zamanlarına müsadif olacaklarından lazım gelen iktidar ve bu sebepten mesarif-i evveliyeye tesise hayliden hayli tenzil edilebilecektir.
- 2) Fabrikanın bir müddet işlemesinden sonra tenvîrat-ı belediyye ile fabrikanın tenvîratı vesair hidamat-ı elektrikiyyesinden fazla olarak Dersaadetçe mevcut olabilecek tenvîr-i elektriki abonelerinin miktar ve ehemmiyeti fikrimize kalırsa beheri 16 mumluk (takriben 50 vatlık) 40.000 lambaya mukabil olacaktır.

Binaberin teklifatımız şu esaslar dairesinde bulunacaktır ve şu esasların kabûlünün esbab-ı mucibesi takdim olunacak projede ber-tefsil bast ve temhid olunacağı gibi mezkur projeye tekmil-i ? yani şebeke-i asliyenin, muhavvellerin, şebeke-i taliyenin ve tenvîrat-ı belediyyeye mahsus kos? lambalarıyla ? lambalarının mahallerini irae eden plan ve haritalar ve bundan başka tekmil makinelerin ve fabrikanın makta? ve simleri? rabt ve ilave edilecektir. Teklifatımızın katiyen mükemmel ve gayet münasib ve yolunda düşünülmesi olması arzusu şimdiye kadar projemizin takdimini tehir etmiş olduğundan muhtelif planların tebyizi için daha bir miktar müsaade buyrulmasını istirham ederim. Maa haza projenin takdimine kadar Dersaadetde bulunan mühendis ve vekilimiz vasıtalarıyla talep buyrulacak her nev izahat ve malumat-ı fenniyyeyi heman ? memnuniye arz edeceğimiz tabiidir. İhtiramat-ı favkalademizin kabul buyrulması temenniyatına ihtisar eyledik. Ol babda ve her halde emr-ü ferman hazret-i menlehül emrindir. Fi 11 Mart sene 1907.

p. 3

Bab-ı Ali Dâire-i Sadaret-i Uzma

Mektubi Kalemî

Aded: 212

Tophâne-i Âmire Müşiriyet-i Celilesine,

Devletlü Efendim Hazretleri,

15 Zilkade sene 1324 tarihli tezkireye zeyldir. Saye-i terakkiyatvaye-i hazret-i hilafet penahide? İstanbul cihetinin elektrikle tanviri hususunun takarrur eylediği istihbar kılındığından ve şerait-i imtiyâzı ahkamı mucebince İstanbul cihetinde elektrik tenvîratı Şirkete aid olduğundan bahisle icra-ı icabı hakkında Dersaadet Gaz Şirketi Direktörlüğünden Şehremânet-i celilesine verilen tahrir emânet-i müşarünilayhanın fi 21 Zihicce sene 324 tarihli ve 46 numarolu tezkiresiyle mean savb-ı devletlerine irsal kılınmakla iktiza-i halin himmet buyrulması siyakında tezkire-i senaveri terkim kılındı efendim.

Fi 24 Zilhicce sene 324 ve 25 Kanun-ı sani sene 322

Sadrazam Ferid

p. 4

Şehremâneti, Mektubi Kalemi

Aded: 46

Taraf-ı sami-i cenab-ı sadaret penahiye,

Maruz-ı çaker-i keminelidir,

Saye-i terakkiyatvaye-i hazret-i hilafet penahide İstanbul cihetinin elektrikle tenvîri hususatının takarrur eylediği istihbar kılındığından ve şerait-i imtiyâziye ahkamı mucebince İstanbul cihetinde elektrik tenvîratı Şirkete aid olduğundan bahisle icra-yı icabı hakkında Dersaadet Gaz Şirketi Direktörlüğünden verilen tahrir leffen takdim kılınmakla ol babda emr-ü ferman hazret-i veliyyül emrindir.

Şehremini Reşid

21 Zilhicce sene 324 ve

22 Kanun-ı sani sene 322

p. 5

İstanbul Şirket-i Tenvîriye-i Osmaniyyesi, Bab-ı Ali Caddesi

Aded: 2118

Şehremânet-i Celilesi Canib-i Alisine,

Devletlü efendim hazretleri,

Saye-i terakkiyatvaye-i hazret-i padişahide pay-i taht-ı saltanat-ı seniyyenin her cihetinde ? ara-i ? olan tanzîmat ve tezyinata bir zamime vacib-i bir şükran olmak üzere makarr-ı saltanat-ı seniyyenin İstanbul cihetindeki mahallerin elektrikle tenvîri hususu taht-ı karara alınmış olduğu kemal-i memnuniyetle vasıl-ı sem-i? acizi olmuştur. Hükümet-i seniyye canib-i alisinden Şirketimize ihsan buyrulan imtiyâzın birinci ve onyedinci maddeleri ahkamına tevfikân bilcümle memalik-i mahruse-i şahanede elektrik tenvîratı icrasına aid olup dâire-i aidesince tanzîm ve meriyet-i ahkamına irade-i seniyye-i cenab-ı şehriyari şeref sadır buyrulan şartnâme-i asliyenin ahkamı mucebince muamele ve hareket olunmak üzere İstanbul cihetinde elektrik tenvîratı tesisi sırf şirketimize aid ve raci olduğu ve bu babda şirketimizin haiz olduğu imtiyâzın hukuk ve menafi-i meşruasının muhafazası Hükümet-i seniyye

canib-i alisinden şartnâmenin onyedinci maddesi ile tahahhüd edilmekte olduğuna binaen ber vech-i maruz Hükümet-i seniyye canib-i alisinden Şirketimize ihsan buyrulan imtiyâzın ahkam-ı meriyesine harfiyen riayet olunması zımnında tedabir-i lazîminin ifai rica ile beraber işbu takririn makam-ı iadesine tesyan ve şirketimize malumat ita buyrulması niyaz ve istirham olunur. Ol babda emrû ferman hazret-i menlehül emrindir.

Müdür-i şirket

Strauou

6 Kanun-ı evvel 322

p. 16

Yaver-i ekrem-i hazret-i şehriyari Tophâne Müşiri Devletlü Zeki Paşa Hazretlerine  
Devletlü Efendim Hazretleri

“La Kanalizasyon Elektrik” Şirketi müessislerinden ve müdir-i Murahhası Olub “administrator ?” inşaat-ı elektikiyye Pariste ? sokağında elektrik seftoru? ile ? ? la ? ünvanlı inşaat-ı elektikiyye ve mihanikiyye şirketlerinin müdiri bulunan Fransız mühendis Mösyö gaston bîret delamat’a bilvekale hutut-ı elektikiyyesinin işledilmesiyle iştigal edecek bir şirketin vücuda getirilmesi zımnında Fransız ehl-i sanat ve rical-i maliyesinden mürekkeb bir heyetin teşkili hususunca, icrasına memur olduğum tedkikat-ı fenniyyenin neticesini zat-ı ali-i asafanalerine arz ve işar eyledim.

Mesele-i mebhuse, tedkik olununca bu hususta dört hal münasib görünmüş ise de şimdilik mezkur dört halin hülasasını ve daha doğrusu intihabı devletlerinin takdirine medar olacak esasları ber vech-i ati kaleme aldım. Mezkur dört halden biri tensib buyrulduğu takdirde suret-i katiyede kabul buyrulan halin mümkün mertebede hiçbir ciheti muamma bırakılmamak üzere mülâhazat ve ? biletraf izah ve tafsile mübaderet? eylerim. Muvaffakat-ı lazime beynimize takarrur edince Murahhas bulunduğum ehl-i sanat heyeti iktidar-ı elektikiyye her hususa tevzi ve istimal etmek inhisarına malik olan Dersaadet şehri ile alel husus Beyoğlu Galata miktar-ı kafi elektrik temin eder. Ve fabrika ameliyatıyla tahdidine kafîl ve sermaye-i lazimesi bir Osmanlı veya Fransız Rey-i acizaneme nazaran şâyeste olduğu ehemmiyete nazaran bu işe bir fabrikanın ifası vazife etmesi lazım gelir.

İşletme hususna dair iki esas bina edilmiştir. Evvelen hutut-ı hadidiyesini elektrikle işletmek üzere bizden bir saatlik kilovvatı hiç olmazsa iştira edecek olan tarmvay Kumpanyasının emin bir müşteri add edilmesi saniyen havagazı ile tenvîr edilmekte olan Beyoğlu Galata bir saatlik kilovvatı elli üzere elektrikle tenvîr olunması için bu babdaki icab ettiği ameliyat fîmabad? münakaşa ve icra olunacaktır.

Ber vech-i bala beyân olunan mevadd icra olunmadığı takdirde evrak-ı melfufe ile ityan edilen mütaalatın tadilata uğrayabileceği bediidir. Fabrika Boğaziçinde açık denizlerde seyr-i sefer eden sefainin yanaşmasına müsait bir mahalde tesis edilecektir. Bu husus için iktiza eden arsa kafi vüsatda olarak meccanen şirket-i mezkureye teberru ve ? edileceği gibi şirket vergi ve gümrüğü misüllü her türlü tekalif ve rüsumdan muaf ve işletme ameliyatına lazım olan kömür ve mahsulat-ı saireyi hammal esnafının tavassut ve müdahalesi olmaksızın çıkarmak hakkını haiz olacak ve Hükümet tarafından tahkikat-ı lazime badel icra zarar ve ziyana mukabil bir meblağ mukabilinde istimlak-i emlak hakkına da nail olacaktır. İşbu imtiyâzat temettuu ekseriya işletme hususundaki gösterilen teshilat ile münasib olan elektrik fabrikasının tesisiyle maruz bulunduğu muhatarata mukabil olmak üzere bahş edilecektir. Şimdilik asıl kuvve-i elektikiyyeyi ihzar edecek fabrika elektrik ve mihanik fenlerinin tedkikat-ı ahiresine mutabık olan mütevadil? toriyolar/torbiyolar?

vasıtasıyla buhar ile işledilecektir. Ve işbu mütebadil? türbinler/turbolar beşbin veya onbin volt kuvvetinde olub 50 dereceye münkasım üç safhalı mütebadil cereyan suretiyle işleyecektir.

Cereyanların makarrı / mukavvi ve ? olan asıl federeler gerek tahtül arz ve gerek havadan yüzon ile ikiyüz voltluk bir tevziye müsait olmaları için yeraltında vaz olunub mübeddile-i sakine ve muhaffef indisata ile nihayet bulacaklardır.

Her türlü kazadan ictinab için (kaçınmak için) bilcümle tedabir-i ihtiyatiyeye tevessül edileceği tabiidir. Hülasa, (Paris ile Fransa'nın cihet-i şimaliyesindeki Lil, Rubar?, Torkuvan? hututu gibi) Fransa'nın hutut-ı elektrikiyyesine müşabih bir tahtit-i elektriki ile bir fabrikanın hayyiz-i vücuda getirilmesi için elektrik feninin en son terakkiyatı mevkii-i tatbîke konacaktır. Her halde bu babdaki teşebbüsatda olan ihtisasatımız sayesinde derdest olunan netayic Nâfia ve Ticaret ile Posta ve Telgraf Nezâretleriyle husule gelecek ihtilaf üzerine zir-i nezâret-i aliyyelerinde icra olunacak işlerin hüsn-i cereyanına en sağlam bir kefil add olunabilir.

İşletme keyfiyetine aid inşaatın kuvveden fiile çıkarılmadığı takdirde (ki zann-ı acizaname göre bu ihtimal pek zayıftır) Dersaadet Elektrik Şirketi savb-ı alileri tarafından tasdik olunacak olan fiyatı tezyide selayihatdar olacaktır.

Bundan başka işbu elektrik tevzii meselesinin Dersaadet ahalisine bahş etmiş olacağı menafie karşı gerek Hükümetin ve gerek efrad-ı adiyenin bina ve haneleri dahilinde her ne suretde olursa olsun diğer bir elektrik fabrikasının tesisi ile işletilmesi suret-i katiyede taht-ı memnuiyete alınıb bu hususda ecanib Hükümet-i seniyyeden bir nizamnâme-i mahusa istihsali buyruması zat-ı asafanelerinden talep ve istiza ederim. Meğer ki Elektrik Şirketi kendisinden talep olunan iktidar-ı elektrikiyi taahhüdlü mektup ile icra olunan taleb-i vakıdan dört ay sonra istihzar ve takdim etmek iktidarında bulunmasıyla

Binaenaleyh zat-ı ali-i asafanelerince ittihaz buyrulacak karara dair malumat ve mütalaat-ı mükemmele ve mütemmimeyi itaya ve şartnâmeyi takdime amade bulunduğum gibi işlerin şirketimizin ve alelhusus Mösyö “Gaston dela Mat”ın asla inhiraf etmediği doğruluk ve hakkaniyet dâiresinde mevkii-i icraya konacağından bilahire müstevcib-i mahzuziyet ve hoşnudi-i asafaneleri olacağını arz eylerim. Beyân-ı hal teyid-i measir-i arz ihtiramkariye zeria ittihaz kılındı.

Tophâne-i Âmire Müşiriyet-i celilesinin Dersaadet Elektrik Şirketi ile akd-i iştirak etmesine dair mütalaat

#### Birinci Hal

Mösyö “Gustav Biret dela Mat” şimdiki halde sermayesi sekiz ile dokuz milyon beşyüzbin Frangı tecavüz etmemek üzere hissedarlık suretiyle Osmanlı veya Fransız anonim şirketi teşkiline deruhde ile şirket-i mezkurenin maksad-ı esasisi leffen takdim kılınan tahrirat ile bildirilmiştir. Gerek fabrikasının ve gerek hutut-ı heyet-i mecmuasının işledilmesi Tophâne-i Âmire müşiriyet-i celilesinin iştiraki ile icra edileceğinden şirket; müşiriyet-i müşarunileyhaya bir milyon hisse-i müşareket tabir-i diğerle sermayenin dokuzda birini tanıyacaktır. Ve işbu hisselerin ne tediyesi (?) ve ne de beyi kabil olmayub ancak tediye olunan hisseler gibi faiz ve temettu temin edecektir.

Bundan başka meclis-i şirket Tophâne Müşiriyet-i Celilesi canibinden tayin olunacak zevata iki memur-ı mahalli tahsis kılınarak memuriyet-i mezburenin vazifesi hatların heyet-i mecmuasıyla fabrikanın işledilmesine aid husussatı tahkik ve tedkikten ibaret olacaktır.

İşletme ameliyatı Paris Osmanlı ve Paris Ecnebi bir heyet tarafından icra edilip müdir-i umumiyesi meclis-i idare-i şirket tarafından intihab ve tayin edilecektir.

Müdir-i umuiden maada işletme heyeti kamilen başlarına fes giyeceklerdir. Ve muhaberat ile nizam-ı umumiye ve faturalar Türkçe ve Fransızca ile icra ve tahrir edilerek devair-i seniyye-i hükümet ile ? muhaberat sırf Türkçe olacaktır.

Takdir-i acizaneme nazaran bu birinci suret ile bir milyon iştirak hisselerinin faiz ve temettuu dahil-i hesap olmak üzere Tophâne-i Âmire'ye senevi yüz bin franklık bir irad temin edecektir.

Tabii? ? de müsellemler add etmeli ki Dersaadetçe elektriğe olan ihtiyaç tevessür? ettiği takdirde şirket-i cedide gerek yeni hisseler çıkarmak veya mevki-i tedavüle tahvilat vaz ve ihraç eylemek bu suretiyle sermayesini tezyide selayihatdar olacaktır. Ve bu surette dahi Tophâne-i Âmire'nin müceddeden vaz ve ihraç olunan sermayenin dokuzda birine hakkı olup bu hususta sermaye-i asliyede dermian olunan şerait aynıyla meri tutulacaktır. Ledel ihtiyaç muamele-i mütekabile dahi tabik edilecektir.

Fazla olarak Mösyö Gaston Biret döla Mat Mabeyn-i Hümayun-ı cenab-ı mülükane hizmetine mahsus olarak tayin edilecek mahal-i münasibde bin "kilo" (bin kilovat)lık bir fabrika tesisini meccanen deruhde ile işbu fabrika asıl fabrikadan gelen cereyan-ı elektriği ? nakille? hidmet ederek bu nakl-i keyfiyeti Mabeyn-i Hümayun-ı cenab-ı mülükane marifetiyle ve kendi hesabına olarak icra edilecektir. Mabeyn-i Hümayuna mahsus olarak tehiye edilen cereyanın ? takdir-i kıymetine gelince cereyan-ı mezkur işletme mesarifi ile mesarifi umumiye ve mahsul için tahsis edilen akçenin faizi ve tediye taksitleri hesap edildikten sonra takarrur edecek fiyata mahsub olacaktır alınacaktır (olacaktır'dan sonra alınacaktır yazılmış).

Bu işden tevellüd edecek mebalîğ müşiriyet-i celilesinin varidat-ı seneviyesiyle tekfil ve temin edilecektir.

Bu ahval-i mahsusa ve istisnaiyeden yalnız Mabeyn-i Hümayun cenab-ı mülükane yalnız istifade edilecektir.

Büyük fabrikadan Fabrika-i Hümayuna cereyanı nakil eden kablo meccanen ve fabrika-i Hümayundan Mabeyn-i Hümayuna ve cihat-ı sairesine tevzi-i cereyana mahsus olan kablo da teshilat-ı mümkün ile hesap edilecektir.

İmtiyaz müddeti la-ekal yetmişbeş sene devam edib işbu müddetin inkizasında şirket fabrika ile "sustasyonları" (istasyonlar?) ile mebalîğ? tekasidleri amortismanı tamamen tediye olunduğu takdirde Tophâne-i Âmireye teslim edecektir. Ancak müşiriyet-i ceile-i müşarünileyhanın hissedarına işin vakt-i iştiradaki kıymet-i ticariyesini tediye etmesi şarttır.

Kıymet-i ticariye-i mezkure hükm-ü usulüne müracaatla tayin ve takdir edilecektir.

Bundan başka Tophâne-i Âmire müşiri şirketin işe mübaşeretinden yirmibeş sene sonra ledel müzakere takarrur edecek şerait ile işletme esnasında işi kendi hesabına satın alabilecektir.

İşte rey-i acizaneme nazaran müşiriyet-i celilerine aid olan bir milyon hissenin feraiz-i kamilinden başka [işletme temetuu müsaide olduğu takdirde ki cümlemizin çalışacağı bir cihettir] bir fazla-i temettuu ihtimalini vermekle beraber bil cümle alakadaranının menafiini masun edecek hallerden biri budur.

## İkinci Hal

Birinci halde olduğu vecihle Mösyö "Gaston Biret dela Mat" aynı maksada hadim ve aynı sermaye ile bir şirket tesisini deruhde eder. Bu şıkda işletme ameliyatı Tophâne-i Âmire müşiriyet-i celilesiyle müştereken icra edilecektir.

Kezalik mumaiyle zat-ı şevket simad-ı hazret-i padişahiye mahsus olmak üzere tahsis edilecek mahal-i münasibde bin kilovatlık ve kamilen müstakil bir fabrika tesisini

de tahaddüd eyler. Mezkur fabrika kaffe-i alat ve edevat-ı lazime ile her hangi şekilde olursa olsun iktidar-ı elektrikin istihsalı için lazım gelen müştemilatı da ihtiva edecektir. İşbu fabrikasının kıymeti bir milyon dört yüz bin Frank tahmin olub Mabeyn-i Hümayunda tevzi-i cereyan için muktezi olan kablolarda memalik-i şahanede veya sair memalik-i mümasirede cari olan kıymet ile hesap edilerek Hutut-ı Elektrikiyye Şirketi tarafından takdim-i şan olunacaktır. İşbu fabrika Mabeyn-i Hümayun-ı cenab-ı mülükaneleri tenvîrine mahsus olamak üzere işletilip mesarif ve ziyanları da Mabeyn-i Hümayun hesabına aid olacaktır. Meamafih fabikanın tevsii lazım geldikde zat-ı şevket simad-ı hazret-i padişahinin hesabına icra edilecek ameliyatı Hutut-ı Elektrikiyye Temdid Şirketi Desaadete lazım gelen ameliyat-ı elektrikiyyenin iktiza ettiği ücret ile icra etmekte sairlerine müreccah tutulacaktır. Kezalik zat-ı şevket simad-ı hazret-i padişahinin irade-i seniyyesi şeref taalluk ettiği takdirde Elektrik Şirketi iktiza eden tevsii için lazım olan cereyana yüzde beş bir zam ile birinci halde beyân olunan fiyata icra edecektir.

Hutut-ı umumiyyenin işledilmesi hususunda Mösyö Gaston Biret dela Mat Tophâne Müşiriyet-i celilesi tarafından memur edilen murahhas azaya şirkette bir mahal tahsis ederek işbu işletme hususu atıl beyân şerait dâiresinde icra olunacaktır. Sermayeyi teşkil eden hisseler ile fabrika-i Hümayuna sarf edilen sermaye ki ceman bir milyon dört yüzbin Frank yüzde altı faiz temin edecedir. Mesarif-i sabite-i nisbiye umuma tediye taksitleriyle sermaye-i kamilenin faizi bila? ahzu kabz olunan varidat-ı safiyeden tenzil edilecek ve bir fazla-i varidat tahakkuk ettiği takdirde fazla-i temettuu tesmiye olunan şey teşkil ederek yüzde yirmisi Tophâne Müşiriyet-i celilesine tevzi ve yüzde otuzu Fabrika-i Hümayun tekasidinin tesri-i tediyesine ve yüzde üç faiz ile istimal edilecektir. Fazla kalan mebalîğ-i hissedaran müdir-i şirket ile memurlara taksim edilecektir. Bir milyon dört yüz bin Frank tekasid ile tekasid tamam olduğu takdirde ki buna obeş sene lazımdır yüzde otuz miktarı ber vech-i ati taksim edilecektir. Yüzde onbeşi Tophâne-i Âmire'ye aid olacak ki müşiriyet-i müşarunileyha bu tarihten itibaren yüzde otuzbeş alabilecek demektir. Yüzde onbeşi de hissedarana tahsis edilip sair alakadaran hiç bir istifadeye nail olamayacaklardır. Bu halde vech-i işтира ile nizamat-ı umumiye birinci halde beyân olunanların aynıdır. İşte zat-ı şevket simad-ı hazret-i padişahiye müstakil ve kendi malı olmak üzere bir fabrika inzar etmekle beraber zat-ı ali-i müşir-i ekremilerinin zir-i idarelerinde bulunan Tophâne-i Âmire'ye zanniyatımız tahakkuk ettiği takdirde onbeş sene zarfında elli bin Franklık ve bu tarihten itibaren seksen ile doksan bin Franklık bir irad temin edecek halin hülasasıdır.

### Üçüncü Hal

Evvelce beyân olunan aynı maksada binaen Mösyö Gaston Biret dela Mat Dersaadet şehrine elektrik tevzii için fabrika-i merkeziye maksadıyla bir şirket teşkilini Bu halde sermaye hiç bir taahhüde tabii olmayacağı gibi ne hatt-ı şirket ne de müstakil bir fabrika inşası gibi bir husus mutasavver değildir. Bu hesabça sermaye bir milyon dört yüzbin Franklık noksan ve binaberin hisse-i temettuu da evvelce iki hale nazaran bir tebdilat tahmin edilen miktardan ezyen olacaktır. Tophâne Müşiriyet-i celilesi imtiyâz müddeti devam ettikçe kendisine kar kalacak olan yüzde kırkbeşi işletme varidatından tarh ve tenzil ettikten sonra bununla beraber işletecek olan şirkete varidat-ı mezkureyi tediye etmek şartıyla bina ve tesis olunan fabrika müşiriyet-i müşarunileyhanın elinde kalacaktır. Tabii ve müsellemdir ki bu halde işletme hususu şirkete aid olub müşiriyet-i celilenin vazifesi kontrolden ibaret olacaktır. Yüzde kırkbeşi müşiriyet-i celileye aid olacak olan irad fazla-i temettuu tesmiye ettiği şey yani cereyan-ı ? dan hasıl olacak makbuzat ile mesarifin arasındaki fark ki mesarif-i mukannene-i nisbiye tediye taksitleriyle kanunen mücaz olan ihtiyat akçesi baş? mesarifi yüzde altı olan sermaye faiz ve ? şamil olacaktır. ? bundan tahmin ettiğim Tophâne Müşiriyet-i celilesinin irad-ı senevisi yüz kırk ile yüz altmış bin Frank

arasında olacaktır. Kezalik şirkette Tophâne-i Âmirece tayin edilecek memura bir mahal-i mahsus tahsis edilecektir. Şirket birinci halde dermiyan olunan ? şerait dâiresinde ve bir semen tayin mukabelesinde zat-ı şevket simad hazret-i padişahiye mahsus olmak üzere bir fabrika ile cereyan ve levazım-ı sairesini tehiye ve ihzar etmeyi kabul edecektir. Tophâne Müşiriyeti celilesince vaki olacak iştirasının şeraiti mukaddema beyân olunan iki haldeki şeraitin aynıdır. Mabeyn-i Hümayun'a temdid edilecek cereyanın fiyatı dahi Müşiriyet-i celileye aid mebaligle mekhul olacaktır. Hasılı işbu üç halin izahına ? hatime verib Tophâne-i Âmire ile akd-i şiraket arzusunda bulunduğumdan aramızda bir ihtilaf husul etmek ve binaenaleyh Dersaadet elektrik imtiyâzına nail olabilmek için lazım gelen mütalaatımın tamik ve tafsilini menut-ı rey-I müşir-i ekremileridir.

#### Dördüncü Hal

Evvelce serd olunan hallerden hiç biri tasrif edilmediği takdirde tedkikat-i lazimeyi icra ile mahzuziyet-i asafanelerini mucib olacak bir mütalaa dermiyanı zımında bu husustaki rey-i devletlerinin lütfen taraf-ı acizaneme bildirilmesini rica ederim. Her halde Dersaadette mesela yalnız tramvaylara hizmet edebilecek ehemmiyetsiz ve küçük bir fabrika ile işe mübaşeret etmek daha munasib görüldüğü takdirde bu babdaki fabrika gerek sırf marifet-i acizanemizle gerek Tophâne-i Âmire iştirakiyle ve gerekse ecnebi bir şirket tarafından saha-i icraya konulmuş olsun Mösyö G. B. dela Mat balada dermiyan olunan ahvali nazar-ı itibara alarak zat-ı müşir-i ekremilerine bu husustaki mütalaasını beyân ve ityana amade bulunur. Hülâsa Fransız ? ve ehl-i sanatından müteşekkil ve tecrübekar bir heyetin azasından olmak hasebiyle gerek dar-ı asafanelerine ve gerek Hükümet-i seniyyeye işin mükemmeliyet-i icrasına medar olacak her türlü teminat-ı fenniyeyi ita için ehil ve liyakatları müsellemler olan mühendisler ile suret-i mümkünede tertib olunmuş muamelatımız mevcuttur. Beyân-ı hal teyid-i measir-i ihtiramkariye zeria ittihaz kıldım efendim.

Tophâne-i Âmire Müşiriyet-i celilesiyle İstanbul şehrinin elektrik ile tenvîri zımında teşekkül edecek şirket beyinde münakid mukavelenâmedir.

Beyoğlu Galata İstanbul cihetiyle Boğaziçinin Avrupa sahilinde tenvîrat ve kudret-i muharrike istihsaline muktezi kuvve-i elektrikiyye tevzii inhisarını mübeyyin Tophâne-i Âmire Müşiriyet-i celilesinin yedinde bir irade-i seniyye-i padişahi bulunduğu cihetle bu hususta şerait-i atiyeye muvafık olarak Şirket ile uzlaşmak arzusunadadır.

Birinci madde: Şirket, Tophâne-i Âmire Müşiriyet-i celilesi namına olarak bin kilovattı ihtiyat olmak üzere dört bin kilovat kuvvetinde bir fabrika inşasını taahhüd eyler.

İkinci madde: Şirket, imza-yı katiyi takib eyleyen üç mah zarfında fabrika ve şebekenin mufassal plan ve keşif defterlerini Tophâne-i Âmire Müşiriyeti celilesinin nazar-ı temyiz ve tasdika arz ve müşiriyet-i müşarunileyha da tarih-i takdimden itibaren azami olarak bir mah zarfında bunları tasdik veya tadil ile Şirkete iade eyleyecektir. Şirket plan ve keşif defterlerinin Tophâne-i Âmire Müşiriyet-i celilesi tarafından tasdiki ve ameliyat-ı lazimenin icrasına muktezi müseadatin? istihsali tarihinden itibaren işe mübaşeretle en nihayet bir buçuk sene zarfında bütün ameliyatı ikmal eylemeyi taahhüd eler.

Üçüncü madde: Şirket balada zikr olunduğu üzere dört bin kilovat kuvvetindeki elektrik fabrikasının tesisi ile malzemesine ve keza şebekeye aid bütün mesarifatin tesviyesini taahhüd eyler. İşbu malzeme ve ameliyata aid tahmini keşif defterleri imza-yı tasdikden evvel lieclittedkik Tophâne-i Âmire Müşiriyet-i celilesine takdim olunacaktır. Bununla beraber inşaat ve hafriyat mesarifi evvelce takdir

olunamayacağından bunların baliğ olduğu mesarif tahmini olarak gösterilecek mesarif-i hakikiye ise tutulacak defterde bu kerre inşaatın hitamında taayün eyleyecektir. [Şirket tenvîrat-ı elektrikiyyeyi işlettiği müddetçe her nev vergi ve gümrük vesair tekaliften muaf tutulacaktır.] Şirket şebekenin mürur ve transformatör köşklarinin tesisi zımnında hakk-ı istimlake malik olacak ve icab eden yerleri istimlak kanunname-i hümayununa tevfikân istimlak eyleyecektir.

Dördüncü madde: Mezkur fabrikada husule getirilecek kuvve-i elektrikiyye tüccar vasıtasıyla ve beheri bin kilovat kuvvetinde turboalternatorlar ianesiyle istihsal olunacaktır. Ve bütün makineler Avrupa'da emniyet-i umumiye-i kazanmış fabrikalarda imal ettirilecektir. Makinalar fenn-i elektriki ve mihanikinin? en son tekemmülatını cami olacaktır. Alternatorlar doğrudan doğruya elli perbutda?(periyod?) kuran (akım) alternatif trifaze olarak beşbin veyahud on bin volt şiddetinde işleyecektir. Nakiller kamilen tahtel arz olacaktır. Abonelerin meskenleri dahilinde cereyanın tefyizi ikiyüz voltu tecavüz etmeyecektir. Her nev kazanın men-i vukuu zımnında tedabir-i tahaffuziyenin kaffesi ittihaz olunacaktır. Ameliyat Nâfia Nezâret-i celilesince meri olan şartnâme ile ki yüksek tefbikler? için Tophâne-i Âmire Müşiriyeti celilesi tarafından tanzîm olunacak hususi şartnâmeye tevfikân icra edilecektir.

Beşinci madde: Satılacak cereyan-ı elektriki fiyatı Tophâne-i Âmire Müşiriyet-i celilesinin muvafakat-ı müşterekesi ve senevi sarf olunacak miktar ile mütenasiben tenzilat tarifesine tevfikân tayin olunacaktır. Mabeyn-i Hümayun-ı cenab-ı mülükane müştemilat lazimesi için münhasıran irae olunacak bir mevkiye Şirket tarafından meccanen ve umum fabrika kuvvetinin bir rubundan ziyade sarf etmeyecek surette bir trasformasyon merkezi inşa olunacak ve bu fabrikaya verilecek cereyan-ı elektriki mukavelenâme-i katide tafsilatı gösterileceği üzere kıymet-i istihsaliye fiyatıyla verilecektir. İşbu fabrikadan tevzi olunacak cereyan-ı elektriki münhasıran Tophâne-i Âmire Müşiriyet-i celilesi taht-ı nezâretinde olarak tevzi ve esmanı dahi altıncı maddede mezkur? zikredilen Tophâne-i Âmire Müşiriyet-i celilesine aid hisse-i temettuudan tesviye olunacaktır.

Altıncı madde: Tophâne-i Âmire Müşiriyet-i celilesi hesabının suret-i mütemadide kontrol ve tedkiki zımnında bir veya iki komiser tayin eylemek hakkına haiz olub fabrika işlediği esnada vesait-i istihsaliyenin tadili fabrika veya şebeke iktidarının tenzili gibi büyük mesarif ihtiyarını müstelzim olan hususat ber vech-i vala kontrol komisyonuna arz olunacaktır. İşbu komisyon azası kendilerine arz olunan hususatı tamamıyla ve muvafık-ı hakkaniyet olarak tedkike muktedir zevatdan olmak üzere müşiriyet-i celile tarafından intihab olunacaktır. Şirket ile komisyon beyninde tekevvün edecek ihtilafat her iki taraftan intihab olunacak bir hakem vasıtasıyla hal olunacaktır. Direktörden maada bütün memurin fes ? eyleyecek ve şirketin devair-i resmiye ile olan muhaberatı Türkçe olacaktır. Fabrikanın işlemesi muhafaza tamirat ve kanunen tefriki icab eden ihtiyaç akçesi hasılat-ı umumiyyeden badettenzil kalan akçe hasılat-ı safiyyeyi teşkil edecek ve bundan? sermaye-i umumiyyenin yüzde altısı tenzil olarak faizi olmak üzere hissedarana tevzi olunacaktır. Mütebaki meblağın yüzde yetmişbeşi şirket sermayesinin inhasına? ve yüzde onbeşi Tophâne-i Âmire Müşiriyet-i celilesi ve mütebaki yüzde onu dahi hisse-i temettuu olmak üzere hissedarana tevzi olunacaktır. İşbu hisse-i temettu ? olsun olmasın hissedaran beyninde mütesaviyen taksim olunacaktır.

Sermaye alettedric itfa olundukça parası verilen hisse senedadının birine birer afyon/alyon/alınan dö? ve işbu ? faiz verilecek ve ber vech-i bala zikr olunan yüzde on dahi sermaye-i umuminin kamilen inhasına kadar ve bu tarihten itibaren keza on beş sene müddetle dahi hisse-i temettu olarak mütesaviyen hissedarana tevzi olunacaktır. Sermaye-i umuminin inhasından sonra Şirket tarafından Tophâne-i Âmire Müşiriyet-i celilesi namına inşa ve tesis edilmiş olan fabrika, şebeke kaffe-i

teferruatıyla beraber iyi bir halde ve her nev taahhüdden vareste olarak Tophâne-i Âmire Müşiriyet-i celilesine teslim olunacaktır.

Yedinci madde: Emakin-i hususiyeye verilecek cereyan-ı elektriki için bunlar nezdinde mevcut tesisatın Almanya ve Fransada cari olan nizamata muvafık olup olmadıklarına göre bunları kabul veya adem-i kabulden Şirket serbest olacaktır. Bununla beraber Şirket kendi şebekesi üzerinde çalışmak isteyen müteahhidleri iptida-i emirde kabul edip etmemekte serbesttir. Bir kaza veya esbab-ı mücbire neticesinde olarak vukua gelecek inkıta-i cereyandan dolayı abonelerin Şirket aleyhine bir guna davaya kıyama hakları olmayacaktır. Şirket doğrudan cereyan-ı elektriki işledildiği müddeçe işbu cereyan her nev vergi ve tekliften? muaf tutulacaktır. Şirket Tophâne-i Âmire Müşiriyet-i celilesi ile müttefikan ahaliye furuht olunacak cereyan-ı elektriki fiyatını tezyid veya ? eylemek hakkına haizdir.

Sekzinci madde: Balada beyân olunan ihtiyat akçesi Şirketin fabrikayı işletmesi zamanının hitamında altıncı maddede zikr olunan tarzda hasılat-ı safiye gibi taksim olunacaktır.

Dokuzuncu madde: İşletme umurunda vukua gelen hata-i vahim bir iflası intac ettiği veyahud müşiriyet-i celilenin veya Hükümet-i seniyyenin dahil olmayarak herhangi bir sebepten dolayı şirket iflas ettiği takdirde Tophâne-i Âmire Müşiriyet-i celilesi kendisi işbu on maddede zikr olunan taahhüddan vareste add edilerek kendisine aid elektrik imtiyâzını diğer bir işletme şirketiyle uzlaşmak hakkına haiz olduğu gibi bu işden dolayı duçar olacağı zarar ve ziyanı dahi Şirketten mütalebeye hakkı olacaktır.

Onuncu madde: Ameliyatın icrası için bütün müsaadat-ı lazimenin istihsal ve mukavelenâme-i katinin imzasından sonra Şirket emniyetli bir bankaya onbin Lira-ı Osmani kefalet akçesi ve dipozite edecek ve bu meblağ ameliyatın kabûl-i katisine tahakkuk eyleyen ay içinde müşiriyet-i celilenin müsaadesi üzerine iade olunacaktır. Şirket taahhüdünü ifa etmez ise para Tophâne'nin malı olacaktır. Şirket ile müşiriyet-i celile beyinde her nev ihtilaf hakem usulüyle ve Şirket ile müşterileri beyindeki deavi mehakim-i Osmaniyede ruiyet olunacaktır. Baladaki şeraitle kati imza tarihinden itibaren dokuz madde zarfında teşkili Mösyö Gaston Biret dela Mat tarafından taahhüd olunan Cereyan-ı Elektriki Şirketi ber vech-i bala mukavelenâmenin bir ila onbire kadar her noktayı kabul eyler.

#### 4. CCA, NV 34E/16 230-0-0-0 20 2 4 (24 August 1909)

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İstanbul Şirket-i Tenvîriye-i Osmaniyesi

11 Ağustos 324

Makam-ı saltanat-ı seniyyenin elektrikle tenvîri imtiyâzının mukavelenâme ve şartnâmeleri ahkam-ı sarihasına tevfikân Şirkete ita olunması hk.

p. 2

İstanbul Şirket-i Tenvîriye-i Osmaniyesi

Makam-ı saltanat-ı seniyyenin elektrikle tenvîri imtiyâzının mukavelenâme ve şartnâmeleri ahkamına tevfikân Şirkete itası ifadesine ve bu babda fi 20 Eylül ve 6 Kanun-ı sani 322 tarihlerinde Şehremâneti'ne ita eylemiş oldukları iki kıta takrirden hiç bir netice çıkmadığının beyânına dair

p. 3

Societe Ottomane pour Eclairage, İstanbul Şirket-i Tenvîriye-i Osmaniyesi

Bab-ı Ali Caddesi

Aded: 2369

Ticaret ve Nâfia Nezâret-i Aliyyesine,

Atufetlü Efendim Hazretleri,

Bende-i terakkiyatvaye-i hazret-i padişahide taht-ı saltanat-ı seniyyenin her cihetinde uyun ara-i ihtiyaç olan tanzîmat ve tezyinata bir zamime vacibulşükran olmak üzere makarr-ı saltanat-ı seniyyenin elektrik ile tenvîri hususu akdemce taht-ı karara alınmış ve bu babda şeref sudur eden irade-i seniyye-i cenab-ı Şehriyari Tophâne-i Âmire Müşiriyet-i celilesine tebliğ edilmiş idi. Hükümet-i seniyye ile şirket beyninde münakid şartnâmenin onbirinci maddesinde “müddet-i imtiyâziye zarfında elektrik vesair muhteriat-ı cedide ile devair-i imtiyâziye dahilinde bulunan mahallerin tenvîri Hükümet-i seniyyece talep buyrulur ise sahib-i imtiyâzın hukuk-ı menafi-i meşruasına halel gelmemek üzere bu babda lazım gelen şerait Şehremânetiyle bilittifak kararlaştırılacaktır” deyu muharrer bulunmuş olduğuna binaen ol vakit şirketimiz tarafından Şehremânet-i celilesine fi 20 Eylül sene 322 tarih ve 2092 numaralı ve fi 6 Kanun-i sani sene 322 tarih ve 2118 numaralı iki kıta takrir takdim ve hukuk-ı sarihamızın muhafaza ve vikayesi ile beraber imtiyâz-ı mezkurun münhasıran şirketimize aid ve raci olduğundan dolayı? şirketimize itasını rica ve istirham edilmiş idi. Tevarih-i merhûmeden şimdiye kadar husus-ı mezkurdan hiç bir netice çıkmadı. Şehr-i ? tanzîm ve tezyinine hadim olan işbu emr-i nafi-i mühimmin mevki-i tezekküre vaz edilmesiyle imtiyâz ferman-ı alisinin mukavele ve şartnâmemizin ahkam-ı sarihasına tevfikân şirketimize ihsan buyrulmasını niyaz ve temenni ve bu babda Hükümet-i seniyyeye ibraz edeceğimiz şerait-i kesire-i müfidenin dermiyanına şimdiden hazır ve amade bulunduğumuzu arz ve beyân eylerim. Ol babda emrû ferman hazret-i menlehül emrindir.

Müdür-i Şirket ?

12 Ağustos 324

**5. CCA, NV 34E/10 230-0-0-0 20 1 9 (9 June 1909)**

p. 1

Mukaddema Tophâne'ye ita bulunmuş olan Dersaadet elektrik imtiyâzı hakkında Tophânece bulunabilen evrakın gönderilen memura teslimen irsal olunduğuna dair Tophâne Nezâretinin fi 8 Haziran sene 325 tarihli ve 10 numaralı tezkiresi melfufatı Aded 20.

Dersaadet tramvayının 23 Mayıs sene 325 tarihli ve 490 numaralı mektubu

2 adet Mösyö Kanton Berevet Mat imzalı 30 Temmuz sene 909 tarihli arzuhal

Mis Morismondan sene 10 Mayıs sene 909 tarihli mektup

Malûmat-ı umumiye idaresinden 25 Temmuz sene 325 tarihli arzuhal

Anadolu temur yol kumpanyasının 10 teşrin-i evvel sene 908 tarihli mektubu

Şûrâ-yı devlet azasından Cemal tarafından verilen mukavele şartnâme ve harita ve iktidar-ı mâli şehadetnâmesi

p. 2

Nezâret-i Umûr-ı Ticaret ve Nâfia

Temiz tarihi: 8 Haziran 325 ve 2 Cemaziyelevvel 327

Tophâne-i Âmire Nezâret-i Aliyyesi'ne,

Mukaddema Tophâne-i Âmireye ita olunan ahiren zuhur edecek talibine şerait-i nâfia ile ihalesi kararlaştırılmış olan Dersaadet elektrik imtiyâzı hakkında nezâret-i aliyyelerince vuku bulan teklifat ve bu babda cereyan eden müzakerat üzerine tanzîm edilmiş olan layihaya dair nezâretçe malumat ahzına ihtiyaç hisedileceğinden bu babdaki evrakın hamil-i tezkire-i aciziye tevdian irsaline himem-i aliye nezâret-i penahiye derkar bulunmak babında

p. 3

Ticaret ve Nâfia Nezâreti Vekâlet-i Aliyyesi'ne,

Mektubi Kalemî, sayı: 10

Dersaadet elektrik imtiyâzı hakkındaki evrakın irsal kılındığına dair

Devletlü Efendim Hazretleri

Şeref varid olan 8 Haziran sene 325 tarih ve on numaralı tezkire-i aliye-i asafaneleri cevabıdır. Mukaddema Tophâne-i Âmireye ita olunmuş olan Dersaadet elektrik imtiyâzı hakkında Tophânece bulunabilen evrak gönderilen memura teslimen irsal kılınmış olmakla Harbiye Dâiresi ifadesiyle beyân hale ibtidar olundu. Ol babda emrû ferman hazret-i men lehül emrindir.

10 Cumadelahire sene 327 ve 8 Haziran 325

Tophâne-i Âmire Nazırı Ferik bende Mustafa Zeki

p. 4

Nezâret-i Umur-ı Ticaret ve Nâfia

Harbiye Nezâret-i Aliyyesine, Şehremânet-i Aliyyesi'ne,

1 Haziran 325 ve 25 Cemaziyelahir 327

Dersaadet elektrik müessesatı imtiyâzı mukaddema Tophâne-i Âmire'ye ita olunmuş ise de devair-i devletin bu gibi imtiyâzâtı mevki-i fiile vaz etmelerinde müşkilat görüldüğü gibi bundan matlub olan netayic-i hasenede temin edilemediği sabit olduğundan Tophâne Nezâretinden istirdad edilen mezkur imtiyâz için şerait-i münasibe ve nâfia ile talib taharrisi lazım geleceği sebk eden arz ve işara cevaben varid olan 24 Mart sene 325 tarihli ve 43 numaralı tezkire-i samide bildirilmiş ve imtiyâz şerait-i umumiyesinin emânet-i aliyyelerinin rey ve tensibine göre tayini ve bu babda cihet-i askeriyyenin de mütâalasının istihsarı tabii bulunmuş olup *ancak* hususat-ı mezburenin bilmuhabere kararlaştırılması hayli zamana mütevakıf olarak menafi-i umumiyyeye müteallik olan müessesat-ı mezburenin hin-i fiile gelmesine tehir edeceği cihetle keyfiyetin nezâret-i acizide müteşekkil bir komisyon marifetiyle bidtedkik şartnâme-i umumiyesinin tanzîmi mucib-i maslahat bulunmuş olmakla Haziranın dördüncü Penşembe günü saat altıbuçuk raddelerinde içtima edecek olan işbu bu komisyon Şehremânetine Emânet-i aliyyelerinden bir idare ve bir fen memurunun Nezâret-i Aliyyeleri Erkan-ı Harbiye zabitanından birinin tayin ve izamına müsaade buyrulması babında fi 27 Mayıs sene 325.

Nâfia Nezâreti'nde müteşekkil bir komisyon marifetiyle bidtedkik şartnâme-i umumiyesinin tanzîmi mucib-i maslahat bulunmuş olmakla Haziranın dördüncü Penşembe günü saat altıbuçuk raddelerinde içtima edecek olan işbu bu komisyon Şehremânetine Emânet-i aliyyelerinden bir idare ve bir fen memurunun Nezâret-i Aliyyeleri Erkan-ı Harbiye zabitanından birinin tayin ve izamına müsaade buyrulması babında fi 27 Mayıs sene 325.

p. 5

Ticaret ve Nâfia Nezâret-i Aliyyesi'ne,

Atufetlü Efendim Hazretleri,

Tenvîrat-ı umumiye ve hususiyede ve alel umum kuvva-yı muharrikede ? telli veya telsiz telgraf ve telefonda maada ihtiyacat-ı sairede istimal edilmek ve merbutan takdim kılınan haritada kırmızı mürekkebe ile çizilen hatt-ı hudud dahilindeki mıntıkada yani Boğaziçinin Karadeniz medhalinden bed ile Rumeli cihetinde Küçükçekmecenin ilerisinde ve Anadolu cihetinde adalar ve Pendik dahi olduğu halde Pendike kadar Dersaadet belediyesi ile civar-ı mahallat ve kasabatda kabil-i tatbik olmak ve safi ve gayri safi hasıllattan Hükümet-i seniyyenin hissesi bulunmak şartı ile 99 sene müddetle kuvve-i elektrikiye istihsal ve furuhtu imtiyâzı talep ve istidaya cüret ve işbu arzuhal-i acizaname merbutan mukavelenâme ve şartnâme layihalarıyla itibar-ı mali şهادetnamesinin ki ceman dört kıta evrakın takdimine mübaderet eylerim. Ol babda emrû irade hazret-i men lehül emrindir.

Sabık Şûrâ-yı Devlet azasından Cemal

27 Mayıs 325

p. 5a

Nâfia İdaresi'ne,

27 Mayıs 325

Dersaadet tramvaylarının cerri ve şehrin elektrikle tenvîri için verilecek imtiyâzın şeraiti kararlaştırılmak ve tanzim edilecek şartnâme badehu ilan edilerek zuhur edecek ve evsaf-ı lazimeyi haiz olacak talipler arasından bilmüsabaka en nafi şeraiti ilaveten kabul edecek olana imtiyâz verilmek üzere şimdiden bir komisyonun teşkili ve bunlara Harbiye Nezâretinden bir Erkan-ı Harbiye zabiti ve Şehremânetinden bir idare ve bir fen memuru ve Nezâret-i aliyyelerinden de acizleri ile beraber fen ve hukuk müşavirliğinden birer memur bulundurulması münasib mütalaa kılınmakda

olub keyfiyet 14 Mayıs 325 tarihli takrir ile dahi arz edilmiş olmakla ol vechile icra-yı icabı menut-ı rey-ı ali-i nezâret penahileridir. Ol babda emrû ferman hazret-i men lehül emrindir.

28 Mayıs 325, Nâfia Müdiriyeti

Harbiye Nezâreti ve Şehremâneti'ne tezkire, 31 Mayıs

p. 7

Ticaret ve Nâfia Nezâret-i Aliyyesi'ne,

Sayı: 43

Atufetlü Efendim Hazretleri,

Boğaziçi'nden Mezar Burnu'na kadar Rumeli sevhili dahil olmak üzere Tophâne ve Beyoğlu cihetiyle İstanbul tarafının elektrikle tenvîri ve mevadd-ı muharrikeye muhtaç olan müessesat ve sanayiye muktezi kuvve-i elektrikiyyenin istihsal ve fûruhtu hakkında Tophâne-i Âmire Nezâretine ita olunup henüz mevki-i fiile vaz edilmemiş olan imtiyâzın Nezâret-i müşarûnileyhadan bilistirdad en ziyade temin-i muhasenat ve fevaid edecek talibine ihalesi zımnında mezuniyet itası lüzumuna dair varid olan tezakir-i atufileri evrak-ı müteferria meclis-i mahsus-ı vûkelada ledelmütalaa bu misüllü imtiyâzın devair-i hükûmete ihalesi, maksadı temin edemeyeceği ticaret-i vakıa ile ispat olunduğundan Tophâne ve diğer devair-i askeriye fabrikalarının muhtaç olduğu kuvve-i muharrike için muktezi kuvve-i elektrikiyye ile Şehremâneti için dahi bir menfaat temin olunmak üzere talip olanlar ile bilmûzakere karalaşdırılacak şeraitin inbası hususunun nezâret-i Aliyyelerine işarı tezekkür kılınmış olmakla ber vech-i tezekkür ifa-yı muktezasına himmet olunması siyakında tezkire-i muhlisi terkîm kılındı.

15 Rebiyyûlahir sene 324

24 Mart 325

Sadrazam Cevat?

p. 8

Nezâret-i Umûr-ı Ticaret ve Nâfia

Sayı: 237

27 Kanun-ı sani sene 324

Şehremânet-i Aliyyesi'ne,

15 Kanun-ı sani sene 324 tarihli ve 87 numaralı tezkire-i aliye-i emânet penahilerinin cevabıdır. Boğaziçinin Sarıyere kadar Rumeli ciheti sevhili dahil olmak üzere Tophâne ve Beyoğlu cihetiyle İstanbul tarafının elektrikle tenvîri ve kuvve-i muharrikeye muhtaç olan müessesat ve sanayiye muktezi kuvve-i elektrikiyyenin fûruhtu imtiyâzı Tophâne-i Âmire Nezâretine ita buyrulmuş ise de imtiyâz-ı mezkur henüz mevki-i fiile vaz edilmemiş olduğundan Nezâret-i müşarûnileyhadan bilistirdad en ziyade temin-i muhasenat ve fevaid edecek olan talibine usul ve nizamı vechile ihalesi için nezâret-i aciziye (nâfia nezâretine) mezuniyet itası resen ve tekkiken bab-ı Ali Canib-i Samisine arz ve işar bulunmuş ve henüz emr-i cevabisi vûrud etmemiş ve alınacak emir ve mezuniyet üzerine nezâret-i acizice iktizasına bittevessül emânet-i aliyyelerine de malumat itası tabii bulunmuş olmakla ol babda.

p. 9

Nâfia ve Ticaret Nezaret-i Aliyyesi'ne,

Atufetlü Efendim Hazretleri,

Galata ve Beyoğlu ve Şişli ve Nişantaşı cihetleriyle Boğaziçi'nin Rumeli sahilinden Büyükdere'ye kadar olan mahallerin havagazı ve elektrikle tenvîri için hasılat-ı safiyeye emânet bir nisbet-i muayenede iştirak etmek üzere imtiyâz-ı tamme projejesini tedkike ve tekalifata ve şeraiti beyâna şirket hazır bulunduğundan bahisle icra-yı icabı hakkında Üsküdar ve Kadıköy Gaz Şirketi Direktörlüğünden varid olan takrir meclis-i emânete ledel havale mezkur imtiyâzın Tophâne Nezaret-i tarafından idare edilmekte olan Gazhane İdaresine verildiği haber alınmış olduğundan bu yolda bir imtiyâz verilip verilmediğinin evvel-i emirde sui ali-i nezaret penahilerinden lüzum-ı istlamı ifade kılınmakla keyfiyetin inbasına müsaade buyrulması babında emrû irade hazret-i men lehül emrindir. 5 Muharrem 327 ve 15 Kanun-ı sani 324.

Şehremini

Rıdvan, Resul ???

p. 10

Nezâret-i Umûr-ı Ticaret ve Nâfia

22 Kanun-ı sani sene 324 ve 12 Muharrem 327

Huzur-ı sami-i sadaret penahiye,

Tramvay Şirketi ahurlarında mevcut bulunan top cerri için kabliyet ve kuvve-i tahmiliye-i matlubeyi haiz olan yediyüzelli rees bargiri cihet-i askeriyyeye terk ve teberrua hazır bulunduğundan bahisle buna mukabil yalnız kendi arabalarının cerri için muktezi elektrik kuvvetinin istihsaline mahsus bir fabrikanın inşası hak ve müsaadesinin şirkete bahş ve itası hakkında bazı ifadatı mutazamnın Dersaadet Tramvay Şirketi Müdiriyeti'nden verilen varakanın leffiyle Harbiye Nezâret-i Celilesinden alınan tezkirenin gönderildiği beyân-ı alisiyle vaki olacak mütalaa-i acizinin arz ve inbasını ? ? piran-ı tanzîm olan 2 Kanun-ı sani sene 324 ve 284 numaralı tezkire-i sami-i sadaret penahileri mütalaa güzar-ı acizi olduğu Boğaziçinin Sarıyer'e kadar Rumeli ciheti sevahili dahil olmak üzere Tophâne ve Beyoğlu cihetiyle İstanbul tarafının elektrikle tenvîri ve mevadd-ı muharrikeye muhtaç olan müeessesat ve sanayiye muktezi kuvve-i elektrikiyyenin istihsal ve fûruhtu imtiyâzı Tophâne-i Âmire Nezaretine ita olunmuş ve henüz mevki-i fiile vaz edilmemiş olan mezkur imtiyâzın nezaret-i müşarünileyhadan bilistirdad usul ve nizamı vechile talibine ihalesi için nezaret-i aciziye mezuniyet itasına dair 25 Ağustos sene 324 ve 9 Kanunevvel sene 324 tarihli tezâkir-i çakeri ile sebk eden maruzat-ı acizanemin henüz irade-i cevabiyesi şeref zuhur etmemiş olmasına muallak bulunmasına nazaran icra-yı iktizası merhun-ı irade-i ali-i fahimaneleri bulunmuş ve tezkire-i mebhuse melfufuyla beraber matluben iade kılınmış olmakla emrû ferman hazret-i men lehül emrindir.

p. 11

Ticaret ve Nâfia Nezâret-i Aliyyesi'ne,

Atufetlü Efendim Hazretleri,

Tramvay Şirketi ahurlarında mevcut bulunan top cerri için kabliyet ve kuvve-i tahmiliye-i matlubeyi haiz olan yediyüzelli rees bargiri cihet-i askeriyyeye terk ve teberrua hazır bulunduğundan bu mukabil yalnız tramvay arabalarının cerri için muktezi elektrik kuvvetinin istihsaline mahsus bir fabrikanın inşası hak ve müsaadesinin şirkete bahş ve itası hakkında bazı ifadatı mutazamnın Tramvay Şirketi

Müdiriyyetinden verilen varakanın leffıyla Harbiye Nezaret-i Celilesi'nden alınan 18 Zilhicce sene 326 tarihli ve 2231 numaralı tezkire melfufuyla savb-ı atufilerine tesyar kılınmış olmakla vaki olacak mütalaa-i aliyyelerinin inbası ve melfufun iadesini himmet olunması siyakında tezkire-i muhlisleri terkim kılındı.

22 Zilhicce sene 326 ve 2 Kanun-i Sani 324

Sadrazam Kamil Paşa

p. 12

Nezâret-i Umûr-ı Ticaret ve Nâfia

Huzur-ı Sami-i Sadaret Penahiye,

9 Kanun-ı sani 324 ve 28 Zilkade 326

Boğaziçi'nin Sarıyer'e kadar Rumeli ciheti sevhili dahil olmak üzere Tophâne ve Beyoğlu cihetiyle İstanbul tarafının elektrikle tenvîri ve mevadd-ı muharrikeye muhtaç olan müessesat ve sanayiye muktezi kuvve-i elektrikiyyenin istihsal ve fûruhtu hakkında Tophâne-i Âmireye ita olunub henüz mevki-i fiile vaz idilmemiş olan imtiyâzın nezaret-i müşarunileyhaden bilistirdad en ziyade temin-i muhassenat ve fevaid edecek olan talibine usul ve nizamı vechile ihalesi için nezaret-i aciziye mezuniyet itasına dair 25 Ağustos 324 tarihli tezkire-i acizi ile sebk eden arz ve istizan-ı çakeranemin henüz cevap-ı alisi şeref zuhur etmemiş ve işbu muamele-i tenvîriye için bir çok taraflardan müracaatla şerait-i nâfia dermiyan olunmakta bulunmuş olmağla ber vech-i arz işar-ı sabık-ı acizi iktizasının surat-i emir ve inbası merhun-ı irade-i aliye-i fahimaneleridir. Ol babda.

p. 13

Nezâret-i Umûr-ı Ticaret ve Nâfia

Bab-ı Aliye

17 Şubat sene 324 ve 9 Safer sene 327

Boğaziçi'nin Mezar Burnu'na<sup>772</sup> kadar Rumeli ciheti sevhili dahil olmak üzere Tophâne ve Beyoğlu cihetiyle İstanbul tarafının elektrikle tenvîri ve mevadd-ı muharrikeye muhtaç olan müessesat ve sanayiye muktezi kuvve-i elektrikiyyenin istihsal ve fûruhtu hakkında Tophâne-i Âmire Nezaret-i' ne ita olunup henüz mevki-i fiile vaz edilmemiş olan imtiyâzın nezaret-i müşarunileyhaden bilistirdad en ziyade temin-i muhassenat ve fevaid edecek olan talibine usul ve nizamı vechile ihalesi için nezaret-ı aciziye mezuniyet itasına dair fi 25 Ağustos sene 324 ve 9 Kanun-ı evvel sene (aynı) 324 tarihli tezakar-i acizi ile sebk eden arz ve istizan-ı çakeranemin henüz cevap-ı alisi vürud etmemiş ve işbu muamele-i tenvîriye için bir çok taraflardan müracaatla şerait-i nâfia dermiyan olunmakda bulunmuş olmakla ber vech-i arz işar-ı sabık-ı acizi iktizasının sûrat-ı emir ve inbası merhun-ı irade-i aliyye-i fahimanlerindir.

p. 14

Boğaziçi'nin Sarıyer'e kadar Rumeli ciheti sevhili dahil olmak üzere Tophâne ve Beyoğlu cihetleriyle İstanbul tarafının elektrikle tenvîri ve mevadd-ı muharrikeye muhtaç olan müessesat ve sanayiye muktezi kuvve-i elektrikiyyenin istihsal ve fûruhtu imtiyâzı makam-ı sami-i sadaret penahilerinden şeref tevarüd eden 15 Zilkade sene 324 tarihli tezkire-i samiye ile tebliğ buyrulan irade-i seniyye-i hazret-i padişahi mucbince Tophâne-i Âmire nezaretine ihale kılınmış ve nezaret-i

<sup>772</sup> See the postcard of Mezar Burnu in Appendix.

müşarunileyhaden irsal olunan ol babdaki mukavele ve şartnâme lâyhaları nezareti aciziye 15 safer sene 325 tarihli tezkire ile makam-ı sami-i fahimanelerine takdim takdim edilmiş ise de şimdiye kadar bu işe bir netice-i fiiliye verilerek keyfiyeti ala halihi metruk kalmış ve malum-ı ali-i düsturîleri olduğu üzre bu gibi umûr-ı nâfiaya müteallik olub tekamül-i medeniyet ve terakki-i ticaret için saik-i yegane bulunan hususâtın gerek mevki-i fiile ve vaz'ının gerek işedilmesinin şirketlere ihalesi mucib-i muhassehat bulunduğ gibi memalik-i mütemeddine-i sairede dahi mukabîl teşebbüsât-ı nâfia şirketlere tevdi olunarak hükümet ve memlekete istifade-i külliye temin edilmekte bulunmuş olduğundan ve işbu muamele-i tenvîriye için bir çok taraftan müracaatla şeraiti-i nâfia gösterilmekte idüğünden tensib-i sami-i daverileri buyrulduğu takdirde imtiyâz-ı mezkur ceraid ile ilan-ı keyfiyet edildikten sonra en ziyade temin-i muhassehat edecek talibine fevaid olan usul-ı nizamı vechile ihalesi için nezâret-i acizizeye mezuniyet ita ve artık Tophâne-i Âmire nezaretinin bu işle alakası kalmayacağı cihetle oraya müracaat edecek taliblerin nezaret-i acizeye sevk edilmesi husussunun nezaret-i müşarunileyhaya emir ve inbası merhun-ı irade-i aliyeh-i fahimaneleridir. Emrû ferman.

p. 17

Boğaziçi'nin Sarıyer'e kadar Rumeli ciheti sevhili dahil olmak üzere Tophâne-i Âmire ve Beyoğlu ile İstanbul tarafının elektrikle tenvîri ve kuvve-i muharrikeye muhtaç olan müessesat ve sanayiye muktezi kuvve-i elektrikiyenin istihsali ve fûruhtu hakkında Tophâne-i Âmireye ihsanı buyrulan imtiyâza dair tanzîm ve Tophâne Müşiriyet-i celilesinden ba tezkire tesyir kılınmış olan mukavele ve şartnâme layihaların ba irade-i seniyye-i hazret-i mülûkane mevzu-ı mukavele ve şartnâme layihaları numunesiyle bi'l-mukayese tashihat-ı lazime icra kılındığından bahisle ifa-yı muktezasına dair fen müşavirlerinden verilen müzekkire üzerine Meclis-i Ticaret ve Nâfia'dan tanzîm ve ita kılınan mazbata mezkur layihaların nüsha-i mübeyyizeleri ile beraber leffen takdim kılınmış ve tadilat ve tashihat-ı vâkıa layihalarda surh ile gösterilmiş olmakla ol babda.

Fi 14 safer 325 ve Fi 17 mart 323

p. 17a

Tophâne ve Beyoğlu cihetiyle İstanbul tarafının elektrikle tenvîri ve kuvve-i muharrikeye muhtaç olan müessesat ve sanayiye muktezi kuvve-i elektrikiyye istihsal ve fûruhtu imtiyâzı ba irade-i seniyye hazret-i padişah Tophâne-i Âmireye ihsan buyrulmuş olduğundan ol babdaki imtiyâz şeraitini havi Tophâne-i Âmire Müşiriyet-i Celilesi'nden tanzîm olunub müşiriyet-i müşarunileyhanın 5 Mart sene 323 tarihli ve iki numaralı tezkiresiyle makam-ı nezaret-i celile-i asafanelerine irsal olunan mukavele ve şartnâme layihaları ba irade-i seniyye-i hazret-i şehriyari mevzu-ı mukavele ve şartnâme layihalarıyla tatbîk ve mukayese ve ol babda surh ile bazı tashihat icra edilerek leffen takdim-i huzur-ı sami-i cenab-ı nezaret penahileri kılınmış olmağla muvafık-ı rey-i ali-i asafaneleri buyrulduğu takdirde mezkur layihaların tedkik ve mütalaa olunmak üzere Meclis-i Ticaret ve Nâfia'ya havale buyrulması babında emrû ferman hazret-i men lehül emrindir.

Serian Meclis-i Ticaret ve Nâfia

Fi 12 Mart 323

(Fen müşaviri Sururi'den Ticaret ve Nâfiaya)

Nezâret-i Umûr-ı Ticaret ve Nâfia

Tophâne-i Âmire Müşiriyet-i Celilesi'ne,

25 Kanun-ı sani 322 ve 24 Zilhicce 324

Memalik-i sairede usul-i tenvîriyece hasıl olan terakkiyat-ı hazıranın Dersaadette dahi tatbîkiyle emr-i tenvîrin pay-i taht-ı saltanat-ı seniyyenin şerefine layık bir surette ifrağı münasib ve mea haza buna muktezi kuvve-i elektrikiyyenin hükümet-i seniyyece istihsalı emniyeti ve kuvve-i mezkurenin kuvve-i muharrike suretinde dahi istimali istifadeyi mucib olacağına binaen Boğaziçinin Sarıyer'e kadar Rumeli ciheti sevahili dahil olmak üzere Tophâne ve Beyoğlu cihetiyle İstanbul tarafının ber-minval-i muharrer elektrikle tenvîri ve kuvve-i muharrikeye muhtaç olan müessesat ve sanayiye muktezi kuvve-i elektrikiyyenin istihsal ve fûruhtu imtiyâzının Tophâne-i Âmire namına ihalesi ve şerait-i lazime takrir olunarak ona göre tanzîm olunacak mukavelenâme ve şartnâme layihalarının alel usul tedkik olunmak üzere irsalinin nezarete havalesi hususuna meclis-i mahsus-ı vükela kararıyla bi'l-istizan irade-i seniyye-i cenab-ı hilafet penahi şeref-müteallik buyrularak savb-ı sami-i müşiranelerine de malumat verildiği beyân-ı alisiyle ber-minval-i muharrer iktizasının ifa ve inbası 18 Kanun-ı evvel sene 323 tarihli tezkire-i samiyede emir ve işar buyrulmuş Dersaadet tramvay şirketi imtiyâz müddetinin temdidine dair ve yine meclis-i mezkur kararıyla bilistizan şeref sudur buyrulan irade-i seniyye-i hazret-i padişahiye manzur-ı münifi üzere tanzîm ve teati kılınan mukavelenâmenin 11. maddesi ilerüde hükümet-i seniyyece tramvay arabalarının kuvve-i elektrikiyye ile cerrine müsait yani ? bulunmuş ne vechile muamele olunacağını ? bulunmuş olduğu gibi bir de tünel şirketi haiz olduğu imtiyâz mukavelenâmesine müsteniden elektrik kuvvetinin istimali hususunda hakk-ı rüçhan iddiasında olup vakia mezkur tünel şirketi şartnâmesinin 31. maddesinin hükmü tünelin hatt-ı tavassutundan itibaren ikişer kilometre mesafe dahilinde veyahud İstanbul'da sabit makine ile cer olunup bu nev demir yol inşasına ruhsat veyahud imtiyâz ita buyrulduğu halde sahib-i imtiyâzın şerait-i mütesaviye ile hakk-ı rüçhanı olacaktır deyu muharrer olmasına mebni sabit makineden maksad tünel makinesi tarzında bir demir yol olmak lazım geleceğinden ledel hace şirketin müddeiatına karşı bu surette müdafaa edilebilir ise ve tefsir-i ukuda taalluk eden şu meselenin hükümet-i seniyye ile Tünel Şirketi arasında bir dava teşkil edebileceği mülahazasına nazaran hükümet-i seniyyece atiyen mazarrat terettüb etmemek üzere ileride hükümet-i seniyyece tramvay arabalarının elektrikle cerri tensib buyrulduğu halde ol vakit Tramvay Şirketi ile bilmüzakere ittihaz-ı karar olunacağı sırada Tünel Şirketinin müddeiat-ı vakiasından her ne suretle olur ise olsun Tünel Şirketi haklı çıkar ise bundan dolayı terettüb edecek netayic Tramvay Şirketine aid olup Tramvay Şirketine bu yüzden hükümet-i seniyyeden bir şey ? (istegine) hakkı olmayacağı tasrihan ve muvafakatını binaen Tramvay Şirketinden bir beyânname alınması muvafık-ı kaide-i ihtiyat olacağından bu cihetin dahi ilaveten teblîği hususunun cümle-i mukarreratdan olduğu Meclis-i Mahsus-ı Vükela'dan bittanzîm irade-i seniyye-i hazret-i hilafet penahi ihtiran? eylemiş olan ve bir sureti cihet-i Bab-ı Ali'den Nezaret'e irsal buyrulmuş olan mazbata cümle-i mündericâtından bulunmuş olduğundan mezkur mukavelenâmenin ve saliffu'z-zikr karar-ı ali mucebince ileride Tramvay Şirketi ile bilmüzakere ittihaz-ı karar olunacağı sırada şirket-i mezkurdan alınacak beyânnamenin nezaret heyet-i hukukiyyesince tanzîm ettirilen müsveddesinin bir suret-i musaddakası leffen tesyir-i suy-ı ali-i müşiraneleri kılınmış olmakla mezkur tramvay arabalarının kuvve-i elektrikiyye ile cerri hükümet-i seniyyece tensib buyrulduğu halde ol babda müşiriyet-i celile ile mezkur tramvay şirketi beyinde bilmüzakere ittihaz-ı karar olunacağı sırada marûl beyân müsveddeye tatbikan şirketten bir beyânname alınması cihet-i nezarete irsali zımnında icab edenlere evamir-i muktezi itasına himem-i sami-i asafaneleri derkar buyrulamak babında

p. 31

Ticaret ve Nâfia Nezâret-i Celilesi'ne,

Devletlü Efendim Hazretleri,

Memalik-i sairede usul-i tenvîriyece hasıl olan terakkiyat-ı hazıranın Dersaadette dahi tatbîkiyle emr-i tenvîrin pay-i taht-ı saltanat-ı seniyyenin şerefine layık bir surette ifrağı münasib ve mea haza buna muktezi kuvve-i elektrikiyyenin hükümet-i seniyyece istihsalı emniyeti ve kuvve-i mezkurenin kuvve-i muharrike suretinde dahi istimali istifadeyi mucib olacağına binaen Boğaziçinin Sarıyere kadar Rumeli ciheti sevhili dahil olmak üzere Tophâne ve Beyoğlu cihetiyle İstanbul tarafının ber-minval-i muharrer elektrikle tenvîri ve kuvve-i muharrikeye muhtaç olan müessesat ve sanayiye muktezi kuvve-i elektrikiyyenin istihsal ve fûruhtu imtiyâzının Tophâne-i Âmire namına ihalesi ve şerait-i lazime takrir olunarak ona göre tanzîm olunacak mukavelenâme ve şartnâme layihalarının alel usul tedkik olunmak üzere irsalinin nezaret-i celilerine havalesi hususuna meclis-i mahsus-ı vükela kararıyla bi'l-istizan irade-i seniyye-i cenab-ı hilafet penahileri şeref-müteallik buyrularak Tophâne-i Âmire Müşiriyeti celilesine de malumat verilmiş olmakla ber-minval-i muharrer iktizasının ifa ve inbasına himmet buyrulması siyakında tezkire-i senaveri terkim kılındı efendim.

Fi 15 Zilkade sene 324 ve Fi 18 Kanun-ı evvel sene 322

Sadrazam Ferid (Avlonyalı Ferid Paşa?)

p. 32

Tophâne-i Âmire Müşiriyeti, Mektubi Kalemi

Ticaret ve Nâfia Nezâret-i Celilesi'ne,

Devletlü Efendim Hazretleri,

Memalik-i sairede usul-i tenvîriyece hasıl olan terakkiyat-ı hazıranın Dersaadette dahi tatbîkiyle emr-i tenvîrin pay-i taht-ı saltanat-ı seniyyenin şerefne layık bir suretle ifrağı münasib ve mea haza buna muktezi kuvve-i elektrikiyyenin hükümet-i seniyyece istimali emniyeti ve kuvve-i mezkurenin kuvve-i muharrike suretinde dahi istimali istifade-i mucib olacağına binaen Boğaziçinin Sarıyere kadar Rumeli ciheti sevhili dahil olmak üzere Tophâne-i Âmire ve Beyoğlu ile İstanbul tarafının ber-minval-i muharrer elektrikle tenvîri kuvve-i muharrikeye muhtaç olan müessesat ve sanayiye muktezi kuvve-i elektrikiyyenin istihsal ve fûruhtu imtiyâzının Tophâne-i Âmire namına ihalesi ve şerait-i lazime takrir olunarak ona göre tanzîm olunacak mukavelenâme ve şartnâme layihalarının alelusul tedkik olunmak üzere irsalinin nezaret-i celilerine havalesi hususuna Meclis-i Vükelâ kararıyla bilistizan seniyye-i hazret-i hilafet penahi şeref taalluk buyrularak savb-ı vala-ı nezaret penahilerine teblîği keyfiyet edildiği makam-ı sami-i cenab-ı sadaret penahiden şeref tevarüd 17 kanun-ı evvel 322 tarihli tezkire-i samiden emir ve işar buyrulması üzerine nezaret-i Celileleriyle bilmüzakere tanzîm olunan mukavele ve şartnâmeler leffen takdim kılınmakla ferman-ı alisinin ısdar ve bu canibe irsali emrinde iktiza-yı halin ifasına himem-i celile-i düsturileri şayan buyrulmasının Tophâne-i Âmire Meclis-i Harbiye İdaresi ifadesiyle beyânına ibtidar kılındı. Ol babda emr-ü ferman hazret-i men lehül emrindir.

Fi 33 Safer 324 ve Fi 5 Mart sene 323

Yeveran-ı hazret-i şehriyariden Tophâne-i Âmireleri ve Umum-ı Mekatib-i Askeriye-i şahaneleri nazırı

Bende

Zeki

## 6. COA, DH.İD 215/3, 1332 B 25 (19 June 1914)

Bab-ı Ali

Dâire-i Sadaret

Tahrirat Kalemi

Umumi 321 924 Hususi 564

Dahiliye Vekâleti Nezâret-i Celilesine

Dersaadete aid olmak üzere mukaddema virilen imtiyâzatın hisse-i temetuu hakkında Devletli Efendim Hazretleri,

Pay-i tahta aid olmak üzere mukaddema virilen imtiyâzat eshabından mukavelat-ı münakide ahkamına tevfikân hazinece istifa edilmekte olan husus-ı temettuun şehremânetine devir ve terki hakkında devair-i müteallikasıyla alakalı cereyan iden muhaberat ve Şurâ-yı Devletçe ittihaz olunan mukarrerat üzerine sebk eden işara cevaben maliye nezâret-i celilesinden varid olub Meclis-i Vükelâda mütalaa olunan tezkirede tasrih olunduğu üzere Şurâ-yı Devletçe menafinin beledieyelere aidiyeti beyân idilen şehir dahilindeki müessesat-ı nâfiadan tramvay, gaz ve su şirketleri hasılat ve varidatına Şehremânetinin nisbet-i muhtelif ve muaayenede iştiraki ahkam-ı mukavelat iktizasından olub yalnız Galata Beyoğlu Tünel Şirketi hasılat-ı safiyesinden yüzde birbuçluğu hükümete aid bulunmakda ve bu hisse-i menfaat el yevm şirketin hazinedeki matlubuna mahsub idilmekte olarak ancak ol babdaki temdid mukavelenâmesi hükmünce müddet-i hazıra-ı imtiyâziyenin tarih inkızası olan 1917 senesinden itibaren hükümet ve tesisat-ı askeriye hisseleri olarak şirket-i mezkure hasılat-ı safiyesinden alınacağı anlaşılan senevi takriben bin1157 lira ve el yevm Beyoğlu mevkii üzerinde inşaata ibtidar olunan akar binadan dolayı da ayrıca senevi takriben 127 lira alsa minhaysülmecmu 1284 lira hisse-i menafîin tarih-i mezkurdan itibaren emânet-i müşarünileyhaya terk ve devri zımmında şura-yı devletçe şehremânetine aid müessesat miyanına idhal kılınmış olan şirket-i mezkure temdid mukavelenâmesinin alel usul tadil ve tashihi ve emânetçe komiser nasb ve tayini icab idecek şirketlerden ücret-i teftişîye ve murakebe olarak ahz olunub varidat bütçesine dahil bulunan mebalîğden hükümetçe mansub komiserlere virilen maaşatın mukabili tenzil idildikten sonra mütebakisinin da kezalik emânet-i müşarünileyhaya itası zımmında icab iden madde-i kanuniyyenin tanzîmi bittensib nezâret-i müşarünileyhaya ve nâfia nezâret-i celilesine tebligat icra olunmakla vekâleti celilelerince de iktizasının ifası siyakında tezkire-i senaveri terfim kılındı efendim.

Fi 25 Receb sene 1332 ve 7 Haziran 133

Sadrazam namına

Müsteşar Emin

**7. CCA, NV 34E/22 230-0-0-0 20 2 10**

1 Ağustos 1325

Dersaadet ve bilad-ı selasede (Üsküdar-Galata-Eyüp) umûr-ı tenvîriye ve cerriyede istimal edilmek üzere elektrik tesisi imtiyâzı talebine dair

Ticaret ve Nâfia Nezareti celilesine,

Maruz-ı bendeleridir ki,

Dersaadet ve bilad-ı selasede umûr-ı tenvîriye ve cerriyede istimal edilmek üzere elektrik tesisi arzusunda bulunduğumuzdan ve buna mukabil nizamen ibrazı lazım gelen itibar-ı mali şahadetnamesiyle teminat akçesinin dahi hazır ve amade bulundurduğumuzdan bu babda icab eden muamelesinin ifa buyrulması ile imtiyâzının uhde-i çakerename ita buyrulmasını istirham eylerim. Ol babda emru ferman hazret-i menlehul emrindir.

Pol Picard



## 8. COA ŞD. 1231/24, 1328 L 8 (13 October 1910)

pp. 1-6

Şûra-yı Devlete mahsus müsvedde varakası

30 Eylül 1326

Mazbata

Boğaziçi'nin Mezar Burnu'na kadar Rumeli sevhili dahil olmak üzere Tophâne ve Beyoğlu cihetiyle İstanbul tarafının elektrik ile tenvîri ve telefon ve telgraf ve vesait-i nakliye-i umumiyyenin gayri hususatda elektriğin kuvve-i muharrike olarak istimali imtiyâzının bilmünakasa ihalesine aid mevadd-ı esasiye ve şerait-i nâfiayı şamil ve münakasa muamelatını mübeyyin olarak bittanzîm Şûrâ-yı Devlet ve Meclis-i Mahsus-ı Vükelaca tedkik olunan talimat ve şerait-i fenniyyeyi mutazammın nizamnâme ve şartnâme layihaları mucebince cereyan eden muameleden bahisle mezkur imtiyâzı dahil-i müsabaka olan sekiz müesseseden Macaristan'da vaki Gans Elektrik Anonim Şirketi'ne ihalesine dair Ticaret ve Nâfia Nezâreti'nin Eylül 326 tarihli ve 144 numaralı tezkiresi ve merbutu ile zikr olunan imtiyâz hakkında icra kılınan münakasaya vekil bulunduğu İsviçre Sendikası namına iştirak ve tayin edilen müddet zarfında projesini bilita bu babdaki tafsilat-ı teferruat-ı saireyi havi izahnameleri dahi Nezârete irsal etmiş olduğu halde münakasa komisyonu bunları kabûlden istinkaf ederek menafi-i hazine zarara uğratıldığına ve bu suretin ihtiyari ? hukuklarını da mucib olduğuna dair bazı ifadeyi ve müstediati havi J. V? imzasıyla takdim olunan arzuhal üzerine sebk eden işar-ı samiye cevaben Nezâret-i müşarunileyhaden mütekaddim 25 Ağustos sene 326 tarihli tezkire ve bu ve bu hususa müteallik evrak-ı saire Şûrâ-yı Devlete havale buyrulmakla keyfiyetin dâirece tedkikini müstedi ahiren mezkur sendika ile Şnayder ve şûrekası tarafından verilen arzuhal ile birleştirilerek Nâfia ve Maarif ve Maliye Dâiresi'nde kıraat ve tedkikat-ı lazime icra olundu.

Nezâret-i müşarunileyhanın hûlasa-ı işaratı şerait-i münakasa ber muceb-i talimat Dersaadet ve Avrupa Gazeteleriyle ilan kılınması üzerine bir imtiyâza talip olan sermayedaran salifulzıkr lâyhalar ahkâmına tevfiikan teklifat ve proje ve evrak-ı müteferria-i sairelerine bittanzîm münakasa talimatının mevadd-ı mahsusasında muharrer şerait dâiresinde Nezârete tevdi etmeleriyle bunlardan her birinin iktidar-ı mali ve fennisi ve teklifatın mahiyet-i fenniye ve iktisadiyesi ve şerait-i mukarrereye derece-i mutabakatı keza mezkur talimat ahkâmına ibtinaen teşekkül eden fen ve münakasa komisyonlarınca biletraf mütalaa ve tedkik olunarak zikr olunan komisyonlarca en mühim müessesat-ı maliye ve fenniyede bulundukları tebeyyün edib dahil-i müsabaka olan sekiz müesseseden Macaristan'da vaki Gans Elektrik Anonim Şirketi şeraitinin diğerlerine haiz-i rüçhan olduğu taayyün ve imtiyâzın şirket-i mezkureye ihalesi takarrur ettiğinden ve münakasa talimatı ahkâmı vechile münakasaya hitam verildikten sonra taraf-ı Nezâret'den vaki olan teşebbüs ve teşvikat üzerine teklif-i evveliyeye zamimeten ahalinin ve Şehremâneti'nin menfaatine olarak fevaid-i cedide teminine şirket-i mezburenin muvafakatı istihsal kılınmış olduğundan mücerred işbu mevadd-ı asriye-i munzamayı tasrihan ayrıca bir de mukavelenâme tanzîmine mecburiyet hasıl olduğu ve müsabıklar miyanında bulunub fen komisyonunca teklifatı nazar-ı dikkate alınmadığı cihetle makam-ı sami-i sadaret penahiye müracaat ve şikayatda bulunmuş olan İsviçre Sedikasına gelince ol babda münakasa komisyonundan tittifak-ı ara ile tanzîm kılınan zabıtnamede gösterildiği vech ile mezkur sendika tarafından verilen 9 Ağustos sene 1910 tarihli

mektubda şartnâme ahkâmına tevfikânı bilcümle evrakı tanzîm ve takdim etmiş ve bu miyanda kuvve-i miyahıyye ile işleyecek olan fabrikaların iktidar-ı elektrikiyyesi hakkındaki taahhüdâd dahi dahil bulunmuş iken Fen Komisyonu tarafından nazar-ı itibare alınan diğer projeler miyanında tasnif edilmediğinden ve mezkur komisyonca vaki olan talebe binaen ber vech-i muharrer kuvve-i miyahıyye ile işledilecek olan fabrikalara dair tanzîm kılınan projeyi takdime musarahat edildiğinden bahisle bundan mütevellid hukuku mahfuz kalmak kaydıyla işbu projenin Dersaadet elektrik imtiyâzı hakkındaki teklifat-ı evveliyesine mütememmimi add edilmesi istida olunub mektubun fıkra-i ahiresi sarahat-i kafiyyeyi gayri haiz ise de ruşen-i ifade zıkr olunan sendikanın saliful beyân mektubuna merbut bulunan dosyanın, imtiyâzın ihalesine karar verilmezden akdem nazar-ı itibare alınması ve teklifat-ı evveliyesinin mütememmimi olarak telakkisi lüzumu işrad etmekde (?) olarak bu da bilvücuş şayan-ı kabûl görülemeyib çünkü münakasa şeraitini mübeyyin talimatın birinci maddesinin ikinci fıkrasında “münakasa talibinin şartnâmenin bilhassa 3. maddesinde bazı muayyen hadd-i asgar ile beşinci maddesindeki müddet de nazar-ı itibare alınmak üzere merhum şartnâme ahkâmı dâiresinde icrasına muvafakat edeceği tesisat-ı ibtidaiye ameliyatının ehemmiyetine ve imtiyâz müddetinin ve tenvîrat-ı umumıyye için bila bedel ita ve ifa edeceği kavsi lambalar mikdarının adedine nazaran vuku bulacaktır” ber vech-i muharrer müsabakanın esaslarından? birini teşkil eyleyen tesisat-ı ibtidaiyye hakkında bir güne tereddüde mahal kalmamak üzere dahi madde-i mezkurenin üçüncü fıkrasında “bu babda şartnâmenin birinci maddesinde muayyen iki mıntıkadan beheri için icra kılınacak ameliyat-ı ibtidaiye projesi şartnâmenin dördüncü maddesine tevfikânı talibler tarafından tanzîm kılınacaktır” diye muharrer bulunmuş ve mezkur mıntikalara aid proje ve teklifatın talibler tarafından mümza olunduğu halde kararnamenin ikinci maddesinde gösterilen vesaika merbutan itası sart-ı ittihaz ve salifulzıkr kararnamenin dördüncü maddesinde dahi “teklifat-ı vakıanın müddet-i kabûlü 15 Mayıs 1326 / 28 Mayıs 1910 tarihinde ve ezani saat altıda hitam bulacağı ve esbab-ı teahhür her ne olur ise olsun ber vech-i bala tayin edilen tarih ve saatden sonra talibler tarafından vuku bulacak teklifatın kabûl olunamayacağı” tasrih kılınmış olduğundan şu halde mevadd-ı sabıkanın medlul? ve serahatine? karşı teklifatın müddet-i kabûlü için muayyen olan tarihten iki buçuk mah ve teklifat-ı vakıadan hangilerinin dahil-i müsabaka olacağı komisyonca alenen taliblere ihbar ve ilan edildiği tarihinden iki mah sonra mukaddema ita edilmiş olan dosyayı itmamen tevdi edilen dosyanın nazar-ı itibare alınamayacağı derkâr ve teklifat-ı havi evraka merbutan itası lazım gelen projelerin ne suretle tanzîm edileceğini mübeyyin olan şartnâmenin dördüncü maddesinde “verilecek evrak miyanında bilcümle alat-ı? müvellide ve muhavvile ile kudret-i elektrikiyye tevziine mahsus bilumum alatin münasib bir mikyasda resimleri bulunacağı” muharrer olmasına binaen madde-i mezbure müeddasınca kuvve-i miyahıyye ile işledilecek fabrika resimlerinin de teklifatı havi evrak ile beraber itası icab itdikden başka mezkur Sendikanın teklifat-ı evveliyesini havi 15 Mayıs 1326 / 28 Mayıs 1910 tarihinde tevdi eylediği evrakda kuvve-i miyahıyye ile işledilecek olan fabrikaların iktidar-ı elektrikiyyesine dair bir güne izahat ve teahhüdât mevcud omadığı cihetle teklifat-ı ahiresinde mezkur fabrikaların iktidar-ı elektrikisini irae ve bu hususu deruhde etmiş olduğu mutazamnın bulunan ifadatın mugayir-i hakikat olduğu gibi sendika tarafından dermiyan olunan teklifat-ı evveliyeyi havi varakada merbut planların tanzîminde buhar ile müteharrik bir fabrika tesis edileceğine nazaran hükümetin nazar-ı dikkatine? nokta-ı nazarına ve şartnâmenin ahkâmına ? edilmiş ise de İsviçre Sendikası müessesatın mümkün olduğu derecede tevessül ve tekemmüle müsaid? bir tarza ifrağı maksadını takip eylediğinden işe vüsat vermek üzere şerait-i atıyye dâiresinde kuvve-i miyahıyye istimali esasını kabul eylemediği teahhüd etmiştir merkezinde muharrer fıkra müeddatından mezkur sendikanın buhar ile müteharrik fabrika inşasına nazaran tanzîm eylediği projeyi esas ittihaz eylemek

suretiyle münakasaya dahil olduğu anlaşılmalı beraber mezkur varakada muharrer ve İsviçre Sendikasının vekili tarafından imza olan kuvve-i miyahıyye ile elektrik istihsaline müteallik müessesatın projelerini imtiyâzın uhdeme ihale edilmesi takdirinde beşinci maddede muharrer müddet zarfında yani imtiyâzın itası tarihinden itibaren altı ay müddet zarfında takdim eylemeyi teahhüd eylerim ibaresinden dahi sendikanın maksadı vazıhan? ve fabrikanın ne suretle tesis edileceğini ve cesameti ile derece-i ehemmiyetini neden ibaret bulunduğuna dair bir güne izahat bulunmadığı sarahaten ? kılınmakla taliblerden biri buhar ile müteharrik bir fabrika projesi takdim eyleyecek yerde 10 ila 15 bin kilovat kuvvetinde bir fabrika inşa eylemek teahhüdüyle iktifa? eylemiş olsa idi teklifatın kabulü cihetine gidilemeyeceği derkar olduğu gibi İsviçre Sendikası'nın teklifat-ı evveliyasını havi evrakda kuvve-i miyahıyye ile işleyecek olan fabrikanın cesamet ve derece-i ehemmiyeti zıkr ve irae edilmiş olsa dahi evrak-ı mezkure miyanında projesi bulunmadıkça mezkur fabrikanın nazar-ı itibare alınamayacağı aşıkâr bulunduğu beyânından ibarettir.

İstikraz-ı madde zımnında dâireye taleb ve davet olunan Nezâret-i müşarunileyha müsteşarı Hulusi Beyefendi tarafından dahi cereyan-ı muamele ber vech-i muharrer tafsil ve izah edildikten sonra keyfiyet vaz-ı mevki-i müzakere olundukda evvela İsviçre Sendikası'nın iddiası şayan-ı iltifat görülemeyib çünkü mezkur sendikanın teklifatında elektrik kuvvetinin istihsalı için esas su ile müteharrik ve mevki-i vukuf ve tertibatı meçhul bir fabrika tesis edileceği ve buna ilaveten Desaadetde buharla müteharrik bir de ihtiyat fabrikası bulunacağı gösterilmiş olmasına ve her ne kadar salifulzıkr kuvve-i miyahıyye istimali ile işleyecek esas fabrikasına aid keşfiyat ve resimlerin diğer projeler ile beraber verilmemesine sebep olmak üzere bunların rakiblere ? edilmemesi maksadından ibaret bulunduğu dermiyan kılınmış ise de sebep-i ketmi her ne olur ise olsun mektun? tutulan bir keşif ve tasavvur üzerine tedkikat icrasıyla bunun diğerleriyle mukayesesi kabil olamayacağı aşıkâr bulunmasına mebni İsviçre Sendikasının teklifat-ı vakıasının müsabakadan hariç bırakılması zaruri olup şu kadar ki mezkur sendika vekili tarafından beyân olduğu vechile kuvve-i miyahıyye istimali ve bundan dolayı kuvve-i elektrikiyyenin şartnâmede münderic tarifeden çok dun bir fiyat ile furuhtu hakikaten kabil olup olamayacağı ayrıca tahkik ve tedkik edilerek bu babda kanaat hasıl olduğu takdirde şu suretle husule gelecek menafi-i azimeden memleketi mahrum etmemek üzere şerait-i müsabakaya dair Nâfia Nezâret-i'nin ilan ettiği kararnamenin 10. ve 11. maddelerinin bahs ettiği salahiyyete binaen müsabakanın feshi ve İsviçre Sendikası ile müzakereye girişilmesi dâire-i imkânda bulunmuş ise de bu tedbire müracaat edilib edilmemesi münhasıran makam-ı Nezâret'in takdirine tabii mevaddan bulunduğu cihetle bu babda Şûrâ-yı Devletce beyân-ı mütalaaya mahal görülememiştir. Saniyen Şnayder ve şürekası tarafından medar-ı şikayet olarak gösterilen madde Gans Fabrikası'nın projesinde 150 voltluk bir cereyan-ı elektriki istimal edileceği gösterilmiş iken Nâfia Nezâretince projeyi tadilen bunun 110 volta tenzil kılındığı ve binaenaleyh taliblerden birinin projesinin tadil edilmesi tecviz olunmasına binaen Şnayder ve şürekasına dahi projelerinin tadili hususunda müsaade ita edildiği takdirde şerait-i muharrere-i sairede dahi menafi-i hükümet ve memlekete muvafık olarak tadilat-ı azime icra edilecekleri merkezinde olarak bu iddia dahi esasen ? olup zira münakasa komisyonunun ekseriyet-i arası ile tazim edilmiş olan 19 Ağustos 1326 tarihli mazbata ile Nezâret-i müşarunileyhanın Eylül 1326 tarihli tezkiresi mündericatına nazaran Gans Şirketi'nin birinciliği ihraz etmesi muhassaran vuku bulan tadilatın icrasıyla tebdile? kayıd ile mukayyed olmayıb münakasa talimatı mucebince teşekkül eden Fen ve Münakasa Komisyonlarınca teklifat-ı vakıa ve proje ve evrak-ı sairenin tedkikatı üzerine sairlerine haiz-i rüçhan olduğu tebeyyün eden mezkur Gans Şirketi'ne imtiyâzın ihalesi takarrur ederek münakasaya hitam verildiğinden sonra taraf-ı'den vaki olan teşebbüsât ve teşvikat üzerine tadilat-ı

mezburenin Şirketce hamil olan muvafakata bianen icra kılınmış olduğu cihetle müeddea-yı vakının da butlanı aşıkardır.

Şu hale nazaran Dersaadetin elektrikle tenvîri ve telefon ve telgraf ve vesait-i nakliye-i umumiyyenin gayri husussatda elektrikin kuvve-i muharrike olarak istimali imtiyâzının bu babda neşr ve ilan olunan talimat ve şartnâme ve nizamnâme ahkâmına tevfikân sekiz müessese tarafından tanzîm ve tevdi olunan tekliften şereait-i mukarrereye göre de diğerlerine haiz-i rüçhan olduğu tebeyyün eden Gans Şirketi'nin ihalesi dâirece de tensib ve badel münakasa Nezaretçe vaki olan teşvikat üzerine şerât-i esasiyeden bazılarında icra kılınan tadilata gelince ol babdaki mukavelenâme layihası ledel tedkik mevadd-ı mündericesi şirketin hudud-ı imtiyâziyesi dâhilinde bulunub Havazgazı Şirketi ile husul-ı ihtilafa muallak olan İstanbul ciheti tenvîrat-ı elektrikiyyesinin şimdiden icrasını teminen Havagazı Şirketi ile hatt-ı? ihtilaf edilmiş olduğunun tasrihiyle beraber tenvîrat-ı umumiye ve hususiye ile sanayide müstamel kudret-i elektrikiyyeden bir hadd-i muayyenden fazlası için fiyat-ı mevzuadan icra-yı tenzilat ve fabrikanın kudret-i elektrikiyyesi hadd-i asgarisinin 13.400 kilovata iblağıyla Şirketin memalik-i Osmaniye dahilinde mübayaa edeceği malzeme ve alat ve edevatın rüsum-ı dahiliyeden istisnası ?dan feragat gibi ahali ve hükümetçe müstelzim-i fevaid ve muhassevad olacak hususatdan ibaret bulunmasıyla kabul ve tasrih edilmeleri mezkur mukavelenâme layihasının bir sureti leffen takdim kılınmış olmakla imtiyâz-ı mezkure aid muamelenin ifası müttetikân tezekkür olunmuştur.

Bir de Reis Nuri Bey ile azadan Mehmed Şerif Paşa, Sami Bey ve Konstantin Efendi taraflarından şu aralık imtiyâzları derdest-i tedkik ve ita bulunan telefon ve tenvîrat-ı elektrikiyye ile elektrikli tramvaylar Şirketlerinin elektrik nakil ve kabloların vaz ve imrarı için taht-el arz mecralar ? ve küşadı iktiza edeceği gibi Şehremâneti de nizamden beldenin mecra-i umumilerini inşa ile mükellef olduğundan bunların her biri için ayrı ayrı ve muhtelif zaman ve mahallerde mecrari inşası gerek Emânetin ve gerek şirketlerin sair ve rekz-ü mali-i memleketden çıkacak olan varidat ve sermayelerinden ifrazen mebalîğ-i cesimenin beyhude sarfına müstelzim olmakla beraber her birinin ayrı ayrı inşaat ve badel inşa dahi hasbel icab tamirâtı cihetiyle cadde ve yolların aleddeva intizamı halalder olarak mürur ve ubur aletdevai düçar-ı müşkilat olacağından mehazir-i mesrudenin men-i vukuu vesailinin şimdiden temini ehem ve elzem-i umûrdan bulunmasına ve bu gibi imtiyâzların hiçbir el-yevm ihale edilmemiş olmasına binaen işbu dakika-i mühimme Nâfia Nezaretince biletraf derpiş-i tedkik ve teemmüm edilerek saliful şirketlerle Şehremânetinin bir ihtiyacatını temine salih olmak üzere memalik-i mütemeddine-i sairede olduğu misüllü bir mecra-i umumi projesi bittakdim zikrolunan şirketlerin o esası kabüle mecbur tutulmaları esbabının imkân dâiresinde istihsali gerek belde ve emânet-i müşarunileyhanın ve gerek bu kabil şirketlerin menafine daha muvafık olacağından bu cihetin ayrıca nazar-ı hükümete arzı ilave-i mütalaa olarak dermiyan edilmiş olmakla ol babda

Nuri

Mehmed Şerif

Sami

Konstantin

Dersaadet Elektrik imtiyâzı münakasasının icrasına memur komisyonun zabıtnamesi suretidir

Ticaret ve Nâfia Nezareti

Baş Kitabet Dâiresi

İsviçre Sendikası 9 Ağustos sene 1910 tarihli mektubunda “şartnâme ahkâmına tevfikân bilcümle evrakı tanzîm ve takdim etmiş ve bu babda ve bu miyanda kuvve-i miyahıyye ile işleyecek olan fabrikaların iktidar-ı elektrikisi hakkındaki taahhüdâd dahi dahil bulunmuş” iken Fen Komisyonu tarafından projesinin nazar-ı itibare alınarak diğer projeler miyanında tasnif edilmemesine beyân-ı hayret ve mezkur komisyonca vaki olan talebe binaen ber vech-i muharrer kuvve-i miyahıyye ile işleyecek olan fabrikalara dair tanzîm eylemiş olduğu projeyi takdime müsarahat eylediğinden bahisle ve bundan mütevellid hukuku mahfuz kalmak kaydıyla işbu projenin Dersaadet elektrik imtiyâzı hakkındaki teklifat-ı evveliyesinin mütemmimi add edilmesini istida eylemiştir.

Mektubun fıkra-i ahiresi selayihat-ı kafiyye haiz değil ise de ruşen-i ifade mezkur sendikanın salifulzıkr 9 Ağustos tarihli mektubuna merbut bulunan ve münakasa komisyonunca bir karara rabt olunmadıkça kabul edilemeyeceği komisyon reisi tarafından kendisine tebliğ olunan dosyanın, imtiyâzın ihalesine karar verilmesinden akdem nazar-ı itibare alınması ve teklifat-ı evveliyesinin mütemmimi olarak telakki edilmesi lüzumunu işra eylemektedir ki bu da bilvüch şayan-ı kabul görülememektedir. Çünkü münakasa şeraitini mübeyyin olan kararnamenin birinci maddesinin ikinci fıkrasında, “münakasa talibinin şartnâmenin bilhassa üçüncü maddesinde muayyen hadd-i asgar ile beşinci maddesindeki müddetler nazar-ı itibare alınmak üzere merbut şartnâme ahkâmı dâiresinde icrasına muvafakat edeceği tesisat-ı ibtidaiye ameliyatının ehemmiyetine ve imtiyâz müddetince tenvîrat-ı umumiye için bila bedel ita ve ikad eyleyeceği kavsi lambalar mikdarının adedine nazaran vuku bulacaktır.” ve ber vech-i muharrer müsabakanın esaslarından birini teşkil eyleyen tesisat ve ibtidaiyye hakkında bir güne tereddüde mahal kalmamak üzere dahi madde-i mezkurenin üçüncü fıkrasında “bu babda şartnâmenin birinci maddesinde muayyen iki mıntıkadan beheri için icra kılınacak ameliyat-ı ibtidaiye projesi şartnâmenin dördüncü maddesine tevfikân talibler tarafından tanzîm kılınacaktır” deyu muharrer bulunmuş ve mezkur mıntikalara aid proje ve teklifatın talibler tarafından mümza olduğu halde kararnamenin ikinci maddesinde gösterilen vesaike merbutan itası şart-ı ittihaz olunmuş ve salifulzıkr kararnamenin dördüncü maddesinde dahi “teklifat-ı vakıanın müddet-i kabulü 15 Mayıs 1326 ve 28 Mayıs 1910 tarihinde ve ezani-i? saat 6’da hitam bulacağı ve esbab-ı teahhurat her ne olur ise olsun ber vech-i bala tayin edilen tarih ve saatden sonra talipler tarafından vuku bulacak teklifatın kabul olunmayacağı” tasrih kılınmıştır.

Şu halde mevadd-ı sabıkanın medlul ve serahatine karşı teklifatın müddet-i kabulü için muaayen olan tarihten iki buçuk mah ve teklifat-ı vakıadan hagilerinin dahil-i müsabaka olacağı komisyonca alenen taliblere ihbar ve ilan edildiği tarihten iki mah sonra mukaddema ita edilmiş olan dosyayı itmamen tevdi edilen bir dosyanın nazar-ı itibare alınamayacağı derkardır.

Şurası da şayan-ı tezkârdır ki teklifatı havi evraka merbutan itası lazım gelen projelerin ne suretle tanzîm edileceğini mübeyyin olan şartnâmenin dördüncü maddesinde “verilecek evrak miyanında bilcümle alat-ı müvellide ve muhavvele? ile

kuvve-i elektrikiyye tevziine mahsus bilumum alatin münasib bir mikyasda resimleri bulunacağı” muharrer olmasına binaen madde-i mezkure müeddasınca kuvve-i miyahiiyye ile işledilecek fabrika resimlerinin de teklifatı havi evrak ile beraber itası icab eder idi.

Bundan başka mezkur sendikanın teklifat-ı evveliyesini havi 15 Mayıs 1326 ve 28 Mayıs 1910 tarihinde tevdi eylediği evrakda kuvve-i miyahiiyye ile işledilecek olan fabrikaların iktidar-ı elektrikisine dair bir güne izahat ve teahhirad? mevcud olmadığı cihetle teklifat-ı ahiresinde mezkur fabrikaların iktidar-ı elektrikiyyesini irae ve bu hususu deruhde etmiş olduğunu mutazammın bulunan ifadatı dahi mugayir-i hakikatdır.

İsviçre Sendikası tarafından dermiyan olunan teklifat-ı evveliyeyi havi varakada “merbut planların tanzîminde buhar ile müteharrik bir fabrika tesis edileceğine nazaran hükümetin nokta-i nazarına ve şartnâmenin ahkâmına ? edilmiş ise de İsviçre Sendikası müessesatın mümkün olduğu derecede tevessü tekemmülüne müstaid bir tarza ifrağı maksadını takip eylediğinden işe vüsat vermek üzere şerait-i atiye dâiresinde kuvve-i miyahiiyye istimaline ? kabul eylemeyi taahhüd etmiştir” mektubunda muharrer fıkra müeddasından mezkur sendikanın buhar ile müteharrik fabrika inşasına nazaran tanzîm eylediği projeyi esas ittihaz eylemek suretiyle münakasaya dahil olduğu anlaşılmakla beraber mezkur varakada muharrer ve İsviçre Sendikası’nın vekili tarafından mümza olan kuvve-i miyahiiyye ile elektrik istihsaline müteallik müessesatın projelerini imtiyâzın uhdeme ihale edilmesi takdirinde beşinci maddede muharrer müddet zarfında yani imtiyâzın itası tarihinden itibaren altı ay müddet zarfında takdim eylemeyi taahhüd eylerim ibaresinden dahi sendikanın maksadı vazıhan ve fabrikanın ne suretle tesis edileceğine ve cesametiyle derece-i ehemmiyeti neden ibaret bulunacağına dair bir güne izahat ve taahhüd bulunmadığı sarahiten istibazad? kılınmaktadır.

Taliblerden biri buhar ile müteharrik bir fabrika projesi takdim eyleyecek yerde 10/15.000 kilovat kuvvetinde bir fabrika inşa eylemeyi taahhüd eylemekle iktifa eylemiş olsa idi teklifatın kabulü cihetine gidilemeyeceği derkar olduğu gibi İsviçre Sendikasının teklifat-ı evveliyesini havi evrakda kuvve-i miyahiiyye ile işleyecek olan fabrikanın cesamet ve derece-i ehemmiyeti zikr ve irae eylemiş olsa dahi evrak-ı mezkure miyanında projesi bulunmadıkça mezkur fabrikanın nazar-ı itibare alınamayacağı aşikardır.

Hülasa tafsilat-ı mesrudeye nazaran münakasa komisyonu nezaretin kararnamesi ahkâmının İsviçre Sendikası’nın teklifat-ı ahiresini kabule gayri müsaid bulunduğunu ve teklifat-ı mezkurenin kabulü diğer talibler hukukunu muhil olduğunu mübeyyin işbu zabıtnameyi tanzîm ve imza eyleriz.

Reis, Nâfia Nezareti Müsteşarı, Hulusi

Aza, Nâfia Nezareti Fen Müşaviri, Serviç

Aza Nâfia Nezareti Nâfia Müdürü, Franghia

Aza, Maliye Nezareti Muhasebe-i Umumiye Müdür Vekili, Sezayi

Aza Şehremâneti Ser Mühendisi, Orık

p. 10, 16

Dersaadet elektrik tenvîri imtiyâzının Gans Şirketi'ne ihalesine ve ol babbaki mukavelenâmenin ve evrak-ı müteferriasının takdim edildiğine dair

Ticaret ve Nâfia Nezareti,

Fen Müşavirliği

Huzur-ı sami-i sadaret penahi'ye,

Dersaadet elektrik tenvîri imtiyâzının Gans Şirketi'ne ihalesine ve ol babbaki mukavelenâmenin ve evrak-ı müteferriasının takdim edildiğine dair

Maruz-ı çaker-i keminelidir,

Boğaziçinin Mesar Burnu'na kadar Rum eli sevhili dahil olmak üzere Tophâne ve Beyoğlu cihetiyle İstanbul tarafının elektrikle tenvîri ve mevadd-ı muharrikeye muhtaç olan müessesat ve sanayiye muktezi kuvve-i elektrikin istihsal ve fûruhtu hakkında Tophâne-i Âmire Nezareti'ne ita olunub henüz mevki-i fiile vaz edilmemiş olan imtiyâzın Nezaret-i müşarunileyhadan bilistirdad en ziyade temin-i muhasenat ve fevaid edecek talibe ihalesi istizanına dair takdim olunan tezkire ve evrak-ı müteferriası üzerine bu misüllü imtiyâzın devair-i hükümete ihalesi maksadı temin edeceği tecarib-i vakıa ile sabit olduğundan bazı menafî istihsal olunmak üzere talib olanlar ile bilmüzakere kararlaştırılacak şeraitin arz ve inbası Meclis-i Mahsus-ı Vükela kararına atfen şeref varid olan 24 Mart sene e 325 tarihli ve 43 numarolu tezkire-i samiyede emir ve izbar buyrulmuş ve ber mantuk-ı emr-i sami işbu imtiyâzın müracaat-ı mütevaliyede? bulunan sermayedarandan iktidar-ı fenni ve malisi itimad olanlar miyanında bilmünakasa? İhalesine aid mevadd-ı esasiye ve şerait-i nâfiayı şamil olmak üzere tanzîm edilen münakasa muamelatını mübeyyin talimat ve şerait-i fenniye mutazamnın nizamnâme ve bir de şartnâme layihalarının leffiyile bunların Meclis-i Mahsus-ı Vükela bidtedkik emr-i münakasa ve ihalenin fevaid-i mezkure ahkâmı dâiresinde ilan ve icrası 10 Kanun-ı sani sene 325 tarihli ve 190 numarolu tezkire-i acizi ile huzur-ı sami-i fahimanelerinden istizan kılınmış idi.

Liva-i mezkure hakkında Şûrâ-yı Devlet, Nâfia ve Maarif ve Maliye Dâiresi'nden takdim olunan mazbata müeddasından ve ol babda Meclis-i Mahsus-ı Vükela cereyan eden müzakaratdan bahisle vesile-i dest-i terkim? olan 2 Mart sene 326 tarihli ve 4 numaralı tezkire-i cevabiye-i fahimanelerinde yalnız talimat layihasının beşinci maddesinde teşkil olunacağı gösterilen komisyonda Şûrâ-yı Devlet hulesa? ve azasından dahi birinin memur edileceği kaydının tayyî? suretiyle layiha-i mebhususlanhanın kabul ve tasdiki muvafık ve mucebince ifa-yı muktezası münasib olacağı emr-ü izbar buyrulmuş ve şerait-i münakasa ol vechile Dersaadet ve Avrupa gazeteleri ile ilan ettirilmiş idi.

İlanat-ı vakıa üzerine bu imtiyâza talib olan sermayedaran salifularz layihalar ahkâmına tevfikân teklifat-ı proje ve evrak-ı müteferria-yı sairelerini bittanzîm münakasa talimatının mevadd-ı mahsusasında muharrer şerait dâiresinde Nezarete tevdi etmeleriyle bunlardan her birinin iktidar-ı mali ve fennisi ve teklifatın mahiyet-i fenniye ve iktisadiyesi ve şerait-i mukarrereye derece-i mutabakatı keزالik mezkur münakasa talimatı ahkâmına ibtinaen teşekkül eden fen ve münakasa komisyonlarınca biletraf mütalaa ve tedkik olunmuş ve mezkur komisyonlardan her birinin netice-i tedkikat ve mütalaatını ve ekser kararını havi olarak ayrı ayrı tanzîm ve ita kılınan iki kıta raporda en mühim müessesat-ı mali ve fenniyeden bulundukları tebeyyün edip dahil-i müsabaka olan sekiz müesseseden Macaristan'da vaki Gans

Elektrik Anonim Şirketi'nin şeraiti münakasa talimatı ahkamına nazaran diğerlerine haiz-i rüçhan görülerek imtiyâzın şirket-i mezkureye ihalesi münasib olacağı gösterilmiştir.

Tafsilat-ı mesrudedan ve evrak-ı müteferrihanın mütaalasından karin-i ilm-i ali-i fahimaneleri buyrulacağı üzere işbu imtiyâzın mukaddema Nezâretce şerait-i esasiye ve fenniyesi tayin kılınmış ve ol babda tanzîm ve takdim olunan levayih Şûrâ-yı Devlet, Nâfia ve Maarif ve Maliye Dâiresince ve Meclis-i Mahsus-ı Vükelaca bidedkik kabul ve tasdik buyrulmuş olmasına nazaran levayih-i mezkure miyanında bulunan şartnâmede yalnız imtiyâzın hangi şirkete ihale olunacağını kayıd ve tasrihiyle iktifa ve ol vechile muamele-i lazimenin ifa olunması icab eder ise de Gans Şirketi şeraitinin diğerlerine haiz-i rüçhan olduğu taayyün ve imtiyâzın şirket-i mezkureye ihalesi komisyonca takarrür ettikten ve münakasa talimatı ahkâmı vechile münakasaya hitam verildikten sonra taraf-ı Nezâretten vaki olan teşebbüsât ve teşvikat üzerine tekalif-i evveliyeye zamimetden ahalinin ve Şehremânetinin menfaatine olarak fevaid-i cedide teminine şirket-i mezkurenin muvafakati istihsal kılınmış olduğundan mücerred işbu mevadd-ı asliye-i munzamayı tasrihan ayrıca bir de mukavelenâme tanzîmine mecburiyet hasıl olmuştur.

Aniful beyân mukavelenâme mucebince Gans Şirketi;

Evvelen İstanbul Havagazı Şirketi'nin hudud-ı imtiyâziyesi dahilinde olup elektrikle tenvîri Havagazı Şirketi ile husul-i ihtilafa muallak bulunan İstanbul ciheti tenvîrat-ı elektrikiyesinin şimdiden icarsını teminen Havagazı Şirketi ile akd-i itilaf etmiş ve mezkur Havagazı Şirketi bu bada muvafakata mutazammın suret-i ilave-i melfufat kılınan beyânname-i resmiyi Nezâret'e tevdi eylemiştir.

Saniyen tenvîrat-ı umumiye için Emânet-i müşarunileyhaca bundan fazla lamba işaline lüzum görülür ise beher kilovat saat başına şartnâmede muharrer 80 para yerine senevi işar olunacak ilk 600 saat için kilovat saat başına 54 ve 600'den 1200'e kadar olan fazla için 27 bundan fazlası için dahi 13,5 para alınmasına Şirketin muvafakati istihsal kılınmıştır.

Salisen tenvîrat ve ihtiyacat-ı hususiye için Şirket beher kilovat saat başına şartnâmede muharrer dört kuruş yani 160 para yerine "puasans (puissance)in" senede işletilen ilk 400 saati için beher kilovat saat başına 122 ve 400den fazlası için 61 para ve sanayide istimal edilecek kudret-i elektrikiyye için beher kilovat saat başına şartnamde muharer 80 para yerine "puisansin" senede işledilen ilk 600 saati için beher kilovat saat başına 54 ve 600'den 1200 saate kadar olan fazlası için 27 ve bundan fazlası için dahi 13,5 para ahz-ı istifasına muvafakat eylemiştir.

Rabian şirket-i mezkure tevziat boyunca senevi icar bedelatı 3000 kuruşdan dun olan hane ve apartmanlara lamba başına yevmiye onar para alınmak ve abonman müddeti beş seneden dun ve lamba adedi nihayeti ikiden efzun olmamak şartıyla mesarif-i tesisiyesi sahib-i imtiyâza aid olmak üzere "popoler"? tabir olunan ve onaltışar mum kuvvetinde bulunan lambaları işar eylemeği kabul eylemiştir.

Hamisen fabrikanın kudret-i elektrikiyyesi için şartnâmede hadd-i asgar olarak gösterilen 3000 kilovat yerine şirket-i mezkûrece 13400 kilovat kabul edilmiştir.

Sadisen, şirket-i mezkure saliful arz şartnâmenin altıncı maddesinin tesisat-i iptidaiye için muktezi olup müteahhidin memalik-i Osmaniye dahilinde mubayaa eyleyeceği taş, ahşab, maden, mahrukat, ve ilahire? gibi malzeme ile alat-i edevat her gune rusum-i dahiliyeden istisna edileceğini muntazammın olan fıkraşi ahkâmında sarf-i nazar ettirilmiş ve bu suretle verilecek imtiyâzın taahhudaddan azade bir hale

gelmesi itibariyle imtiyâz kanunu ahkâmına nazaran esas meselenin mecalis-i aliyenin nazar-i tedkik ve tasdikine arz edilmesine hacet kalmamıştır.

Musabıklar miyanında bulunub Fen Komisyonunca teklifatı nazar-ı dikkate alınmadığından dolayı ahiren gerek makam-ı sami-i sadaret penahilerine gerek doğrudan doğruya Nezâret-i aciziye müracaat ve şikayatta bulunmuş olan İsviçre Sendikasına gelince mezkur sendikanın baarzuhâl makam-i sami-i fahimanelerine müracaatı üzerine sebk eden istilama cevaben 25 Ağustos sene 326 tarihli ve 138 numaralı tezkire-i acizi ile takdim kılınan Münakasa Komisyonu raporunda arz ve tafsil olduğu veçhile esasen mezkur sendikanın teklifatını mübeyyin olan proje Münakasa Komisyonunca nazar-ı dikkate alınarak dahil-i müsabaka edilmiş iken münakasa talimatında evrakın tevdi için muayyen olan tarihten iki buçuk mah sonra tekalif-i munzamayı havi olarak verilmesi istenilen evrakın muayyen olan tarihten sonra vuku bulacak teklifatın adem-i kabulü hakkında mezkur talimata muharrer sarahat-i katiyyeye binaen Komisyonca kabul edilmemesi işbu sendikanın baliğ-i şikâyeti olmuş ise de bidtabii bu babda dermiyan olunan müddeiatin Dersaadet ve Avrupa'da ilan edilmiş ve mevadd-ı mündericesine göre en mühim müessesat tarafından teklifat vuku bulmuş olan talimat ahkâmına muhalif bulunması ve talimat haricinde yapılacak her hangi bir muamelenin dolayısıyla diğer sermayedarana icra eyleyeceği sui tesir bilahire emsali münakasalara ciddi talibler zuhuruna ve şartnâme ve şerait-i nâfia dermiyanına mani ve binnetice dahi menafi-i memleket ve hükümeti ihlale bais? olabilmesi itibariyle müddeiad ve şikâyat-ı vakıaya havale-i sem itibar olunamayacağı müstağni-i izah bulunmuştur. Tafsîlât-ı maruzaya nazaran Dersaadet'in elektrikte tenvîri ve telefon ve telgraf vesait-i nakliye-i umumiyyenin gayri hususatdan elektrikin kuvve-i muharrike olarak istimâli imtiyâzının bu babda neşr ve ilan olunan talimât ve şartnâme ve nizamnâme lâyihaları ahkâmına tevfikân sekiz müessese-i mühimme tarafından tanzîm ve tevdi olunan tekâliften gerek şerait-i mukarrereye nazaran diğerlerine haiz-i rüçhan görülen ve gerek Komisyonca münakasalarına takarrür ettikten sonra şerait-i esasiyeden bulunanlarını memleket ve hükümete nafi suretde tadile muvafakat edilen Gans Sirketi'ne ihalesi Nezâretce de münasib görülmüş ve ahali ve memlekete fevaid-i azimete ? edeceği derkâr olan işbu imtiyâzın bir an evvel mevki-i tatbika vazındaki lüzum ve ehemmiyet sami-i arz ve tezkâr bulunmuş olmakla imtiyâz-ı mezkura aid muamelenin musarahatan ifası esbabının istikmâli mutevakkif-i rey-i sami-i sadâret penahileri olarak tanzîm edilen mukavelenâme evrâk-ı muteferriasi ile beraber leffen takdim kılınmıştır. Ol babda emru fermân hazret-i veliyyul emrindir.

Ramazân 328 ve Eylül 326

Ticaret ve Nâfia Nazırı Halaçyan

p. 7

Huzur-ı Sami-i Cenab-ı Sadaret Penahi'ye,

Ticaret ve Maarif Nezâreti Baş Kâtip Dâiresi,

Maruz-ı çaker-i kemineleridir,

İstanbul ve mülhakatı dahilinde telgraf ve telefon ve umumi vesait-i nakliyyeye aid kuvve-i muharrikenin gayri bilcümle hususatta istimal edilmek üzere kudret-i elektrikiyye tevziat-ı umumiyyesi imtiyâzı hakkında icra edilen münakasaya vekili bulunduğu İsviçre Sendikası namına iştirak ve tayin edilen müddet zarfında projesinin bilita bu babdaki tafsilat ve teferruat-ı saireyi havi izahnameleri Nezâret-i

acizeye irsal etmiş olduğu halde münakasa komisyonu bunları ne suretle kabulden istinkaf ederek menafi-i hazine zarara uğrattığına ve bu suretin ihtiyari izaha-i? hukuklarının da mucip olduğuna dair bazı ifadat ve müstediati havi J. Virmusnok? imzasıyla takdim olunan arzuhalin leffen irsal buyrulduğu beyân-ı alisiyle bu babdaki muamele ve malumatın arz ve inbasını amir 19 Ağustos sene 326 tarihli ve 329 numaralı tezkire-i samiye-i sadaret penahileri üzerine keyfiyet münakasa komisyonuna ledel havale mezkur sendikanın teklifat-ı ahiresinin kabulü cihetine gidilemeyeceğini mutazammın olup mezkur komisyon tarafından ittifak-ı ara ile tanzim edilmiş olan zabıtname sureti leffen ve mürsel arzuhal iadeten takdim kılınmış olmakla ol babda emru ferman hazret-i menlehül emrindir.

Fi 3 Ramazan sene 328 ve 25 Ağustos sene 326

Ticaret ve Nâfia Nazırı namına Müsteşar Hulusi

p. 8

Makam-ı sadaret uzma vekâlet-i celilesi'ne,

Maruz-ı bendeleridir,

Hükümet-i seniyye namına Ticaret ve Nâfia Nezâret-i celilesi canibinden İstanbul şehrinin Rumeli cihetiyle mülhakatı dahilinde telgraf ve telefon ve umumi vesait-i nakliyyeye aid kuvve-i muharrikeden gayri bilcümle hususatta istimal edilmek üzere kudret-i elektrikiyye tevziat-ı umumiyyesi imtiyâzı hakkında küşad edilen münakasaya şartnâmenin icap ettirdiği bilcümle kuyud ve şuruta müraaten? vekâlet-i umumiyyesini haiz emsali müteahhitler gibi iştirak etmiş ve fakat münakasa şartnâmesinin dördüncü ve besinci ve yirmiyedinci maddelerinin Nezâret-i celilece yanlış tefsiri neticesinde teklif zarflarının küşadından sonra Sendikamız tarafından Nezârete takdim edilmek istenilen ve müddet-i kanuniyesi zarfında takdim edilmiş projenin teferruat-ı tafsilatını havi bulunan bir takım izahnamelerin sair müteahhitlere yapılan muamele hilafına gerek münakasa komisyonu ve gerek komisyon-ı mezkurun içtihadına tebean Ticaret ve Nâfia Nazırı Hallaçyan Efendi Hazretleri esasat-ı münakasayı tadil edilecek bir teklif-i cedid tevehhümüyle? kabulden istinkaf eder bulunmuş ve mehl-i muayyen dahilinde Nezâret-i müşarünileyhaca bu cihetlerden tevaful? gösterilerek izaha ve hukukumuz ve dolayısıyla ızrar-ı hazine ve memleket tariki usulü ihtiyar edilmiş olmakla bu halin daha ziyade temadisine mahal bırakmamak üzere 20 Ağustos sene 326 tarihinde Beyoğlu Mukavelat Müdürlüğü vasıtasıyla ve Sadaret-i uzma ve Nâfia ve Maliye ve Dahiliye ve Adliye ve Şûrâ-yı Devlet Devair-i celilesine hitaben keşide ettiğimiz ihtarname ile beraber münakasa şartnâmesinin Şûrâ-yı Devlet Dâire-i celilesince bidtetkik Nâfia Nezâret-i celilesinin hukukumuzu imha yolunda istinad ettiği ve mevhumiyeti? protestomuzda mufassalan mezkur izahatımızla müspet sekil meselesinin mahiyeti hakkında bir karar itasını rica ve istirham ve ledel hâce tafsilat-ı ? itası için emrinize amade bulunduğumu arz eylerim. Ol babda emru ferman hazret-i menlehül emrindir.

14 Ağustos 326

Beyoğlu'nda Londra Otel'i'nde muvakkaten mukim İsviçre Sendikası müvekkil-i umumisi

J. ?

p. 11

Huzur-ı Sami-i Cenab-ı Sadaret Penahi'ye,

Nezâret-i Evkaf-ı Hümayun

Tahrirat Kalemi

Hülasa: Dersaadetdeki cevami ve mesacid-i şerifenin elektrikle tenvîratı hakkında

Maruz-ı dai-i keminelidir,

Elektrik kuvvetinin tevziat-ı umumiyyesine dair verilecek imtiyâz şerait-i malume veçh ile münakasaya vaz edilmiş ve teklifat-ı vakıa dahi derdest-i tedkik bulunmuş olduğundan imtiyâzın taliplerden hangisi uhdesine ihale olunacağı katiyyen takarrür etmediği takdirde yapılacak kati mukavelenâmede Dersaadetdeki cevami-i şerifenin elektrikle tenvîri için talep edilen tenzilat hakkında ahkâm-ı mukteziye dercine tevessül olunacağı Ticaret ve Nâfia Nezâret-i celilesinden cevaben inba kılındığı şeref varid olan 8 Temmuz 326 tarihli ve 181 numaralı tezkire-i sami-i cenab-ı sadâret penahilerinde emir ve izbar buyrulmuştur. Muvakkaten istihbar olunduğuna göre Samsun şehrinde elektrik tenvîratını deruhde eden şirket şehir-i mezkurdeki cevami ve mesacid-i şerifenin meccanen tenvîrine taahhüt eylemiş ve Dersaadete nispeten pek ufak olan böyle bir şehirde elektrik istihlakı için bulunacak müşteri o nispette cüzi olan bir şirketin şehir-i mezkurda lebulhamd? mikdarı kalil olmayan cevami ve mesacid-i şerifenin meccanen tenvîrini taahhüt eylediğine nazaran Dersaadet gibi elektrik istihlak edecek pek çok müşteriye malik bulunan bir mahal elektrik tenvîratını deruhde edecek şirketin cevami ve mesacid-i şerife ücûrat-ı tenvîriyesinden en mühim bir müstehlaki olacak olan Hazine-i Evkafa karşı tenzilat-ı istisnaiye icrasına muvafakat edeceği derkâr bulunmuş olmasına ve imtiyâzın itası takarrür etmek üzere olduğu müstahber olmasına nazaran icab-ı halin icra-yı hususunun Nezâret-i müşarûnileyhaya emir ve tebliği husussuna müsaade-i samiye-i cenab-ı sadaret penahilerinin tezevar? buyrulması temenni olunur. Ol babda ve her halde emr-u ferman hazret-i veliyyül emrindir.

Fi 29 Ramazan sene 328 ve 20 Eylül 326

Evkâf-ı Hümayun Nazırı Şerif Ali Haydar

p. 12

Şûrâ-yı Devlet Riyaset-i Celilesine,

Semahatlü Efendim Hazretleri,

İstanbul şehrinde kudret-i elektrikiye tesis ve tevziine dair olup Gans ve şürekâsı namına itası Nâfia ve Ticaret Nezâret-i celilesince mutasavver olan imtiyâz hakkında bazı mütalaat ve itirazatı mübeyyin takdimine mütecasir olduğum istida fi 28 Eylül sene 326 tarihiyle Nâfia ve Maarif Dâiresine havale buyrulmuş olup müvekkillerim Mösyö Şnayder [Schneider] ve şürekâsı namına arz etmiş olduğum itirazatın bugünkü heyet-i umumiyyede mevki-i tezekküre vaz olunacağı istihbar kılınmış olduğundan bu babda daha ziyade izahat ve tafsilat-ı şifahiyeye lüzum görüldüğü takdirde arz ve ifadesine hazır ve amade bulunduğumun arz ve beyânı babında ve her halde emru ferman hazret-i menlehül emrindir.

Fi 2 Tesrin-i Evvel sene 326

Parisde mukim Şnayder [Schneider & Cie] ve Kredi Mobiliye Bankası ve Sosyete dö ? Şirketi Galata ? Hanında ?

A. Antonia

Makam-ı Sami-i Cenab-ı Sadaretİ Uzma'ya,

Maruz-ı çaker-i kemineleridir ki,

İstanbul şehrine kudret-i elektrikiyye tevziine dair olan imtiyâzın münakasasına Nâfia Nezaret-i celilesince hitam verilerek Peşte'de Gans Şirketi'nin teklif ettiği şerait Nezaret-i müşarünileyhada müteşekkil komisyon-ı mahsusunca tercih edilmiştir. Mezkur münakasanın şartnâme ahkâmına tevfikane cereyan etmediğine dair Sendika Swis nam şirket tarafından makam-ı sami-i nezaret penahilerine takdim olunan itiraznâmenin Şûrâ-yı Devlet Dâire-i celilesine havale buyrulmuş olduğu ve buna dair evrakın Nâfia Nezaret-i celilesinden derdest-i celb ve tetkik ettiği istihbar kılınmış olmasına ve vekili bulunduğum Şnayder Kompane [Schneider & Cie] ve Şürekâsı namına Nezaret-i müşarünileyhaya arz etmiş olduğum teklifat hakkında dahi Nezaret-i müşarünileyhaca şartnâme ahkâmına muhalif hareket edilmiş bulunmasına ve Gans Şirketi'nin şeraiti ile müvekkilim Şnayder Şirketi'nin şeraiti mukayese edildiği takdirde menafi-i hükümete karşı hareket edildiği tahakkuk edeceğine mebnî izahat-ı atıyyenin arz ve beyânına mecburiyet hasıl olmuştur. Şöyle ki münakasanın ne suretle icrası lazım geleceğine dair Nezaret-i müşarünileyhanın kararname-sine ve münakasaya esas ittihaz edilen şartnâmeye tevfikane elektrik imtiyâzı için tesisat-ı iptidaiyenin derece-i ehemmiyeti ve vaz olunacak lambaların adedi ve imtiyâzın devam edeceği müddetçe meccanen işletilmesi hakkında en ziyade faideli şerait göstermiş olan ve komisyon-ı mahsus tarafından ciheti fenniyesi mükemmel itibar edilmiş bulunan proje tercih ve kabul edilecek idi. Eğer ki komisyon-ı mahsus Gans Şirketi tarafından ita olunan projeye bir takım tadilat-ı esasiye icrasını talep etmeksizin yani kararname-i Nezaret penahiye ve şartnâme ahkâmına muhalif merkezde bulunmaksızın şerait-i fenniye ve maliyece en ziyade menfaat ve fevaid göstermiş olan rakibini intihab ve tercih etmiş olsa idi hiçbir itiraz dermiyanına hakkımız olamayacağı tabii idi. Ancak komisyon-ı mahsus Gans Şirketi'ni tercih ile usul-i tevziye-i elektrikiyyeyi tebdil etmekliği talep etmiş olduğu yani Şirketin teklif etmiş olduğu 150 voltajı 110'a tenzil etmesini teklif ve bir de satış fiyatı hakkında şerait-i cedide ithal etmiş olduğu cihetle mezkur şirkete verilen rüçhanı büsbütün yeni şeraite ibtina etmiş olduğu tezahür eden bu yeni şartlar ise rakiplerin gösterdikleri fevaid-i fenniye ve maliyeyi esas ittihaz olunan tesisat-ı ibtidaiye mesarifiyle işletme mesarifini bir nispet-i fevkaladede tadil ve tağyir etmiştir.

Halbuki, şartnâmede bu misüllü mühim tadilat icrasına mesağ gösterilmemiştir. Tadilat-ı mezkure tarafımıza dahi teklif edilmiş olsa idi belki de Gans Şirketi'nin vaz etmiş olduğu şeraitten daha ziyade ehven ve faydalı şerait dermiyan ediyor idik. Su halde tarafımıza tebliğ olunan şartnâme hilafında olarak vukua getirilen şu intizamsızlığa karşı protesto etmek mecburiyetinde bulunduğum gibi Hükümetçe vaz olunan şerait-i cedide esas tutularak tekrar münakasanın açılmasını bihakkın talep ederim. Çünkü bir talibin hiçbir veçhile diğerine tercih edilmesi ve teklifat-ı cedidede bulunulması terviç? olunamayacağı gibi bir talibin tadilat ve tebeddülât-ı esasiyeden istifade etmeye ne derecede hakkı var ise diğerinin de aynı derecede hakkı olabileceği nakabil-i inkar bir hakikattir. İtirazat-ı acizanem nazar-ı itibare alındığı halde vekili bulunduğum şirketten ziyade Hükümetin ve devair-i belediyenin istifade etmiş olacakları tahakkuk edeceğinden ve Sendika Svis (Swiss) tarafından dermiyan olunan itirazat Şûrâ-yı Devlet Nâfia ve Maliye Dâiresi'nde derdest-i tetkik olduğundan işbu itirazname-i acizanemin tetkiki hususunun dahi dâire-i müşarünileyhaya havale buyrulmasını istirham ederim. Ol babda ve her halde emr-u ferman hazret-i veliyyül emrindir.

Paris'te kain Şnayder Akompani [Schneider & Cie] ile [Société Grands Travaux de Marseille] Şirketi'nin ve Kredi di Mobile [Crédit Mobilier Français] Bankası'nın Dersaadet Vekili

Galata'da ve Voyvoda Caddesi'nde mukim mühendis Antonyadis

p. 14

Şûrâ-yı Devlet Riyaset-i celilesine,

Ticaret ve Nâfia Nezareti, Nâfia Dâiresi

Hülâsa: İsviçre Sendikası'nın tekalifini mübeyyin evrakın gönderildiğine dair

Semahatlü Efendim Hazretleri,

Dersaadet elektrik tenvîratı imtiyâzının suret-i münakasasından şikâyeti havi ve kendilerine aid evrakın celb edilmesi lüzumunu haki olarak İsviçre Sendikası vekili J. Vidmeriston? tarafından ita kılınan arzuhalin leffîyle evvel ve ahir varid olan 2 ve 20 Eylül 326 tarihli ve 38 ve 41 numaralı iki kıta tezkire-i aliyye-i riyaset penahileri ile talep buyrulan ve mebhusunan Sendikanın tekalifini mübeyyin olan üç kıta varaka ile mürsel arzuhal leffen takdim kılınmış olmakla evrak-ı mezkurenin badel mütalaa iade buyrulması babında emr-u ferman hazret-i menlehül emrindir.

Ticaret ve Nâfia Nazırı Hallaçyan

Fi 5 Şevval sene 328 ve 26 Eylül 1326

p. 9a

Şûrâ-yı Devlet'e mahsus müsvedde varakası

Heyet-i umumiyyenin 11 Şevval sene 328 ve 2 Tesrin-i Evvel sene 326 tarihli zabıtnamesi mucebince kaleme alınan mazbata-yı müzeyyele müsveddesidir.

Temiz Tarihi: 12 Şevval 328 ve 3 Eylül 326

Nâfia ve Maarif ve Maliye Dâiresi'nin işbu mazbatasını mevzu-ı bahs olan kudret-i elektrikiyye imtiyâzı hakkında bazı ifadatı mutazammın Evkaf-ı Hümayun Nezareti'nde tezkire-i muhavvelesi? ve bazı sermayedaran tarafından ita kılınan arzuhaller ile birleştirilerek Heyet-i Umumiye'de kıraat melfufu? mukavelenâmesi Ticaret ve Nvfia Nezareti muavini Hulusi Beyefendi ? hazır olduğu halde tedkik ve mütalaa olundu. İşbu kudret-i elektrikiyye imtiyâzı Devletçe kararlaştırılan ve tasdik-i aliye ? edib Memalik-i Osmaniye'de ve Avrupa'da ceraid ile nesr-i ilan olunan şartnâmeyle müstenit olup mezkur şartnâmede münderiç şeraitten daha fazla menafi-i ? müsabakayı bitteşkil müracaat edenler içinde Macaristan'da vaki Gans Elektrik Anonim Şirketi'nin gösterdiği menafi diğerlerine raci görüldüğünden mezkur şirket dahil-i müsabaka olan sekiz müessese içinde birinciliği kazanarak temin eylediği menafi üzerine işbu mukavelenâmenin tanzîm kılındığı anlaşılmasına binaen tetkîkine ledel ibtidar dâire-i müşarünileyhaca icra olunan tetkikat icab-ı hale mutabık olup yalnız mesacid ve meabidin tenvîri için şirketçe teshilat-ı mümkün icrası hususunun nazar-ı mütalaaaya alınmasına dair olan ve evrak-ı melfufe miyanında bulunan Evkaf-ı Hümayun Nezareti'nin tezkiresi üzerine keyfiyet şirket vekili Mösyö Albasko'ya? bidteklif Şartnâmenin 25. maddesi mucebince taraf-ı ali turuk-ı amme tenvîratından maada Hükümet ve Şehremâneti'ne ait hidemat-ı umumiyyeye ve cevami? ve meabid ve mekatibin? sair müessesat-ı hayriyenin tenvîratına mahsus bir tarifeyi şamil olmak üzere mukavelenâme layihasının 4. maddesine bir fıkra ilavesi mumaileyhin husul-i? muvafakati ile bidtensib layiha-i mezkurenin nüsha-i musahhahası? leffen takdim kılınmış ve bu babda İsviçre

Sendikası vekili ile Şnayder ve Şürekâsı'nın itirazat ve tekalifine karşı mazbatada basb-ı beyân olunan mütalaat-ı reddiye nest'ul-emre? muvafık görüldüğü gibi mazbatanın hatimesinde beyân olunduğu veçhile tahtul arz mecralar tesisi için isde alakadar bulunan devair ile bu misillü müessesatın müştereken hareket etmesine dair olan mütalaanın nazar-ı hükümete arzı muttehiden tasvip edilmiş olmakla ifa-ı muktezası babında

p. 17

Şûrâ-yı Devlet Riyaset-i Ula'sına,  
Maruz-ı bendeleridir,

Dersaadet elektrik tenvîratı imtiyâzının hin-i münakasasında vuku bulduğunu iddia ettiğiniz şartnâme ve adalete mugayir ahvalin tetkîki Şûrâ-yı Devlet'den istida edilmiş ve mesele-i mezkurenin tetkîk edilebilmesi için evvel-i emirde Nâfia Nezaret-i'nde bu babda mevcut evrakın irsali makam-ı devletlerinden batezkire talep edilmiş ise de Nezaret-i müşarünileyha şimdiye kadar tezkire-i mezkureye hiçbir cevap vermediği gibi icra ettiğimiz tahkikat ve takibat neticesinde Nâfia Nezaret-i'nin Şûrâ-yı Devlet'in işbu talebinin isafına? gidemeyeceği ve tezkireye cevap vermeyeceği anlaşılmış ve halbuki mezkur dosyaya bir lüzum-ı kati olduğundan taleb-i vakiin musıriran tekid ve tekririyle şayet münakasa-i mezkureye ait bilcümle evrakın gönderilmesinde beis varsa her halde bize taalluku olan kısmın serian gönderilmesinin Nezaret-i müşarünileyhaya işarı hassaten mütemennadır. Ol babda emr-u ferman hazret-i menlehül emrindir.

15 Eylül 326

Memalik-i Osmaniye'de şelaleler vasıtasıyla kuvve-i elektrikiyye istihsali için müteşekkil İsviçre Sendikası namına (?)

p. 18

Türkiye Milli Bankası  
Şûrâ-yı Devlet Riyaset-i celilesi canib-i alisine,  
Semahatlü Efendim Hazretleri,

Dersaadet elektrik imtiyâzına dair Ticaret ve Nâfia Nezaret-i celilesinde müteşekkil komisyon-ı mahsus tarafından verilmiş olan kararın Şûrâ-yı Devlet Heyet-i Umumiyyesince bugün tetkîk edileceğini istihbar eyledik. Mevcut en büyük müesseselerden biri bulunan Westinghouse Darussınaisi namına hareket etmekte olan bankamız marul arz komisyon tarafından ittihaz edilmiş olan kararın muhtaç-ı tashih bulunduğunu arz ve ispat için müessese-i mebhuse tarafından mukaddema merci-i alisine takdim eylediği halde nazar-ı itibare alınmamış olan muhtırayı leffen savb-ı sami-i asafanelerine ? ve takdime cüret eyler. Vaktin adem-i müsaadesine mebni mezkur muhtıraya suret-i mütercemesi rabt edilememiştir. Mamafih tenvîr-i maddeye dahl-i azime olacağı derkâr bulunan işbu vesikanın bugünkü içtima-i alide nazar-ı itibardan dur tutulmayacağından emin bulunduğumuzu ve bu babda tafsilat-ı mütemmime-i vazıha arzu buyrulduğu takdirde bir iki gün zarfında diğer bazı vesaik-i mühimme bittercüme takdim edileceği arz ve beyân ve bilvesile teyid-i ihtiramat-ı faikaya musarahat olunur efendim.

Fi 2 Teşrin-i Evvel sene 326

Banque Nationale de Turquie, Le Directeur (imza okunamadı)

## 9. CCA, NV 34E/15 230-0-0-0 20 2 3 (15 August 1909)

Dersaadette cer ve tenvîr-i elektriki tesisi ve kuvve-i elektrikiyyenin sanayiye tatbîki hakkında Fen Müşavirliği Raporu

2 Ağustos 1325

Dersaadette cer ve tenvîr-i elektriki tesisi ve kuvve-i elektrikiyyenin sanayiye tatbîki hakkında Nezaret-i aliyyelerine vuku bulan müracaat ve şerait-i imtiyâziyeye dair dermiyan olunan muhtelif teklifat biletraf mütalaa ve tedkik olundu. Mukaddema Dersaadet Tramvay ve İstanbul ve Kadıköy Havagazı Şirketlerine verilmiş olan gaz imtiyâzatına aid mukavelatın mevadd-ı mahsusunda elektrik müessesatı için bazı kuyud ve şurut muharrer olmasına ve bu suretle mezkur şirketler bu babda bazı hukuk-ı müktesebe istihsal etmiş etmiş olmalarına mebni Dersaadette müessesat-ı elektrikiyye vücuda getirmek için salifulzıkr? şirketlerin hukuk-ı müktesebeleri dahi nazar-ı dikkate alınarak memlekete en nafi olacak bir suret-i tesviye bulmak lazım geleceğinden bu maksadı temin ve tanzim olunacak mukavele ve şeraithamenin mevadd-ı esasiyesini ol vech ile tayin için teklifat-ı vakıadan şayan-ı tedkik görülenlerin ber vech-i zir hülâsaten arz ve beyânına ve bu babdaki mütaalat-ı acizanemin dahi ilaveten serd ve ityanına mecburiyet hasıl olmuştur. Şöyle ki:

Teklifat-ı vakıaya nazaran Dersaadet müessesat-ı elektrikiyyesi için şerait-i imtiyâziyeye esas olacak dört muhtelif suret-i tesviye tezahür etmektedir.

Bunlardan birincisi,? mukaddema teati edilmiş olan mukavelat ahkamına nazaran gerek Dersaadet Tramvay Şirketi ve gerek İstanbul ve Kadıköy Havagazı Şirketleri hukuk-ı müktesebenin birleştirilerek ba imtiyâz ki? yalnız bir şirkete ihalesi ve bu surette Dersaadet tramvaylarına tatbik olunacak cer ve tenvîr-i elektriki ile İstanbul ve Kadıköy Havagazı Şirketleri hudud-ı imtiyâziyesi dahilindeki tenvîr-i elektriki ameliyatının hudud-ı imtiyâziye haricindeki mahallerle beraber Şirket-i vahide tarafından icra edilebilmesi esbabının temini

İkincisi mesarifi-i doğrudan doğruya tesviye olunmak üzere icab eden mahallerde elektrik fabrikaları inşasıyla taraf-ı Hükümetden işledilmesi ve tramvay şirketine ol babdaki mukavelenâme ahkamına tevfiakan cer ve tenvîr için bir bedel-i muayyen mukabili kuvve-i elektrikiyye fûruhtuyla beraber bunun İstanbul ve Kadıköy Havagazı Şirketi hududu haricindeki mahallere dahi teşmili

Üçüncüsü, Hükümetin doğrudan doğruya işbu fabrikaları inşaya istitaat-ı maliyesi gayri müsaid ve işledilmesine dahi ahval-i hazırası mani olduğu takdirde mezhur fabrikalar hasılatı karşılık gösterilmek ve bidayeten vuku bulacak mesarif müessislerine aid olmak üzere bir müddet-i muayyene için inşaatın müteaahid ve işledilmenin müstecir sıfatıyla bir şirkete ihalesi

Dördüncüsü, doğrudan doğruya Dersaadet Tramvay ve İstanbul ve Kadıköy Havagazı Şirketlerinin hudud-u imtiyâziyesi haricinde olan mahallerin cer ve tenvîr-i zımnında bir şirkete imtiyâz itasına birinci suret yani bilimum Dersaadet cer ve tenvîr-i elektriki tesisi ve kuvve-i elektrikinin sanayiye tatbîki hususunun ba imtiyâz şirket-i vahideye ihalesi için evvel-i emirde bu işi deruhde etmek isteyen şirketin Dersaadet Tramvay ve İstanbul ve Kadıköy Havagazı Şirketleriyle itilaf etmesi ve işbu itilafı mutazamnın Hükümete teminat-ı katiye vermesi lazımdır. Çünkü, Dersaadet tramvaylarına aid 18 Kanun-ı sani 1322 tarihli imtiyâz mukavelenâmesinin onbirinci maddesinde ve ileride Hükümet-i seniyyece tramvay arabalarının kuvve-i elektrikiyye ile cerrine müsaade buyrulduğu halde tramvay

arabalarının cerri ve depoların tenvîri için iktiza eden kuvvet doğrudan doğruya bilavasita Hükümet-i seniyye tarafından Tramvay Şirketine fûruht olunmak üzere ol vakit Hükümet-i seniyye canibinden tramvay hatlarının güzergahıyla mürur edeceği yolların memleketin husul-ı intizamıyla mürur ve uburca selamet-i umumiyyeyi temin edecek surette vüsat ve şerait-i fenniyesi tayin edilecek ve bu yolların tevsiine muktezi istimlak mesarifi tamamen şirket tarafından tesviye kılınacaktır.

Ve İstanbul Havagazına aid 12 Ağustos sene 303 tarihli imtiyâz şartnâmesinin onbirinci maddesinde (müddet-i imtiyâziye zarfında elektrik ve sair muhteriat-ı cedide ile dâire-i imtiyâziye dahilinde bulunan mahallerin tenvîri Hükümet-i seniyyece talep buyrulur ise sahib-i imtiyâzın hukuk ve menafi-i meşruasına hâlel gelmemek üzere bu babda lazım gelen şerait Şehremânetle bilittifak kararlaştırılacaktır) ve Kadıköyü Havagazına aid onbeş Temmuz 307 imtiyâz mukavelenâmenin onüçüncü maddesinde (işbu mukavelenâme hükmünce kömürden mamul gaz ile tenvîr olunacak mahallerin işbu müddet-i imtiyâziye zarfında elektrik veya diğer bir vasıta ile tenvîri devletçe arzu edilir ve bunun için talep zuhur eder ise şerait-i mütesaviye ile sahib-i imtiyâz hakkı rûçhana maliktir) deyu muharrer olduğundan ve işbu maddeler müeddalarından salıfuzzıkr şirketlerden Dersaadet Tramvay Şirketinin cer ve tenvîr-i elektriki ve İstanbul havagazı Şirketinin tenvîr-i elektriki tesisi için hakk-ı müktesebleri olduğu ve Kadıköyü Havagazı Şirketinin dahi tenvîr-i elektriki için şerait-i mütesaviye ile hakk-ı rûçhana bulunduğu anlaşıldığından herhalde mezkur şirketler hukuk-ı müktesebelerinin nazar-ı dikkate alınması lazım geleceği varest-i arz ve izahdır. Eğerçi, teklifat-ı vakıa imtiyâzında alelumum Dersaadet cer ve tenvîr-i elektriki imtiyâzının ihalesi halinde mukavelenâmenin imza bulunduğu tarihten itibaren muvafakatlarını istihsal ettiğine dair otuzbir gün zarfında Dersaadet Tramvay Şirketinden ve altı ay zarfında İstanbul ve bir sene zarfında Kadıköyü Havagazı Şirketlerinden birer ibraname ita edileceği ve bu taahhüdünü ifa eyleyeceğini teminen Tramvay Şirketi için ikibin ve İstanbul ve Kadıköyü Havagazı Şirketleri için dahi beşer yüz Lira teminat akçesi ita edeceği ve şayet müddet-i muayeneleri zarfında işbu ibranamelerden herhangiisini ibraz edemez ise ona aid teminat akçesinin Hükümet tarafından zabtıyla beraber o kısmının dâire-i imtiyâzdan ihraç olunması ve gerek hasılat-ı gayri safiyeden ve gerek hasılat-ı safiyeden bir mikdarın Şehremânetine verilmesi merkezinde bir teklif vaki ve bu teklif arz olunan suver-i erbaadan birincisine muvafık ise de bazı cihetleri ve ezcümle Şehremânetine verilecek hisselerle marulzıkr teminat akçesinin mikdarları şayan-ı tedkik ve tenkidir.

Evvelen ber minval-i muharrer tekalifi dermiyan eden talep filhakika bidayeten Tramvay ve Havagazı Şirketleriyle itilaf etmiş ve bu şirketler miyanesinde bir mukavele-i hususiye akd olunmuş ise istihsal-i rekabet kabil olamayacağından doğrudan doğruya imtiyâz şeraitini şirket-i vahide ile kararlaştırılmak icab eder.

Saniyen, Tramvay Şirketinden alınacak ibraname mukavelenâmenin imza edildiği tarihten itibaren otuz gün müddet zarfında irae olunacağı ve bunu teminen ikibin Lira teminat akçesi verileceğinin ve şayed bu taahhüd ifa edilmez ise ikibin Liranın Hükümet tarafından zabtıyla beraber Tramvay Şirketi hudud-ı imtiyâziyesi dahilindeki hakk-ı imtiyâzın dahi sakıt olacağının teklif ve dermiyan kılınması salıfuzzıkr talibin Tramvay Şirketi ile akd-i itilaf edebilmesi taht-ı imkânda bulunduğu delalet eylemekde ise de İstanbul ve Kadıköyü Havagazı Şirketlerinden verilecek ibranameler için ita olunacak teminat akçesinin mikdarı nisbeten dun ve tayin olunan müddetlerin dahi efzun olması henüz bu şirketlerin itilafa imale (meyl etmek) edilmemiş olduklarını irae etmekde ve alehusus bu şirketlerle itilaf hasıl

olmadığı yakdinde yalnız bin lira kadar bir ziyan ile bunların hudud-ı imtiyâziyesi haricindeki elektrik imtiyâzını istihsal edebilmek fikrine müstenid bir teklif olabilmesi dahi muhtemel görülmekte olup her halde marrulbeyân beşyüz Liralık tazminatın la-ekal biner Lira'ya iblağı lazım gelir. Mamafih Dersaadetde cerr-i elektriki tatbîkatı herhalde mevcut tramvayların kuvve-i cerriye almasına mütevakkıf olup halbuki ahirine imtiyâz verildiği takdirde sahib-i imtiyâzın behemehal Şirketten bir ibraname istihsal etmesi lazım geleceği gibi yalnız tramvay hudud-ı imtiyâziyesi haricindeki mahaller için imtiyâz verilmesi cihetine gidildiği halde dahi ciddi talib zuhuru muhtemel olmadığından ve İstanbul cihetinin elektrikle tenvîri için kezalik aynı mütalaa varid olmakla beraber yalnız Beyoğlu cihetinin tenvîri ile iktifa? olunması da efkar-ı umumiyyeye münafii bulunduğundan Dersaadetde cer ve tenvîr-i elektriki tesis ve kuvve-i elektrikiyyenin sanayiye tatbîki hususunun şirket-i vahideye ihalesi şıkkı kabul olunduğu takdirde doğrudan doğruya şirket-i vahide teşkili talebinde bulunan talible müzakereye girilerek şeraitin menafii-i muvafık bir tarza ifrai esbabına çalışmak icab eder. Kadıköyü Havagazı Şirketine gelince esasen mezkur şirketin şerait-i mütesaviye ile hakk-ı rüçhanı olduğundan bunun için bidayeten bir ibraname irae olunmadığı takdirde Kadıköyü Havagazı Şirketine aid olan hududun dahilindeki tenvîr hakkının yeniden verilecek imtiyâzdan ihraç edilmesi herhalde? ve fakat talib şirket-i mezkur ile bir müddet-i muayene? zarfında itilaf peyda eder ise hudud-ı mezkure dahilindeki tenvîr hakkının şirket-i vahideye verileceğine dair bir bend-i mahsus ilavesi lazım gelir. Mamafih balada arz olunduğu üzere Dersaadet elektrik imtiyâzının şirket-i vahideye verilmesi behemehal şirket-i mezkurenin Tramvay ve İstanbul ve Kadıköyü Havagazı Şirketleriyle akd-i itilaf eylemesine mütevakkıftır.

İkinci suret yani mesarifi doğrudan doğruya Hükümet tarafından tesviye olunmak üzere icab eden mahallere elektrik fabrikaları inşa ve bunların taraf-ı Hükümetden işledilmesi ve Tramvay Şirketine ol babdaki mukavelenâme ahkamına tevfi kan cer ve tenvîr için bir bedel-i muayyen mukabili kuvve-i elektrikiyye fûruhtuyla beraber bunun İstanbul ve Kadıköyü havagazı hududu haricindeki mahallere dahi teşmil olunması için evvel-i emirde Hükümetin istitaat-ı maliyesi buna müsaid olup olmadığının ve işledilmesi esbabbının dahi ne vech ile temin olunacağını tayini icab eder. Mea haza tenvîr ve cerr-i elektriki ve kuvve-i elektrikiyyenin sanayiye tatbîki gibi ameliyat-ı mühimmeye nisbetle ehemmiyet-i daha dun olan telefon müessesatı için Hükümetin imtiyâz itasına karar vermiş olması ve her halde bir mesele-i ticariye demek olan bu gibi hususatın Hükümetçe mevki-i icraya vazındaki menafii ve meazirin cay-i tedkik ve muvazene bulunması itibariyle Hükümet bu işin doğrudan doğruya kendi tarafından mevki-i tatbîkat vazı için ihtiyar-ı külfet etmeyeceği anlaşılmakda ise de bu külfeti ihtiyar etmiş olsa bile tesis olunacak fabrikalar varidatının kısm-ı küllisini Dersaadet tramvayları kuvve-i cerisine mukabil alınacak bedel teşkil edeceğinden Tramvay Şirketinin cerri için beher kilovat saat başına kaç gurus vereceğini tayin etmedikçe varidatın mesarifata tekabül edib etmeyeceği kestirilmeyeceğinden ve Hükümetçe bu kararın mevki-i tatbîkata vazından evvel bu babda Tramvay Şirketi ile bilmuzakere ve her kilovat saat için itasını deruhde edeceği fiyatın kararlaştırılması icab eder.

Halbuki Tramvay Şirketi'nin menafii kendi arabalarının? kendi istihsal edeceği kuvve-i elektrikiyye ile cer ve tenvîr etmekde veyahud kendi itimad ettiği bir şirketle akd-i itilaf eylemekde olduğundan ber minval-i muharrer fiyat kararlaştırılmak hususunda ika-i müşkilatdan geri durmaması melhuzdur. Bununla beraber Hükümetçe bu surette elektrik tesisatının vücuda getirilmesi İstanbul ve Kadıköyü

Havagazı Şirketlerinin hukuk-ı müktesebelerini dahi ihlal edemeyeceği derkardır. Binaenaleyh esbab-ı mesudeden dolayı bu suretin kuvveden fiile çıkabilmesi meşkur görülmektedir.

Üçüncü suret yani fabrikalar hasılatı karşılık gösterilmek ve bidayeten vuku bulacak mesarif müessislerine aid olmak üzere bir müddet-i muayyene için inşaatın müteahhid ve işledilmenin müstecir sıfatıyla bir şirkete ihalesi için evvel-i emirde ikinci suretde dermiyan olunan mütalaat aynen burada da vaki olduktan başka Tramvay Şirketi mukavelenâmesinin saliffüzzikr onbirinci maddesinde kuvve-i elektrikiyi doğrudan doğruya bila vasıta Hükümetten alacağı kaydına istinaden bir takım müddeidayata kalkışması dahi müstebid değildir.

Dördüncü suret yani doğrudan doğruya Dersaadet Tramvay ve İstanbul ve Kadıköyü Havagazı Şirketlerinin hudud-ı imtiyâziyesi haricinde olan mahaller cer ve tenvîratının ba imtiyâz bir şirkete ihalesi için evvel-i emirde esas-ı varidatı teşkil edecek meblağ mevcut Tramvay Şirketi tarafından mübayaa kılınacak olan kuvve-i elektrikiye olduğu cihetle aksam-ı saire için ciddi talibler zuhuru melhuz olmadığından ve olsa bile şehrin bir kısmında cer ve tenvîr-i elektriki mevki-i tatbîke vaz edilerek diğer aksamın ve alelhusus betaet-i (?) seyrinden her an şikayet edilmekde bulunan İstanbul tramvaylarının alahalihi bırakılması efkar-ı umumiye karşı pek tenasü?-ı tesir edeceği derkardır. Binaenaleyh ber vechi bala arz ve izah olunan tafsilat ve ol babda dermiyan edilen mütaalata nazaran saliffüzzikr suver-i erbaadan hangisi Hükümetçe şayan-ı kabul görülür ise tanzîm olunacak mukavelenâmeye esas olmak üzere birinin veya diğer bir suret-i tesviyenin bittayin emir ve tebliğ buyrulması babında emrû ferman hazret-i menlehül emrindir.

Fi 2 Ağustos sene 1325

Fen Müşaviri

Sururi

Meclise

## 10. CCA, NV 34E/36 230-0-0-0 22 6 3 (7 September 1910)

Ticaret ve Nâfia Nezareti

Baş Kitabet Dâiresi

Nezaret-i celilerinin 1 Mart 1326 (14 Mart 1910) tarihli kararnamesi ahkamına tevfikân bir reis ve dört azadan mürekkeb olarak teşekkül eden münakasa komisyonu ikmal-i muamele ile üç ekseriyet ve bir ekalliyet kararını havi olarak tanzîm ettiği müteferrik üç kıta raporu evrak-ı müteferriasıyla ve İsviçre sendikasının teklifat-ı ahiresinin adem-i kabulü esbabını ve ekseriyet kararını havi rapor ile beraber leffen takdim eder.

Salıfuzzıkr üç raporun yegan yegan mütealasından müsteban olacağı vechile ekseriyet-i hükümet-i meşrutanın mukarrerat ve icraatındaki metanet ve ciddiyeti irae ve isbat edebilmek mücerred nezaret-i celilerince tanzîm ve Dersaadet ve Avrupa'da neşir ve tamim kılınmış olan kararname ve şartnâme ve şerait-i fenniye mübeyyin talimat ahkâmının muhafaza ve müeddalarına tevfik-i muamele ile kabil olabileceğine kanaat etmiş ve mündericatı pek sarîh olan mezkur kararname ve müteferriasının bazı mevaddını tevil ve tefsir suretiyle tagyire yeltenmeyüb aynen tatbîk-i ahkamına çalışarak ona göre ittihaz-ı karar eylemiştir.

Ekseriyet zehabınca gerek nâfia müdürü saadetlü Frangia Efendi hazretlerinin ve gerek Şehremâneti-i aliyyesi ser mühendisi Mösyö Orik'in müteaalatı kararname ahkamıyla kabil-i telif görülememiştir. Alelhusus Mösyö Orik ita etmiş olduğu raporda Gans şirketinin iktisaden ve Fukyo Varnant şirketinin fennen birinci dereceyi haiz olmaları aralarında müsavat teşkil ettiğinden istifade-i azamiyi ihtihsal için bu iki şirket arasında yeniden münakasa icrasını teklif ediyor.

Leffen takdim kılınan ve cihat-ı fenniyesi hakkındaki numaralar fen komisyonunun takdir ettiği mekadire (mikdarlar) müstenid bulunan üç numaralı cedvelin tedkikinden anlaşılacağı üzere Fukyo Varnant Şirketinin fen nokta-i nazarından Gans Şirketine derece-i tefevvuku binde doksanalı olduğu halde Gans Şirketinin iktisad nokta-i nazarından Fukyo ve Varnant Şirketine derece-i tefevvuku binde yüzyetmişsekizdir. Bu takdirce Gans Şirketi iktisaden binde sekseniki derecesinde Fukyo Varnant Şirketine tefevvuk etmiş iken bunun menafi-i iktisadiyesi berikinin menafi-i fenniyesine müsavi add etmek muvafık-ı hak ve adl olmasa gerektir. Aradaki farklara nazaran olsa olsa her ikisinin menafi-i iktisadiye ve fenniyesi yekünü muvazene edilerek fazla olanının tercihi icab eyler ki mezkur cedvelde görüldüğü üzere bu halde yine Ganz Şirketinin birinciliği ihraz etmesi lazım gelir. Fakat ekseriyet bu suret-i mukayese ve muameleyi kararname ahkamına münafi gördüğünden tanzîm ettiği raporda bu ciheti mevzu-ı bahs etmemiştir.

Her halde ihalenin kesb-i katiyet etmesi makam-ı nezaret-i celilerinin kabul ve tasdikine mütevakkıf olduğundan tafsilat-ı mesrude ve takdim kılınan raporlar ile evrak-ı müteferriası meallerine nazaran ifa-yı muktezası merhun-ı irade-i aliye-i nezaret penahileridir. Ol babda emrû ferman hazret-i men lehül emrindir.

Fi 20 Ağustos sene 326

Elektrik münakasa komisyonu reisi

Müsteşar

Bende

Hulusi

p. 18

Bab-1 Aliye

25 Ağustos 1326

3 Ramazan 328

İstanbul ve mülhakatı dahilinde telgraf ve telefon ve umum vesait-i nakliyyeye aid kuvve-i muharrikenin gayrı bilcümle hususatda istimal edilmek üzere kudret-i elektrikiyye ve tevziat-ı umumiyyesi imtiyâzı hakkında icra edilen münakasaya vekili bulunduğu İsviçre Sendikası namına iştirak ve tayin edilen müddet zarfında projesini bi'l-ita bu babdaki tafsilat ve teferruat-ı saireyi havi izahnameleri dahi nezaret-i aciziye irsal etmiş olduğu halde münakasa komisyonu bunları ne suretle kabulden istinkaf ederek menafi-i hazine zarara uğradığına ve bu suretin ihtiyari iza-ı hukuklarını da mucib olacağına dair bazı ifadat ve müstediati havi J. Vidoşzek imzasıyla takdim olunan arzuhalin leffen irsal buyrulduğu beyân-ı alisiyle bu babdaki muamele ve malumatın arz ve inbasını amir 19 Ağustos 326 tarihli ve üçyüzseksendokuz numaralı tezkire-i samiye-i sadaret penahileri üzerine keyfiyet münakasa komisyonuna ledel havale bu babda mezkur sendikanın teklifat-ı ahiresinin kabûlü cihetine gidilemeyeceği mütekarrer olub mezkur komisyon tarafından ekseriyet-i ara ile tanzîm kılınmış olan mazbata sureti leffen ve mürsel arzuhal iadeten takdim kılınmış olmağla ol babda.

p. 19

Ticaret ve Nâfia Nezareti

Baş Kitabet Dâiresi

Huzur-ı sami-i cenab-ı sadaret penahiye,

Maruz-ı çaker-i kemineleridir,

İstanbul ve mülhakatı dahilinde telgraf ve telefon ve umumi vesait-i nakliyyeye aid kuvve-i muharrikenin gayrı bilcümle hususatda istimal edilmek üzere kudret-i elektrikiyye ve tevziat-ı umumiyyesi imtiyâzı hakkında icra edilen münakasaya vekili bulunduğu İsviçre Sendikası namına iştirak ve tayin edilen müddet zarfında projesini bi'l-ita bu babdaki tafsilat ve teferruat-ı saireyi havi izahnameleri dahi nezaret-i aciziye irsal etmiş olduğu halde münakasa komisyonu bunları ne suretle kabulden istinkaf ederek menafi-i hazine zarara uğradığına ve bu suretin ihtiyari iza-ı hukuklarını da mucib olacağına dair bazı ifadat ve müstediati havi J. Vidmerştrak imzasıyla takdim olunan arzuhalin leffen irsal buyrulduğu beyân-ı alisiyle bu babdaki muamele ve malumatın arz ve inbasını amir 19 Ağustos 326 tarihli ve üçyüzseksendokuz numaralı tezkire-i samiye-i sadaret penahileri üzerine keyfiyet münakasa komisyonuna ledel havale mezkur sendikanın teklifat-ı ahiresinin kabûlü cihetine gidilemeyeceğini mutazammın olub mezkur komisyon tarafından ittifak-ı ara ile tanzîm edilmiş olan zabıtname sureti leffen ve mürsel arzuhal iadeten takdim kılınmış olmakla ol babda emrû ferman hazret-i veliyyül emrindir.

Ramazan 328

Ağustos 326

Ticaret ve Nâfia Nazırı namına

Müsteşar (?)

p. 20

Bab-1 Ali Dâire-i Sadaret Tahrirat Kalemi

Ticaret ve Nâfia Nezaret-i Celilesine

Devletlü Efendim Hazretleri

İstanbul ile mülhakatı dahilinde telgraf ve telefon ve umumi vesait-i nakliyyeye aid kuvve-i muharrikenin gayrı bilcümle hususatda istimal edilmek üzere kudret-i elektrikiyye tevziat-ı umumiyyesi imtiyâzı hakkında icra edilen münakasaya vekili bulunduğu İsviçre Sendikası namına iştirak ve tayin edilen müddet zarfında projesini bi'l-ita bu babdaki tafsilat ve teferruat-ı saireyi havi izahnameleri dahi nezaret-i celilerine irsal etmiş olduğu halde münakasa komisyonu bunları ne suretle kabulden istinkaf ederek menafi-i hazine zarara uğratıldığına ve bu suretin ihtiyari izaa-ı hukuklarını da mucib olduğuna dair bazı ifadat ve müstediati havi J. Vidmerştrak imzasıyla verilen arzuhal leffen savb-ı devletlerine irsal kılınmış olmakla bu badaki muamele ve malumatın inbasını himem buyrulması siyakında tezkire-i senaveri terkim kılındı efendim.

Fi 27 Şaban sene 328

19 Ağustos 326

Sadrazam namına

Adliye Nazırı

(Mehmed Kemal?)

**11. CCA NV 34E/44 230-0-0-0 23 8 5 (15 February 1911)**

Şehremânet-i Aliyyesi'ne,

Hülasa: Dersaadet tenvîrat-ı elektrikiyyesi için emânet müsteşarı Mösyö Orik'in fahri olarak komiserliğe tayini hakkında

15 Safer 1329

İstanbul şehrinin Rumeli cihetiyle mülhakatında telgraf telefon ve vesait-i nakliye-i umumiye umûruna muktezi kuvve-i muharrikeden maada hususat-ı sairede istimal edilmek üzere Peşte'de bulunan Gans nam anonim elektrik şirketiyle akd ve teati olunan kudret-i elektrikiyye tevziat-ı umumiyesi imtiyâzına aid şartnâmenin kırk sekizinci maddesinin fıkra-i ulasında icra edilecek istikşafat ve ameliyat-ı fenniye ile tesisat-ı ibtidaiye inşaatı ve imalatın hüsn-i halde muhafazası ve işletme muamelatı Ticaret ve Nâfia Nezaretiyle Şehremânetinden bir heyet-i teftişiyenin taht-ı nezaretinde bulundurulacaktır deyu muharrer bulunmasına ve sahib-i imtiyâz olan şirket-i mezkure tarafından bed ve mübaşeret edilen istikşafat ve inşaatın devamı esnasında icab eden memurların mevcudiyeti muktezi olarak ihdası lazım gelen komiserliğe emânet-i aliyyelerince ser mühendis Mösyö Orik'in fahri olarak tayini derkar bulunmasına nazaran nezaretçe de elektrik mühendisi Zehrab Efendinin komiser muavinliğine tayini münasib görülmüş ve mumaileyh Zehrab Efendiye aid muamele-i mukteziye icra kılınmış olduğundan bu suret Emânet-i aliyyelerince dahi muvafık görüldüğü takdirde Şirket-i merkumeye icra-i tebligat olunmak üzere keyfiyetin inbası ve memuriyet-i vakıasından mumaileyh Mösyö Orik'e de malumat itası siyakında terkim-i tezkireye ibtidar kılındı. Ol babda.

**12. CCA, NV 34E/50 230-0-0-0 23 9 1, 22 Haziran 327 (5 February 1911)**

p. 1

Tenvîrat-ı elektriki serkomiseri Mösyö Orik’e,

22 Haziran 327

Elektrik-i Osmani Şirketi imalat ve icraatının ber muceb-i ahkam-ı imtiyâziye ifa-yı tedkikat ve teftişatı münhasıran uhde-i velamkarilerine muhavvel olub şu kadar ki Şirket-i mezkurece Boğaziçinin Rumeli sahiliyle İstanbulu şamil olmak üzere begayet vasi ve uzun bir sahada yapılacak imalata aid teftişatın zatınız ile geçen sene tayin kılınan Zehrab Efendi tarafından icrası müşkil ve müteassir olacağına mebni indel iktiza muavenet eylemek ve maaşı Nezaretçe tesviye edilmek üzere bin gurus maaş ile bu kerre dahi Hamdi Bey tayin kılınarak taraf-ı velamşiarilerine? tevdi ve irae olunacak vezaif hüsn-ü suretle ifası zımnında mumaileyhimaya icra-yı tefhimata ve memuriyet-i vakıadan şirket-i mezkureye de ita-yı malumat edilmiş olduğundan her iki komiserin istihdamı suretiyle muhavvel-i uhde-i? kifayetleri bulunan vezaifin ber vech-i matlub icrası hususunu beyân ve teblîğe ibtidar ve bilvesile teyid-i müvalat olunur.

p. 2

Elektrik-i Osmanlı Anonim Şirketi

18 Haziran 327

Şirketlerce ber muceb-i ahkam-ı imtiyâziye Boğaziçinin Rumeli sahiliyle İstanbulu şamil olarak yapılacak tenvîrat-ı elektriki imalatına aid teftişatın icrası zımnında ser komiser olarak tayin kılınan mühendis Mösyö Orik’e muavenet eylemek üzere evvelce Zehrab Efendi ve işlerin vüsat ve kesretine binaen binaen bu kerre de Hamdi Bey tayin kılınarak kendisine ifa-i tebligat edilmiş olduğunun teblîği teyid-i ihtisasat-ı muhalesatkariye zeria ittihaz kılındı.

### 13. COA, ŞD 1230/14 (1 Nisan 1326 / 14 April 1910)

Ticaret ve Nâfia Nezareti

Nâfia Dâiresi

Huzur-ı Sami-i Cenab-ı Sadaret Penahileri

Hülasa: Alel umum elektrikli tramvaylarla x civarında inşa olunacak keza elektrikli tramvaylara aid şartnâme layihaları ile merbutanın takdim kılındığına dair

Maruz-ı çaker-i kemineleridir ki,

Dersaadetde tatbikat-ı elektrikiyye cümlesinden olarak Rumeli ciheti tenvîri elektrikiyyesi imtiyâzının ifası hususundaki hatt-ı harekete esas ittihaz olunmak üzere bittanzîm ? savb-ı ali-i fahimanelerine takdim x şartnâme layihaları ile merbutanı ihza-i tasdik ve iade buyrulmuş idi.

Bu kerre de memalik-i Osmaniye'nin terakkiyat-ı iktisadiye ve medeniyesi ? ve muamelat-ı nası teshil idecek olan elektrikli tramvaylar gibi vesait-i nakliyenin sürat-i mümkinine ile vücuda getirilmesindeki ehemmiyet ? evvel-i emirde vesait-i nakliye-yi mezkurenin tesis imtiyâzına talep eyleyenler tarafından vuku bulacak teklifat-ı muhtelifeden memlekete ve hazine-i devlete en nafi hin-i tefrik ve intihabda muayyen ve mukarrer esasata müsteniden hareket eyleyen ve biri alel umum vilayati Osmaniye'de tesis olunacak elektrikli tramvaylara ve diğer hatların tayin-i güzergahı hususunda Dersaadet Tramvay şirketi'ne ita olunacak olan hukuk ? suretiyle İstanbul şehri ile civarında vücuda getirilecek keza elektrikli tramvay şebekelerine aid bulunmak üzere tanzîm olunan şartnâme ve mukavelenâme layihaları iki nüsha olarak leffen sabk-ı ali-i ? penahilerine takdim kılınmıştır.

Mesrudat-ı salifeye ve memleketin bu hususdaki ihtiyacına binaen mezkur şartnamlerle merbutanının meclis-i mahsus-ı vükelaca ? şimdiden münakasasının ilanına müsaade buyrulmuş menut-ı rey-i ali-i fahimaneleri bulunmağla ol babda emr-i ferman hazret-i veliyyül emrindir.

Fi 3 Rabiul-l-ahir 328

1 Nisan 1326

Ticaret ve Nâfia Nazırı, Halaçyan

#### 14. COA DH.MUİ 42/66, 1328 Ca 29 (8 June 1910)

p. 6

Dahiliye Nezaret-i Celilesi'ne,

Devletlü Efendim Hazretleri,

26 Teşrin-i sani 1324 tarihli ve yedi yüz altmış beş numaralı tezkire-i acizane zeyliyle İstanbul şehrinin tanzîm ve imarı için Avrupa'dan celb olunacak Paris mimarı Mösyö Buvar'ın getirilmesinden evvel vaktiyle tanzîm ettirilip Emânet Hendesehanesi'nde mahfuz bulunan ve bir heyet-i fenniye marifetiyle tedkiki icra kılınacağı arz ve iş'ar kılınan ve 64 m murabbaında bir satıh teşkil eden Desaadet umumi planının Nafiye ve Harbiye Nezaretleriyle emânettden tayin kılınan bir heyet-i fenniye marifetiyle tedkikatı bi'l-ifa bazı cihetlerin icrasına lüzum görülen tadilat ve ıslahatın ikmaliyle matluba muafık bir hale irca olunabileceğine dair heyet-i mezkure tarafında tanzîm ve ita kılınan raporun bir sureti leffen sui ali-i daveralarına takdim kılınmakla ol babda emrû ferman hazreti menlehül emrindir.

Fi 26 Zilhicce sene 1326 ve 6 Kanun-i sani sene 1324

Şehremini

Bende Rıdvan

p. 7

Şehremânet-i Aliyyesi'ne,

Şubat sene 324 tarihli x numaralı tezkire-i aliyyelerine cevap

İstanbul şehrinin suret-i tenvîr ve tezyin ve imarı ve vesait-i nakliyenin tezyin ve teksiri ile münakalat ve müraselatın tevsi ve tevfiiri ve buna müteferri istikrazat ve muamelatın akid ve ifası Fransa'dan celbi mukarrer olan mühendislerin vusulüyle tedkikat-ı lazimeyi icra etmesine mütevakıf ve binaenaleyh şimdiden bir güne teşebbüsât-ı imariye ile istikrazata erişilememesi tabii ise de Londra elektrik tramvayları müdürü olup talep ettiği Üsküdar ve Kadıköy elektrikli tramvay imtiyâzatına mukabil ehven faizle Emânete akçe ikrazı teklifinde bulunan Sir Klinikton arzu ettiği takdirde Dersaadete gelebileceğinin ve ifadatı Emânet-i aliyyesince istimal olunmakta beis görülmediğinin savb-ı alilerine tebliği bi'l-muhabere cevaben şeref varid olan 15 şubat sene 324 tarihli tezkire-i samide izbar buyrulmakla ona göre icra-i icabına himem.

p. 8

Şehremâneti Mektubu Kalemî

16

Dahiliye Nezaret-i Celilesi Canib-i Alisi'ne

Maruz-ı çaker-i kemineleridir

Londra elektrikli tramvayları sahib-i imtiyâzı Sir Kanyikyon? Robernon ile vekili Berjar namına Üsküdar ve Kadıköy cihetlerinde elektrikli tramvay tesisi imtiyâzının istihsali için Emânete müracaat eylemiş ise de mürcaat-ı vakıanın kabûl ve tevcihinde tereddüt edildiğinden ve ifadat-ı saireden bahisle Farhi? imzası ile verilen

arzu hal üzerine istirsar-ı mütaalayı mutazammın şeref varid olan Kanun-i sani x sene 324 tarihli ve 1285 numaralı tezkire-i aliyyei fahimaneleri cemiyet-i umumiye-i beldeiyede ledel mütalaa bu gibi imtiyâzlar hakkında gerek muma ileyh ve gerek devair-i saire tarafından müstediat ve müracaat vuku bulmakta ise de şehir içinde berri ve bahri verilecek her nev imtiyâzâtın köprüler ve gazhaneler ve gaz ve ispirto gibi mevad-ı müştailleye aid depolar varidatının emânete terk ve itası hakkında 4 Teşrin-i sani sene 1324 ve 17 Kanun-ı evvel sene 1326 tarihlerinde vaki olan arz ve işar-ı çakeranemin emr-i cevabisi alınmamış olmasına binaen bittabii bu gibi müstediat hakkında ittihaz-ı karar kabil olamadığından maruzat-ı sabıkaya nazaran iktizasının bir an evvel icra ve emir ve inbası hususunun tekrar pişgah-ı sami-i fahimanelerine arz ve ihbarı ifade kılınmış olmakla icabının tesri-i ifasına müsaade-i celile-i uslub ve azamileri şayan buyrulmak babında emr-i ferman hazret-i veliyyül emrindir. Fi 7 Safer sene 1327 ve 15 şubat sene 1326.

Şehremini

Rıdvan

p. 9

Dahiliye Nezaret-i Celilesi Canib-i Alisi'ne,

Maruz-ı çaker-i kemineleridir ki,

Idare-i mahsusanın milli bir şirket haline ifrağı esasına müstenid olarak ehven faiz ile ikrazatta bulunmak ve Üsküdar ve Kadıköyü elektrikli tramvay imtiyâzının talebiyle tezyin ve imar-ı memleket için Şehremânetine yüzde 4,5 faiz ile bir milyon liraya kadar bir meblağ ikraz etmek teklifinde bulunan Londra şehri mühendisi müvekkili Sir Kilifon Robensonun Hükümetçe davet olunduğu halde bila masraf davet-i vakıaya icabet edeceğine dair Farhı? imzasıyla Şehremânetine verilip emânet-i müşarünileyhadan ba tezkire irsal olunan arzu halin gönderildiğini mutazammın 2 Safer sene 327 tarihli 4519 numaralı tezkire-i aliyye-i fahimaneleri mütalaa olunduğu malum-ı ali-i daverileri olduğu üzre İstanbul şehrinin suret-i tezyin ve imarı ve vesait-i nakliyenin tezyin ve teksiri ile münakalat ve müraselatın tevsii ve tevfi ve buna müteferri istikrazat ve muamelatın akid ve ifası Fransa'dan celbi mukarrer olan mühendisin vusulüyle tedkikat-ı lazimeyi icra etmesine mütevakıf ve binaenaleyh şimdiden bir güne teşebbüsât-ı imariye ile istikrazata erişilememesi tabii ise de muma ileyh Sir Klifton arzu ettiği takdirde Dersaadete gelebileceğinin ve ifadatı Emânetçe istima olunmakta beis görülmediğinin emânet-i müşarünileyhaya tebliğ buyrulması babında emr-i ferman hazret-i veliyyül emrindir. Fi 7 Safer sene 327 ve 15 Subat sene 324.

Sadrazam

Halil Rıfat Paşa

p. 10

Dahiliye Nezaret-i Celilesi Canib-i Alisi'ne,

Dâire-i sadaret-i uzma

Mektubi Kalemi

Maruz-ı çaker-i kemineleridir ki,

Dersaadetin imarı için mukaddema tanzîm ettirilen umumi plan hakkında tayin kılınan heyeti fenniye tarafından icra olunan tedkikat neticesinde ita edilen raporun bu babda şehremantinden alınan tezkire malfufatı ile beraber gönderildiğini mutazammın 17 Kanun-ı sani sene 1324 tarihli ve 4267 numaralı tezkirei aliyye-i fahimaneleleri evrak-ı müteferria ile Meclis-i Mahsus-ı Vükelada ledel mütelaa olunmak için? mühendis Mösyö Schrader canibinden yazılıp tercümesi evrak-ı mürsele miyanında bulunan rapor mündericatına nazaran bi'l-ahire tatbıkatta müşkilat zuhuruna mahal kalmamak üzere evvelce yapılan planın tashih ve ikmal-i nevakısı muktezi ve bu ise yeniden nirengi ve tesviye ve ameliyat-ı icrasına mütevakkıf olduğu anlaşıldığından bir taraftan erbab-ı iktidardan mühendisler marifetiyle işbu iki ameliyata şimdiden ibtidar ve diğer taraftan da Mösyö Buvar'ın celbine teşebbüs olunması hususunun Emânet-i müşarünileyhaya tebliğinin savb-ı ali-i fahimanelerine havalisi tezekkür ve evrak-ı müteferria takımıyla iade kılınmış olmakla ol babda emrû ferman hazret-i veliyyül emrindir. 30 Zilkade sene 1327 ve 28 Şubat sene 1324.

Sadrizam

Halil Rıfat Paşa

p. 11

Emânet-i müşarünileyhanın tezkire-i ahiresi üzerine 29 Kanun-ı evvel sene 1324 ve 15 Kanun-ı evvel minhu tarihinde taraf-ı sami-i sadaret penahiye tezkire-i aliyye yazıldığı maruzdur. Ferman.

Hüseyin

Bende

Tezakir-i mezkure üzerine sadaret-i uzmadan istizan olunduğu gibi istida-i mebhûsun-anha dair sadaret-i müşarünileyhadan ahiren varid olan tezkire-i samiyede Şehremânet-i aliyyesine tebliğ edildiğinden evrak-ı miyanına fi 15 Şubat 1324 tarihinde Şehremânetine yazılmıştır.

p. 12

Dahiliye Mektubi Kalemi

Şehremânet-i Aliyyesi'ne

1 Kanun-ı sani 1324 tarihli ve 896 numaralı tezkire-i atufileri cevabıdır.

Dersaadetin imarı için mukaddema tanzîm ettirilen umumi plan hakkında heyet-i fenniye tarafından icra kılınan tedkikat neticesinde ita olunup irsal buyrulan ve makam-ı sami-i sadaret-i uzmaya takdim edilen rapor ile müteferriatı Meclis-i Mahsus-ı Vükelada ledel mütalaa mühendis mösyö Şrader canibinden yazılıp tercümesi evrak-ı mürsele miyanında bulunan rapor mündericatına nazaran bi'l-ahire tatbıkatta müşkilat zuhuruna mahal kalmamak üzere evvelce yapılan planın tashih ve ikmal-i nevakısı muktezi ve bu ise yeniden nirengi ve tesviye ameliyatı icrasına mütevakkıf olduğu anlaşıldığından bir taraftan erbab-ı iktidardan mühendisler marifetiyle işbu iki ameliyata şimdiden ibtidar ve diğer taraftan da Mösyö Buvarın celbine teşebbüs olunması hususunun Emânet-i aliyyelerine tebliği tezekkür kılındığı cevaben şeref varid olan 28 şubat sene 324 tarihli tezkire-i samiyede izbar buyrulmuş

ve mürsel rapor evrak-ı müteferriasıyla savb-ı atufilerine iade kılınmış olmakla ber muceb-i karar ifa-i muktezasına. Himem.

p. 13

Hariciye Nezaret-i Vekâlet-i Aliyyesi'ne

9 Mart sene 325 ve 29 Safer 1327

İstanbul'un planını tanzîm etmek üzere Şehremânet-i aliyyesince celbine lüzum gösterilen mühendis Mösyö Buvar'ın Dersaadete Fransa sefareti vesatâtıyla celbi ve kontratosunun tanzîmi zımmında Vekâlet-i Aliyyeleri ile bi'l-muharebe icabının icrası sebt ile istizana cevaben şeref varid olan 4 mart sene 325 tarihli tezkire-i samide izbar buyrulmuş olmağla emr-i sami vechile iktizasının ifa ve inbasına himem.

p. 14

Dahiliye Nezaret-i Celilesi Canib-i Alisi'ne

Dâire-i sadaret-i uzma

Mektubi Kalemi

Sayı: 34

Maruz-ı çaker-i kemineleridir ki,

28 Şubat 324 tarihli tezkireye zeyildir. İstanbul'un planını tanzîm etmek üzere Şehremânetince celbi lüzum gösterilen mühendis Mösyö Buvar'ın Dersaadet Fransa sefareti vesatâtıyla celbi ve kontratosunun tanzîmi zımmında Hariciye Nezaret-i Vekâleti Aliyyesiyle bi'l-muhabere icabının icrası babında emrû ferman hazret-i veliyyül emrindir. Fi 24 Safer 1327 ve 4 Mart 1325.

Sadrazam Halil

pp. 15-16

Dahiliye Nezaret-i Muhaberat-ı Umumiye Dâiresi

Huzur-ı Ali-i Hazret-i Sadaret Penahi'ye

Mukaddema Erkan-ı Harbiye-i Umumiye Dâiresince tanzîm olunup dâire-i emânetde mahfuz bulunan Dersaadet umumi planının Bab-ı Ali'nin tensibiyle Harbiye Ticaret ve Nâfia Nezaretleriyle Emânet heyet-i fenniyelerinden ve erbab-ı ihtisasdan mürekkeb olarak teşkil kılınan komisyon tarafından bi't-tedkik şehrin tanzîmi hususuna istimale salih olduğu anlaşılmış olduğu halde Mösyö Şrader tarafından verilen mütaalanamenin leffiyle 6 Kanun-ı sani sene 324 tarihinde makam-ı emânetden Bab-ı Ali'ye takdim kılınan tezkire üzerine Meclis-i Mahsus-ı Vükela'da cereyan eden müzakere neticesinde yeniden nirengi ve tesviye ameliyatına karar verilmiş ve Emânetçe ber muceb-i karar nirengi ameliyatının icrası için cemiyet-i umumiye-i belediyenin tensibiyle Mösyö Şrader ile akd-i mukavele edilmiş ise de esbab-ı muharrereden dolayı meselenin yeniden bi'l-vücu muhtac-ı tedkik bulunduğu anlaşılmamasına binaen hem ziya-ı vakte hem de emânetin şu adem-i istiat-ı maliyesi hengamında mebaliğ-i külliye sarfına mahal kalmamak için mevcut haritanın tedkiki zımmında Harbiye Nezaret-i Harita Komisyonu azasından Miralay Şevki ve nâfia nezaret-i muavini Hulusi Beyler gibi erbab-ı fen ve ihtisasdan

mürekkebi bir komisyonun acilen teşkili ve bu komisyona 10 gün sonra vurudu muntazı olan Emânet mühendisi Mösyö Andre [Auric] ile evvelce haritanın tedkikatında bulunmuş olan komisyon azasından ve Erkan-ı Harbiye yüzbaşlarından Şerif Bey ve tensib edilecek sair mütefennin ve şayan-ı vusuk ve itimat zevatın dahi tayini muvafık-ı maslahat olacağına dair tafsilatı havi şehremâneti Vekâletinden alınan mufassal tezkire leffen takdim kılınmakla keyfiyet-i Meclis-i Mahsus-ı Vükela müzakeresiyle neticesinin beyân-ı cevabı emr ve inbası menut-ı müsaade-i samiye-i fahimanelerine ol babda

p. 17

Dahiliye Nezareti Muhaberat-ı Umumiye Dâiresi

Şehremâneti Behiyyesi'ne,

Makam-ı valalarının fi 24 Mart 1326 tarihli ve 13 numaralı tezkiresine cevabdır.

Dersaadete aid mevcut, umumi haritanın tedkiki için lüzum gösterildiği üzere bir komisyon teşkiline mahal olmayub tedkikat-ı mukteziyenin Emânet heyat-i fenniyesi marifetiyle icrası lazım geleceği Meclis-i Mahsus-ı Vükela kararıyla ba tezkire-i samiye izbar buyrulmuştur. Ol babda.

p. 18

Dahiliye Nezaret-i Celilesi'ne,

Devletlü efendim hazretleri,

Dersaadete aid mevcut umumi haritanın tedkiki için bazı zevatdan mürekkebi olmak üzere bir komisyon teşkili Meclis-i Mahsus-ı Vükelada mütalaa olunan 16 Mart 1326 tarihli ve 130 numaralı tezkire-i aliyyelerine melfuf Şehremâneti Vekâleti'nin tezkiresinde dermiyan kılınmış ise de meclis-i mezkurca müzakere olunduğu vech ile bu iş için böyle bir komisyon teşkiline mahal olmayub tedkikat-ı mukteziyenin Emânet heyat-ı fenniyesi marifetiyle icrası lazım geleceğinden buna göre Emânet-i mezkureye tebliğ-i keyfiyete himmet buyrulması siyakında tezkire-i senaveri terkim kılındı efendim. Fi 26 Cemaziyel evvel sene 328 ve 23 Mayıs 1326.

Sadrazam Halil Rıfat.

**15. COA BEO 3657-274260 (H-19-10-1327 / 3 November 1909)**

Gerek Dersaadetde gerek vilayatta verilecek elektrik imtiyâzâtı için akd olunacak mukavelenâmenin menafî-i memleket ve hükûmete en muvafık ve mahrurat-ı maliye ve hadiye ve atiyeden ari bir suretde tayini zımmında icab eden ihtisas ve tecrübeyi haiz memurin-i fenniye'nin fikdânı hasebiyle bu babda lazım gelen şerait-i esasiyeyi haiz ve zuhur edecek taliplerin teklif eyleyecekleri mukavele ve şartnâme layihalarını bir nazar-ı nafiz ile tedkik edebilecek bir sahib-i ihtisasın Avrupa'dan celbine selef-i valaları tarafından Meclis-i Vükelada lüzum gösterilmiş idi. Dersaadet ahalisinden olup Cenova'da ikmal-i tahsil ile elektrik mühendisliği şahadetnamesini istihsar ve müktebasat-ı fenniyesini Avrupa'da elektrik müessesesinde istihdam olunduğu on bu kadar sene zarfında icra ettiği tatbîkat ve tecarib ile ikmal eylemiş olan ve el yevm Dersaadetde bulunan Papaduka Efendi tarafından bu babda ita olunan melfuf mülahazanameden müsteban olacağı vech ile mumaileyhin bu fende hakikaten haiz-i ihtisas ve tecrübe olduğu anlaşılmakta ve ebna-i vatandan evsaf ve malumat-ı matlubeyi cami olanlar mevcut iken memalik-i ecnebiyeden mütehasıs taharri ve celbi muvafık olamayacağı şayan-ı beyândan azade bulunmasına binaen mumaileyh nezd-i valalarına davet bulunarak mevcut levaiih-i müteferriyanın mündericâtı hakkındaki mütealaatının istizanı ve kendisinin Nezaretçe istihdamı muktezi olunduğu halde Meclis-i Vükelaca müzakere olunmak üzere keyfiyetin işarı hususuna himmet.

**16. COA İ. HUS. 149/51, 1324 Za 16 (9 January 1907)**

Yıldız Sarayı Baş Kitabet Dâiresi

Dersaadet tramvayının müddet-i imtiyâziyesinin temdidî hakkındaki müstediât cümlesinden bulunan evrak dahi Meclis-i Vükelaca müzakere olunmak üzere şeref sudur buyrulan irade-i seniyye-i hazret-i hilafet penahi mantuk-ı alisine tevfiķan ve leffen suy-ı samî-i sadaret penahilerine irsal kılınmış olmakla ol babda emrû ferman hazret-i veliyyûl emrindir.

Fi 16 Zilkade sene 324 ve 27 Kanun-ı evvel sene 322

Ser katib-i hazret-i şehriyari bende Tahsin

Şirketçe merci-i mahsusuyla beş seneden beri devam eden müzakarat ve münakaşat neticesinde kabul edilen beşinci ve onbirinci maddelerin suretidir.

Beşinci madde: Şirket hutut-ı cedidenin mürur edeceği caddelerden tek hatlı olanların arzı on iki arşından dun ise oniki arşına ve keزالık hutut-ı cedideden çift hat ferç olunacak caddeler ile hutut-ı atikadan dahi el yevm çift hat işleyen yollardan maada çift hatta tahvil edilecek caddelerin arzları on beş arşından dun ise yine on beş arşına iblağa mecburdur. Şu kadar ki şirket işbu tevsiat için şimdilik nakden ve maktuan otuz bin lira sarf etmeye müteahhiddir. Şehremâneti ile şirket beyninde bi'l-müzakere meblağ-ı mezbur evvel be evvel hutut-ı cedideden tek hatlı yollardan arzı oniki arşından dun olanların oniki arşına iblağ edilecek ve meblağ-ı mezkurun bakiyyesi atizikr çift hat ferç olunacak yolların mesarif-i tevsiyesine karşuluk tutulacaktır. Şöyle ki şirket hutut-ı cedide ve atikadan vüsat-ı hazıraları 15 arşından dun olmayan yollara emânet-i müşarünileyhanın inzımam-ı reyî ve muvafakatıyla çift hat ferç edileceği gibi bakiyye-i mezkurelerin hutut-ı cedide ve atikadan keزالık emânet-i müşarunileyhadan atizikr onbirinci maddede tasrih olunan şerait muktezasınca kuvve-i elektrikiyye istimal eyledikte balada beyân olunan istimlak-ı emlak muamelesinin tamamen icra ve ikmaline şimdiden müteahhiddir. İşbu tevsiat için kat ve mübayaası hususunda sahib-i imtiyâz ile eshabı uyuşamadığı halde istimlak kanuna tevfiķı muamele olunacaktır.

## 17. COA, T.. 1418/91/74

### Dersaadet'de müesses Osmanlı Anonim Elektrik Şirketi saat ve abonman senedi

... Mahallesinde ... Caddesinde veya sokağında ... numaralı binada mukim olub ... sıfatıyla hareket eden ve zirde abone namıyla tesmiye ve zikredilen ... Efendi işbu abonman senedini imza etmekle şimdi Osmanlı Anonim Elektrik Şirketi'nin kudret-i elektrikiyye şebeke-i tevziyyesine ... sene müddetle abone olduğunu ve işbu senede merbut bulunan abonelere mahsus nizamnâme'yi mütalaa ederek havi olduğu ahkam ve şeraiti tamamen kabul ettiğini beyân eder.

Abonenin tesisatı ber vech-i zir müteşekkil olacaktır.

Alatın nevi

Adedi

İktidarı kilovat

Alatın nevi

Adedi

İktidarı kilovat

Kuvve-i muharrike:

Motorun diğer hususat için ısıtılmal edilmek üzere verilen cereyana mahsus alat

Yekün

Balada gösterilen tesisatda icra edilecek her türlü tadilat derhal şirkete işar edilmelidir. Tesisat-ı mezkureyi yaptırıp işletmek için abonenin salifulzıkr binanın sahibinden müsaade-i lazimeyi istihsal ettiğini mübeyyin varaka işbu senede merbuttur. Abone ücürat-ı atiyeyi tediye eylemeyi taahhüd eder.

... vatlık ... metro tulunde bir saat için bir defa tediye edilmek üzere

Bir defalık ücret

Ücret-i şehriye

Abone istihlak edeceği cereyan-ı elektriki bedeline mukabil avans olmak üzere işbu senedi imzalarken şirkete ... mikdar Lira-yı Osmani tevdi etmeyi taahhüd eyler. Faiz getirmeyecek olan meblağ-ı mezbur işbu abonman fesh edilib bilcümle hesabat tesviye edildikten sonra şirketçe aboneye iade edilecektir. Abonenin tesisatını şebeke-i tevziyyeye rabt eden şube şirketin malı olduğu gibi atiyen dahi şirketin malı kalacağına ve şirketin işbu şubeyi diğer aboneler için dahi kullanmaya selayihatdar bulunduğunu abone tasdik eder. Tesisat ... tarafından yapılacaktır. Kudret-i elektrikiyye, şirketçe, şerait-i atiyeye tahtında ita edilecektir.

Abone

Tarih

Osmanlı Anonim Elektrik Şirketi

Müstecir (kiracı)

Sıfat veya memuriyet

İsim ve şöhret

## **Dersaadet'de Müesses Osmanlı Anonim Elektrik Şirketi, Abonelere Mahsus Nizamnâme**

### **Fasıl 1**

#### **Abonman şerait-i umumiyyesi**

##### **Madde 1**

Şirket; abonelerin hanelerinde yapılacak tesisat-ı dahiliye hakkındaki nizamnâme ahkâmına işbu abonman senedi mündericatına tevfik-i hareket eden ve tesisine talep eylediği puisansın (puissance) yani iktidarın, umum-ı sınıyeden istimal edilmek üzere senevi sarfiyat müddeti 400 saatten ve umûr-ı beytiyede istimal edilmek üzere senevi sarfiyat müddeti 150 saatten dun olmamak şartıyla laekal bir sene müddetle abone olan her zata elektrik nakilleri müesses bulunan sokaklarda kudret-i elektrikiyye şartnâmesi ahkâmına tevfikan ita eyler. Akşamları zevâlî saat sekizde ticarethanelerini kapayan ve cereyan-ı elektrikinın mezkur saatten sonra istimal edilemeyeceğini temine hadim bir otomatik bir ? ve monitör/montör vaz ettiren erbab-ı sanayi için temin olunan istimal müddeti 300 saate tenzil edilir. Talep edilen iktidar-ı elektriki 30 kilovat ile 33 kilovat arasında ise abonman müddeti laekal 2 sene olacaktır. Talep edilen iktidar-ı elektriki 60 ve ondan fazla ise abonman müddeti laekal 3 sene olacaktır.

##### **Madde 2**

Abone olmak isteyen zat şubenin vazı ve gerek şubenin gerek alat-ı müteferriatın hüsn-i halde muhafazasını temine muktezi muamelatın icrası hususunda ikamet ettiği bina sahibinin veya sahiplerinin müsaadesini istihsale ve bina sahibi kendisi olduğu takdirde işbu müsaadeyi itaya mecburdur. Keza tesis edilecek mecarriye ledel icab nokta-i istinad olacak yahud işbu mecarinin güzergahını teşkil eyleyecek ebniye eshabının dahi müsaadesini istihsale mecburdur. İşbu müsaadeler şirketçe meccanen ita edilen evrak-ı matbua üzerine tahrir edilecek ve müsaadeyi istihsal etmiş olan zatın abonmanı hitam bulduktan sonra dahi diğer abonelere kuvve-i elektrikiyye itasını teminen ibka olunacaktır.

### **Fasıl 2**

#### **Şubenin tesisi**

##### **Madde 3**

Cereyan-ı elektriki müstehlikin hanesi derununa şirketçe tesis edilecek bir şube vasıtasıyla sevk edilecektir.

##### **Madde 4**

Başlıca kat-ı devre kutusu ve muhavvele mevkii dahil olmak üzere şubenin tesisi için işbu alata kadar konacak mevadd ve edevat ve yapılacak ameliyat şirketçe vaz ve icra ve hüsn-i halde muhafaza edilerek şirketin malı olacaktır. Şubenin mucib olduğu mesarif abone tarafından ber vech-i zir tesviye edilecektir.

1. 2200 veyahud daha az vat (volt) veren şubabat için yekden tediye edilmek üzere 4 Lira
2. 2200'den ziyade vat (volt) veren şubabat için işbu mikdarın fevkindeki her 550 vat (volt) veya küsuru iktidar için salifulzıkr 4 Lira'ya yarım Lira zam edilecektir.
3. ? veyahud daha az vat veren şubabat için verilmesi lazım gelen 4 Lira abone tarafından yekden tediye edileceğine ber vech-i zir ücret-ı şehriyenin itasına şirketçe müsaade edilebilir.

0-550 vatlık abonmanlara mahsus şubeler için bedel-i icar şehri 6 kuruş

550-1100 vatlık abonmanlara mahsus şubeler için bedel-i icar şehri 8 kuruş

1100-2200 vatlık abonmanlara mahsus şubeler için bedel-i icar şehri 10 kuruş

Bu müsaade yalnız müstehcirlere ita edilir.

4. Bu fiyatla şubenin tulu hadd-i azami 10 metre olmak üzere hesap edilmiştir. Tulu 10 metreyi tecavüz eden şubelere 10 metreden fazla olan kısmın beher metresi için yarım Lira-yı Osmani'den ibaret bir ücret-i munzama tediyesi lazım gelir. Şirket şubeyi diğer aboneler için istimale selayihatdardır.

### **Fasıl 3**

#### **Tevziat-ı dahiliye**

#### **Madde 5**

Abone, abonman senedini imzalarken hanesinde tesis edilmiş bulunan alatin adedini bildirecektir. Şöyle ki:

1. Tenvîrat ve umûr-ı beytiye için müteşehhib lambaların aded ve numunesi, ? lambalarının adedi ve umûr-ı beytiyeye mahsus ahz-ı cereyanların adediyle istihlak edilecekleri vat miktarı
2. Umûr-ı sınaie işleri için motorların adediyle bargir kuvveti 850 vat itibar edilmek şartıyla kaç vat iktidarında olduğu ve umûr-ı sınaieye mahsus ahz-ı cereyanların adedi ile kaç vat iktidarında bulunduğu beyân ve tasrih edilecektir.
3. Abonenin cereyan-ı elektrikiyi istimal edeceği saatler hakkında hususi bir itilaf mevcut olursa işbu saatler dahi tayin edilecektir. 10 ve 10'dan az iktidar-ı elektriki istihlak edecek alat alalade saatle akd edilen abonmanlara dahil olamaz. Abone, cereyan-ı elektrikiyi abonman senedinde musarrah olan umûrdan başka hiçbir iş için istimal edemez. Keza kendisine ita edilen cereyanı evvel-i emirde Şirkete işar-ı keyfiyete ederek müsaade-i tahririyesini istihsal etmedikçe kısmen veya tamamen şahs-ı ahara devr eyleyemez. Abonenin icra-yı tenvîrat için muhtaç olduğu cereyan-ı müvellid bir motor vasıtasıyla bizzat istihsal ederek tenvîrata mahsus cereyan esmanını kuvve-i muhrike olarak verilen cereyan fiyatını mübeyyin tarife mucebince tesviyeye teşebbüs etmesi katiyen memnudur. Abone, şirketçe verilen cereyanı abonman senediyle tayin edilen tarife fevkinde bir ücret tediyesini istilzam edecek hususatda ne doğrudan doğruya ne de bilvasıta kullanamaz.

#### **Madde 6**

Şirketin kendi malı olan ve saat-ı dahili olmak üzere işbu saatin beri tarafında mevzu bulunan şubat ile alat-ı müteferriyanın hüsn-i halde muhafazası tabiri, tebdili yahud işledilmesi için bazı ameliyat icrasına lüzum görüldüğü takdirde abone işbu ameliyatın yapılmasına mümanaat edemez. Saat dahil olmak üzere saatin beri tarafında mevzu bulunan ve şirketin malı olan nakiller alat ile eşya-yı sairede her ne vech ile olursa olsun abone tarafından tadilat icrası suret-i katiyede memnudur. Diğer taraftan, şirket, entrovitor? ile kat-ı devreyi havi sandığı kurşunlayacaktır. Abone saatlerin vazı için şirket memurunun kolayca duhulünü temin edecek suretde intihab edilmiş münasib bir mahal irae ve teslim edecektir

#### **Madde 7**

Abone sandığından yahud saatten itibaren yapılacak tesisat-ı dahiliyeye aid eşya ve ameliyat bilcümle mesarifi aboneye aid olmak üzere tarafından tedarik ve icra

edilecektir. Abone, bu tesisat için şirketçe kabul edilen herhangi bir müteahhid ile akd-i mukavele edebileceği gibi tesisat-ı mezkurenin icrasını bitrazi tayin edilecek şerait dâiresinde şirkete dahi havale edebilir. İşbu tesisat abonelerin hanelerindeki tesisat-ı dahiliye hakkında şirketçe tanzîm edilmiş olan nizamnâme ahkamına abonman müddetince tamamen tevafuk etmelidir. Şirket tesisat-ı dahiliyeyi şebekeye rabt etmeden teftiş edilecektir. Bu teftiş neticesinde, şirket, tesisat-ı dahiliye-yi mevcudiyeyi nakisadar gördüğü yahud emniyet veya devam nokta-i nazarından gayri kafi bulduğu takdirde cereyan vermekten imtina edebilir. Bu ilk muamele-yi teftişye için aboneden masraf namıyla hiç bir şey talep edilmez. Ancak abone alat-ı muhtelifeyi tecarüb-i lazimenin icrası için ne kadar müddet işletmek icab ederse o kadar işletmeye mecburdur. Tesisat-ı dahiliye şirketçe kabul edilmeyecek yahud henüz natamam olduğundan dolayı bir güne akşamı muayene veya tecrübe edilemeyecek olursa nakisadar olduğunu tebeyyün eden tesisat, abone tarafından tadil ettirildikten sonra şirketçe ikinci defa olarak muayene edilecek ve işbu muayene-i saniye için şirkete muayene-i mükerrere ücreti namıyla 25 kuruş tediye olunacaktır. Aynı sebebe mebni tesisat-ı dahiliyenin üçüncü defa muayenesi icab ederse abone işbu muayene-i salise için 35 kuruş tesviye edecektir. Üçüncü muayene neticesinde dahi tesisat-ı dahiliye red edilecek olursa şirket, işbu tesisat tamamen kaldırılarak diğer bir müteahhid tarafından tesisat-ı cedide icra edilmedikçe cereyan-ı elektrikiyi itadan imtinaa selayihatdardır. Abone şirketin bu babda ittihaz eyleyeceği mukarrerat hususunda selahiyat-ı tamme ve münferideyi haiz olduğunu kabul ve tasdik eder. Saatler ile dahili ve harici bütün tesisat-ı elektrikiyenin teftiş ve muayenesine şirketçe lüzum görüldüğü takdirde abone işbu saatler ile tesisatın mevzu olduğu mahallere şirket tarafından alél usul mezun ve musaddak memurinin her zaman ve gündüzün her saatinde serbestçe duhulüne müsaade etmeğe mecburdur. Ancak alat-ı mebhuse harem dâiresinde mevzu olduğu takdirde abone muayeneden yarım saat evvel işar-ı keyfiyet edilmesini talep edebilir. Abone işbu muayene neticesinde şirket memurini tarafından verilebilecek bilcümle talimata tevfiğ-i harekete mecburdur. Abone tesisat-ı elektrikinin şirket memurini tarafından ziyaret ve muayene edilmesine mümanaat eylediği yahud memurin-i mumailayhim tarafından verilecek talimata tevfiğ-i hareketten imtina ettiği takdirde şirket icab ederse cereyan-ı elektrikiyi derhal kat edebilir ve abone cereyanın bu surette katına asla itiraz edemeyeceği gibi bu halden dolayı hiçbir guna tazminat itasını talep ve iddia eyleyemez.

### **Madde 8**

Abone, tesisat-ı dahiliyesinin kudret-i elektrikiye şebeke-i tevziyesine rabtı şirketten talep edecektir. Bu babda şirkete gönderilecek tezkireye tesisat-ı dahiliyenin nizamnâme-i mahsusasına tevfiğ-i tanzîm edilmiş plan nüshateyn olarak leff edilecektir. Esasen mevcuda icrası mutasavver yahud derdest-i icra tesisat-ı dahiliyenin tevsi veya tadili hakkında vaki olacak talep ve işara dahi tevsiat ve tadilatı irae eden plan iki nüsha olarak ilave dilediği takdirde. Bu planlar tesisatı yapan müteahhidler tarafından imzalanmış olacaktır. Abone, şirkete işar-ı keyfiyet etmeden tesisat-ı dahiliyeyi tadil veya tezyid edemez. Tesisatın tadil veya tezyidine aid ameliyat ancak şirketten işar-ı mezkurun vukuunu mübeyyin makbuz alındıktan sonra icra edilebilir. Şirket, hüsn-i halde muhafazası aboneye aid olan tesisat-ı dahiliyeden dolayı katiyen mesuliyet kabul edemez. Eskiye veyahut kazaen bozulan lambalar mesarifi, aboneye aid olmak üzere abone tarafından tecdid ve tebdil edilecektir. Keza, kos? lambalarına muhtevi kömürler ile motorlar diğer bilcümle alat ve edevat dahi eskidiği veya bozulduğu takdirde her türlü mesarifi kendisine aid

olmak üzere abone tarafından tebdil ve tecdid olunacaktır. Tesisatı yahut cereyanı suret-i istimali nakisadar görünen abonelere şirket cereyan-ı elektriki itasından her zaman imtina edebilir.

#### **Fasıl 4**

#### **Saatler**

#### **Madde 9**

1. Abonelere verilen cereyan-ı elektrikinın mikdarı saat ile müsaade edileceğinden her abonenin hanesine istihlak ettiğı kudret-i elektrikiyyeyi mesahaya teftişe muktezi bir yahud müteaddid saatler ile diğerk alat-ı lazime vaz edilecektir. Bu saatler ile alat-ı saire şirket memurini tarafından kurşunla mühürlenecek ve abonenin beşinci madde mucebince abonman senedine derc edilecek beyânatına nazaran istihlak eyleyeceğı kudret-i elektrikiyye mikdarına göre hesap edilmiş olacaktır. Bina dahilinde tamamen mahfuz bir mahalle vaz edilecek olan saat ile diğerk alat-ı teftişiyenin yeri şirket memurini tarafından tayin edilecektir. Abone, şirket memurininin işbu saat ile alat-ı teftişiyeyi her ne zaman lüzum görürlerse muayene etmelerine müsaade etmeğec mecburdur.
2. Bu alat şirketin malı olduğundan ber vech-i zir tayin edilen bedel-i icar-ı şehri mukabilinde abonelere icar edilecektir. Tesis edilen iktidar; 550, 1.100, 2.200, 5.500, 11.000, 22.000 vat bedel-i icar-ı şehri 4, 6, 8, 10, 12, 14 kuruş altın akçe; tesis edilen iktidar 22.000 vatı mütecaviz olduğuc takdirde alat-ı mezkurenin bedel-i icar ve şehrisi olarak tediye edilecek meblağ 22.000 vatdan fazla olan ve her 5500 vat için bir kuruş zam edilecektir.
3. Şuabat ile saatlerde vesair alat-ı teftişiyede icra edilecek tamiratın mesarifi işbu tamiratı icab eden bozukluklar alat-ı mebhusenin tabii suretle eskimesinden mütevellid olmak şartıyla şirkete aittir. Aksi takdirde mesarif-i mezkure abone tarafından tesviye edilecektir. Saat ile sair alatı teftişiyenin aksam ve müteferriat-ı muhtelifesinde yahud vaziyetinde abone tarafından tadilat icrası katiyen memnudur. Abonelerin hanelerine vaz edilen saatler ile diğerk alat-ı teftişiyede tamirat ve ameliyat-ı sairede münhasıran şirkete aittir.
4. Şube saatler yahud sair alat-ı teftişiyec her ne suretle olursac olsun bozulduğuc takdirde abone derhal şirketi işar-ı keyfiyet etmeğec mecburdur. Saatlerin ve alat-ı teftişiyec-i sairenin yahud müteferriatının mühürleri resmen icra-i vazife eden memurin-i şirketten gayri bir şahıs tarafından fek edildiğı müşahade olunursac abone keyfiyetin müşahade edildiğı ay için şirketçec tayin edilecek istihlak-i munzamın bedelini tesviyeyec mecbur olacağı gibi şirketin kudret-i elektrikiyyec sirkatinden dolayı takibat-ı kanuniyec icrası hususundaki hakkı tamamen mahfuz kalacaktır. Her halde işbu istihlak-i munzam, abonenin ibtidasından beri kaydedilen istihlak-i şehriyenin en büyüğucne yüzde yirmi zam etmek suretiyle husule gelen miktardan dun olamayacaktır. Saat duracak yahud gayri muntazam suretde işleyecek olursac bu müddet zarfında istihlak edilen kudret-i elektrikiyyec mikdarını tayin için son ay zarfında istihlak edilmiş olan mikdar esas ittihaz edilecek ve ahval-i hususiyc nazar-ı itibarac alınacaktır. Saatin mesaha ettiğı mikdardan gayri cereyan-ı elektriki istihsal için ika edilen her türlü hareket şirketçec bilcümle turuk ve vesail-i kanuniyc ile takip edilir.
5. Saatin muntazaman işlediğı ve doğru olduğuc tahkik ve tebyin için abone veyahud şirketçec ırcasına lüzum görülecek bilcümle teftişat her zaman icra edilebilir. Saat, yüzde beşten ziyade ileri gider yahud geri kalırsa gayri muntazam add edilecektir. Abone saatin gayri muntazam suretde işlediğini zan ederse 35 kuruştan ibaret bir meblağı muayene mesarifi namıyla ber vech-i peşin tesviye ederek alet-i

mezkurenin muayene edilmesini şirketten tahriren talep edebilir. Muayene şirketin tensibi vechile abonenin ikametgahında yahud şirketin tecrübehanesinde şirket memurini tarafından icra edilir. İşbu muayenenin ne zaman icra edileceği aboneye 48 saat evvel işar edilecektir. Abone muayenede hazır bulunmağa selayihatdardır. Muayene-i vakıa neticesinde saatin irade eylediği erkamın yüzde beş fazla veyahud eksik hata-yı takribi ile doğru olduğu tahakkuk ederse saat doğru add edilecektir. Fark yüzde beşi tecavüz ederse muayene mesarifi şirkete aid olacağından abone tarafından ber vech-i peşin tesviye edilmiş olan salifulzıkr 35 kuruş kendisine iade edilecektir.

## **Fasıl 5**

### **Tarife ve suret-i tediye**

#### **Madde 10**

Kudret-i elektrikiyye bitaraf tel ile kaje tel beynindeki miktar tevettür 110 vat ve iki faze tel beynindeki mikdar tevettür 190 vat bulunmak ve saniyede 50 frekans olmak üzere dört nakilli trifaze şeklinde ita edilecektir.

1. Tenvîrat ve umûr-ı beytiyye mahsus olmak üzere tesis edilen puissans yani iktidarın senevi istimal edilen ilk 400 saati için beher kilovat saat başına altun akçe 122 para, 400 saatten fazlası için beher kilovat saat başına 61 para
2. Tatbikat-ı sinaiyye mahsus olmak üzere tesis edilen puisans yani iktidarın senevi istimal edilen ilk 600 saati içi beher kilovat saat başına altun akçe 54 para, tesis edilen iktidarın 600den 1.200'e kadar senevi istimal edilen saatleri için beher kilovat saat başına 27 para ve tesis edilen iktidarın senevi 1.200 saatten fazla olmak üzere istimal edilen saatleri için beher kilovat saat başına 5, 13 para, tesis edilen iktidarın senevi istimal edilen saatinin adedi her abonenin senevi istihlak ettiği kilovat saatler mecmuunun mezkur abone için kilovat hesabıyla tesis edilen iktidara taksiminden hasıl olan harici kısmettir. Abonman senevi tesisat-ı dahiliyenin şebeke-i tevziye-yi elektrikiyye rabt edildiği tarihten sonra başlayan ilk ayın ibtidasından itibaren hesap edilir. Ber mutad kullanılan spotlar laekal 33 vat istihlak eden lambaları havi add edilecektir. Abone için tesis edilen iktidarı ve aboneye aid tesisat-ı dahiliyenin ne halde bulunduğunu şirket her ne zaman isterse teftiş edebilir. Sekizinci maddenin ikinci fıkrası ahkâmı hilafına olarak iktidar-ı müessisin tezyid edilmiş olduğu tebeyyün eyleyse iktidar-ı mezkurun bu tezayüdü istimal saatlerinin tayini hususunda nazar-ı itibara alınacak ve hangi ay zarfında vuku bulmuş ise o ayın ibtidasından itibaren tatbîk olunacaktır. Abone tesisatın şirket şebekesine raptından mukaddem şirket veznesine istihlakat avansı olmak üzere rabt olunan kudret-i müessesenin beher 550 vat veya kusuru için yarım Osmanlı Lirası ita eyleyecektir. Faiz getirmeyecek olan bu avans abonman mukavelesi fesh edilip işbu mukaveleye aid bilcümle hesabat tesviye edildikten sonra iade olunacaktır. Senevi istihlak ettikleri mikdar-ı cereyanın ehemmiyetine göre abonelere zirde gösterilen tenzilat icra edilecektir.

Senevi istihlak edilen mikdar-ı cereyan kıymetinin 100-300 Lira-yı Osmani arasında olan kısmından yüzde 4,

Senevi istihlak edilen mikdar-ı cereyan kıymetinin 300-500 Lira-yı Osmani arasında olan kısmından yüzde 8,

Senevi istihlak edilen mikdar-ı cereyan kıymetinin 500-700 Lira-yı Osmani arasında olan kısmından yüzde 12,

Senevi istihlak edilen mikdar-ı cereyan kıymetinin 700-1.000 Lira-yı Osmani arasında olan kısmından yüzde 16,

Turuk-ı amme tenvîratından maada Hükümet ve Şehremâneti'ne aid hidemat-ı umumiyye, meabide, müessesat-ı hayriyye, mekteplere ve hastahanelere tenvîrat-ı elektrikiyye için verilen cereyanın fiyatı dahi iktidar-ı müessisin senevi istimal edilen ilk 400 saati için kilovat saat başına 6 akçe 22 para ve 400 saatten fazlası için kilovat başına 61 para olarak hesap edilecektir. Fakat senevi istihlak edilen kudret-i elektrikiyye mikdarı ne kadar olursa olsun bu fiyatlardan % 40 tenzilat icra olunacaktır. Bu tenzilat salifulzıkr avansa kabil-i tatbîk olmadığı gibi şubeler için verilecek ücûrat ile işbu nizamnâmede muayyen ücûrat-ı saireye dahi tatbîk edilemez. Abonman bedeli ile muhtelif ücûrat-ı munzama her ay şirket müdürü tarafından imza makbuz mukabilinde tediye edilir. Abone bu makbuzlara hata olduğu bahanesi ile natık bulundukları meblağı tediye den imtina etmek hakkını haiz değildir. Mezkur makbuzlarda icra edilebilecek tashihat mah-ı atıye aid makbuzun hin-i tanzîminde nazar-ı itibara alınır. İstihlak edilen kudret-i elektrikiyye mekadiri şirket tarafından bir defter-i mahsusa kayd edilecek ve bu defter abonenin yedinde kalacak. Faturanın tarih-i teblîğinden itibaren sekiz gün zarfında bedeli tediye edilmediği takdirde şirket aboneye hiçbir guna ihtarda ve protesto teblîğine mecbur olmaksızın bedel-i mezkur tesviye edilinceye kadar cereyan-ı elektrikiyyeyi kat edebilir ve mukavele-i münakidenin icrasını temin için turuk-ı kanuniyye tevessül hususunda haiz olduğu haktan cereyanın katından dolayı sakıt olamaz. Abone ile şirket beyrinde müşkilat zuhur ettiği takdirde bu müşkilatdan dolayı mehakime müracaat edilmiş olsa bile şirket kudret-i elektrikiyyeyi vermekte devam ettikçe abone gerek abonman bedelini gerek fazla istihlak ettiği cereyanın esmanını tediye den vareste olamaz.

#### **Madde 11**

Esbab-ı mücbireden ameliyat-ı umumiyyeden yahud diğer bir sebepten dolayı cereyanın muvakkaten katı zaruri olursa şirket aboneye hiçbir guna tazminat itasına mecbur add edilemez. Yeni bir şube tesisinden dolayı cereyanın katı lazım geldiği takdirde kuvve-i muhrikeye abone olan zevata mümkün ise bir gün evvel işar-ı keyfiyet edilecektir.

#### **Madde 12**

Abone kudret-i elektrikiyyenin suret-i istimali hakkında Hükümet ve belediyeler tarafından atıyen neşr edilebilecek bilcümle kavanin ve nizamata tevfiğ-i hareket edileceğini taahhüd eyler ancak abonenin şirkete karşı mevcut olan taahhüdatı işbu kavanin ve nizamata-ı cedideden dolayı hiçbir vech ile tadil veya tenkis? edilemez.

#### **Madde 13**

Abonman müddetinin hitamında abonman aynı müddet için tecdid edilmiş add olunacaktır. Abonmanın tecdidi arzu edilmediği takdirde müddet-i muayyenenin inkızasından bir ay evvel taahhüdlü bir mektup ile tahriren işar-ı keyfiyet edilmesi lazımdır.

#### **Madde 14**

Abonman şahsa aid olduğundan abone mağaza yahud ticarethanesini şahs-ı ahara beyy ve devir ettiği takdirde abonman senedi müdevverüllehin namına tecdid edilecektir. Abone, abonman senedinde muayyen müddetin inkızasına kadar sened-i mezkur mucebince uhdesine tereddüb eden taahhüdatın icrasından mesul olacaktır ve

müdevvir de abonman kabul etmediği takdirde şirket ile bittrazi? bu hususta bir karar ittihaz eyleyecektir. Abonman senedinde muayyen müddet münkazi olmadan nakl-i hane eden abone naklin vukuundan laekal sekiz gün evvel şirkete işar-ı keyfiyet etmeğe mecburdur.

#### **Madde 15**

Vefat vukuunda abonman bila tazminat fesh edilebilir.

#### **Madde 16**

Hükümet-i seniyye ile şirket beyrinde münakid mukavele hitam bulunca abonman dahi bihakkın hitam bulmuş add edilecektir

#### **Madde 17**

İşbu abonman senedine aid pul ücreti ile her türlü mesarif-i saire abone tarafından tesviye edilecektir.

#### **Madde 18**

İtilaf zuhur edip de mehakime yahud ? müracaat edilmediği takdirde muhakime veya tahkim mesarifi haksız çıkan tarafa aid olacaktır.

#### **Madde 19**

Abone tarafından vuku bulacak şikayat tahrir edilib şirketin idarehanesine tevdi edilmelidir. Şikayat, hariçte ifa-yı vazife eden memurin-i şirkete doğrudan doğruya tevdi edilemez. İdarehaneye gönderilmeyen şikayetler asla muteber değildir.

#### **Madde 20**

İşbu senetde muharrer ücret için 1 para kuruşun 40'da biri ve 1 kuruş Osmanlı Lirası'nın yüzde 1'i itibar edilmiştir.

Dersaadet

İşbu sened mündericatını kabul ederim.

Abone

## 18. CCA, NV 34E/93 230-0-0-0 24 11 15 (16 April 1914)

### Silahdarağa Elektrik Fabrikası Kabul-i Muvakkat Raporu

Nâfia Nezareti

Nâfia Dâiresi

Dersaadet Osmanlı Anonim Elektrik Şirketince Silahdarağa'da inşa edilen müvellid-i elektriki fabrikası İstanbul, Beyoğlu ve Galata cihetlerinin tagaddiyeye mahsus ana kabloları ve İstanbul cihetindeki 107, 116, 117, 123 ve Beyoğlu ve Galata cihetindeki 28, 32, 34, 35, 39, 41 ve 42 numaralı muhavvele merkezleri ve işbu muhavvele merkezlerine merbut büyük ve küçük tevettürlü tevzi-i elektriki şebekesinin ikmal edilmesinden dolayı tanzîm kılınan kabul-i muvakkat raporudur.

Dersaadet Osmanlı Anonim Elektrik Şirketi'nin 8/21 Şubat 1329/1914 tarihli mektubu ile Silahdarağa'da inşa edilen müvellid-i elektriki fabrikası ve İstanbul ve Beyoğlu ve Galata cihetlerini tagadiyeye mahsus ana kabloları ve İstanbul cihetindeki 107, 116, 117, 123 ve Beyoğlu ve Galata cihetindeki 28, 32, 34, 35, 39, 41 ve 42 numaralı muhavvele merkezleri ve işbu muhavvele merkezlerine merbut büyük ve küçük tevettürlü tevzi-i elektriki şebekesinin ikmal edilmesinden nasi kabul-i muvakkat muamelesinin icrası arz ve teklif kılınmış ve teklif-i vaki 19 Teşrin-i Evvel 1326 tarihli mukavelenâmeye merbut şartnâmenin onuncu maddesi ahkâmına muvafık görülmüş olmakla saliful zikr mektup zahrındaki 12 Şubat sene 329 tarihli derkenar mucebince ba-emri ali-i Nezaret penahi ve Şehremânetince tayin ve intihab kılınan iki memur ile teşekkül eden komisyon-i acizanemiz Şubat'ın 18 ve 19uncu Salı ve Çarsamba günleri mahal-i mezkureye bilazime tedkikat ve muayenat-ı lazime icra kılınmıştır.

Şartnâmenin beşinci maddesinde ameliyata ? projelerinin tarih-i tasdikinden itibaren üç mah müddet zarfında mübaşeret ve ameliyat bila inkıta devam eylemek ve esbab-ı mücbireden ? isbat edilen ahvalde sahib-i imtiyâz vuku-ı hali olan resmen ve tahriren Nâfia Nezareti ve Şehremânetine ihbar eylemek şartıyla müddet-i inşaat ameliyatının inkıtaa duçar olduğu müddetce temdid edilmek üzere tarih-i mezkurdan itibaren iki sene zarfında ikmal edileceği mezkur? olub tafsilat haritaları ile projelerin tarih-i tasdiki 1 Temmuz sene 327 olmasına nazaran salifulzıkr beşinci madde mündericatı mucebince ameliyatın heyet-i umumiyesinin esbab-ı mucbireden madud mevakiin adem-i hayluleti?halinde 1 Temmuz 329 tarihinde ikmal edilmiş olması lazım gelir ise de ber vech-i ati esbabdan dolayı ameliyatda teahhurat vukua gelmiş ve teahhurat-ı vakıa şirket tarafından Nezarete ve Şehremâneti'ne tahriren bildirilmesi üzerine esbab-ı mücbireden olduğu kabul edilerek şartnâmenin beşinci maddesinde muayyen iki sene müddetin temdidine muvafakat edilmiştir.

- 1) Şirketin makinalarını sipariş eylemiş olduğu Budapeştedeki Ganc (Ganz) Fabrikasında vuku bulan tatil-i eşgalden dolayı mezkur makinaların tesliminde vukua gelen 46 günlük teahhurat
- 2) Balkan muhaberesinden dolayı ilan edilen hal-i seferberi esnasında şirket tarafından istihdam edilmekte olan amelenin kısm-ı küllisinin silah altına celb edilmesinden naşi harb-i seferberinin ilan edildiği 18 Eylül sene 328 tarihinden itibaren hitamına kadar ameliyat müddetinin temdidi hasebiyle vukua gelen teahhurat hal-i seferberinin hitamı Şark demir yolları üzerinde tekrar seyru sefere ibtidar edildiği 18 Teşrin-i evvel sene 329 tarihi itibar edildiği suretle bu babda vukua gelen teahhurat 13 ay yani 395 günden ibaret olmak lazım gelir.
- 3) 17 Eylül sene 329 tarihinde vukua gelen seylab hasebiyle Silahdarağadaki müvellid-i elektriki fabrikasının inşasına muktezi bazı edevat ve levazımat zayi

edilmiş olduğundan bunların yeniden Avrupadan celbi için ameliyatın ikmalinde vukua gelen 69 günlük tehhurat baladaki esbabdan dolayı ameliyatda vukua gelen ceman 510 günlük tehhurat sebebiyle ameliyatın heyet-i umumiyesinin 21 Teşrin-i sani sene 330 tarihinde ikmal edilmesi lazım geldiği cihetle şirketin, ameliyatın ikmal için şartnâmede tayin kılınan müddetleri tecavüz etmediği anlaşılmaktadır. Mamafih baladaki beyânat yalnız müvellid-i elektriki fabrikası için muteberdir. Tevzi şebekesinin ikmal için tayin kılınan müddet dahi işbu şebekeye aid proje ve planların tasdiki tarihine itibar edildiği tabiidir. Ancak mezkur projeler fabrikaya aid proje ve haritalar ile birlikte 1 Temmuz sene 327 tarihinde Nezaretce tasdik edilmiş ise de esna-i tasdikde tevzi şebekesinin en esaslı nıkatını (noktalarını) teşkil eyleyen muhavvele merkezleri mevakiinin Şehremânetince kabul ve tasvib edileceği kayıt ve şartı vaz edilmiş ve muhavvele merkezlerinin Şehremânetince kabul edilen mevakiinin listesi 29 Mayıs sene 328 tarihinde şirkete tebliğ kılınmış olmasına nazaran tevzi şebekesine aid haritaların tarih-i tasdikinin işbu tarihten itibar edilmesi lazım gelir. Binaenaleyh 26 Mayıs sene 328 tarihinden itibaren tevzi şebekesi ameliyatı müddetine yukarıda zikr edilen esbab-ı mücbireden münbais temdid-i müddet ilave kılındığı takdirde ameliyatın ikmal için şartnâmesinin beşinci maddesinde tayin kılınan müddetin henüz tecavüz edilmediği anlaşılmıştır.

#### **Ameliyat-ı Vakıa**

Dersaadetin Rumeli ciheti ile mülhakatında icra kılınacak kudret-i elektrikiyye tevziat-i umumiyesi Silahtarağa'da şartnâmenin üçüncü maddesinin fıkra-i ahidesine tevfikân intihab ve Nâfia Nezaretince tasvib ve tasdik edilen mevkide tesis kılınan fabrikada buhar kuvveti ile işleyen türbinler ve alternatorler ianesiyle hasil edilen üç safhalı ve 10.000? volt tevettüründe mütenavib elektrik cereyanını tahtel arz ana kabloları vasıtasıyla şehir dahiline sevk ve nıkat-ı müteaddide ve muhtelifede tesis edilen muhavvele (elektriğin voltajını düşüren merkezler) merkezlerinde saliful zikr 10.000 volt büyük tevettürü 190 volta yani küçük tevettüre bittahvil bitaraf teli havi olmak üzere kezalik tahtel arz dört nakilli kablolar vasıtasıyla etrafa tevziden ibaretdir.

#### **Fabrika Binası**

22ye 30 arz 50 tul ebadında bir makina dâiresi ile iktisalindeki genişliği 24,8 arz ve uzunluğu 37ye 40 tul ebadında ve ? makina dâiresi ? hamud bir kazgan dâiresinden müteşekkildir. Binanın heyet-i umumiyesi etrafı ? ve kazıklar ile muhat? bir metre tahtında bir tonden? teşkil olunan umumi bir radye üzerine müesses olub manzara-i hariciyesi umumen metanet ve zerafet-i lazimeyi arz etmekte ve temellerinin resaneti dahi makineler işlemeğe başladığı halde binada el haleti hazihi bir çarpıklık ve çatlaklık görülmemesi ile tezahur eylemektedir.

#### **Makinalar Dâiresi**

Tekasüf aletlerinin vaz edildiği zemin katı kuvve-i elektrikiyye istihsaline mahsus makinaların bulunduğu birinci kat ve işbu makinalar dâiresinin 16ya 70 metre tuluna kadar imtidad eyleyen tevzi levhalarının bulunduğu diğer bir katda kazganlar dâiresi ise kazganlardan husule gelen kül vesairenin ihracına mahsus bir zemin katı ile kazanların mevzu olduğu birinci katdan müteşekkildir. Binanın etraf-ı duvarları araları çimentodan mamul tuğla ile imal edilen madeni putrallar? ile ve makinalar dâiresi üzeri çimento ve eternit levhaları ile ve kazganlar dâiresi üzeri yalnız eternit levhaları ile setr edilmek üzere çatıları demirden inşa edilmiştir. Makinaların mevzu bulundukları mahalde uzunluğu 15 genişliği 22'ye 30 ebadındaki kısmı çinileri döşenmediği gibi kazganlar ve tekasüf alatinin bulundukları mahallerde bir ton

döşeme üzerine sıvanması lazım gelen takriben iki üç santimetre tahtındaki çimentonun henüz sıvanmadığı görülmüştür.

### **Kazganlar (Kazanlar)**

Musaddak haritaları mucebince vaz ve tesisi lazım gelen altı adet kazgandan şirketce kabulü talep edilen iki adedi mea teferruat tamamıyla ikmal edilerek işlemekte olduğu ve diğer ikisinin dahi bazı ufak tefek aksamı müstesna olmak üzere hemen ikmal edildiği ve beşincisinin dahi derdest-i tesis bulunduğu müşahade kılınmıştır. Kazanların tagaddiyeleri için kuvve-i anil merkeziyeli ve pistonlu tulumbalar ile su depoları kamilen tesis ve mahallerine vaz edilmiştir.

### **Makinalar**

Mukavelenâmede münderiç tarifât dâiresinde vazı lazım gelen üç takım müvellidül elektriki makinaları ile müteferriatı musaddak projeleri mucebince mahallerine vaz edilerek bunlardan iki takımının tamamıyla ikmal edilib işlemekte olduğu ve üçüncüsünün dahi yine derdest-i ikmal bulunduğu müşahade kılınmıştır. Fabrika binasının zemin katında hin-i hacetde istihsal edilmek üzere bir akümülatör bataryası mevcuttur. Mezkur bataryanın kırkar bargir kuvvetinde iki elektrik motoruyla müteharrik dinamolar ile tahvil edilmekte olduğu ve projelerine muvafık bulunduğu tebeyyün etmiştir. Tevzi levhaları dahi musaddak projelerine tevfiikan inşa edilerek suret-i muntazamada işlemekte bulunmuş ise de musaddak projede tevzi şebekesinin uzak noktalarına isal edilecek kabloların mebdinde vazı irae edilen zatül hareke tevettür nazımları şimdilik umum lüzumuna mebni vaz edilmemiştir. Alternatörleri fazla tevettür ve cereyanın tesiratından muhafaza eylemek maksadiyla fabrikanın zemin katındaki tekasüf (çoğaltma-teksif) aletlerinin bulunduğu mahal kurbuna vaz edilen alatin mevaki (mekanları) tekasüf aletleri mevakiinden kilitli kapılar vasıtasıyla suret-i katiyede tefrik edilmelidir. Makinalar dâiresi 400 mum kuvvetinde 10 adet müteşehhib lamba vasıtasıyla tenvîr edilmekte ise de kazganlar (kazan) dâiresinin tenvîratı henüz ikmal edilmemiştir. Gerek kazganlar ve gerek müvellid-i elektriki makinaları ve teferruatıyla elektrik alati fennin terakkiyat-ı ahiresine tevfiikan inşa edilmiştir. Tagaddiye ve tahliye kanalları esas projede gösterildiği üzere muvafık suretde inşa edilmiştir. Bunlardan tahliye kanalı Terkos borusu vasıtasıyla bir noktada kat edildiğinden boru bu noktada çimento ile muhafaza edilerek kanalın cereyanı borunun tahtından geçen bir nev sifon tertibatı ile temin edilmiştir.

### **Rıhtım**

Fabrikaya muktezi alat, edevat ve levazımat ile kömürün mavnalardan çıkarılmasının temini maksadiyla musaddak projede mutasavver rıhtım ahşab kazıklar üzerine ahşab olarak inşa edilmiştir. Mezkur rıhtım üzerine cereyan-ı daimi motorları ile müteharrik ve üç nev harekatı husule getirecek vechile otuz tona kadar makina aksamı ve beş tona kadar kömürü terfi ve tahliye müsaid olmak üzere vaz olunan duvar/devval(donen)? vinci projelerine tevafuk eylemektedir. Vinç temelleri musaddak projede kargir olarak irae edilmiş ise de mezkur projelerin hin-i tasdiklerinde temelleri icabat-ı mevkiyeye muvafık suretde inşaları kaydı vaz edilmiş olduğundan mezkur temellerin şirketce ahsab kazıklar üzerine tesisi daha muvafık görülerek ol vechile inşa edilmiş ve bu suretle inşaat metanat-ı kafiye haiz bulunmuştur.

### **Şimendifer ve Dekovil**

Rıhtımda çıkarılan alat ve edevatı fabrikaya nakil ve ocaklardan dökülen külleri nakil ve ihraca mahsus şimendifer dekovil hatları dahi projesine muvafık suretde inşa

edilmiştir. Tek raylı havai şimendiferle silo mavnalarıyla rıhtıma gelen kömürü doğrudan doğruya kazan dâiresine veyahud kömür depo mahalline sevk için inşası projede gösterilen tek ray üzerinde müteharrik havai hat ile kömürü kazan dâiresindeki hunilerden ocağa sevk edecek boru (silo) henüz inşa edilmektedir.

### **Şose**

Mukaddema şirket arsasının vasatında murur eden tarik mevkiî suret-i matlubede ve taahhulata muvafık olarak arsanın dar? cihetindeki hududuna tebhiz? ve suret-i matlubede inşa edilmiştir.

### **İdare Binası**

Arzı 11 ve tulu 22 metre ebadında bulunan ve fabrika heyet-i idaresiyle bas mühendisin ikametine mahsus bina projesine muvafık suretde inşa edildiği gibi mürur ve uburu teshil maksadıyla bir köprü ile fabrika binasına rabt edilmiştir.

### **Tamirathane**

İdarehanenin zemin katında tamirathane mevcud olub derununda lüzumu olan makina ve edevat ile bunların tahrikine mahsus ve fabrikanın cereyan-ı elektrikisi ile müteharrik bir motor mevcuddur. Bundan maada bir kaza vukuunda fabrikanın umum tenvîrat-i dahiliye ve tamirat ve vinç ile müteharrik koprunun tahrikine hadim ve benzin ile müteharrik bir cereyan-ı daimi müvelleid-i elektrikisi vaz ve tesis edilmiş ve şeraite muvafık olduğu müşahade kılınmıştır.

### **Memurin ve Kapıcı İkametgahı**

Fabrikada müstahdem memurin ve kapucinin ikametgahına mahsus iki bina dahi projelerine muvafık suretde inşa edilmiştir. Fabrika avlusunun tenvîratı henüz ikmal edilmemiştir. Fabrikanın zemin katında mevcud alatin tuğyan-ı miyahdan muhafazası 17 Eylül 1329 tarihinde Silahdar deresinde vukua gelen tuğyan esnasında tugyan sularının fabrika ve tamirhanenin zemin katında takriben iki metre irtifasına kadar istila eylemiş olduğu asariyle müşahade kılınmıştır. Fabrikanın zemin katında buharlı türbinler ile tekmil-i teksif-i alat ve makinalara ve alternatörlerin fazla elektrik tevettür ve cereyanının tesiratından muhafazasına mahsus alat ve fabrikanın ihtiyacat ve hidamat-ı dahilisi için transformatörler bulunduğu cihetle tuğyan esnasında bunların kamilen su altında kalmasından ve bunun neticesi olmak üzere bozulmasından dolayı müvellid-i elektriki fabrikası muattal bir hale geleceği cihetle fabrika binasının emir ve maksada kafi bir suretle tuğyan suları tesiratından muhafazası için icab eden tedabire tevessül edilmesi lazım gelir.

### **Tevzi şebekesi**

Fabrikada istihsal edilen kudret-i elektrikiyye İstanbul cihetine 25'e 3 milimetre murabba maktanda ve Beyoğlu cihetinde 70'e 3 milimetre murabba maktanda ikişer adet ana kabloları ile sevk ve tevzi edilmektedir. İşbu çift ana kablolarından bir tanesi İstanbul ve Beyoğlu tevzi şebekesinin tagaddiye merkezine doğrudan doğruya ve diğer ikisi de bir kaç muhavvele merkezine uğradıktan sonra yine saliful zikr merkezlere vasıl olmaktadır. İstanbul ciheti tevzi şebekesinin tagaddiye merkezi olan 101 numaralı merkezin inşaatı henüz ikmal edilmemiş ise de şimdilik 116 ve 117 ve 123 numaralı muhavvele merkezine kudret-i elektrikiyye bilvasıta kablo ile ? ve ita edilmektedir. Mezkur 116 ve 117 ve 123 muhavvele merkezleri inşaat ve tesisatının tamamıyla ikmal edilmiş olduğu tebeyyün etmiştir. Bunlardan 116 ve 123 numaralılar madeni kosk halinde ve tarik-i am üzerinde ve 117 numaralı muhavvele merkezi ise kargirden ve Şehremânetinden terk edilen arsa üzerine inşa edilmiştir. 116 numaralı merkezin inşasından dolayı civarında bulunan zincirli kuyunun su

çekmeğe mahsus olan tertibatı muattal bir halde kaldığından Şirket-i mezkure kuyuya elektrik ile müteharrik bir tulumba vaziyla mezkur tulumbanın işletmesine muktezi kuvve-i elektrikiyyenin itası deruhde edilmiş ise de henüz bir tesisatda bulunmamış olduğundan tertibat-i mezkurenin bir an evvel inşası muvafık bulunmaktadır. 107 numaralı muhavvele merkezi şirket tarafından istira edilen bir binada tesis edilerek ikmal edilmiş ve 101 numaralı tagaddiye merkezi inşaatı henüz ikmal edilmemiş ve itmamında buraya da kudret-i elektrikiyye isali tabii bulunmuş ise de şimdilik muvakkaten ferc edilen bir kablo vasıtasıyla mezkur 107 numaralı muhavvele merkezine dahi kudret-i elektrikiyye ita edilmekte bulunulmuştur. Beyoğlu Galata cihetinin büyük tevettürlü şebeke-i tevziyesinin tagaddiye merkezi olan 28 numaralı Pera Palas Otelî'nin arkasında ve Şehremâneti tarafından şirkete terk edilen bir arsa üzerinde kargir olarak inşa ve kaffe-i teferruatıyla ikmal edilmiştir. Muvakkaten kabulleri teklif edilen diğer 42 ve 41 numaralı muhavvele merkezleri biri Hasköyde ve diğeri Haliç Halıcıoğlu'nda tarik-i am üzerinde köşk halinde olarak inşa edilmişlerdir. 32 ve 34 numaralı muhavvele merkezlerinden birincisi Beyoğlu'nda Tünel başında ve ikincisi Galata Kulesi meydanında kargir olarak inşa edilmişlerdir. 35 ve 39 numaralı merkezler dahi şirket tarafında isticar edilen emlak-i husussiyenin zemin katlarında ve emniyetli bir suretle inşa ve itmam edilmişler ise de gerek İstanbul ve gerek Galata ve Beyoğlu cihetlerinde kargir olarak inşa edilmiş olan 107 ve 117 ve 32 ve 34 ve 35 ve 39 numaralı muhavvele merkezlerinde büyük tevettürlü alat ve kabloların bulunduğu mahallin küçük tevettürlü alat ve kabloların bulunduğu mahalden kilitli bir kapı ile tefrik edilmesi lazım geldiği halde işbu kapılar henüz vaz edilmemiştir. Galatadaki muhavvele merkezlerinden 35 ve 39 numaralı merkezler şirket tarafında isticar edilen iki binanın zemin katına vaz ve tesis edilmiştir. Şirketce böyle isticar suretiyle istimal edilen binaların isticar mukavelenâmelerinin Hükümete ibrazı ve mezkur mukavelenâmelerde imtiyâzın mübayaası ve şirketin hukuk-i imtiyâziyesinden sukutu halinde Hükümetin şirket makamına kaim olmak hakkına haiz bulunduğunu sarahaten derc ve izahi şartnâmenin altıncı maddesinde muharrer bulunduğu halde şirketce Hükümete henüz bu yolda tanzim edilen mukavelenâmeler ibraz edilmediği cihetle bunların bir an akdem takdimi lazımedendir. Tevzi şebekesinin büyük tevettürlü kısmında kabloların güzergahıyla maktalarında musaddak projelere nazaran bazı ufak tefek ehemmiyetsiz tafsilat yapılmış ise de tafsilat-ı tadilat-ı vakıa her bir projenin mevki-i tatbîke vazi esnasında ahval ve icabat-i mahalliyeden dolayı ve evvelce projelerde gösterilen muhavvele merkezleri mevkinin tebdilinden ileri gelmekle bu suretle kabulünde bir beis görülmemiştir. Yukarıda zikr ve beyân edilen muhavvele merkezlerinden ayrılan küçük tevettürlü tevzi kablolarından bir kısmının musaddak haritalarda gösterilen miktardan noksan olduğu müşahade kılınmıştır. Bu misillü küçük tevettürlü kabloların noksan bulunduğu sokakların bazılarında pek çok zaman talib zuhur etmemesi melhuz olduğundan aniful beyân tevzi kabloları bulunmayan mıntika dahilinde kudret-i elektrikiyye mübayaası için bir talib zuhur ettiği takdirde Şirket tarafından derhal ve bila ücret ve teminat mahall-i mezkura lazım gelen kabloların temdidi ve tesisatın icrası şartıyla kudret-i elektrikiyyenin itası Komisyonca münasib görülmüştür. İzahat-ı vakıadan müsteban olduğu vech ile muayenesi bu kerre icra kılınan Silaharağadaki müvellid-i elektriki fabrikası ile tevzi şebekesinin ikmal edilen aksamının balada zikr edilib kudret-i elektrikiyyenin ita ve tevziine mani olmayan nevakısı müstesna olmak üzere bilcümle ameliyat ve tesisatı mukavele ve şartnâme ahkamına muvafık görülmüş olduğundan nevakıs-i mezkurenin kabul-i katiye kadar ikmalî şartıyla fabrika ile tevzi şebekesi ve müteferriatının işletme muamelesine mübaşeret olunmak üzere kabul-i muvakkatının

icrası tensib kılınmış olmakla işbu zabıtname tanzîm ve takdim kılındı. Fi 29 Mart sene 330.

Nâfia İdaresi Müdür-i Umumisi Reisi Süleyman Askeri

Şehremâneti Muavini Aza Sezai

Şehremâneti Heyet-i Fenniye Reisi Aza ?

Nâfia İdaresi Mühendislerinden Aza Abdülkerim Kulları

Nâfia Dâiresi Elektrik Mühendisi Aza Mustafa

Tenvîr-i Elektriki Komiseri Aza Mustafa

Tenvîr-i Elektrik Şirketi

Nâfia Nezareti

Tebyiz tarihi: 3 Nisan 1330

Şirketce vücuda getirilib komisyon-ı mahsus tarafından tedkikat ve muayenatı icra edilen tenvîr-i elektrikiye şebekesinin muvakkaten kabulü tensib ve zabıtname nüshalarından bir kıtasının leffen tesyir kılındığına dair Silahdarağadaki müvellid-i elektriki fabrikası ile İstanbul ve Beyoğlu ve Galata cihetlerini tagaddiyeye mahsus ana kablolar ve mahallat-ı mezburede tesis edilen muhavvele merkezleriyle bunlara merbut ve küçük tevettürlü tevzi-i elektriki şebekesinin imalatı ikmal edildiğinden bilbahis ber mucib-i ahkam-ı imtiyâziye kabul-i muvakkatının ifası hususu 8 Şubat 1329, 21 Şubat 1914 tarihli ve 250 numaralı mektub-ı velakarilerinde talep ve istida olunması üzerine teşkil ve izan kılınan komisyon canibinden icra edilen tedkikat ve muayenat neticesini havi tanzîm ve imza olunan zabıtnameye nazaran tesisat-ı vakıadan ikmal edilen inşaatının ahkam-ı imtiyâziyeye muvafık ve muvakkaten kabule salih (kabule uygun) bir suretle hitam tezir olduğu anlaşılmasına mebni mebhusun an imalat ve tesisatın muvakkaten kabulü Nezaretce münasib görülerek zabıtnamenin bir nüshası leffen irsal kılınmış olmakla mündericatina ve ahkam-ı imtiyâziyeye tevfikân ifa-i muamele olunması lüzumunun beyân ve tebligı teyid-i muvalata? vesile ittihaz kılındı.

Abdülhalim

Hamdi

Süleyman

Nâfia Nezareti, Nâfia İdare-i Umumisi

Huzur-ı ali-i cenab-ı nezaret penahiye,

Hülasa: Tenvîr-i elektriki müessasatının komisyon-ı mahsusca icra edilen tedkikat ve muayyenatını havi zabıtname nüshalarının takdim kılındığına dair

Silahdarağadaki müvellid-i elektriki fabrikası ile istanbul, Beyoğlu ve Galata cihetlerini tagaddiyeye mahsus ana kabloları ve mahallat-ı mezkurede tesis edilen muhavvele merkezleriyle bunlara merbut büyük ve küçük tevettürlü tevzi-i elektriki şebekesi inşaatı ikmal edildiğinden bilbahis ber mucib-i ahkam-ı imtiyâziye ve kabul-i muvakkatın ifası zımında Tenvîr-i Elektriki Şirketi tarafından vuku bulan talep ve istida üzerine zevat-ı malumeden mürekkeben taht-ı riyaset-i acizide teşkiline müsaade buyrulan komisyon canibinden icra edilen tedkikat neticesinde tesisat-ı vakıanın ahkam-ı imtiyâziyeye muvafık ve muvakkaten kabule salih bir suretde hitam tezir olduğu anlaşılaraq netice-i meshudat ve muayenatı havi tanzîm edilen nüshateyn zabıtname leffen takdim kılınmış olmakla rehin-i tasvib-i ali-i

daveraneleri olduđu takdirde mündericatına tevfikân ifa-yı muamele edilmek üzere bir nüshasının deffiyle alel usul şirket-i merkumeye teblîği hususuna müsaade buyrulması babında emru ferman hazret-i menlehul emrindir.

29 Mart 1330

Nâfia Müdiriyet-i Umumiyesi Reisi Süleyman Askeri



**19. CCA, NV 230-0-0-0 26 16 8 (22 June 1926)**

**Osmanlı Anonim Elektrik Şirketi Hissedararı Meclis-i Umumiyesi (20 June 1918):**

Osmanlı Anonim Elektrik Şirketi

Sermaye-i İtibari: 12 milyon Frank, 528.000 Osmanlı Lirası

31 Kanun-i Evvel, sene 1917 tarihinde Meclis-i İdare Heyeti:

Comte Louis de Batthyany Cenapları: Reis

Mösyö George de Laveleye: Reis-i Sani

Mösyö Raymond Fris: Aza-i Murahhas

Mösyö Eugene Baelde: Aza

Mösyö Emeric Balint: Aza

Dilberzade Efendi Hazretleri: Aza

Mösyö Dannie Heineman: Aza

Mösyö Jules Jacobs: Aza

Mösyö Gustave Kogler: Aza

Mösyö Paul Lechner: Aza

Mösyö Louis Loucheur: Aza

Mösyö Ernst Kritzler: Aza (Fransızcada var, Osmanlıca metinde yok)

Mösyö Depre (This name is included in the document which is Ottoman Turkish, however this name is not stated in French)

Mustafa Nail Beyefendi Hazretleri: Aza

Marki Georges de Pallavicini Cenapları: Aza

Mösyö Klod Sebesta: Aza

Mösyö Doktor Andor de Ullman: Aza

Osmanlı Anonim Elektrik Şirketi

Osmanlı Anonim Elektrik Şirketi hissedaranı 1918 senesi Haziranı'nın 20. Perşembe günü badel zuh saat 2,5'da şirketin Beyoğlu'nda Tünel Meydanı'nda Metro Hanı'nda kain Merkez'i İdaresi'nde suret-i adiyede inikad edecek olan meclis-i umumiye davet olunur. Laekal 10 hisse hamili olup işbu içtimada hazır bulunmak arzu eden hissedaran; hisse senetlerini tarih-i inikaddan ekalli 10 gün evvel yani 10 Haziran sene 1918 günü aksamına kadar Dersaadet'de şirketin veznesine Budapeşte'de Bank-i Jeneral do Kredi Hungarya'ya tevdi eylemeleri lüzumu ilan olunur.

Ruzname-i Müzakerat

1. 1917 senesi muamelatı hesabat ve bilançonun tasdiki
2. Nizamnâme-i dahili mucebince yeniden intihabat icrası
3. Meclis-i İdare tarafından vukuu melhuz bazı tekliflerin tezekkürü
4. 1918 senesi hesabat komiserlerinin tayini

Dersaadet, 18 Mayıs sene 1918, Meclis-i İdare namına Aza-i Murahhas R. Friz

## **Meclis-i İdare tarafından hissedaran Meclis-i Umumisi'ne takdim kılınan Rapor**

Efendiler,

Şirketimizin 1917 senesi Kanun-i Sani'si iptidasından sene-i mezkure Kanun-i Evveli'nin 31'ine kadar olan sene-i hesabiyesi zarfındaki muamelatını ve Nizamnâme-i dahilimizin 35. Maddesi'ne tevfikân 6. Sene-i hesabiyemiz olan 1917 senesi muvazene, kar ve zarar mevcudad ve mevduad hesabat-ı umumiyyesi lieclittasdik Heyet-i Aliyye'nize arz ve takdim ediyoruz. Sene-i sabıka zarfında his edilmekte olduğu 1916 senesi hesabatı hakkında mütekaddimi raporda arz olunan müşkülât sene-i cariye zarfında bir kat daha tezayüd etmiştir. Mamefih, şirketimiz Hilal-i Ahmer Cemiyet-i muhteremesinin tesis eylediği hastahane ve diğer müesseselere elektrik cereyanını meccanen vermek suretiyle cemiyet-i müşarünileyhanın mesai-i bergüzidesine iştirak eylemiştir.

Fi 31 Kanun-i Evvel sene 1917 tarihinde mevcut tesisatımız ile işletme umûrumuzun vaziyeti hakkında bazı malumat-i müfideyi ber veçh-i zir itaya musarahat ediyoruz.

Merkez Fabrikası: Kömür fiyatlarının terakki ve teraffu-i fevkaladesi kilovat saat başına sarf edilen mahrukat miktarı üzerinde tenzilat icrası emrindeki mesaimizin netayic-i iktisadiyesini maatteessüf akim bırakmıştır.

Şebeke-i Tevziye:

Kablolar: 1917 senesi Kanun-i Evvel mahı nihayetinde şebekemizin tulu ber veçh-i ati mekadire balığ olmuştur:

Ali tevettür kablolarının tulu (uzunluğu) 134036 kilometre, 1916'da 124021 kilometre.

Hafif tevettür kabloların tulu, 1917'de 84.956; 1916'da 86.827.

Tenvîrat-ı umumiye ve pilot fabrikalarının tulu 55219, 1916'da 51835; yekun 274211 1917'de, 263.183 1916'da. 1916 senesi Kanun-i Evvel nihayetinde mevcut 2.869 şube-i tevziye; 1917 Kanun-i Evvel nihayetinde 3424 adede balığ olmuştur.

Muhavvile (Değişim-trafo) Merkezleri: 1916 senesi nihayetinde mevcut bulunan ceman 5.562 volt amper kudretinde 94 muhavvile merkezine mukabil, 1917 senesi Kanun-i Evvel'i nihayetinde ceman 7.938 kilovat amper kudreti nihayir?, 122 adet muhavvile merkezi ikmal edilmiş olup işbu tarihte bunların 98'i hal-i faaliyette bulunmakta idi.

Rabt: 1917 Kanun-i Evvel'i nihayetine kadar icra edilen rabtlar 11.699 adedine balığ olmuştur. 1916 nihayetinde (8324) işbu tarihe değin vaz edilen muaddidlerin adedi 4818'e, 1916'da 4384 ve muhaddidlerin ise 206'ya 1916'da 220 balığ olmuştur.

İşletme:

İşletme Hasılatı: 1917 senesi işletme hasılat-i gayri safiyesi 229.315 Lira-i Osmani 32 Kuruş, 1916'da 142.005 Lira-i Osmani 93 Kuruş, bu yekûndan şartnâmemizin 25. Maddesi ahkâmına tevfikân icra edilen tenzilat tarh edildiğinde 11286 Lira-i Osmani 17 Kuruş, 1916'da 7.105 Lira-i Osmani 42 Kuruş, işletme hasılatı yekun 218.029 Lira-i Osmani 15 Kuruş 1916'da 134.900 Lira-i Osmani 52 Kuruş.

Kanun-i Evvel nihayetinde cereyan-ı elektriki müstehliklerinin adedi 10.821'e balığ olmuştur ki 1916'da 6616 bunlardan 4812 adedinin sarfiyatı muaddid vasıtasıyla mesahe edilmekte (*The consumer pays the amount counted by her/his electric meter.*

*The monthly amount of consumption determines the payment*) ve 6009 adedi de ücret-i maktua mukabilinde (*The consumer pays a fixed amount for the service s/he rendered*) cereyan istihlak eylemektedirler.

1917 senesinde 878 müşterinin esamisi defterden tayy edilmiştir.

Tesisat-ı mezkurenin kudreti 13877,500 kilovata balığ olup 108384,02 kilovat ber veçh-i zir taksim edilmiştir:

Şehrimizin tramvaylarının cerri için tesis edilen ali tevettürlü kudret 3200 kilovat, 1916'da 3200 kilovat, hususi müşteriler için tesis edilen hafif tevettürlü kudret 10677500 kilovat, 1916'da 7368402 kilovat, bu son kısım kudret de ber veçh-i zir inkisar etmektedir:

Tenvîrat için 7670600 kilovat, 1916'da 5418690 kilovat.

Kuvve-i muharrike için 3006900 kilovat, 1916'da 2219712 kilovat.

Beyy olunan kudret-i elektrikiyye ber veçhi-i zir tasnif edildiği üzere 16.585.404 kilovat saate balığ olmuştur. 1916'da 11.978.450 kilovat saat.

Tramvay Şirketi tarafından istihlak edilen ali tevetturlu cereyan 5.212.960 kilovat saat, 1916'da 4.597.891 kilovat saat.

Hususi müşteriler tarafından kuvve-i muharrike olarak sarf edilen 4.348.438 kilovat saat, 1916'da 2788365 kilovat saat.

Hususi müşteriler tarafından tenvîrat-i umumiye ve hususiye için istimal edilen 7.024.006 kilovat saat, 1916'da 4592194 kilovat saat.

İşletme mesarifi, 1917 sene-i hesabiyesi zarfındaki işletme mesarifi 257.720,30 Kuruş'a balığ olmuştur. 1916'da 127.417 Lira-i Osmani 49 Kuruş'a meblağ-ı mezbur da işletme umûrumuzda sarf olunan kömürün bedeli olan 160.398 Lira-i Osmani 69 Kuruş, 1916'da 78.820 Lira-i Osmani 08 Kuruş ile tecdid akçesi hesabına tefrik kılınan 18.000 Lira-i Osmani dahildir.

Kar ve zarar: Raporumuzun kısm-ı mahsusunda irae edildiği veçhile kar ve zarar hesabi imha akçesi olarak 5046 Lira-i Osmani 49 Kuruş tefrikinden sonra bakiye-i zimmet olarak 44521,44 Lira-i Osmani irae etmekte olup meblağ-ı mezburun sene-i atiyeye devri icab eder.

**Muvazene Hesabı: Şirketimizin bilançosunun ahval ve vaziyat-ı muhtelifesine dair zirde bazı tafsilatı ita eyliyoruz.**

#### **Mevcudad (Assets)**

Tesisat-ı iptidaiye: 1916 senesi 31 Kanun-i Evveli'nde tesisat-i iptidaiye hesabına geçirilen 704.000 Lira-i Osmani, 1917 senesinde ilave edilen 137.377 Lira 16 Kuruş, tesisat-ı iptidaiye hesabından 1917 Kanun-i Evveli nihayetinde işletilmeye başlayan tesisat aksamı balığ-i yekûnu 831.377 Lira 16 Kuruş

Derdest-i icra inşaat: 31 Kanun-i Evvel 1916'da derdest-i icra inşaatın balığ olduğu miktar 82.859 Lira 5 Kuruş, 1917 senesi mesarifi 65336 Lira 39 Kuruş, 31 Kanun-i Evvel 1917'de mesarifat-i mezkure yekunu 148195 Lira 44 Kuruş, meblağ-ı mezburdan tesisat-i iptidaiye hesabına nakil edilen 137377 Lira 16 Kuruş, 31 Kanun-i Evvel sene 1918 tarihinde derdest-i icra inşaat hesabi bakiyyesi 20.818 Lira 28 Kuruş,

İşletme levazımı: 31 Kanun-i Evvel sene 1917 tarihinde muhtelif abonelerimize mevcut malzeme ile fabrikada mevcut komurun kıymeti 31080 Lira 30 Kuruş, Hasılat-ı gayri safiyyenin adem-i kifayesinden naşi intizar hesabı: Şartnâmemizin 39. Maddesine tevfikân ihdas edilmiş olan işbu hesap; işletme hasılatı ile tamirat-i daime ve tecdid akçeleri ve tesisat-i iptidaiye ameliyatına hasr olunan sermayenin % 5,5 faiz dahi cami bulunan işletme mesarifinin noksan farkını müşirdir.

31 Kanun-i Evvel 1916'daki fark, 70574 Lira 19 Kuruş

1917 senesindeki fark 82195 Lira 99 Kuruş

31 Kanun-i Evvel 1917 tarihindeki bakiye 152770 Lira 18 Kuruş

İntizam hesabı: İşbu hesap muhtelif kefalet akçeleri ile depozito edilen eshamı muhtevidir. 31 Kanun-i Evvel 1917 tarihinde baliğ olduğu miktar 158120 Lira 43 Kuruş.

### **Medfuad (Pasif/Kaynaklar)**

Sermaye-i Şirket: Şirketimizin hin-i tesisinde (kuruluş zamanı) ihraç ve bugüne kadar tamamen tesviye olunan sermaye beheri 22'ser Liralık 24000 hisse senedinden ibarettir. 528000 Lira-i Osmani.

Tecdid akçesi: Bu hesap 31 Kanun-i Evvel sene 1916 tarihindeki bakiyyesi 20000 Lira. 1917 senesi için zam edilen miktar 18000 Lira. 31 Kanun-i Evvel 1917 tarihindeki bakiyye 38000 Lira.

İmha akçesi (*Dönem karı*): 31 Kanun-i Evvel sene 1916 tarihindeki bakiyye 5892 Lira 14 Kuruş, 1917 senesi için tahsis edilen 5046 Lira 49 Kuruş. İmha akçesi yekun 10939 Lira 63 Kuruş .

Tahsil-i meskuk veya gayri kabil olan matluba akçesi (*Şüpheli alacaklar*): 1917 Kanun-i Evvel nihayetine kadar bu hesaba tahsis edilen yekun 1825 Lira 14 Kuruş.

Muhtelif dayinler ve medyunlar (alacaklılar ve borçlular / *Alınan teminatlar*): İşbu hesap icra edilmiş veya edilmekte olan ameliyattan müteahhitlerimize medyun bulunduğumuz mebaliğ-i mumaileyhimden ameliyat için tevkif olunan teminat akçelerini muhtevidir. 31 Kanun-i Evvel sene 1917'de baliğ olduğu miktar 196724 Lira 62 Kuruş.

Muamelat-ı Maliye (*Krediler*): Bu hesap bankalara mevdu akçenin tenzilinden sonra 31 Kanun-i Evvel 1917 tarihinde medyun bulunduğumuz avansları muhtevidir. 142239 Lira 17 Kuruş.

Müşteriler tarafından ita olunan avanslar (*Alınan Avanslar*): Şartnâmemizin 31. Maddesine tevfikân müşteriler istihlak eyleyecekleri cereyana mukabil tesis eyledikleri beher hektovat başına şirkete azami 10 Kuruş avans itasına mecburdurlar. Bu avansların 31 Kanun-i Evvel sene 1917'de baliğ olduğu yekun 9978 Lira 62 Kuruş.

Şehremâneti'nin temettüata iştirakini tanzîm hesabı: İşbu hesap; hasılat-ı gayri safiyyenin adem-i kifayetinden naşi ihdas edilen intizar hesabının mukabilini teşkil etmektedir. 152770 Lira 18 Kuruş.

İntizam Hesabatı: Depozito edilen esham ile muhtelif kefalet akçelerini muhtevidir. 158120 Lira 43 Kuruş

Binaenaleyh hesap komiserleri efendiler tarafından tedkik edildikten sonra meclisinize takdim kılınan muvazene, kar ve zarar ve müfredat? hesabatının tasdik

buyrulmasını rica eylerim. 1915 senesi Haziranı'nda intihab Meclis-i İdare azasından müddetleri şirketimiz nizamnâme-i dahilisinin 13. Maddesince bugünkü celse-i adiyeyi müteakib hitam bulmuş olacağından aza-i mezkurenin yeniden veya yerlerine diğerlerinin intihabı icab etmektedir. Vekâlet-i seneviyeleri münkazi olan hesap komiserlerinin tekrar tayin veya makamlarına diğerlerinin intihab edilmesini de rica eyleriz. Şu halde, mevadd-i atıyyenin taht-i karara alınmasını teklif eyliyoruz:

1. Karar: Hissedarlar Meclis-i Umumi 1917 sene-i hesabiyesi bilanço, kar ve zarar ve müfredat hesabı tasdik ve Meclis-i İdareyi sene-i mezkure zarfındaki icraatından dolayı her güne mesuliyetten tebriye eder.
2. Karar: Meclis-i Umumi nizamnâme-i dahili şirketin 13. Maddesi mucebince, zevat-ı atıyyeyi Meclis-i İdare azalığına tayin eder:

Kont Lui de Batyani<sup>773</sup>

Mösyö Jorj de Laveley

Mösyö Ojen Baeld

Mösyö Enrik (Emerik?) Balens

Dilberzade Efendi Hazretleri

Mösyö Jul Jacobs

Mösyö Gustav Kohler

Mösyö Pol Lehner

Mustafa Nail Beyefendi Hazretleri

Mösyö Marki Jorj do Palavicini Cenapları

Mösyö Klod Sebesta

Mösyö Andor do Ulman<sup>774</sup>

3. Karar: Meclis-i Umumi muamelat-i seneviye netayici hakkındaki Meclis-i İdare teklifini tasdik eyler
4. Karar: Meclis-i Umumi 1918 senesi için J. Gomes, A. Fernandes ve S. Segorf Vils Efendileri hesap komiserleri tayin ve mumaileyhime 500'er Frank ücret tahsis eder.

### **Osmanlı Anonim Elektrik Şirketi'nin 31 Kanun-i Evvel sene 1917 tarihindeki Muvazene-i Umumiyesi**

#### **Mevcudat:**

Tesiat-ı İptidaiye: 831377 Lira-i Osmani 16 Kuruş

<sup>773</sup> Batthyany family was one of the most prominent aristocrat families of Hungary: R. J. W. Evans, *Austria, Hungary, and the Habsburgs: Central Europe, 1683-1867*, Oxford: Oxford University Press, 2006), p. 19.

<sup>774</sup> Emile Ulmann: Investment banker at Comptoir National d'Escompte de Paris (CNEP): Hubert Bonin, *French Banks ...*, p. 87. "CNEP, had about 200 branches in France, as well as branches in Spain, England, Belgium, Australia, New Zealand, and India; CNEP also had close working relationships with French colonial banks in Algeria, Egypt, East Africa, Madagascar, Martinique, and Indo-China:" Mira Wilkins, *The History of Foreign Investment in the United States, 1914-1945*, (Cambridge: Harvard University Press, 2009), p. 175. CNEP was transformed into contemporary BNP Paribas: <https://histoire.bnpparibas/document/le-comptoir-national-descompte-de-paris-cnep-nait-de-la-crise/>

Derdest-i İcra İnşaat: 21818 Lira-i Osmani 28 Kuruş

İşletme Levazımı:<sup>775</sup> 31080 Lira-i Osmani 30 Kuruş

Hasılat-ı Gayri Safiye'nin Adem-i Kifayesinden Naşı İntizar Hesabı: 152770 Lira-i Osmani 18 Kuruş

İntizam Hesabı (Bankalara Mevdu Hesab):<sup>776</sup> 158120 Lira-i Osmani 43 Kuruş Kuruş

Kar ve Zarar: 44521 Lira-i Osmani 44 Kuruş

Yekun: 1238687 Lira-i Osmani 79 Kuruş

### **Duyunat:**

Sermaye: 528000 Lira-i Osmani

Tecdid Akçesi: 38000 Lira-i Osmani

İmha Akçesi: 10939 Lira-i Osmani 63 Kuruş

Tahsili Gayri Kabil Olan Matlubat Akçesi: 1825 Lira-i Osmani 14 Kuruş Kuruş

Muhtelif Medyun ve Dayinler (borçlular ve alacaklılar): 196724 Lira-i Osmani 62 Kuruş

Muamele-i Maliye: 142329 Lira-i Osmani 17 Kuruş

Müşteriler Tarafından Tevdi Edilen Avanslar: 9978 Lira-i Osmani 62 Kuruş

Şehremâneti'nin Temettüata İştirakini Tanzîm Hesabı: 152770 Lira-i Osmani 18 Kuruş

İntizam Hesabı (Kefalet Akçesi Olarak Mevdu Esham):? 158120 Lira-i Osmani 43 Kuruş

Yekun: 1238687 Lira-i Osmani 79 Kuruş

Meclis-i İdare Aza-i Murahhası ve Müdür-i Umumi, R. Fris

Müfettiş, W. Grunberg

### **Osmanlı Anonim Elektrik Şirketi'nin 31 Kanun-i Evvel sene 1917 tarihindeki Kar ve Zarar Hesabı**

#### **Zimmet (Borç)**

Faiz Hesabı: 9742 Lira-i Osmani 68 Kuruş

İmha Akçesi: 5046 Lira-i Osmani 49 Kuruş

İşletme Hesabı Hasılatı 234044 Lira-i Osmani 37 Kuruş. (Bu yekûnda 4729 Lira-i Osmani 5 Kuruş'luk hasılat-ı muhtelif de dahildir.)

İstihlak-i Elektrik Üzerinden Tenzilat: 11286 Lira-i Osmani 17 Kuruş

Yekun 222758 Lira-i Osmani 20 Kuruş

İşletme Hesabı Mesarifi: 257730 Lira-i Osmani 30 Kuruş (Bu miyanda tecdid akçesi olarak tefrik edilen 18000 Lira da dahildir).

<sup>775</sup> The items bought from the suppliers (tedarikçi) for business activity (işletme faaliyeti) such as coal, electric meters etc.

<sup>776</sup> Assets of the company: Cash money, gold, savings or securities belonged to the Company, "compte d'ordre/titres en depot" in French.

İşletmeden mütevellid zarar: 24972 Lira-i Osmani 10 Kuruş

Ceman Yekun: 49761 Lira-i Osmani 28 Kuruş 24972 Lira-i Osmani 10 Kuruş

**Matlubat (Alacaklar)**

Sene-i sabıkadan müdevver (devr olunan) bakiyye: 5239 Lira-i Osmani 83 Kuruş

Sene-i atiyeye devr edilecek bakiyye: 44521 Lira-i Osmani 44 Kuruş Kuruş

Yekun: 49761 Lira-i Osmani 28 Kuruş

**Osmanlı Anonim Elektrik Şirketi'nin 31 Kanun-i Evvel sene 1917 tarihindeki Müfredat Hesabatı**

Tesisat-ı İptidaiye: 831377 Lira-i Osmani 16 Kuruş

Derdest-i İcra İnşaat (yapılan inşaat): (Fabrika, şebeke-i tevziye vesairede icra edilecek bakiyye-i inşaat için 31 Kanun-i Evvel 1917 tarihine değin hesap olunan sarfiyat): 20818? Lira-i Osmani 28 Kuruş.

İşletme Levazımı: (31 Kanun-i Evvel 1917 tarihinde ambarlarda mevcut eşya ve malzeme kıymeti): 31080 Lira-i Osmani 30 Kuruş

Hasılat-i Gayri Safiyenin Adem-i Kifayetine mebni (yetmezliğine bağlı) İntizar Hesabi: (Şartnâmenin 39. Maddesine tevfikân kayıt olunan meblağ) 152770 Lira-i Osmani 18 Kuruş

İntizam Hesabi (Depozito edilen esham ve muhtelif kefalet akçeleri): 158120 Lira-i Osmani 43 Kuruş.

Kar ve Zarar: 44521 Lira-i Osmani 44 Kuruş

Matlubat Yekunu: 1238687 Lira-i Osmani 79 Kuruş

**Medfuat (Harcamalar, Giderler)**

Sermaye-i Şirket (Beheri 22'ser Lira kıymet-i itibariyesinde kamilen tesviye edilmiş 24000 hisse senedi): 528000 Lira-i Osmani

Tecdid Akçesi (1917 nihayetinde bu hesaba tefrik edilen miktar): 38000 Lira-i Osmani

İmha Akçesi (1917 nihayetinde bu hesaba tefrik edilen miktar): 10939 Lira-i Osmani 63 Kuruş

Muhtelif Dayınlar (şirkete borç veren, alacaklılar): 196724 Lira-i Osmani 62 Kuruş

Muamelat-i Maliye (Avanslardan medyun (borçlu) olduğumuz miktar): 160267 Lira-i Osmani 99 Kuruş?

Bankalarda mevcut olup tenzili icab eden miktar: 17938 Lira-i Osmani 82 Kuruş

Müşteriler Tarafından Mevdu Avanslar (Şartnâmenin 31. Maddesine tevfikân müşteriler tarafından mevdu depozito akçeleri): 9978 Lira-i Osmani 63 Kuruş?

Şehremâneti'nin Temettuat İştirakini Tanzîm Hesabi: 152770 Lira-i Osmani 18 Kuruş

İntizam Hesabi (Şirketimize depozito edilen kefalet akçeleri ve Esham): 158120 Lira-i Osmani 43 Kuruş

Tahsili meskuk veya gayri kabil matlubat akçesi: 1825 Lira-i Osmani 14 Kuruş

Düyunat Yekunu (Borçlar Toplamı): 1238687 Lira-i Osmani 79 Kuruş

**Osmanlı Anonim Elektrik Şirketi, 1917 sene-i hesabiyesi Muvazaene-i Umumiye ve Kar ve Zarar Hesabi, Hesap Komiserlerinin Raporu**

Efendiler,

Uhdemize tevdi olunan selahiyete binaen şirketinizin 31 Kanun-i Evvel 1917 tarihinde kapatılmış olan hesabatını tedkik eyledik. Netice-i tetkikatımızda muvazaene-i umumiye ile kar ve zarar hesabının şirket defatirindeki kuyudata muvafık olduğu görülmekle hesabatın takdim edilen surette kabul ve tasvibi teklif olunur.

Dersaadet, 22 Mayıs 1334

Hesap Komiserleri A. Fernandez, F. Wiener, J. Comes, S. Szego

**Osmanlı Anonim Elektrik Şirketi**

**14. Meclis-i Umumi**

**1338 senesi Haziranı'nın 22. Perşembe günü hissedaran Meclis-i Umumi-i fevkaladesinde kıraat edilen Meclis-i İdare Raporu**

İstanbul

Ahmet İhsan ve Şürekâsı

Matbaa-i Osmani Şirketi

1338

Osmanlı Anonim Elektrik Şirketi hissedaranı; 1338 senesi Haziranı'nın 22. Perşembe günü badel zuh saat 3'te şirketin Beyoğlu'nda Tünel Meydanı'nda Metro Hanı'nda kain bulunan Merkez'i İdaresi'nde suret-i fevkaladede inikad edecek olan olan Meclis-i Umumi'ye davet olunur.

Laekal 10 hissenin hamili olup da içtima-i mezkura iştirak arzusunda bulunan hissedaran; tarih-i inikaddan ekalli 10 gün mukaddem, hisse senetlerini vadesi hulul etmemiş kuponları ile birlikte:

Dersaadet'te: şirketin Merkez-i İdaresi'ne,

Brüksel'de: Sosyete Financier do Transport Endüstriyel (SOFINA) nam şirkete tevdi eylemeleri icab eder.

Hisse senadadının tevdiini müteallik damga rüsum bedelatı müveddilere aittir.

**Ruzname-i Müzakerat (Müzakere Günlüğü)**

Nizamnâme-i dahilinin 4. ve 14. maddelerinin tadili

Meclis-i İdare

**Osmanlı Anonim Elektrik Şirketi**

**1338 senesi Haziranı'nın 22. günü, Hissedarlar Meclis-i Umumi-i fevkaladesinde kıraat edilen Meclis-i İdare Raporu**

Efendiler,

Hususat-i atıyeyi arz etmek üzere sizi bu Meclis-i Umumi-i fevkaladeye davet eyledik:

1. Nizamnâme-i dahilinin 4. maddesi: 27 mart 1336 tarihli mukavelenâme-i müzeyyele (ek mukavele) mucibince şirkete ita olunan imtiyâz müddeti 22 Kanun-i Evvel 1408 (1993) tarihine kadar temdid olunmuştur. Binaenaleyh;

şirketin müddetini 50 sene olmak üzere 1911-1961 tayin eden nizamnâme-i dahilinin 4. Maddesini ol vechile tadil eylemek ibtida eder.

Eski metin: 4. Madde: Şirketin müddeti bazı esbabdan dolayı fesh veya temdid kılınmak gibi bir hal vukua gelmedikçe imtiyâz müddeti olan 50 seneden ibaret olacaktır.

Yeni Metin: 27 Mart 1336 tarih (1920) ve 3 numaralı mukavelenâme-i müzeyyele mucebince imtiyâz müddeti 28 Kanun-i Evvel 1408 (1993) tarihine kadar temdid edilmiş olduğundan olvech evvelce 50 sene olmak üzere tahdid olunan şirketin müddeti dahi bazı esbabdan dolayı fesh veya temdid kılınmak gibi bir hal vukua gelmedikçe mezkur 28 Kanun-i Evvel 1408 (1993) tarihine kadar temdid olunmuştur.

2. Nizamnâme-i dahilinin 14. maddesi: Meclis-i İdare müzakeratının muteber olması için azasının nısfından bir fazlasının bizzat mevcut bulunmasını icab ettiren nizamnâme-i dahilinin 14. maddesinin tadilini de bu vesileyle talep ediyoruz. Meclis-i İdare azaları sık sık tebdil-i mahal etmekte olduklarından gaygubet eden azaların temsil edilmesinin kabulünü ve 14. maddenin suret-i atiyede tadilini teklif ediyoruz.

Eski metin: Meclis-i İdarenin içtimai; icab-ı maslahata tabii olacak ise de Dersaadet'de yahut Meclisçe tayin edilecek sair mahalde ayda bir defa toplanması labuddur-i mutlaktır?. Meclis-i İdare; reis veya reisinin manii olduğu takdirde kendisine vekâlet eden zat tarafından taht-i içtimaa davet edilir. Müzakeratın muteber olması laekal azanın nısfından bir ziyadesinin bizzat huzuruna menuddur. Meclis-i İdare'nin kararları; bilasale veya bilve kale hazır bulunan azanın ekseriyet-i arasıyla muteber olur. Tesavi-i ara vukuunda içtimaaya riyaset eden azanın reyi hangi tarafta ise o taraf reyi tercih edilir.

Yeni Metin: Meclis-i İdarenin içtimai; icab-i maslahata tabii olacak ise de Dersaadet'de veyahut Meclisçe tayin edilecek sair mahalde laekal ayda bir defa toplanması labuddur. Meclis-i İdare; reis veya reisinin manii olduğu takdirde kendisine vekâlet eden zat tarafından taht-i içtimaa davet edilir. Müzakeratın muteber olması azanın laekal nısfından bir ziyadesinin asaleten veya vekâleten bizzat? hazır bulunmasına menuttur. Meclis-i İdare'nin kararları; bilasale veya bilve kale hazır bulunan azanın ekseriyet-i arasıyla muteber olur. Tesavi-i ara vukuunda içtimaaya riyaset eden azanın reyi hangi tarafta ise o tarafın reyi tercih olunur.

Binaenaleyh, mukarrerat-i atiyenin ittihazını teklif ederiz:

22 Haziran 1338 tarihinde usulü dâiresinde teşekkül etmiş olan Hissedarlar Meclis-i Umumi-i fevkaladesi; mukarrerat-i atiyeyi ittihaz eder:

### **Birinci Karar:**

Nizamnâme-i dahilinin 4. maddesi suret-i atiyede tadil edilmiştir:

27 Mart 1336 (1920) tarih ve 3 numaralı mukavelenâme-i müzeyyele mucebince imtiyâz müddeti 28 Kanun-i Evvel 1408 (1993) tarihine kadar temdid edilmiş olduğundan evvelce 50 sene olmak üzere tahdid olunan şirketin müddeti dahi bazı esbabdan dolayı fesh veya temdid kılınmak gibi bir hal vukua gelmedikçe mezkur 28 Kanun-i Evvel 1408 (1993) tarihine kadar temdid olunmuştur.

### **İkinci Karar:**

Nizamnâme-i dahilinin 14. maddesi suret-i atiyede tadil edilmiştir: Meclis-i İdarenin içtimai; icab-i maslahata tabii olacak ise de Dersaadet'de veyahud Meclisçe tayin edilecek sair mahalde laekal ayda bir defa toplanması labuddur. Meclis-i İdare; reis

veya reisinin manii olduğu takdirde kendisine vekâlet eden zat tarafından taht-i içtimaa davet edilir. Müzakeratın muteber olması; azanın laekal nısfından bir ziyadesinin asaleten veya vekâleten hazır bulunmasına menuddur. Meclis-i İdare'nin kararları; bilasale veya bilve kale hazır bulunan azanın ekseriyet-i arasıyla muteber olur. Tesavi-i ara vukuunda ictimaaya riyaset eden azanın reyi hangi tarafta olur ise o tarafın reyi tercih edilir.

Dersaadet, 16 Mayıs 1338



**20. CCA, NV 34E/84 230-0-0-0 24 11 6 (19 November 1913)**

**İstanbul Şirket-i Tenvîriye-i Osmaniyesi hissedaran heyet-i umumiyyesi içtimasına dair rapor**

6 Teşrin-i sani 329

İstanbul Şirket-i Tenvîriye-i Osmaniyesi'nin 1913 senesi hissedaran heyet-i umumiyesi müzakeratında hazır bulunarak netice-i tetkikat ve müşahadatımın arz-ı şeref telakki ettiğim irade-i celile-i cenab-ı nezaret penahileri mukteza-i alisinden olmakla yevm-i içtima olan Eylülün otuzuncu Pazarertesi günü şirketin Bab-ı Ali caddesinde dâire-i mahsusasında kain merkez-i idaresine bil azime tetkikat-ı mukteziyenin ber vech-i ati icrasına mübaşeret olundu. Şöyle ki, şirket-i mezkurenin 9 Mart 1304 tarihli nizamnâme-i dahilisininin 26. maddesi mucebince hissedaran heyet-i umumiyyeleri için tertip olunacak ?namelerin yevm-i içtimadan laekal bir mah evvel ilan olunması muktezi bulunmakla evvel-i emirde ilan-ı mezkurenin ol vech ile ifa edilip edilmediği tahkik edilmiş ve keyfiyetin 13 Ağustos 1913 tarihinde Dersaadet'de münteşir Monitor Oryantal Gazetesi ile ilan edildiği anlaşılmıştır. Heyet-i mezkurede aza sıfatıyla ispat-ı vücut edecek beher hissedaranın laekal beş hisseye malik olması ve şirket sermayesinin gerek asaleten ve gerek vekâleten bir rubbuna müsavi hisseyi hamil zevattan tereküb etmedikçe heyet-i mezburenin nazar-ı kanunda muteber olamaması nizamnâme-i dahilinin mevad-ı mahsusası muktezasında bulunmakla ictima-i mezkurdan bilasale ve bilve kale hazır bulunacak zevatın hamil oldukları hisselerin meclis-i idarece gösterilen mahallere on gün evvel tevdi mukabilinde tanzîm kılınmış olan makbuzlar muayenesinden ceman 2980 adedine balığ olduğu görülmüş ve şirketin sermayesi nizamnâme-i dahilinin altıncı maddesi mucebince beheri on lira kıymetten üç bin hisseye münkasım bulunmakla içtimaa iştirak eden hissedaranın şirket sermayesinin hemen tamamına karib olarak hadd-i nizamiden katenkat fazla olduğu anlaşılmış bulunduğu gibi içtimada bilasale ve ? bilve kale hazır bulunan hissedaranın esamisiyle her birinin hamil oldukları hisselerin miktarını mübeyyin olmak üzere tanzîm edilip mumaileyhim tarafından imza olunan cetveldən dahi anlaşıldığı veçhile zevat-ı mumaileyhinden her biri içtimaa iştirakini temin edecek mikdardan fazla hisseye malik olduğu ve bilve kale isbat-ı vücuh edenlerin hamil oldukları vekâletnameler dahi tedkik olunarak teamul ve usulune tevfi kan tanzîm edildiği tahakkuk etmiştir. Şerait-i iktisadiyesi şu surette tahakkuk ettikten sonra heyet-i mezkurece meclis-i idare reisi Kont Lui Balterik'in [Batthyany] Avrupa'da bulunması sebebiyle reis-i sani Doktor Andor do Olman'ın [Emile Ulmann] taht-ı riyasetinde müzakarata bilibtidar en çok hisseye malik olan hissedarandan Mösyö Bereman ile Mösyö Beker rey toplamak üzere intihab olunan Mösyö Gronberg [Grunberg] vazife-yi kitabete tayin olunduktan ve ruzname-i müzakarat ile meclis-i idare tarafından şirketin 1912 senesi hesabatıyla vuku bulan teklifatı natık tanzîm edilen rapor ve müfettişlerin raporu kıraat edilerek ittifak-ı ara ile kabul ve meclis-i idare azasından Mösyö Odrik'in [Auric] vuku-i vefatına mebni yerine Mösyö Kricler [Kritzler] ve meclis-i mezbur azasından Hulusi Bey'in müddet-i nizamiyesi münkazi olmakla ibka-i intihab edilmiş ve meclis-i idare raporundan beş adet ile zabıtnamenin ve azanın esamisini mübeyyin cedvelin beher sureti rabten takdim kılınmış olmakla görölerek lüzumu kadar nüshaları aldırılıb dosyasında hıfzı zımnında iade olunmak üzere Nâfia Idaresi'ne havale buyrulması babında

## 21. İTÜ KA, MÜM 71/69 (1925)

### (Contents of electricity courses in the School of Engineering)

#### Birinci sınıf

Mihanik: Madde, cisim, cismin alat-i selasesi (cismin üç hali), havâss-i umumiye-i ecsâm

Hareket: Tarifi, hareket-i mütesaviye ve mütehavvile-i muntazama ve kavânîn-i cebriyesi ve kavânîn-i hendesiyesi, hareket-i devraniye

Kuvvet: Tarifi, bilhendese irâ'esi (görülme), kuvvetlerin takdiri, muvazenete aid malûmat-ı mücemmele, bir noktaya tesir eden kuvvetin terkibi, kuvva-i mütevaziyenin terkibi, kuvve-i anil merkeziye ve suret-i takdiri

Hareket ve kuvvet: Mihanikin esâsât-ı selase-i tecrübiyesi (atalet, harekatta istiklaliyet, aksi tesir), kuvve-i atıye ve mütemadiyeden mütevellid hareket, kuvvetlerin miktar-ı taciller (acele, hız?) ile miktar-ı tacillerin kütleler ile tenasubi, amel-i mihanik, kuvve-i zinde-i iktidâr, kudret-i harekiye, kudret-i mekiniyye (mekin?) ve yekdiğerine tahavvülü (dönüşüm).

Câzibe: Câzibe-i atefiyenin? mevcudiyeti, istikâmet, şiddet ve nokta-i tatbîki, sukut-i ecsâm ve kanunlarının bittecrübe ispatı, ? makinesi, manivela nazariyesi, envai teraziler, vezni basit ve vezn-i mükerrer, kesâfet

Maiyat ve gazat: Havâss-ı umumiye ve hususiyeleri, kabiliyet-i tazyik, Archimed kanunu, Pascal kanunu, hava-i ? tazyiki, Toricelli tecrübesi, barometreler, barometrelerden istifâde, ? kanunu, manometreler

Hararet: Suhnet ve hararet, suhnetin takdiri, mikyas-ı suhuneler, inbisat-ı ecsâm ve inbisat? düstûrları, ? ve tasallub?, tabahhur (buharlaşma), ?da tabahhur, kuvve-i elastikiye-i azama, mukayese-i hararet, muadil mihanik-i ?, buhar makinelerinin esası hakkında malûmat-ı mücmele

Savt (Ses): Savtın sebep-i husûlü, ihtizazat? hakkında malûmat-i mücmele, sürat-i savt, perde, şiddet, tını?, savt boruları, tellerin kavânîn-i ihtizaziyesi, uzv-i semi? (duyma organı) hakkında malûmat-ı mücmele

#### İkinci sınıf

Ziya-i hendesi - Zıyanın hatt-ı müstakim üzere intişârı, zıl (gölge) ve şibh-i? zıl (gölge benzeri), şeffafiyet in'ikâsı (aks etme) ve kavânîni, in'ikâs-ı tam?, adeseler (mercekler) ve düstûrları, mukayese-i ziya ve sürat-i ziya

Elektrik-i mütevazın - Elektrikin husûlü, iki nev elektrik, Kolon (Coulomb?) kanunu, kütle-i elektrikiye, bittesir elektriklenme, iktidâr-ı elektriki, sığa-ı elektrikiyye, elektrik-i mütevazın makineleri (Ramdan?, Vosoriç?, vesaire), teksif-i nazariyesi, mükessesfelerin iştirâki, tahliyesi, tahliyenin asar-ı muhtelifesi, mıknatısiyet, Kolon (Coulomb?) kanunu, kütle-i mıknatısiye, mıknatısiyet-i arziye

Elektrik-i müteharrik – Piller, envai, cereyân-ı elektriki, Ovm (Ohm) kanunu, devre-i müştakka, Kirşof (Kirchoff) kanunları, saha-i mıknatısiye, Jul (Joule) kanunu, tahlil-i elektriki, cereyânların yekdiğerine ve cereyânlarla mıknatısların tesirat-ı mütekilleri, galvanometre ve voltametre ve ampermetre, indüksiyon hâdisatı kanunları, Rumkorf (Ruhmkorff) bobini, telgraf ve telefon

#### Üçüncü sınıf

Zıyanın intişar-ı müstakiminin tedkiki, kanun-i tecrübi ve keyfiyetin zâhiriyyeti, in'ikâs kânunlarının temevvüc-i (dalgalanma) nazariyesiyle isbâtı, müstevi devvar (devreden) aynalar davası ve tatbikatı, kürevi aynalar düstûrunun istihrac-ı sahihi, tekder? kereviyet? ve bunun musattah (düzgün) menhizi?

İnkisâr (kırılma) kânunlarının temevvüc nazariyesi ile isbâtı, karîne-i inkisâr, mutlak ve karîne-i izafi, usûl-i mesâha, mutevaziyul vecheyn levhalarda inkisâr

Kasre? nazariyesi, kürevi kasreler? düsturu ve bu düsturlardan adesat düsturlarına intikal, ince adesatın iştiraki heyet-i müsterekenin kuvve-i takarrubiyesi - adesatta tekder/tekeddur?, kereviyet? ve bunun hadd-i asgarîye tenzili

Tahallul-i? ziya - tahlil-i tayf - tayf neşri, tayf ?, alelumûm inşiaat?, inşiaat-ı haruriye, adesatta tekeddur? levni?, levniyetin çare-i izalesi ve bunun bilriyaziye isbâtı

Alat-ı ziyaiye, büyütme ve kuvvetleri - protez? büyütme ve kuvveti, mikroskop büyütme ve kuvveti, dürbin arzı ve heyeti, teleskop büyütmesinin bilamel tayini

Ziya-i haki - ihtizazat? nazariyesi, tedahul-i? ziya (Kronel? aynaları, bilyenin? nısf adeseleri, tul ? tayini, Newton'un mülevven? halkaları, tekâsür-i ziya tecrübeleri, alat-ı ziyaiyede tekâsür, istiktab-i? ziya, in'ikâs ile istiktab-i ziya-i mustektabın istikamet-i ihtizazayesi, ziya-i tabii, istiktab-i levni, istiktab-i (kutb) devvar, kuvve-i tedviriye?

Hararet – gazatin kesafetleri, bir litre havanın vezni, kalorimetre, maiyat, gazat ve hararet-i mahsusalarının tayini, mutesaviyussühunete? (eşit sıcaklık?) tahavvilat, mutekaddimul?intikal tahavvilat, mükemmel gazların düsturu, Jule Mayer Kanunu, amel-i mihanik-i dahili, kapalı bir devre-i haruriye, gazların sabit tatbîk ve sabit hacim tahtında hararet-i mahsusaları ve nisbetleri, Karno nazariyesi, Karno devresi, sıfır-ı mutlak, tebeddül-i hal, buhar halinden mai haline ve mai halinden buhar haline intikal, Androsi Kanunu, mai' ve buhar mahlutu, buhar ve mai' mahlutunun entropi ve kudret-i dahiliyesi

#### **Dördüncü sınıf**

Elektrik-i mütevazın – hâdisat-ı elektrikiyye, nakl-i gayri nakl-i elektrik, iki nev elektrik, temelli ve renk ve bittesir-i elektriklenme, elektroskop, hamule elektrik, Kolon kanunu ve mizanı (ölçüm), raks usulüyle Kolon kanunu izahı – kütle, saha-i iktidâr vahidleri ve ebatları, hutut, ? kuvvet, elektriklenmiş bir kürenin dahili ve haricinde mesaha ? kuvvet, Gaus davaları, kesafet, tazyiki elektrik-i mütevazın, Faraday davası, mükessefe nazariyesi envai iştiraki, tefazül-i iktidâr ve mesahası, ?'nin elektrometresi, menabide müstamel nevi, Tomson?, Mascar? ve Jobe? usulleriyle mesaha icrası, Ripsi Termometresi

Elektrik-i müteharrik: Cereyân-ı elektriki tarifi vahidi tesirat-ı kimyeviye ve haruriye ve mihanikeleri, Jules Kanunu, mukavemet tarifi vahidi, Ohm Kirchoff Kanunları, tatbikatı, sukut-ı tevettür, mukavemet-i dahiliye, mutesahib devreler, ? ve ?-i umumi suret-i isti'mâlleri, mukavemet mesahaları, galvanometre, pıl, akümülatör, mukavemet-i dahililerinin mesahası, gayet küçük mukavemet mesahaları (Tomson'un ? usulü, tefazül-i galvanometre), gayet büyük mukavemetler mesahası, kuvve-i tecridiye mesahası, Ohmmetre, mukavemet maiyat, dinamoda hutut-ı havaıyede zayıatın mesaha ve taharrisi, tefazül-i iktidâr mesahası, (mükessefe veya balistik isti'mâli, Lokvan, Mukendorf , Kemp, ? usulleri) Voltametre ve tarifi - elektrik bilahere nazariyati ve kavanini, elektrochimie ve kanunları, istiktaf (kutuplaşma) hadisesi, yıldızcılık, oymacılık piller ve envai ve nazariyeleri, irtibatları ve numune pilleri (? Danyel ? ) akümülatör nazariye-i ameliyesi, havası, suret-i istimali, imali, muhafazaları, siaları

Mıknatısiyet: Kutup, mesaha, Kolon Kanunu, mıknatısın amel-i mihanikisi, şiddet ve nufuziyet-i mıknatısiye, mıknatısiyet-i arziye, at mıknatısı ve tayini, devre-i mıknatısiye ve kanunları, cereyanlar üzerine tesiri, Laplace kanunu, bittetcrübe ispatı ve ? bunun mıknatısı ile muadeleti, cereyân mesahası (limanın açar metresi, mahalli pusula, planın elektro dinamometresi) cereyânların birbiri üzerine tesirleri, açar masası

## 22. İTÜ KA, MÜM 29/28 (1331.7.21 / 3 August 1915)

21 Eylül 331

Ders Nezâreti'nden verilip rabten huzur-ı sami-i atufenalarına takdim kılınmış olan 16 Eylül 331 tarihli ve seksen numaralı takrirde resm-i hatt ve tabakâtul arz dersi muallimi Kenan Bey'in iktidâr ve kifayeti malûm ve müsellemler bulunduğunda bu sene icrâ kılınan imtihanlar neticesinde resm-i hatt dersinden talebenin matlup veçhile istifâde edemediği anlaşılmış mebnî bu dersin mir-i mûmâileyhten alınarak diğer bir münasibe tevdi' zaruri görülmekte ve sâbık Şûrâ-yı Devlet a'zâsından Yusuf Razi Bey'in ders-i mezkûrda olan ihtisası hasebiyle taliminden matlup olan semerenin hasıl olabileceği bittecrûbe sabit olduğundan Kenan Bey'in uhdesinde yalnız beher saati ellişer kuruştan haftada iki saatten ibâret olan dört yüz kuruş maâşî tabakâtul arz dersi muallimliği bırakılarak haftada yedi saat ders göstermek üzere bindört yüz kuruş ücret-i şehriye ile resm-i hatt dersinin mir-i müşarünileyh uhdesine tefvizi ve yeni sene programların tebeddülü münasebetiyle tedris edilemeyen ve yeni bir program mucibince iki kısma ayrılan ve haftada iki saatten ibâret olan buhar ve elektrik makineleri derslerinin de tefrikiyle haftada dört saat tedris olunan elektrik makine dersinin elektrik vekâleti riya ziye muallimi Burhaneddin Ferid Bey'in uhdesine alayıkı tevdi' ve haftada iki saatten ibâret kalan ve beher saati buhar ve elektrik makineleri dersine mahsus olan yetmişbeş kuruştan mahiye iki yüz kuruş ücretle buhar makineleri dersinin dahi kemakan müşarünileyh Yusuf Razi Beyi'n uhdesinde ifâsı ve bu suretle ücret-i şehriyesinin iki yüz kuruşa iblâğı iltimas edilmiş ve mezkûr derse mahsus ücretlerin mektebin sene-i hazıra bütçesinin yedinci faslının birinci maddesinden tesviye edileceği mektep muhasebe memuriyetince dahi beyân ve ifâde olunmakla ber veçh-i arz ve istirham muktezasının ifâsına müsaade-i celîle-i cenâb-ı nezâret penâhîlerinin ? ve şâyân buyrulması müsterhamdır. Ol babda ...

**23. İTÜ KA, MÜM 22/54 (1329.12.27 / 9 January 1914)**

**(Programme of the “Electric Motors” course in the School of Engineering)**

|                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MACHINES</b>                                                                                                                                                      |
| <b>ELECTRICITE</b>                                                                                                                                                   |
| <b>Electrostatique:</b><br>Loi de Coulomb<br>Les Condensateurs                                                                                                       |
| <b>Électromagnétisme:</b><br>Les aimants et leur action mutuelle                                                                                                     |
| <b>Électrodynamique:</b><br>Les électro-aimants<br>Théorie de flux                                                                                                   |
| <b>Les générateurs électriques:</b><br>Dynamo à excitation indépendante<br>Dynamo à excitation en série<br>Dynamo à excitation shunt<br>Dynamo à excitation compound |
| <b>Les accumulateurs:</b><br>Système Faure<br>Système Planté                                                                                                         |
| <b>La distribution de l'électricité:</b><br>à intensité constante<br>à potentiel constant                                                                            |
| <b>Les moteurs à courant continu:</b><br>à excitation indépendante<br>à excitation en série<br>à excitation shunt<br>à excitation compound                           |
| <b>Le courant alternatif:</b><br>monophasé<br>Diphase<br>Triphasé<br>polyphasé                                                                                       |
| <b>Les alternateurs:</b><br>Théorie<br>Construction et application                                                                                                   |
| <b>Les moteurs à courant alternatif:</b><br>synchrones<br>asynchrones<br>à collecteur                                                                                |
| <b>Transport de l'énergie:</b>                                                                                                                                       |
| <b>Transformateurs:</b><br>Théorie<br>Construction et application                                                                                                    |
| <b>Mesures électriques (procédés et appareils):</b><br>de résistance<br>d'intensité<br>de la force électromotrice                                                    |
| <b>Application de l'électricité:</b><br>Éclairage<br>Élevage<br>Traction                                                                                             |

|                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------|
| <b>Cours d'électricité</b>                                                                                                 |
| Définition de l'énergie. Différente sorte d'énergie et leurs lois.                                                         |
| Principe de la conservation de l'énergie.                                                                                  |
| Définition du potentiel, surface équipotentielle.                                                                          |
| Tour? de force, ligne de force, Théorème de Gauss.                                                                         |
| Unité de force et du travail.                                                                                              |
| Définition de l'électrisation, corps ?                                                                                     |
| Capacité d'un corps, condensateur et leur montage en série et parallèle                                                    |
| La lois d'Ohm et application                                                                                               |
| Lois de Kirchhoff et application                                                                                           |
| Règle de résistance, montée en série et en parallèle.                                                                      |
| Puissance électrique, énergie électrique                                                                                   |
| Magnétisme – Définition d'un aimant. Induction magnétique. L'intensité d'aimantation. ? Définition du feuillet magnétique. |
| Lois des champs formé par un courant. Formule de Laplace.                                                                  |
| L'expression du travail produit par le déplacement d'un circuit dans un champ magnétique                                   |
| Action des courants sur des courants. Solénoïdes.                                                                          |
| Comparaison d'un aimant avec un solénoïde.                                                                                 |
| Champ à l'intérieur d'une bobine.                                                                                          |
| Circuit magnétique - Comparaison d'un flux magnétique avec un courant.                                                     |
| Electroaimant et quelques applications: ?, sonnerie, ?.                                                                    |
| Définition du ? de self induction et d'induction mutuelle.                                                                 |
| Unité pratique et unité électromagnétique.                                                                                 |
| Lois de l'effect électromagnétique. Principe des moteurs électriques et des ?.                                             |
| Etablissement d'un courant dans un circuit qui a de la self et mutuelle.                                                   |
| Lois de l'électrolyse – ce que l'est l'anode et le catode.                                                                 |
| Principe de la galvanoplastie et la ? électrique.                                                                          |
| Définition de l'? de la résistance. Boîtes de résistance.                                                                  |
| Unité d'intensité et de la force électromotrice.                                                                           |
| Ampèremètre électromagnétique – Principe de l' électro dynamomètre.                                                        |
| Ampèremètre thermique.                                                                                                     |
| Mesure de la résistance:                                                                                                   |
| 1) Méthode industrielle (Ampèremètre / Voltmètre?).                                                                        |
| 2) Pont de Wheatstone.                                                                                                     |
| La théorie des accumulateurs.                                                                                              |
| Lois générales sur les générateurs électriques.                                                                            |
| Les pôles d'un générateur – Force électromotrice d'un générateur, montage en série et en parallèle                         |
| au composés des générateurs, leur montage.                                                                                 |
| Les piles, polarisation, piles à deux liquides.                                                                            |
| Pile Daniell, ?, Poggendorff, Grenet, Leclanché.                                                                           |
| Accumulateur système Planté et Faure, formation, montage, entretien (maintenance)?, charge, décharge, montage.             |
| Dynamo à courant continu – inducteur, collecteur, circuit, noyau, balai etc.                                               |
| Rendement, pertes par hystérésis, Foucault, excitateur, enroulement en anneau, tambour, différent                          |
| sorte d'excitation: indépendant, série, parallèle.                                                                         |
| ?: Démarrage des ? moteurs.                                                                                                |
| Montage en parallèle des dynamos. Dynamos à pôles. Constructeur des dynamos.                                               |
| Couplage par courroie et élastique.                                                                                        |
| Appareil de mesure d'un réseau, section du fil de transport, condition de sûreté, transport d'énergie,                     |
| ?, règle de Kelvin interrupteur, commutateur, fusible dynamomètre.                                                         |
| Bobine de self pour la décharge atmosphérique, limitateur de tension.                                                      |
| Tableau de distribution. Distribution à intensité constante et à potentiel constante.                                      |
| Feeder d'alimentation, fel pilote, fel d'équilibré, lampes électrique, isolateur, câble, lampes à arc.                     |
| série, parallèle.                                                                                                          |
| Moteurs électriques, ? de démarrage.                                                                                       |

**24. Course books of electricity written by Ottoman engineers and which were instructed in the School of Engineering (Compiled from the ITU Rare Books Collection)**

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## 25. İTÜ KA MÜM 44/36 (1335.05.20 / 20 May 1919)

Hazine- Hassa-i Şahane

Müdüriyet-i Umumiyesi

Aded: -

Fen Müşavirliği

Mühendis Mekteb-i Alisi Müdüriyet-i Aliyyesi Cânib-i Alisine,

İmtihanlarında bulunmağı tensip buyurduğunuz Robert Kolej Mektebi'nin bu sene elektrik mühendisi şubesinde son sınıfında talebe bulunmadığından makine mühendisi şubesinde tatbikat-ı sınaie-i elektrikiyye ile nakl-i kuvve-i elektrikiyye dersleri imtihânlarında bulundum. Bir makine mühendisinin elektrike ait kısımdan bilmesi icap eden bütün aksâmda lüzumu olan malûmat-ı fenniye ve ameliye ile mücehhez bulundukları gerek bu imtihânlardan ve gerek müddet-i talimiye esnasında icrâ ettikleri ameliyat ile vermiş oldukları raporların tetkikinden anlaşılmıştır. Gerek vazifelerinde ve gerek tedrisâtları itibariyle nazariyattan ziyade netice ve tatbıkata fazla ehemmiyet verip dakik ve tatbikatı olmayan nazariyattan (teorik) tecrid olduğu müşâhade edilmiştir. İmtihân tecrübi olup ameliyathanede tecrübe yaptırılmamıştır. Talebelerin programlarına son senelerin tatbikatından olan ? tevzî'at üzerine en son terakkiyât kavâidi ilâve edilmiştir. Ve efendilere alat ve makinalar, fotoğrafler ve projeksiyon ile izah olduğu müşahade olunmuş ve talebeler dahi bitamâmihâ istifade etmiş olup şâyân-ı takdir görülmüştür.

Bununla beraber elektrik mühendisi diploması i'tâsı için lüzumu olan bütün tecarübi icrâ edecek makinaların henüz mektepte olmadığı görülmüştür.

Mektebin demirhanesi ve döküm ve model kısmı mükemmel ise de atölyeleri noksan olduğu gibi elektrik tecrübe laboratuvarları hemen hemen mefkut (yok, hiç) add edilebilir. Dakik mesâhat-ı elektrikiyye laboratuvarı ise muhtaç-ı ikmal olduğu da ayrıca beyân olunur. Mektebin tedrisâtı ve imtihânlarının derecesini daha yakından tetkik edebilmek için meselâ bu fenne intisap için o kısma ayrıldıktan sonra ilk sene imtihânlarından itibaren her sene imtihânlarında bulunmak icap ettiği gibi hususıyla elektrik mühendisleri için tahrîrî (yazılı) imtihânlara gerek mesâhat-ı elektrikiyye ve gerek elektrik makineleri tecrübeleri ilâve edilmesi taht-ı elzemiyette görülmüş olduğu gibi sene sonunda imtihândan evvel birkaç büyük proje ilâvesiyle bunların da imtihân ve diploma ahzına tesiri olması lazım geldiği beyânı zımında işbu rapor takdim kılındı.

20 Mayıs 1335

Elektrik dersi muallimi

Burhaneddin (imza)

Şeref telakki ettiğim emr-i sami-i nezâret penâhî üzerine 10 Mayıs 1335 tarihinde icrâ edilen Robert Kolej Mektebi'nin son sınıfı gaz ve petrol motorları imtihânında mümeyyiz sıfatıyla hazır bulundum. İşbu derste muallim-i aslisi harp dolayısıyla Amerika'dan avdet edemediği cihetle ders, vekâleten inşaat-ı miyâhiye muallimi Mösyö Terzaghi tarafından gösterilmiştir. Robert Kolej Mektebi'nde motorlara dair talebeye gösterilen ders; malûmat-ı umûmîye kabilinden olup talebe motorculuk teferruatı hakkında tafsilât görmediği gibi proje de yapmamışlardır. Mamafih muallim gösterdiği mebahisi vakıata takrir etmiş ve talebenin de gördüklerini iyi anlamış olduğu imtihânın cereyanından münfehim olmaktadır. İmtihân edilen dört

efendiden ikisi pek iyi, birisi iyi ve dördüncüsü de iyice imtihan vermişlerdir. Mektebi ikmal eden bu efendilerin dört senelik tahsillerinin şekli ve derecesi hakkında çâkerlerine verilen malûmat a göre mihanik, hikmet ve elektrik laboratuvarlarıyla mukavemet-i ecsâm tecrübehanesinde görülen tatbîkatın bir Mühendis Mektebi'ne yakışacak bir derecede olduğu anlaşılırsa da makine aksâmı üzerine yaptıkları birkaç ufak tefek projeden gayri ne bâlâda arz edildiği gibi motorlara ne de kuvvet-i makinelerin en mühimi olan buhar makinesine dair hiçbir proje yapmamış olmaları büyük bir noksan add edilebilir. Memalik-i şarkiyede en ziyade neş-ü nema bulan müessesat-ı sinaiyeden biri ve belki en birincisi şimendiferler olduğu ve bu mektepten yetişeceklerden bazılarının şimendiferlerde çalışması pek muhtemel bulunndığı nokta-i itibare alınınca mektepte lokomotifler vesair şimendifer malzeme-i müteharrikesi hakkında hiçbir ders gösterilmemesi şâyân-ı arz nevakıstan görülmektedir. Bütün bu noksanlara karşı mazaret olarak muallimlerin zaman-ı harpte memuriyetleri başında bulunamaması gösteriliyor. Mektebin demirhane, tornahane, dökümhane ve marangozhaneleri harp zamanında buralardan birkaç makinenin kaldırılmış olmasından sarf-ı nazar gayet mükemmel bir surette inşa ve tertip edilmiştir. Güzel bir Mühendis Mektebi'ne layık olan bu atölyelerde talebe ? tatbîkat görmekte iseler de makine mühendislerinin mühendis şهادetnamesi almazdan evvel büyük imalathanelerde laekal bir sene bilamel staj yapmış olmaları lazım olduğuna göre yalnız mektebin atölyelerindeki tatbîkat derece-i kifayede olmasa gerektir.

Robert Kolej Mektebi hakkındaki meşhuat-ı (şahitlik) çâkeranem bâlâda arz edilmiş olmakla işbu rapor Nâfia Nezâret -i celîlesine takdim kılındı.

15 Mayıs 1335, Mühendis Tevfik

**26. İTÜ KA, MÜM 44/16 (1335.5.3 / 3 May 1919)**

Mühendis Mektebi

3 Mayıs 1334

Muallim Burhaneddin Beyefendi'ye

Tezkire

Nezâret-i celîlesine muhavvel Maârif Nezâret-i celîlesinin 30 Nisan 1335 tarih ve 53-253789 numaralı tezkiresinde Robert Koleji Mektebi'nin fenni sınıf-ı elektrik dersi imtihânlarının Mayıs'ın beşinci ve yedinci günleri kablezzeval saat dokuzda icrâsı mukarrer bulunduğundan bahisle ol babdaki usûl-i meriyeye tevîkan bir mümeyyizin intihab ve tayini işar kılınmasına ve müsellemler olan iktidâr ve mezaya-ı alileri hasebiyle zat-ı vâllarının mezkûr mümeyyizliğe intihabları tensip edilmesine binâen' Amerika tarz tedrîsi veçhile ameli (pratik) mahiyeti derkar olan mezkûr imtihânların yevm-i icrâsından (tatbîk günü) mukaddem ol babdaki emr-i samî-i nezâret penâhiye tevîkan Maârif Nazırı Beyefendi hazretlerini bizzat ziyaret ve eyyâm-ı muayyene-i imtihâniyede mekteb-i mezkûru teşrif buyurmaları ricası teyid-i ihtiramata vesile-i ittihâz olunur.

## 27. İTÜ KA, MÜM 80/77 (4 August 1927)

Türkiye Cumhuriyeti Nâfia Vekâleti Celilesi'ne

Mühendis Mektebi Müdüriyeti

Aded: 626

İhtisas şubeleri tesisi suretiyle mektep teşkilatının politeknik şekle ifrağı hakkında makam-ı acizlerinin 10 Kanun-i Sani 1927 tarihli ve 14 numaralı tahriratıyla mütekaddem layihada tanzîm olunan gösterilen esasata tevfikân tanzîm ve Encümen-i Tedrisçe bittetkîk tasvip olunan teşkilat nizamnâmesi bütçesiyle bu babdaki kanun layihası bir kıta muhtıraya merbutan takdim kılınmıştır. Mektebin temin-i inkişafı için elzem görülen bu nizamnâmenin intacına müsaade-i aliyye-i vekâlet penahilerini istirham eylerim efendim.

Mühendis Mektebi Müdürü

4 Ağustos 1927

### Maksad

Mühendis Mektebi 43 sene akdem Hendese-i Mülkiye namıyla Mühendishane'ye mülhak olarak tesis edilmiştir. Maksadı, yol ve demiryol mühendisi yetiştirmek idi. Yol ve demiryol mühendisine olan ihtiyaç ne kadar büyük olursa olsun memleketin makina, su, elektrik, maden mühendislerine vesaire olan ihtiyacı da pek mühimdir. Hendese-i Mülkiye'ye yol mühendisi olmak üzere girenlerden bazıları istidad-ı tabiileri sevki ile mimarlığa heves etmişler ve bu sayede mektebin yetiştirdiği talebeden bazıları mimar olmuşlardır. Bunlar miyanında memleketimizin en namdar mimarlarından olan merhum Mimar Kemaleddin ile Mimar Talat zikredilebilir.

Mesela, Talat'tan sonra mektebin muhtelif sınıflarından intihab edilerek Avrupa'ya izam edilen talebe mühendisliğin muhtelif şubasına suluk ve elektrik ve makine ve maden mühendisi olarak avdet etmişlerdir. El yevm, her biri kendi şubelerinde mühim mevkiler işgal etmekte bulunmuşlardır.

Geçen sene Tayyare Cemiyeti tayyare mühendisi yetiştirmek üzere Avrupa'ya talebe izamına karar vermiş ve cemiyet-i mezkure tarafından açılan müsabakada yalnız Mühendis Mektebi talebesi ihraz-ı muvaffakiyet eylemiş ve ihraz-ı muvaffakiyet eyleyen dört efendi tayyare mühendisliğini tahsil etmek üzere Avrupa'ya gönderilmişlerdir.

Yine geçen sene Anadolu Demiryolları'nın makine mühendisliği tahsili için açtığı müsabakada Mühendis Mektebi talebesi beş efendi, bu sene aynı maksatla açılan müsabakada üç efendi ihraz-ı muvaffakiyet eylediğinden bu sekiz efendi makine mühendisliği tahsili için Avrupa'ya gideceklerdir.

Yukarıdaki izahattan anlaşılacağı vech ile Mühendis Mektebi müttehiden yol ve demiryolu mühendisi yetiştirmek üzere tesis edilmiş olmasına rağmen memleket ihtiyacatının sevki ile muhtelif şubata ait mühendisler için mahreç olmuştur. Mühendis ihtiyacı memlekette günden güne tezayüd etmekte ve ezcümle muhtelif şubelerde mütehassis mühendise olan ihtiyaç gitgide daha ziyade kendini hissettirmektedir. İhtiyacı en ziyade hissedilen şubata yol ve demiryolları şubesinden maada makine, elektrik, su inşaat ve mimari şubeleridir.

Mühendis Mektebi memleketi pek bariz olan bu ihtiyacatına tevafuk olacak surette tevsii ve ikmal etmek zamanı gelmiştir ve hatta geçmiştir denilebilir.

Bu husus için ne yapılmak lazım geleceğini tayin etmek için Avrupa'da şubât-ı muhtelif mühendislerinin ne suretle yetiştirilmekte olduğunu tetkik etmek en muvafık yol olacağına şüphe yoktur. Avrupa'nın hemen her yerinde Almanya'da, İsviçre'de, Avusturya'da ve hatta Polonya'da şubâtı muhtelif mühendisleri politekniklerde yetiştiriliyor. Tecrübe göstermiştir ki muhtelif şubelere ait mühendis yetiştirmek için şubât-ı muhtelif mühendisleri politekniklerde yetiştiriliyor. Tecrübe göstermiştir ki, muhtelif şubelere ait mühendis yetiştirmek için en iyi teşkilat politeknik teşkilatlarıdır. Binaberin, Mühendis Mektebi'nin muhtelif şubata ait mühendis yetiştirmek üzere tevsii ve ikmalî projesini politeknik teşkilatı esasına göre tanzim etmek muvafık görülmüştür. Şimdilik, el yevm, en ziyade muhtaç bulunduğumuz şubeler ile yani yol ve demiryol, makine ve elektrik, mimari ve inşaat-ı miyahiye şubelerinin tesisıyla iktifa edilmek lazım geleceği düşünülmüştür.

Maden mühendisi yetiştirmek için esasen Zonguldak'ta ayrıca bir mektep tesis edilmiştir. Makine şubesine ait istihzaratın ikmalî birkaç seneye mütevakıf bulunduğundan istihzarat-ı mezkûre ikmal edilmeye kadar bu şubeye suluk edecek talebinin ikmal-i tahsil için Avrupa'ya gönderilmesine bir müddet daha devam edilmek muvafık görülmektedir.

### **Muhtariyet**

Politeknikler umumiyetle ilmi ve idari muhtariyete malik müesseselerdir. Bu nev müesseselerin ancak bu suretle terakki edebileceği binnetice sabit olmuştur. Mühendis Mektebi kanunen bu tarzda bir muhtariyete malik olmamağa beraber Nâfia Vekâleti bilfiil mektebe kafi derecede bir muhtariyet bahş eylemiştir. Takdim edilen teşkilat nizamnâmesinde bu cihet tasrih edilmekle beraber muhtariyetin derecesi hususunda el yevm Nâfia Vekâleti'nin bilfiil mektebe bahş eylediği derecenin fevkine çıkılmamıştır.

### **Tedrisat**

El yevm, meri olan nizamnâmede tedrisat hususunun idare ve nezareti bir ders nazırına mevdudur. Mektebin ders naziri vazifesini uzun müddet Profesör Forchimer ifa eylemiştir. Profesör Forcheimer mektebi terk ettikten sonra bu vazife münhal kalmıştır.

Ders nazırlığı eskiden her mektepte mevcut bir makam idi. El yevm, her yerde lağv edilmiştir. Tedrisatı taht-ı idaresine alabilecek bir zatda, vücudu elzem olan malumat ve ehliyet o kadar mütenevvi olmak lazım gelir ki böyle vasi ve mütenevvi malumat ve ehliyete malik zevatın bulunabilmesindeki müşkülât zikredilen lağv keyfiyetinde büyük bir amil olmuş olsa gerektir. Hele politeknik teşkilatına malik bir müessesenin ihtiva eyleyeceği muhtelif şubât tedrisatının idaresini bir sahsa tevdi büsbütün ademul imkândır.

Vahdet ve intizamın temini nokta-i nazarından tedrisatı muktedir bir müderrisin idare ve nezareti altına vaz etmek pek faidelidir. Politekniklerde bu mesele her şube tedrisatının o şube müderrisleri miyanından intihab edilen ehil bir mühendisin tahtı idaresine tevdi edilmesi suretiyle hal edilmiştir. Ve bu müderrise şube reisi unvanı verilmiştir. Talim edilen teşkilat nizamnâmesi layihasında bu suret kabul edilmiş ve mektebin idare-i umumiyesi mektep müdürünün taht-ı riyasetinde şube reislerinden mürekkep bir idare meclisine tevdi olunmuştur.

İdare meclisinin fevkinde olmak ve umum müderrislerden müteşekkil bulunmak üzere ayrıca bir müderrisler meclisinin teşkiline de lüzum görülmektedir.

### **İstişare Meclisi**

Tedrisatın suret-i daimede memleketin ihtiyacatına muvafık olması ve heyet-i talimiye'nin ihtiyaç-ı memleket mukteziyatını daima göz önünde bulundurarak yetiştirecekleri talebeyi bu iktizaya tevafuk edecek surette yetiştirmeleri lüzumu en ziyade ehemmiyetle takip edilmesi icap eden bir keyfiyettir. Bu cihet ne derece temin edilebilirse mektep vazifesinde o derece muvaffak oluyor denilmektedir.

Ehemmiyeti muhtaç-ı izah olmayan bu hususun teminine medar olmak üzere mektep heyet-i talimiyesinin senede bir defa müessisin Nâfia erkânı ile ? eylemesi ve bu mesele hakkında müdavele-i efkarda bulunması muvafık olacağı düşünülmüştür. Ve istişare meclisi bu maksatla teşkil edilmiştir.

### **Pansiyon Müdüriyeti**

Mektep el yevm leyli'dir. Nehari talebesi yoktur. Nehari olarak devam etmek arzu edecek talebenin kabulüne bir mani mevcut olmamakla beraber ücretli veya ücretsiz leyli talebe kabulünde devam etmek zaruri görülmektedir. Bu sene leyli talebe miktarı ikiyüzyirmiye baliğ olacak olup bu miktarın tezayüd ederek üç dört yüze vasıl olması muhakkak görülmektedir. Bu itibarla leyli talebenin ibate ve iâşe umûru o derece vüsat peyda etmektedir ki bunu ayrıca bir müdür-i mesule tevdi lüzûmu hasıl olmaktadır. Esasen, asıl mektep ile pansiyonun birbirinden ayrılması inzibat-ı dahili itibarı ile pek şayan-ı temenni görülmeyeceğinden pansiyonu idare etmek üzere ayrıca bir müdüriyet teşkiline lüzum görülmüştür.

### **Talebe**

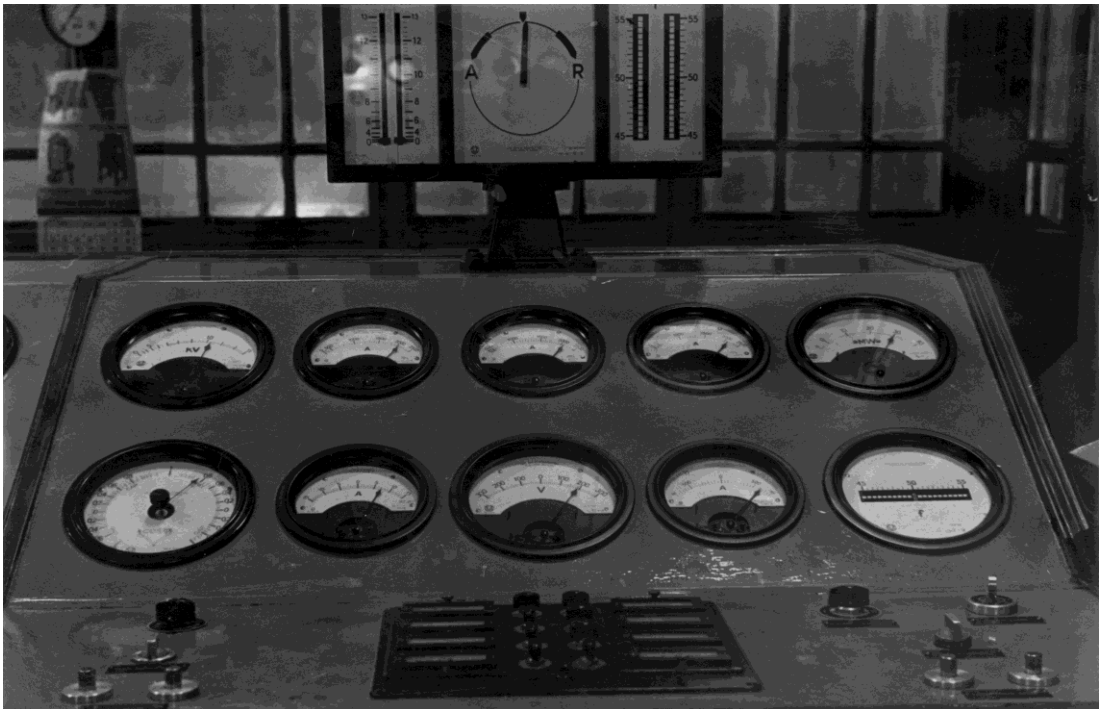
El yevm, talebe umumen hükümet hesabına tahsil etmektedir. Meahaza, memlekette mühendisliğin günden güne kazanmakta olduğu itibar ve bu sanata halkta uyanmakta olan temayül nazar-ı itibara alınır ve mektebin intizam ve mükemmeliyeti tezyid edebileceği de buna ilave edilir ise kendi hesabına tahsil etmek isteyenler peyda olduğunda ve bunların gitgide tezayüd edeceğine şüpheye mahal görülemez. Mektebin hedeflerinden biri de bu neticenin mümkün olduğu kadar süratle istihsalı olmak lazım gelir. Bu sebeple nizamnâmede talebe “kendi hesabına” ve “hükümet hesabına” tahsil eylemeleri itibarıyla iki sınıfa tefrik edilmiştir. Kendi hesabına tahsil eden leyli talebeden leylilik ücreti ahz olunmasına mukabil hükümet hesabına tahsil eyleyen talebenin leyliliği meccanendir. Lakin diploma aldıktan sonra kanunen aynı hıdmet-i mezbure ile mükelleftir.

## APPENDIX B. Silahtarağa Power Plant: Photographs and Documents

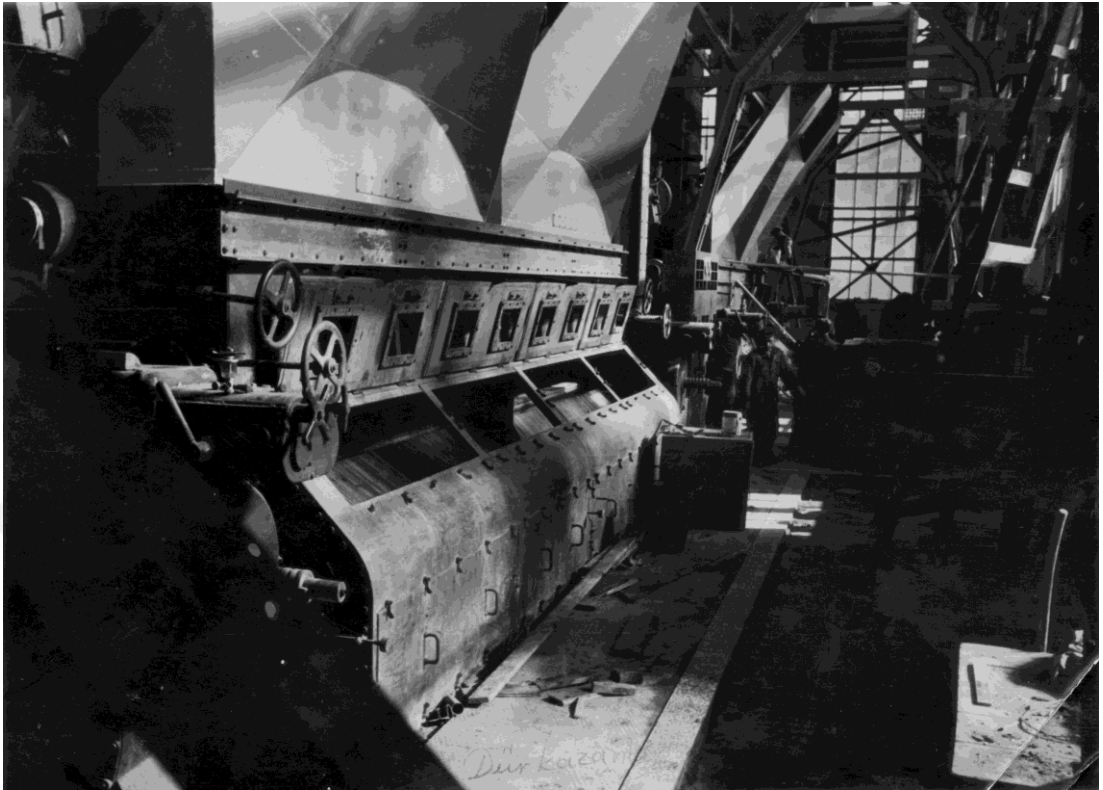
Silahtarağa Power Plant, on the back page, it is written Mart (March) 1921 (handwritten). (Personal collection of U. Duygu Aysal Cin)



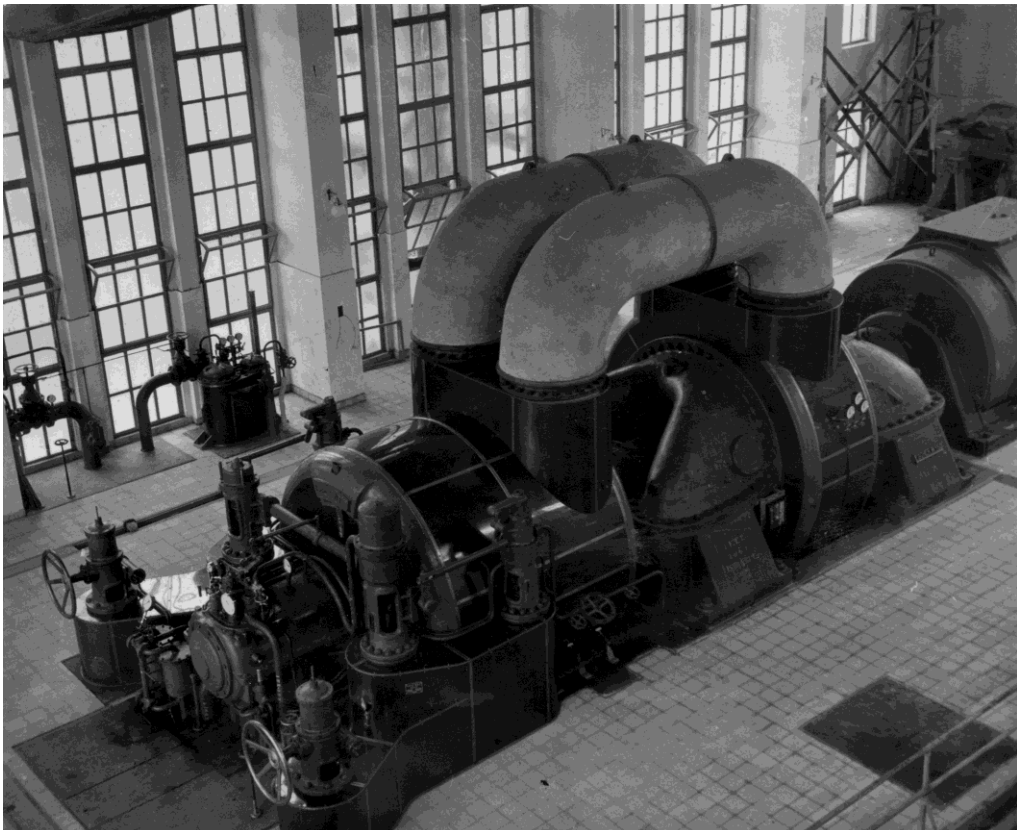
Control Room at Silahtarağa Power Plant (Personal Collection of Burak Barutçu)



**Boilers at Silahtarğa Power Plant (Personal Collection of Burak Barutçu)**



**Turbines at Silahtarğa Power Plant (Personal Collection of Burak Barutçu)**



**The crane to carry coal to the plant, (Personal collection of Burak Barutçu)**



**Coal transportation facility between port to the plant (Personal collection of Burak Barutçu)**



**Osmanlı Anonim Elektrik Şirketi, Mübayat Memurluğu, Numaralı sipariş varakası (purchase order). (Personal collection of U. Duygu Aysal Cin)**

**نومرولی سپارش ورقه سی**  
**BULLETIN DE COMMANDE**

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تسليم تاريخي  
Date de livraison  
کچمه تسليم اوله چي  
A consigner à  
محل تسليمي  
Destination  
ملاحظات  
Observations

Très Urgent  
vos dépôts  
magasin Silighdar  
Approvisionnement

دائرة سی  
Service  
طلب نومروسی  
Demande No  
آباری  
Magasin

۴۵۱/۴۸۰  
Silighdar

Application مانگی دائره نك حسابنه تائد اولدینی  
روجه آتی شرائطه توفیقاً زیرده مفرداتی محرر امتعه بی سپارش ایلرز:

Nous vous commandons aux conditions ci-après:

| مقدار<br>QUANTITÉ | امتعك مفرداتی<br>SPÉCIFICATION DES MARCHANDISES                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 50 Pices          | Cinquante Pices interrupteurs en porcelaine de 4 ampères au prix de: cinquante (quarante cinq) la Pice. Frais de transport à notre charge. |

شعبه مدیری  
Le Chef de Service

مدیریت  
La Direction

شمالی آنونیم الکتریک شرکتی ایشو ورقهده متدرج شرائطه توفیقاً تمام ایدلین امتعه بی شرر و زیانی متعهدینه تائد اولی اوزده رد ایشک و یاخود بویوزدن دفعه اوله چ مصارفی متعه بی حسابنه کچریمکه سلاجترادور .  
خلافده شرط ایدلیمکه شرکت هرزولو موادی ایهالاولرین تلر دفعه آلفسوزین لغلت سانیولری اوزرندن قبول ایدر و عذکور ایهالاولرده شرکت مالی اولور.  
La Société Anonyme Ottomane d'Electricité se réserve le droit de refuser aux risques et périls du fournisseur toutes marchandises dont la livraison ne serait pas conforme aux indications contenues dans ce bulletin ou de le débiter de tous frais encourus de ce chef.  
Sauf convention contraire, nous prenons en charge les matériaux pour leur poids net, sans prendre en aucune considération les emballages qui restent néanmoins notre propriété.

**Osmanlı Anonim Elektrik Şirketi, Amele ücretinde zammiyat icrası talebine mahsus varakadır (Personal collection of U. Duygu Aysal Cin).**

G. Mod. 853.—5 c.—XII-916— ETABL. FRATELU NÂİB



نومرو  
No

٤٤١

عثمانی  
انونیم الکتریک شریکتی

Société Anonyme Ottomane  
d'Electricité de Constantinople

**عمله اجور اتنده ضمیات اجرا سی طلبنه مخصوص ورقه در**

FICHE D'AUGMENTATION  
(pour ouvrier)

عمله نك :

Nous soussignés, proposons à la Direction de la Société des Tramways de Constantinople, en faveur de l'ouvrier :

| اسم<br>Nom | مخلصی<br>Prénom | صفتی<br>Qualité |
|------------|-----------------|-----------------|
| Musann     | Ali             | Apprenti        |

منسوب اولدینی خدمت  
du service : *an turkmen*

نومروسی  
No : \_\_\_\_\_

بالاده اسمی محرر عمله نك اليوم اخذ ایتكمده اولدینی

اجرت یومیه یه : \_\_\_\_\_

غروش (۱) : \_\_\_\_\_

غروش ضمیله اجرت یومیه سنك

غروش (۱) : \_\_\_\_\_

تاریخندن اعتباراً

سنه : \_\_\_\_\_

غروش (۱) : \_\_\_\_\_

ابلاغ ایدلسنی در سعادت تراموای شرکتی مدیریتنه تکلیف ایلرز .

une augmentation de ptes. : \_\_\_\_\_ (1) par jour

à partir du : *1 Nov 1918*

sur son salaire actuel de P. : \_\_\_\_\_ (1) par jour

Nouveau salaire proposé P. : \_\_\_\_\_ (1) par jour

| Observations<br>ملاحظات                                                  | در سعادت ، فی سنه ۱۹۱۸              |
|--------------------------------------------------------------------------|-------------------------------------|
| عمله نك خدمته تاریخ دخولی<br>Date d'entrée de l'ouvrier : <i>1918</i> فی | Constantinople, le <i>14.4</i> 1918 |
| صوك آلدینی ضم<br>Dernière augmentation de :<br>غروش<br>Ptes. : _____     | دائرة مدیری<br>Le Chef de Service   |
| ie : _____ فی                                                            | سر مهندس<br>L'Ingénieur en Chef     |

بروجه بالا تکلیف اولنان ضمیاتك اجرا سی قبول ایدلسدر  
L'augmentation ci-dessus proposée est acceptée  
مدیریت  
La Direction

(1) à remplir en toutes lettres et très lisiblement. (۱) غایت اوقرائلی یازی ایله املا ایدلایدیر .

اختار — اشو ورقه نك معتبر اوله بیللمی ایچون مدیریت طرفندن تنسیب اولمسی مقتضیدر .

Nota: Cette fiche, pour être valable, devra être dûment approuvée par la Direction.

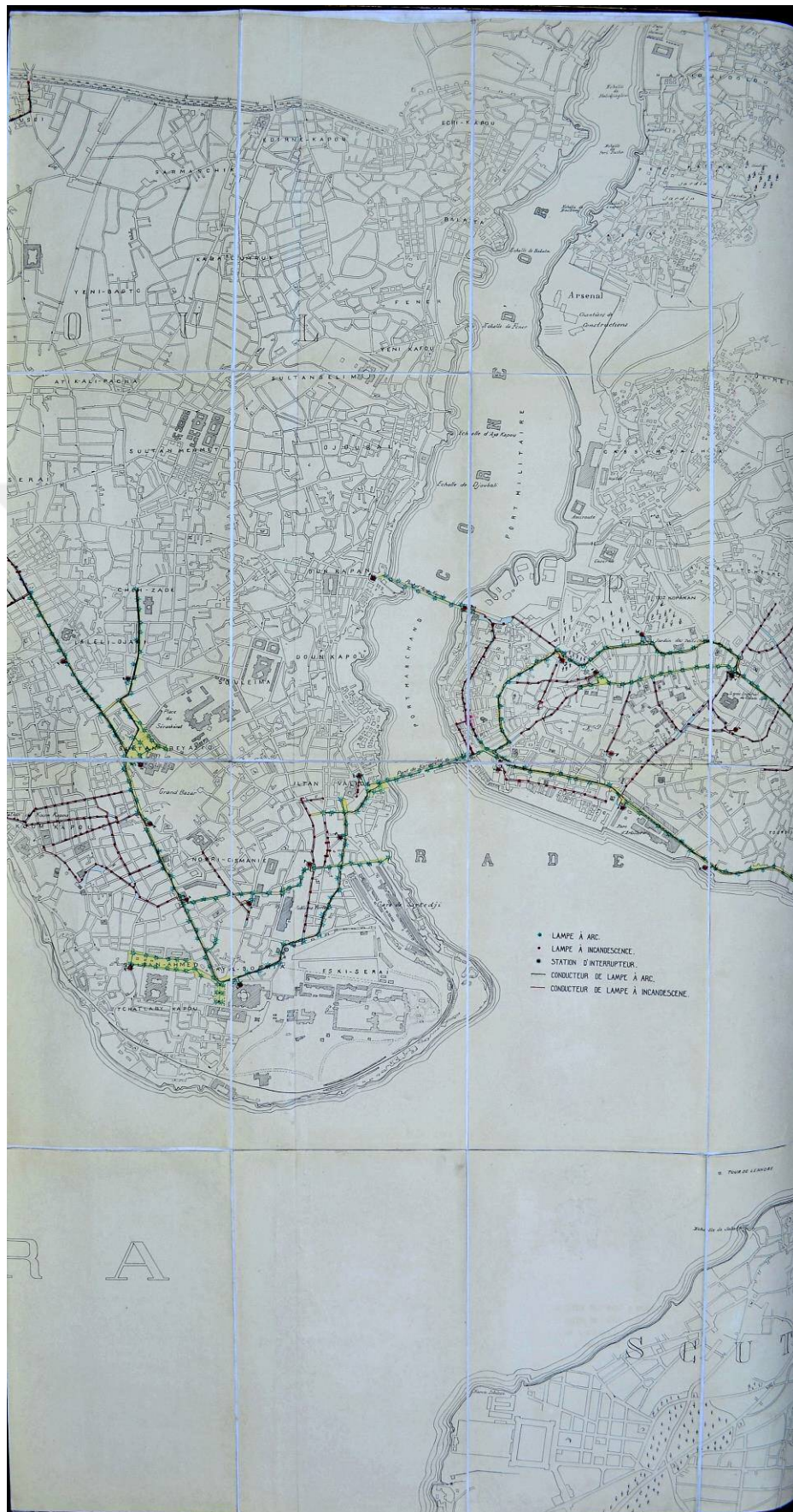
|                                                      |                                           |
|------------------------------------------------------|-------------------------------------------|
| محاسبه مدیریتنه<br>A Mr. le Chef de la Comptabilité, | سر مهندسلكه<br>A Mr. l'Ingénieur en Chef, |
|------------------------------------------------------|-------------------------------------------|

**APPENDIX C. Urban grid maps of Istanbul**

**CCA NV 230-0-0-0 23 8 10 (1911) Map showing the street lighting in Istanbul I**



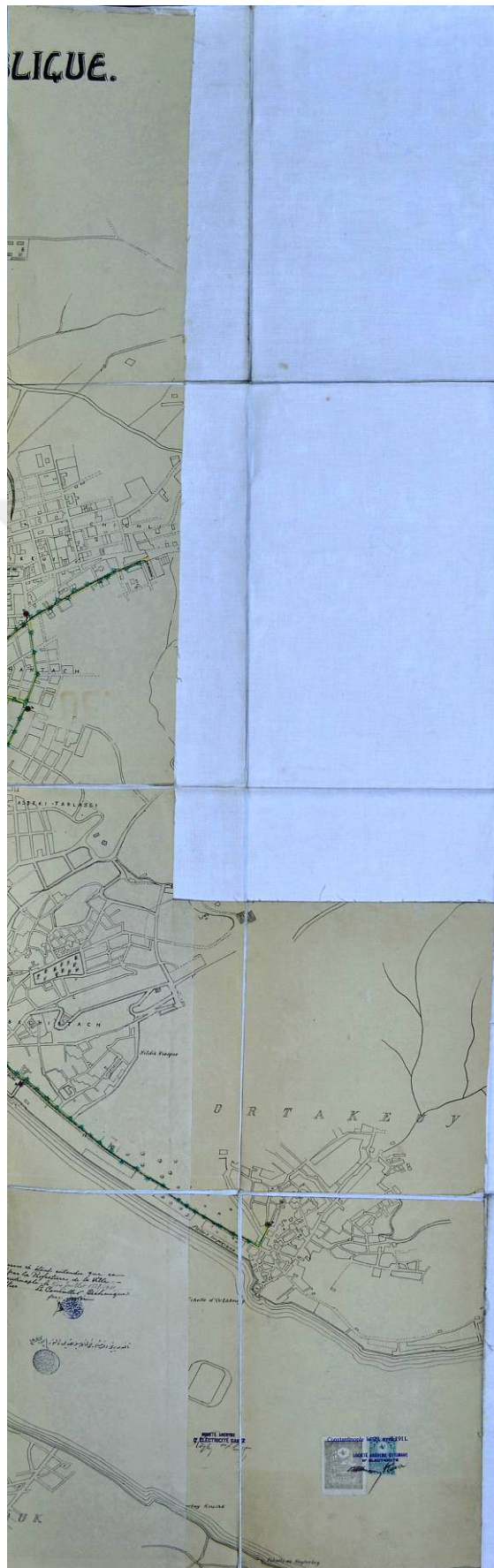
Map showing the street lighting in Istanbul II



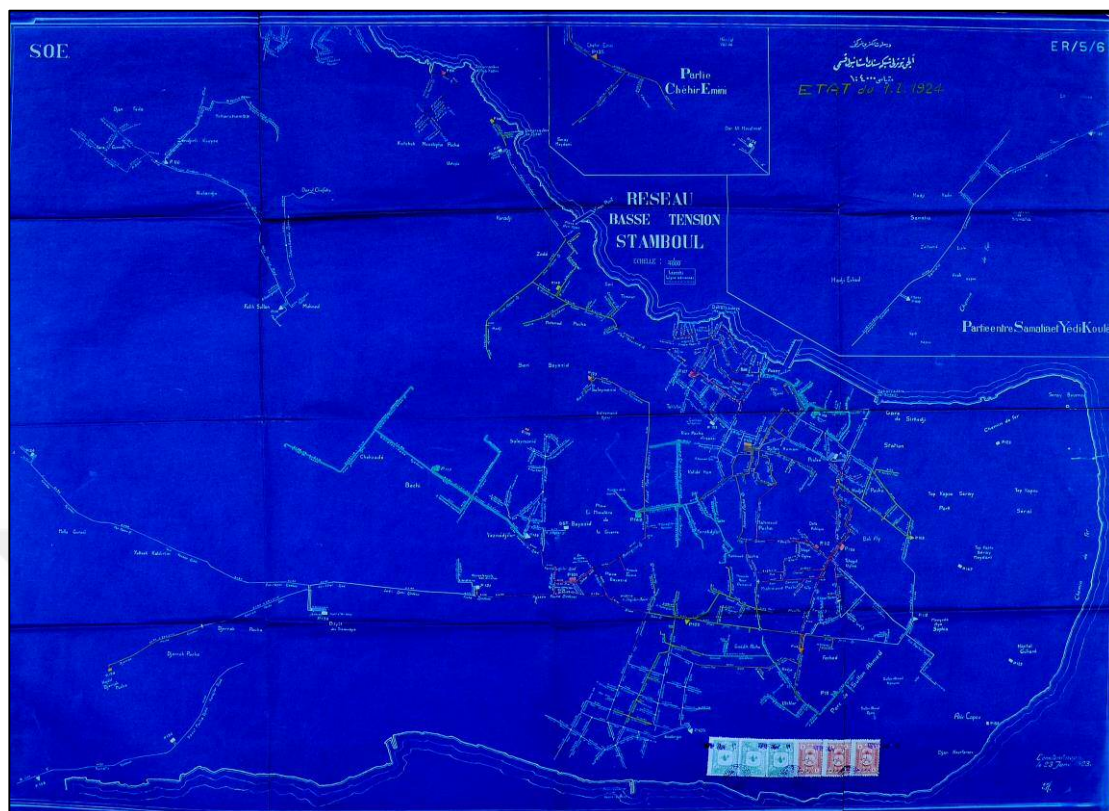
ÉCLAIRAGE PUBLIC.

Map of Strasbourg, France, showing the city layout and public lighting stations. The map is divided into sections by a grid. The title "ÉCLAIRAGE PUBLIC" is prominently displayed at the top. The map includes various labels for streets and landmarks, such as "RUE DE LA VILLE", "RUE DE LA GROSSE CAPELLE", and "RUE DE LA PETITE CAPELLE". The map is a black and white reproduction of a historical document.

Map showing the street lighting in Istanbul IV



**CCA NV 230-0-0-0 42 61 1 (1924). Réseau Basse Tension (low-voltage)  
Stamboul (İstanbul alçak gerilim şebekesi)**



**COA PLK.p 3331 (1924). Reseau B. T. Pera (Pera Bölgesi alçak gerilim haritası)**



[illegible]

[illegible]

RÉSERVE SECONDAIRE

MARMARA

DUTARJ

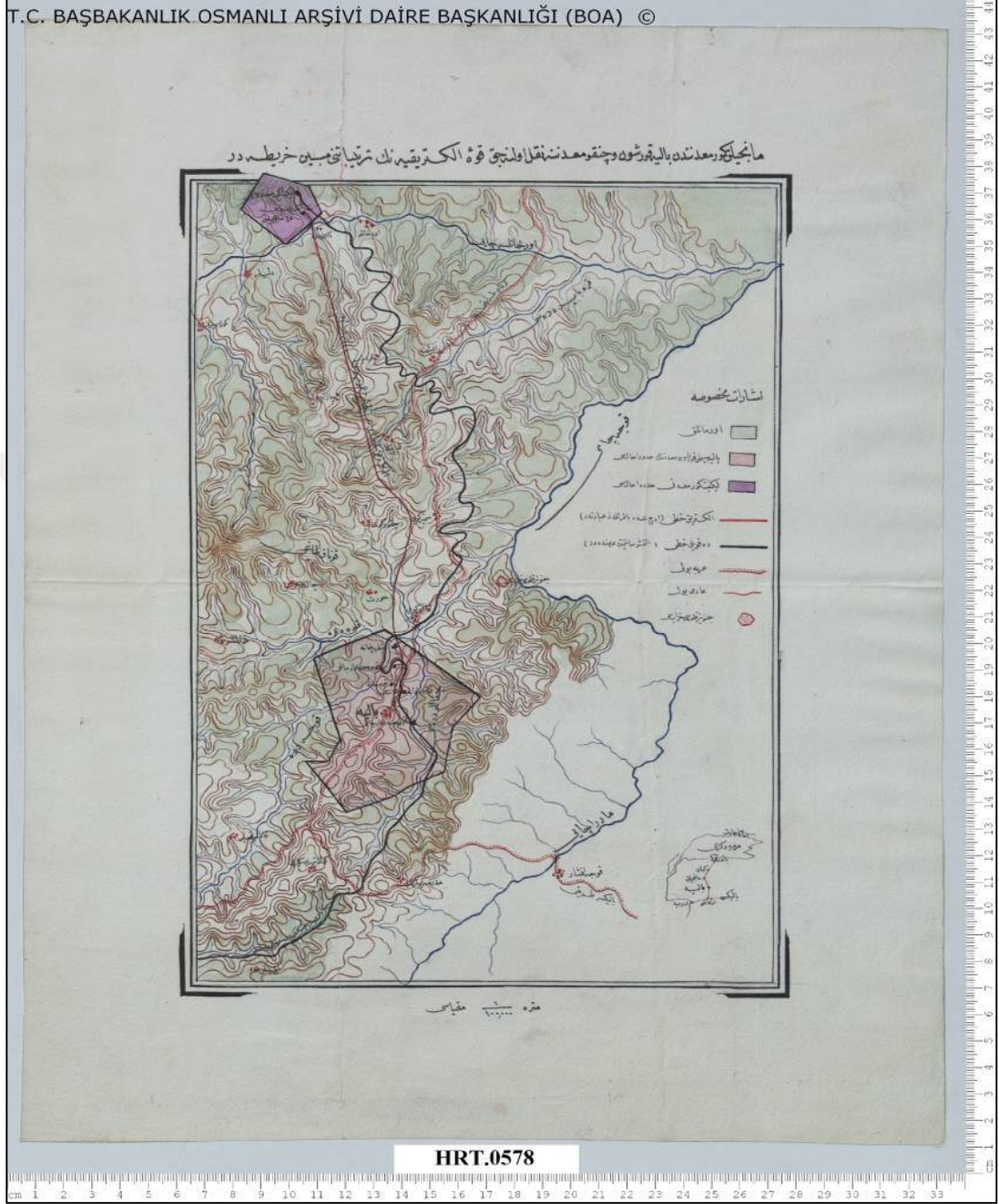
MUTSARJ

Mezar Burnu, Editeur: M.J.C. No. 396 Mart (March) 1921 (Personal collection of U. Duygu Aysal Cin)



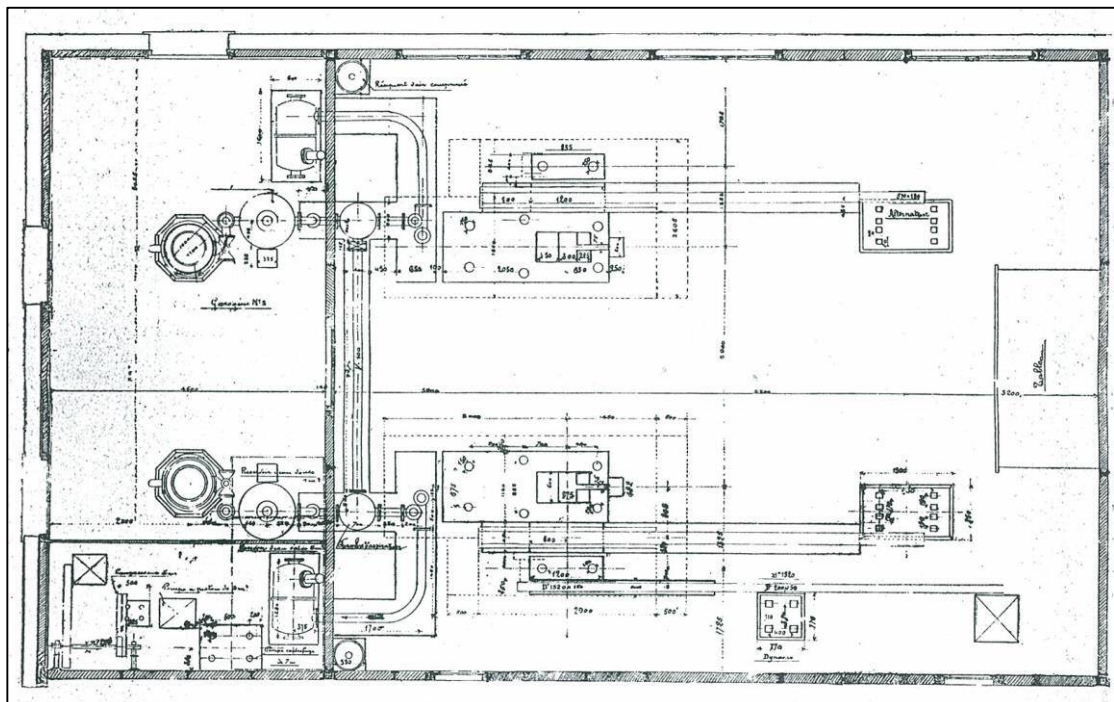
**COA HRT.h.. 578 (1925). Mancılık kömür madeninden Balya kurşun ve çinko madenlerine nakil olunacak elektrik hattını gösterir harita**

T.C. BAŞBAKANLIK OSMANLI ARŞİVİ DAİRE BAŞKANLIĞI (BOA) ©

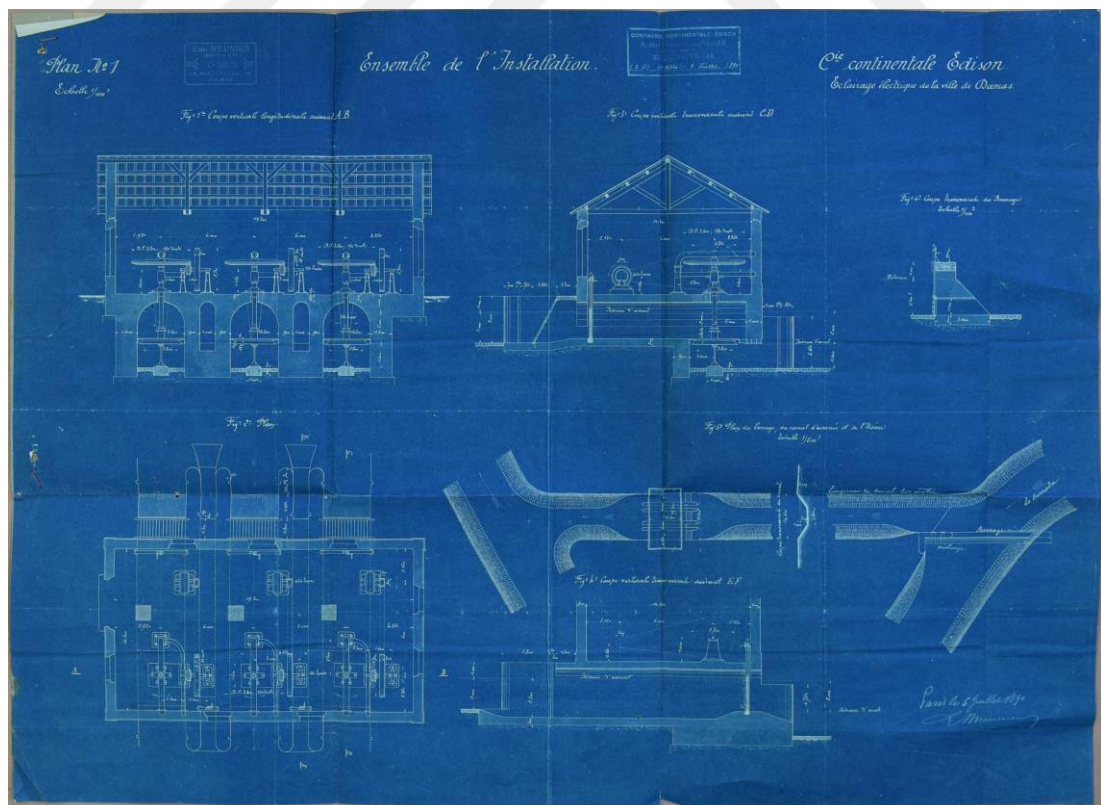
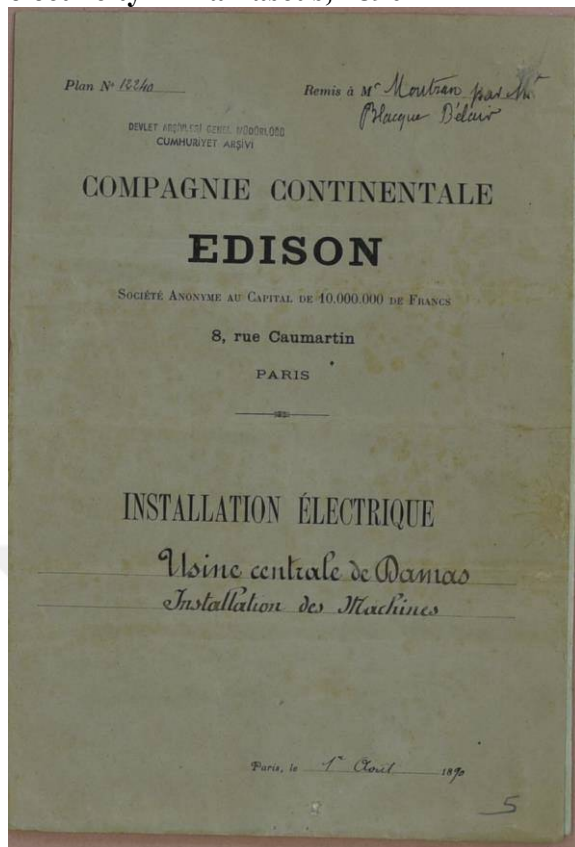


**APPENDIX D. Private installations of electricity before the establishment of  
Silahtarağa Power Plant – Unrealized proposals of  
electrification**

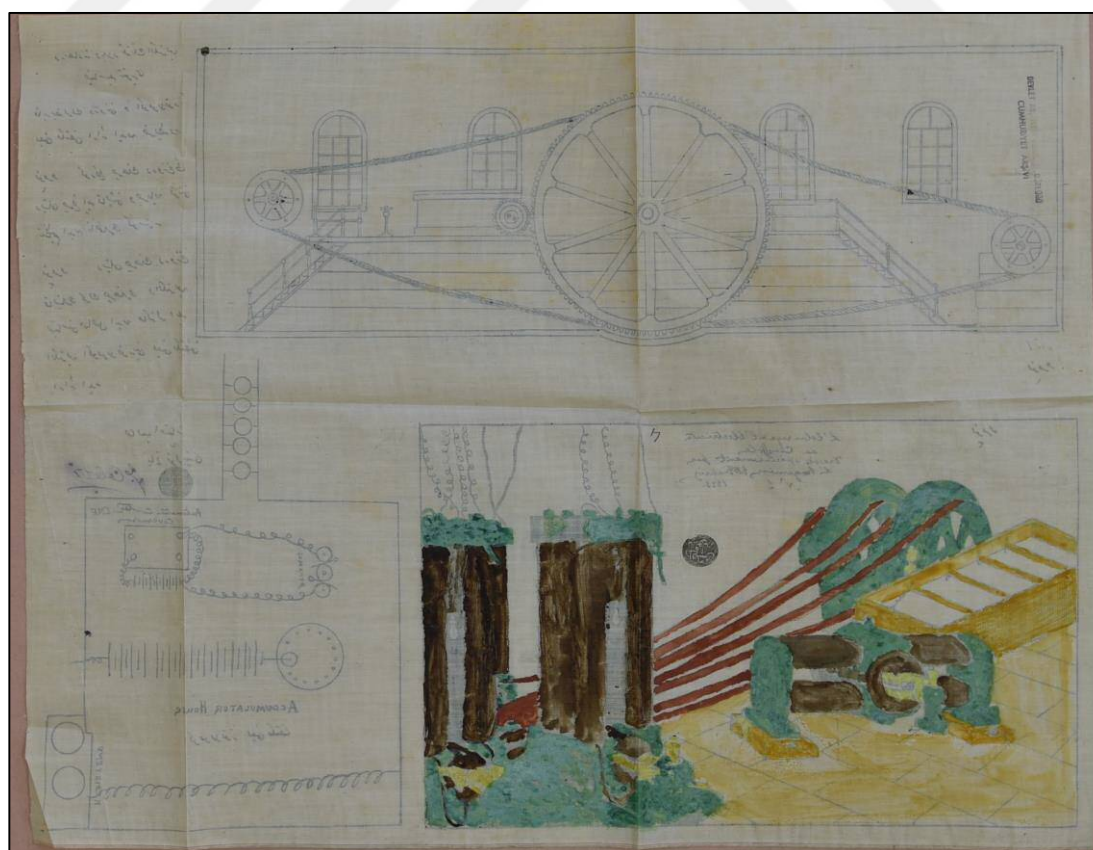
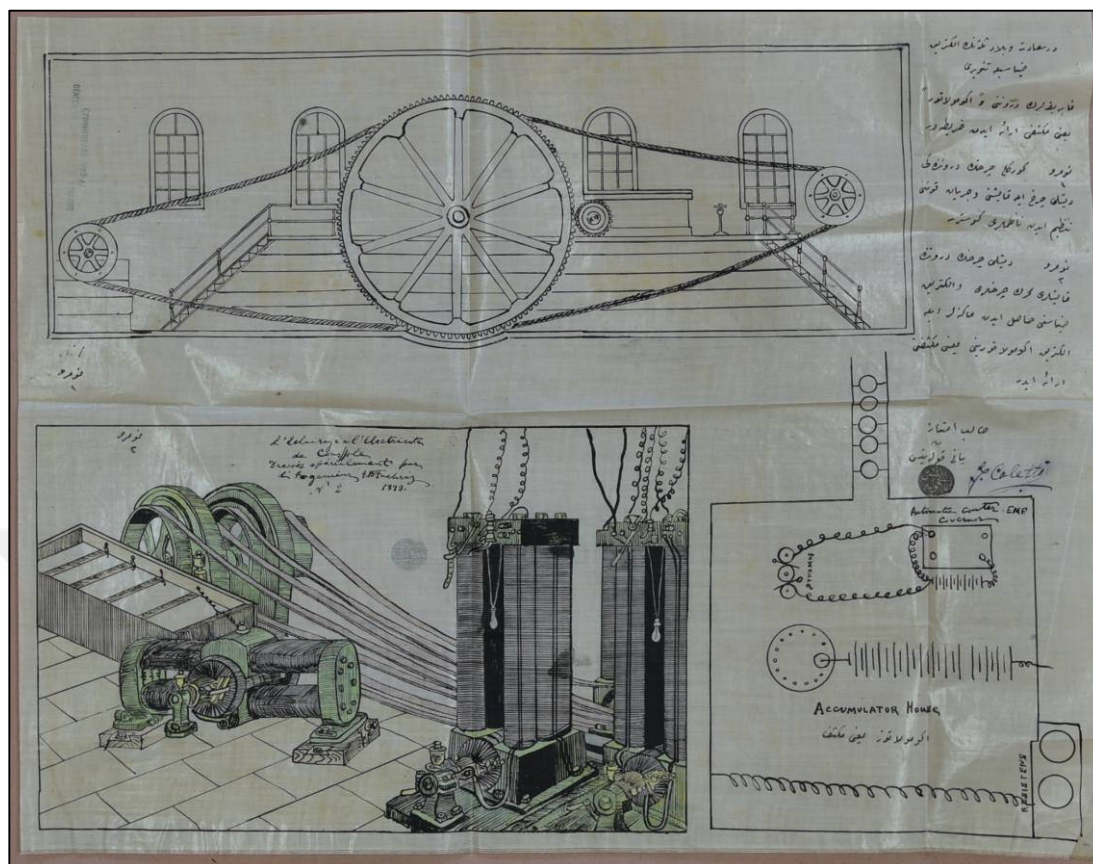
**Çamaltı Saltworks and Electricity (Revue Technique Orient, Decembre 1910)**



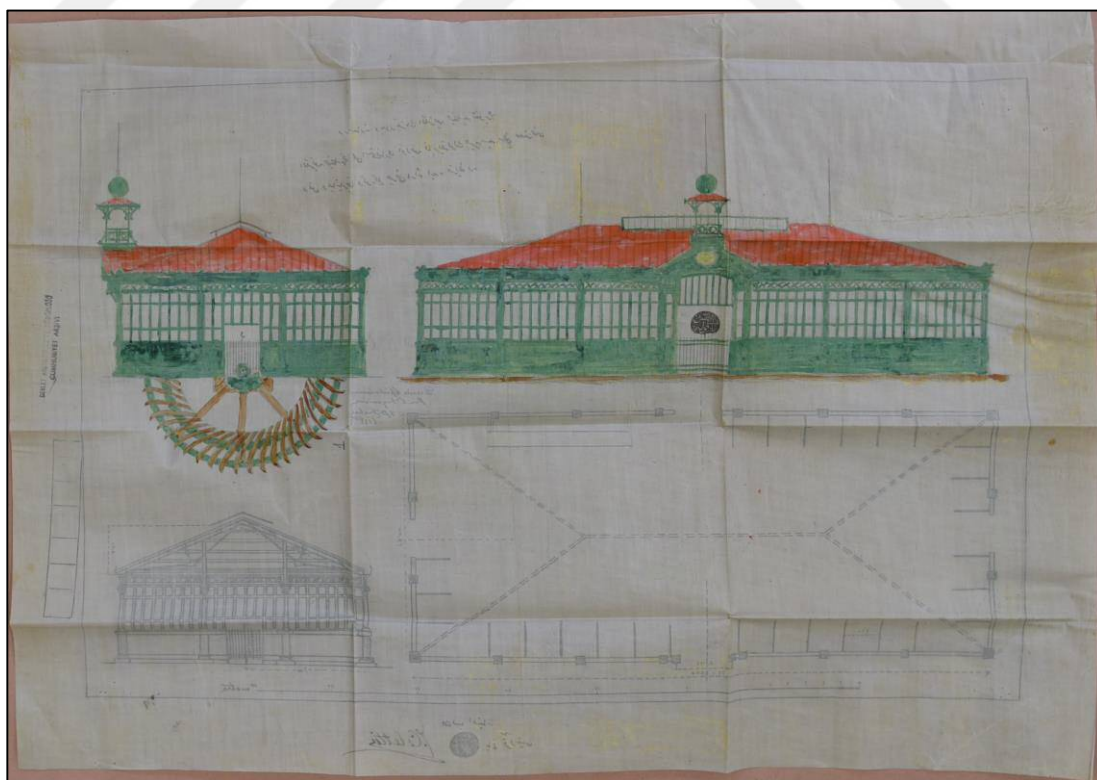
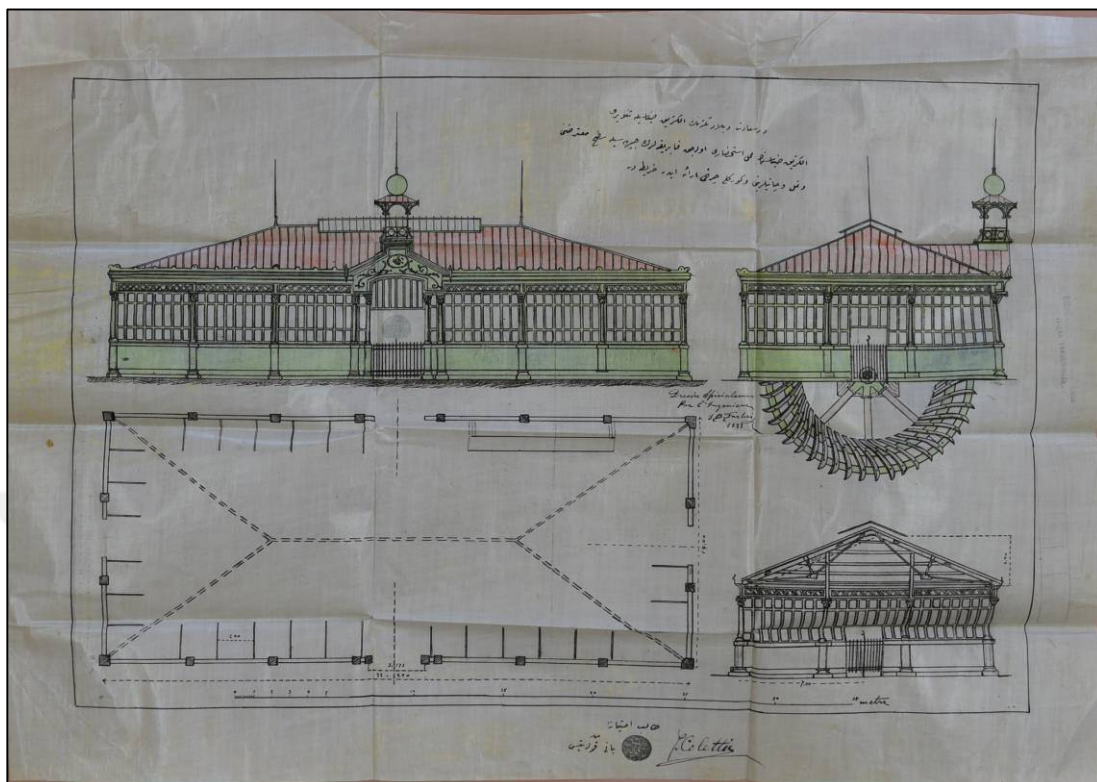
**CCA, NV 230-0-0-0 38 52 1: The proposal of Colettis/Koletis for installation of electricity in Damascus, 1890**



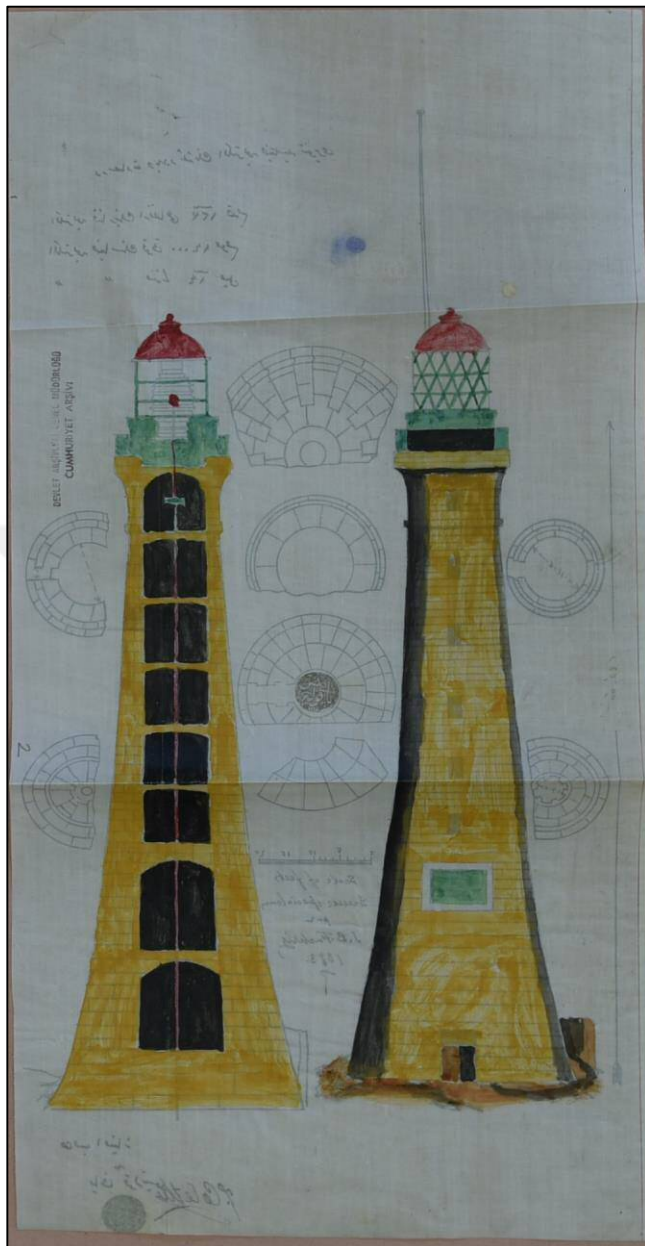
CCA, NV 230-0-0-0 38 52 1: The proposal of Colettis/Koletis for installation of electricity in Damascus, 1890.



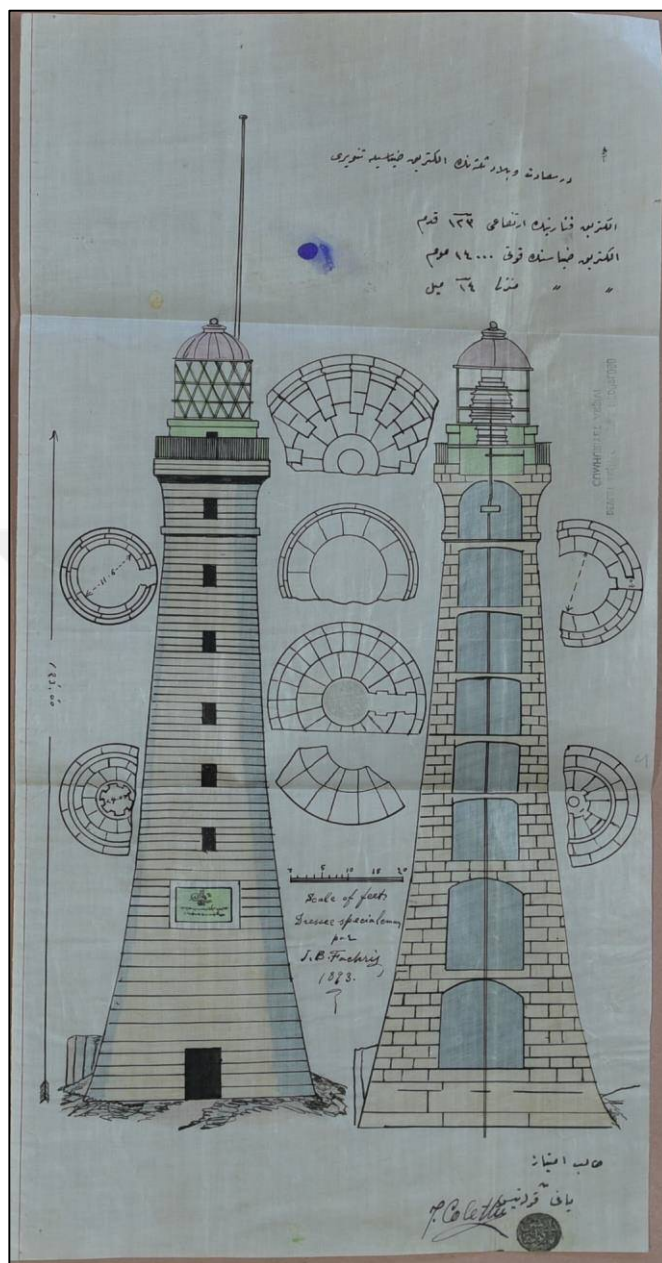
CCA, NV 230-0-0-0 38 52 1: The proposal of Colettis/Koletis for installation of electricity in Damascus, 1890

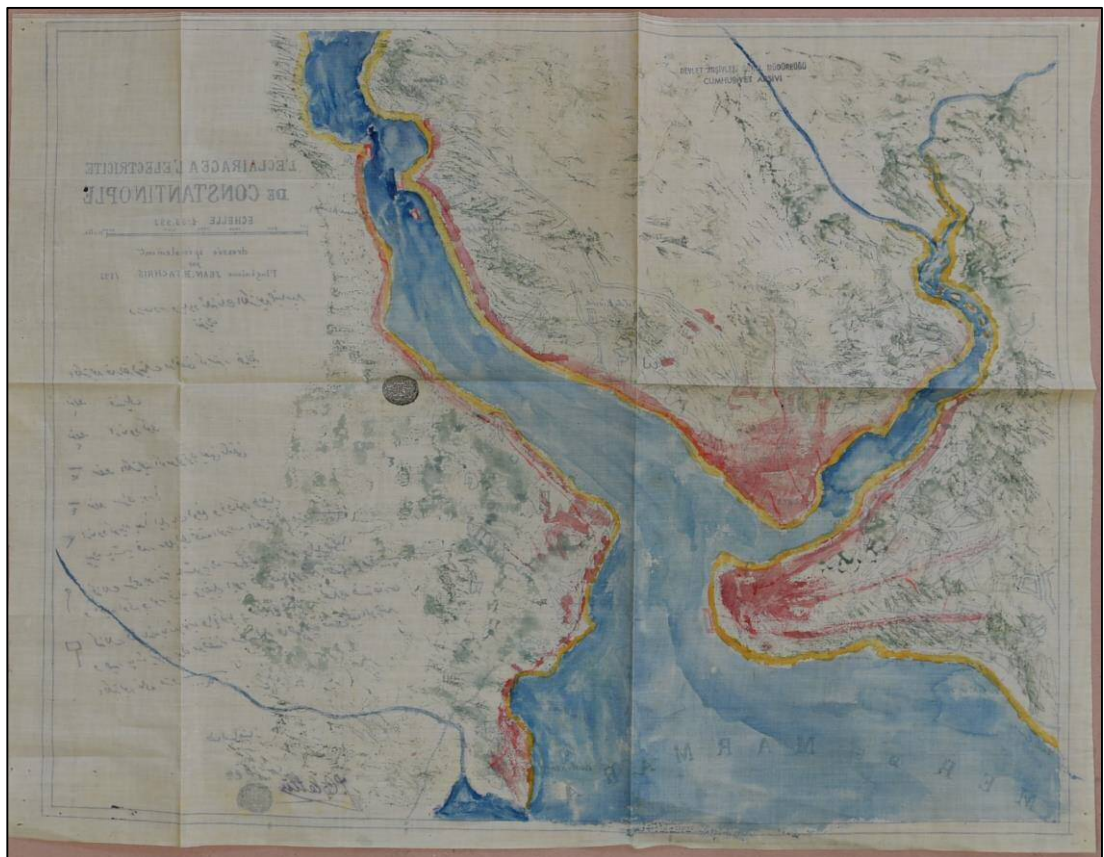


CCA, NV 230-0-0-0 38 52 1: The proposal of Colettis/Koletis. Installation of electricity in the lighthouses.



CCA, NV 230-0-0-0 38 52 1: The proposal of Colettis/Koletis. Installation of electricity in the lighthouses.



[illegible]

**Summer Palace Hotel in Tarabya, Carte Postale, no. 289, Editeur: Max Fruchterman, Constantinople (Personal collection of U. Duygu Aysal Cin)**



# APPENDIX E. Fiscal documents of electricity: Bills, receipts, taxes for lighting and securities

Türk Elektrik Anonim Şirketi, Tenvirat ve hevaic-i beytiye makbuzu, 1925 (Front page). Includes sections of (Muaddidin kıraat tarihi / Muaddidlerin işaretleri (hazırdaki-evvelki-fark-ı kilovat saat) / Kudret / Ücurat / Muhtelif / Mebaliğ-i safiye / Tahsildarın numarası/ Sıra numarası). (Personal collection of U. Duygu Aysal Cin).

تورک الکتریک آنونیم شرکتی  
Société Anonyme Turque d'Électricité

۱۳۴۱  
Emission de mois de  
1925

21455-Mr. Garabed Kasakian  
Pancaldi Rue Djelidie No. 20

تنویرات و حوایج بیتیه مقبوضی

QUITTANCE pour ECLAIRAGE et USAGES DOMESTIQUES

Mod. 4691-IX-925 — IMP. AHMED INBAC & CIE.

| معددك<br>فرائت تاريخي<br>Date du<br>Relevage | معددك اشاراتي<br>Indications des compteurs |                    |                                    | قدرت<br>Energie |               | اجازات<br>Locations |               | مختلف<br>Divers |               | مبالغ صافيه<br>Montants nets |               | تحصيلدارك<br>نومروسي<br>Encaisseur<br>No.<br>d'Ordre | صره نومروسي<br>No.<br>d'Ordre |
|----------------------------------------------|--------------------------------------------|--------------------|------------------------------------|-----------------|---------------|---------------------|---------------|-----------------|---------------|------------------------------|---------------|------------------------------------------------------|-------------------------------|
|                                              | حاضردهكي<br>Actuel                         | اولكي<br>Précédent | فرق كيلوات ساع<br>Différence KWHS. | ليرا<br>Ltqs.   | غروش<br>Ptres | ليرا<br>Ltqs.       | غروش<br>Ptres | ليرا<br>Ltqs.   | غروش<br>Ptres | ليرا<br>Ltqs.                | غروش<br>Ptres |                                                      |                               |
| 19/10                                        | 276                                        | 200                | 95                                 |                 | 125           |                     | 50            |                 |               | 180                          | 2             | 49                                                   |                               |

تحصيل اولئشدر: تحصيلدار  
Encaissé: l'ENCAISSEUR

تدقيق ايدلشدر: محاسبه  
Vérifié: La COMPTABILITÉ

La Direction:

Toute Quittance ne portant pas la griffe de la Direction et la signature de l'encaisseur n'est pas valable.

T. S. V. P. ظهوريت دفت

مدیریت مهربی و تحصيلدارك امضای حاوی اولیان مقبوض معتبر دکلدر.

Türk Elektrik Anonim Şirketi, Tenvirat ve hevaic-i beytiye makbuzu, 1925 (Back page: includes information on the branch offices of the company and attention notice for the customers). (Personal collection of U. Duygu Aysal Cin).

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: center;"><b>مهم اخطار</b></p> <p>۱- آئونهل شركتك بر تحصيلدارينه آنحقى خصوصى بر مقبوض مقابلنده پاره ويرمليدر .<br/>بو مقبوض معتبر اولوق ايچون بوللامش و مديرىتك تمفاسندن ماعدا محاسبه نك و تحصيلدارك<br/>امضالرينى محتوى بولنش اولمليدر .</p> <p>۲- شركت قاطوردلرینه محسوباً پاره قبول ايتز .</p> <p>۳- هر درلو مدعيات بالا خره نخر برا مديرىته سيلدىرك لازمكلايكدن آئونهل هيچ بر<br/>بهانه ايله قاطوردلرك تأديه سندن امتناع ابدە سزل .</p> <p>۴- اشبو مقبوضه الصاق ايديلن پولك ائمانى آئونه طرفندن تأديه اولنه جقدر .</p>                                                                                                                                                     | <p style="text-align: center;"><b>Nouvelle réduction par les<br/>TARIFS G &amp; H</b></p> <p style="text-align: center;"><b>Adressez-vous<br/>A la Société d'Electricité</b></p> <p><b>Pour Péra et Bosphore:</b><br/>Métro Han, 2<sup>me</sup> étage;</p> <p><b>Pour Stamboul:</b><br/>Rue Bab-Ali, Succursale de Sibl.</p> <p><b>Pour Makrikeuy:</b><br/>à la Succursale de Makrikeuy.</p> | <p style="text-align: center;"><b>روح</b></p> <p>تعرفه لری واسیطه سبله یکی تزیلات</p> <p>الکتریک شرکتک آئیده کی<br/>شعباته مراجعت ایده بیلورسکز :</p> <p>بک اوغلی ايله بوغاز ایمی جهتری ایچوز :<br/>توقل میماننده مترو خاندده اېکنجی قات .</p> <p>استانبول جهتی ایچون : باب عالی<br/>جاده سنده شرکتک استانبول شعبه سنه .</p> <p>ماقرکوی ایچون : شرکتک باقرکوی<br/>شعبه سنه .</p> |
| <p style="text-align: center;"><b>AVIS IMPORTANT</b></p> <p>1.— Les abonnés ne doivent remettre de l'argent à un Agent de recettes de la Société, qu'en échange d'un reçu spécial qui pour être valable doit être timbré et muni, en dehors de la griffe de la Direction, d'une signature de la Comptabilité et de celle de l'encaisseur.</p> <p>2.— La Société n'accepte pas d'acompte sur ses factures.</p> <p>3.— Sous aucun prétexte les abonnés ne peuvent refuser le paiement des factures. Toute réclamation éventuelle devra être adressée à la Société après paiement.</p> <p>4.— La contrevaletur du timbre apposé sur la présente quittance doit être payée séparément par l'abonné.</p> | <p><b>OBSERVATIONS:</b></p> <p style="text-align: right;">ملاحظات :</p>                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                  |

Türk Elektrik Anonim Şirketi, Tenvirat ve hevaic-i beytiye makbuzu, 1925 (Front page). Includes signatures of tahsildar, muhasebe and müdüriyet. (Personal collection of U. Duygu Aysal Cin).

تورک الکتریک آنونیم شرکتی  
SOCIÉTÉ ANONYME TURQUE D'ÉLECTRICITÉ

3121-Mr. Socrate D. Courtelli  
Taxim Cherif Djami Ayaz Pacha 21

ماهی محقق ۱۳۴۱  
Emission du mois de  
1925

تویرات و حوایج بیتیه مقبوضی

QUITTANCE POUR ECLAIRAGE ET USAGES DOMESTIQUES

Mod. No. 1691 - ETAB. ABAJOLI.

| معددک<br>قراآت تاریخ<br>Date<br>du Relevage | معددک اشارتی<br>Indications des compteurs |                    |                                      | قدرت<br>Energie |               | اجارات<br>Locations |               | مختلف<br>Divers |               | مبالغ صافیه<br>Montants nets |               | تحصیلدارک<br>نومروسی<br>Encaisseur<br>No. | نومروسی<br>No.<br>d'Ordre |
|---------------------------------------------|-------------------------------------------|--------------------|--------------------------------------|-----------------|---------------|---------------------|---------------|-----------------|---------------|------------------------------|---------------|-------------------------------------------|---------------------------|
|                                             | حاضردهکی<br>Actuel                        | اولکی<br>Précédent | فرق کیلووات ساعت<br>Différence KWHS. | لیرا<br>Ltqs.   | غروش<br>Pires | لیرا<br>Ltqs.       | غروش<br>Pires | لیرا<br>Ltqs.   | غروش<br>Pires | لیرا<br>Ltqs.                | غروش<br>Pires |                                           |                           |
| ۱۸/۵                                        | ۵۵۸                                       | ۵۲۱                | ۲۷ *                                 | ۴ ۰۵            |               |                     | ۵۰            |                 |               | ۴ ۵۵                         |               | ۱۴                                        | ۱۳۲                       |

بول  
Timbre

تحصیل اولمشدر: محصیلدار  
Encaissé: L'ENCAISSEUR

مدیریت  
La Direction:

تدقیق اولمشدر: محاسبه  
Vérifié: LA COMPTABILITÉ

تویرات و حوایج بیتیه مقبوضی

Toute Quittance ne portant pas la griffe d la Direc-  
tion et la signature de l'encaisseur n'est pas valable.

I. S. V. P.

Page P<sup>3</sup>458 le 3 Juin/25



Türk Elektrik Anonim Şirketi, Tenvirat ve hevaic-i beytiye makbuzu, 1927 (Front page). (Personal collection of U. Duygu Aysal Cin).

نورك آنونيم الكترىك شىركتى  
Société Anonyme Turque d'Electricité

Inst. 24739. 2.5.  
Mr. Garabed Kasakian  
Pancaldi Rue Djeddie No. 20

برنجى اخبارنامه  
ده ابراز ايدلشد  
ده ايكچى دفعه اولدوق  
ابراز ايدلشد.

لشور قاطوره ۷۷۰ نوسرولى قانوه نوبلا  
مكوت قانده اولان بوزده ۱۰ رسيده  
مختريدور  
Cette facture comporte la taxe de  
10 % revenant à l'Etat,  
conformément à la Loi No. 725

تنويرات و حوايج بيتيه مقبوضى  
QUITTANCE POUR ECLAIRAGE ET USAGES DOMESTIQUES

(عمل الكترىك) مجموعه سرك سزه هر آى توزيل  
ايدلوب ايدله يكي لافا تحقيق ايتكيز سرجودور.  
Prière de vous assurer chaque mois, si votre Reçu  
« Pâmâh Electric » vous est distribué ou non.

Mod. 1894 g - 1927 - CH. ANONIM TURQUE

| معدك<br>تاريخ ارفايش<br>Date du<br>Relevage | Indications des compteurs<br>معددورك اشاراتى |                    |                                                          |                                                           | Energie<br>قوة الكترىك |                |               |                |               |                | مكوت قانده بوزده ۱۰ رسيده<br>Taxe Conventementale<br>de 10 % |                | مختلف<br>Divers |                | يكون عمومى<br>Montant total |                | تخصيلدارك<br>نومروسى<br>Encaisseur<br>No. | صرد نومروسى<br>No<br>d'Ordre |               |                |
|---------------------------------------------|----------------------------------------------|--------------------|----------------------------------------------------------|-----------------------------------------------------------|------------------------|----------------|---------------|----------------|---------------|----------------|--------------------------------------------------------------|----------------|-----------------|----------------|-----------------------------|----------------|-------------------------------------------|------------------------------|---------------|----------------|
|                                             | حاضرده<br>Actuel                             | اولكى<br>Précédent | برنجى ترتيب<br>كيلوات ساعت<br>I. Echelon<br>KWHs Consom. | ايكچى ترتيب<br>كيلوات ساعت<br>II. Echelon<br>KWHs Consom. | I. Echelon             |                | II. Echelon   |                | Total         |                | ليرا<br>Ltqs.                                                | غروش<br>Ptres. | ليرا<br>Ltqs.   | غروش<br>Ptres. | ليرا<br>Ltqs.               | غروش<br>Ptres. |                                           |                              | ليرا<br>Ltqs. | غروش<br>Ptres. |
|                                             |                                              |                    |                                                          |                                                           | ليرا<br>Ltqs.          | غروش<br>Ptres. | ليرا<br>Ltqs. | غروش<br>Ptres. | ليرا<br>Ltqs. | غروش<br>Ptres. |                                                              |                |                 |                |                             |                |                                           |                              |               |                |
| ۱/۶                                         | ۵۴۹                                          | ۵۱۴                | ۱۶۴                                                      |                                                           | ۴                      | ۶۸             |               |                | ۴             | ۶۸             |                                                              |                | ۴۷              |                | ۵۰                          |                | ۵                                         | ۶۵۴                          | ۲             | ۵۸             |
|                                             |                                              |                    |                                                          |                                                           |                        |                |               |                |               |                |                                                              |                |                 |                |                             |                |                                           |                              |               |                |

تخصيل اولمشدر : تخصيلدار  
Encaissé : l'Encaisseur

مدريت  
La Direction :

تدقيق ايدلشدور :  
Vérifié :

چول  
Timbre 3

568  
272  
680

Toute Quittance ne portant pas la grille de la Direction et la  
signature de l'encaisseur n'est pas valable.

T. S. V. P. ظهورت دفت

مدريتك مهربى و تخصيلدارك امضاسى حاوى اولمان مقبوض منبر دكلدر.

## مهم اخطار

- ۱ — آبونہ شرتک بر تحصیلدارینہ آتیقہ خصوصی بر مقبوض مقابلہ یارہ و برملیدر .  
بو مقبوض معتبر اولق ایچون بولالیش و مدیریتک تناسدن ماعدلہ تدقیق ایدہک و تحصیلدارک امضالری محتوی بولیش اولمالیدر .
- ۲ — شرکت قاطورہلری بحسباً یارہ قبول ایتز .
- ۳ — هر درلو مدعیات بالاخره بحریراً مدیریتہ یلدرلک لازمکدیکندن آبونہل هیچ بر بهانه ایله قاطورہلرک تادیبستدن امتناع ایدہ مزل .
- ۴ — اشبو مقبوضه الصاق ایدیلن پولک آتانی آبونہ طرفندن تادیب اولنه جقدر .

## A l'Attention

de notre honorable Clientèle

Pour le paiement de vos factures et pour toutes réclamations présentez vous aux nouveaux guichets établis au rez-de-chaussée du Metro Han, à côté de la gare de Tunnel.

- 1.— Encassement de 8 1/2 à 19 1/2 heures.
- 2.— Réclamations de 8 1/2 à

محترم مشتریلر عیزلک نظر دقتته

قاطورہلرکزک تادیبی و بالموم  
مراجعتلریکز ایچون تونل استاسیون  
یانبدہکی مترو شانک زمین قاتندہ  
یکدن انشا ایدیلن کیشلریزہ مراجعت  
ایدلی مرجودر .

- ۱ — تحصيلات سکر بچندن  
اون ملقوز بجه قدر .
- ۲ — مراجعت سکر بچندن

- 1 — Les abonnés ne doivent remettre de l'argent à un agent de recettes de la Société, qu'en échange d'un reçu spécial qui, pour être valable, doit être timbré et muni, en dehors de la griffe de la Direction, d'une signature de Verification et de celle de l'encassement.
- 2 — La Société n'accepte pas d'acompte sur ses factures.
- 3 — Sous aucun prétexte les abonnés ne peuvent refuser le paiement des factures. Toute réclamation éventuelle devra être adressée à la Société après paiement.
- 4 — La contre-valeur du timbre apposé sur la présente quittance doit être payée séparément par l'abonné.

1927 4477 4477 4477 4477

**Türk Elektrik Anonim Şirketi, Tenvirat ve havayici beytiye makbuzu, 1933, front page:**

**Türk Anonim Elektrik Şirketi**  
Société Anonyme Turque d'Electricité

VIII 3-0-1933 40 1<sup>st</sup> thbarname 2<sup>st</sup> thbarname

**TENVİRAT VE HAVAYICI BEYTIYE MAKBUZU**  
Quittance pour éclairage et usages domestiques

Muhterem müşterilerimizin sıfahi veya tahriiri müracaatların-  
da tesisat numaralarını bildirmeleri rica olunur.  
Dens toutes ses réclamations verbales ou écrites, l'Honorable  
C'entèle est prise de citer son No. d'installation.

II ve III Tarifelerin tertiplerini gösterir.  
I. E. Muhtelif ve müteahhide ait tesisat bedelleri.  
L. TS. Satış Şirketine ait alet ve tesisat bedelleri.  
I, II et III Désignent les échelons des tarifs.  
M. E. Divers et installations faites par les entre-  
preneurs.  
AL. TS. Désignent les installations et appareils vendus  
par la Satié.

C 20618 137 A20 3352611 500  
Ist.Birinci Kâtib Adilligi 567  
Sultan Hamam Sadikiye Han 25  
No.2-3/4 30

50.000 - 1/6/1933 - Mithatçılık ve Necipiyat T. A. Ş. - İstanbul

| Numara - Numéro<br>Tarih - Date | Mühürlerin işareti<br>Indications de compteurs |                    | Sarfıyat - Consommation | Alet - Appareils<br>Tesisat - Installations | Tesisat numarası<br>No. d'installation | Yekûn - Total |
|---------------------------------|------------------------------------------------|--------------------|-------------------------|---------------------------------------------|----------------------------------------|---------------|
|                                 | Evveldi - Précédent                            | Hazırdaki - Actuel | Kv. - Kwhrs             | Meslûğ - Montant                            |                                        |               |
| 137<br>HAZ 28                   | 3014                                           | 3019               | I<br>M                  | 5<br>89<br>57                               | 20618                                  | 1,464         |

Tahsil olunmuştur: Tahsildar  
Encaissée: L'encaisseur

Müdüriyet  
La Direction

Tetkik edilmiştir  
Vérifié

Hata ve nihan olmadık takdirde ve daha evvelki müddetler içinde bu makbuzların ibrazı baki mahfuz bulunmak kaydıyla  
Sous réserve ou omission et sous réserve de la présentation d'autres quittances relatives à des périodes antérieures

Mahfuziyatın tesvii ve tahsildarın imzasına havi olmayan makbuz muteber değildir  
Toute quittance ne portant pas la griffe de la Direction et la signature de l'encaisseur n'est pas valable

**Türk Elektrik Anonim Şirketi, Tenvirat ve hevaic-i beytiye makbuzu, 1933, back page:**

**MÜHİM İHTAR**

1 - Aboneler, şirketin bir tahsildarına ancak hususi bir makbuz mukabilinde para vermeli. Bu makbuz muteber olmak için pullanmış ve müdüriyetin damgasından maada tetkik edenin ve tahsildarın imzalarından mahfuz bulunmuş olmalıdır.

2 - Şirket, faturalarına mahsuben para kabul etmez.

3 - Her türlü müddeyatı muhtemelen şirkete badettediye bildirilmesi icap ettiğinden aboneler, hiç bir bahane ile faturaların tediyesinden imtina edemezler.

**AVIS IMPORTANT**

1 - Les abonnés ne doivent remettre de l'argent à un agent de recettes de la Sté, qu'en échange d'un reçu spécial qui, pour être valable, doit être timbré et muni, en dehors de la griffe de la Direction, d'une signature de vérification et de celle de l'encaisseur.

2 - La Société n'accepte pas d'acompte sur ses factures.

3 - Sous aucun prétexte les abonnés ne peuvent refuser le paiement des factures. Toute réclamation éventuelle devra être adressée à la Société après paiement.

Şirketimiz memurları, cari senenin rakkamını ve memurun fotoğrafı ile Müdüriyetin imzasına tabidir hüviyet varakasını hamil olup her talep vukuunda ibraza mecburdur.

Şirket işbu kartların talep edilmemesinden tevellüt edebilecek bilcümle naheş ahvalden dolayı hiç bir mes'uliyet kabul etmez.

Les agents de notre Société sont munis d'une carte d'identité, portant le millésime de l'année courante, la photo de l'agent et la griffe de la Direction, qu'ils sont tenus de présenter à toute réquisition.

La Société décline la responsabilité de tout désagrément pouvant résulter de la non réclamation de ces cartes.

5 Ağustos 1933

Mülâhazat: Observations:

BORCUNUZUN BAKİYESİ

markalı eş- Lira  
hize elektrikiye için  
tesisat bedeli için  
Ceman. dir

Türk Anonim Elektrik Şirketi, 1925, Veresiye-i tesisat-ı elektrikiye için makbuzdur (front page). (Personal collection of U. Duygu Aysal Cin).

En cas d'interruption  
du courant au pour tout autre

بجریان انقطاعی و بالعموم  
شکایات

RECLAMATION

ایمچون

Téléphonez :

آئیده کی نومرویه تلفونه ایدیکیز

|                  |             |             |                 |
|------------------|-------------|-------------|-----------------|
| <b>Péra</b>      | <b>916</b>  | <b>917</b>  | <b>بك اوغلی</b> |
| <b>Stamboul</b>  | <b>1288</b> | <b>1288</b> | <b>استانبول</b> |
| <b>Buyukdéré</b> | <b>66</b>   | <b>66</b>   | <b>بویوكدره</b> |
| <b>Makrikeny</b> | <b>49</b>   | <b>49</b>   | <b>مقريكنوى</b> |

Emission du mois de ..... 1925

ماهی تحققی ..... ۱۳۴۱

تورك آنونیم الكتريک شىركتى

Société Anonyme Turque  
d'Electricité

ویره سی به تأسیسات الکتریقیه ایمچونه مقبوضه

QUITTANCE POUR INSTALLATIONS A CRÉDIT

M ..... اسم ..... آبوننه نومروسى

Adresse ..... آدره سی ..... Abonné No. ۲۲۲۵۰۶

|              |              |                                                              |
|--------------|--------------|--------------------------------------------------------------|
| لیرا<br>Lirs | غروش<br>Plrs | فیزیکی نموده من                                              |
| ۷            | ۱۱           | ویره سی به تأسیسات الکتریقیه مک                              |
|              | ۳            | ماهی ..... نجی تقسیطی                                        |
|              |              | Payment mensuel No. .... du .... pour Installations à crédit |

CONTRAT EN RÉGIE

تورک آنونیم الکتریق شىركتى

SOCIÉTÉ ANONYME TURQUE  
D'ÉLECTRICITÉ

تحصیل اولمشدر  
تحصیلدار  
Encaissé: L'Encaisseur,

تدقیق ایدلمشدر  
محاسبه  
Vérfié: La Comptabilité,

خطا و نسیان اولمادیق تقدیرده

Mod 1714-30 c.-(X-9-5) Imp. D'Imprimerie

70  
مهم بر اضطرار

- ۱ — آئونه لر شرکتک بر تحصیلدارینه آنجق خصوصی بر مقبوض مقابلنده پاره ویرمیلدرلر.  
بو مقبوض معتبر اولق ایچون پولانیس و مدیریک تمفاسندن ماعدا محاسبه نیک  
و تحصیلدارک امضالری محتوی بولنش اولمیدر .
- ۲ — شرکت فاطوره لرینه محسوباً پاره قبول ایتمز .
- ۳ — هر درلو مدعیات بالاخره تحریراً مدیریکه بیلدیرلک لازمکلیکنندن آئونه لر هیچ  
بر بهانه ایله فاطوره لرک تأدییه سندن امتناع ایده منلر .
- ۴ — اشبو مقبوضه الصاق ایکیلن پولک اغانی آئونه طرفندن آیروجه تأدییه اولنه جقدر .

AVIS IMPORTANT

1. — Les abonnés ne doivent remettre de l'argent à un Agent de recette de la Société, qu'en échange d'un reçu spécial, qui pour être valable doit être timbré et muui, en dehors de la griffle de la Direction, d'une signature de la Comptabilité et de celle de l'encaisseur.
2. — La Société n'accepte pas d'acompte sur ses factures.
3. — Sous aucun prétexte les abonnés ne peuvent refuser le paiement des factures, toute réclamation éventuelle devant être adressée à la Société après paiement.
4. — La contrevaletur du timbre apposé sur la présente quittance doit être payée séparément par l'abonné.

اشبو مقبوضده محرر مبالغک تأدییه سی حقنده تحصیلداردن اخبارنامه اخذ اولمشدر .  
Reçu de l'encaisseur la fiche de notification du montant ci-contre mentionné.

آئونه L'Abonné

Şehremaneti tenvirat rüsumuna mahsus / Stamp of transaction issued by he municipality for lighting purposes (Personal collection of U. Duygu Aysal Cin).

|                    |                                        |                              |
|--------------------|----------------------------------------|------------------------------|
| ۱۳۱<br>دفتر<br>ورق | شهرداری<br>تنوير<br>اوچجو صنف<br>راسمه | اغتور<br>قوجان<br>جلد<br>ورق |
| اسم                | محل و جاده و نرقاق                     | نوبت<br>شهر<br>هجری          |
|                    |                                        |                              |

Equity share of Tramway Company (includes coupons for the dividend)  
(Personal collection of U. Duygu Aysal Cin)





**Subscription Contract for the consumption of electricity (COA T.. 1418/91/74):**408

٤٥

١٤١٨/٧٤

T-NF

دوره دهمه مؤسس

مجلس شورای اسلامی

آبونه‌لره مخصوص نظامنامه

**ماده ۱ -** آبونه آتومان سندنخ امتلا لارکن غامه سنده تأسيس ايڭلش بولان آلاک ععددی يله يره جکدر . شوله که :

۱ - تورلرک و امور ياييه ايچون منتهب لامبارک عدد ونومئسي . قوس لامبارلرک ععددی و امور ياييه مخصوص آخذ جريئرلرک ععدديه استهلاک ايده جکدری وات مقداری ؛

۲ - امور صنایع ايچون مونورلرک ععدديه بر پارکیر قوتی ۸۰۰ وات اعتبار ايڭلش شرطيه قاج وات اقتدارنده اولديني . امور صنایع به مخصوص آخذ جريئرلرک ععددی ايله قاج وات اقتدارنده بولديني بيان و تصریح ايده جکدر .

آبونه لک جريان الکتریکي استعمال ايده جيکي ساعتر حقهده خصوصي راشتلاف موجود اولورسه اشبو ساعتر دخی تمين ايده جکدر . اون واتدن آزار اقتدار الکتریکي استهلاک ايده يله لک آلات على النامه ساعتر عتد ايڭلش آبونالره داخل اولملاز .

آبونه جريان الکتریکي آتومان سندنه مصرح اولان اولورون باشقه هيچ بر ايش ايچون استعمال ايده من . کذا کندينه اعطا ايڭلش جريئي اول اسرده شرکته اشعار کيفيت ايده لک متعاضده تحريزي سي استعمال ايده کنه قسماً و لا تماماً شخص آخره دوراييه من . آبونه لک ايراي تورلرک ايچون محتاج اولديني جريئي مولد بر مونور واسطه سي باقات استعمال ايده لک تورلرک مخصوص جريان ايتخي قوتلرک اوله ري وريلن جريان فيثايي مين تعرفه موجبنه تسويه تشيت ايتخي قطعياً متنوعدر . آبونه شرکته وريلن جريان آبونان سندنه تمين ايڭلش تعرفه فوقنده بر اجرت تادييسي استزام ايده لک خصوصاً نه دونرودن دورويه نهده باواسطه قوللانملاز .

ماده ۶ - شرک کندی مالی اولان وسعت داخل اولق اوزره اشبو ساعتر بری طرفنده موضوع بولونان شعبات ايله آلات مترعه لک حسن حاله عافه سي . تعمير ، بديلي ياغود ايشله ده سي ايچون يمش عمليات اجراسنه لروم کوردیكي قدرده آبونه اشبو عمليات ايپلانسنه ثامت ايده من .

ساعت داخل اولق اوزره ساعتر بری طرفندن موضوع بولونان و شرکک مالی اولان قاقار و آلات ايشاي سارنده هر نه وجهه اولورسه اولسون آبونه طرفندن تعديلات اجرایی صورت قطعه ده متنوعدر .

شرک اتروپور ايله قاطع دوروي حای سديعي قورشولا يه جتدر . آبونه ساعترک و منی ايچون شرک مامورلرک قولايجه دخولي تامين ايده لک صورته انتخاب ايڭلش مناسب بر عمل ارايه و تسليم ايده جکدر .

ماده ۷ - آبونه سندننن ياغود ساعتر اعتباراً ياييه جي تأسيس داخل ييه غاڭ اشيا و عمليات باجله مصارف آبونه ي غاڭ اولق اوزره آبونه طرفندن تدارک و اجرا ايده جکدر . آبونه بو تأسيسات ايچون شرکته قبول ايڭلش هر هانکي بر متعه ايله عتد متاوله ايده يله جيکي کي تأسيسات مذکور لک اجراسي . بائزايي تمين ايده لک شرائط دائره سنده شرکته دخی حواله ايده يله ري . اشبو تأسيسات آبونه لک غامه زنده کي تأسيسات داخل ييه حقهده شرکته تنظيم ايڭلش اولان نظامنامه امکانه آبونان مدته تماماً توافق ايتلدير . شرکک تأسيسات داخل ييه شيکيه ربط اتمه دن شتیش ايده جکدر . بو شتیش قيهجه سنده شرکک تأسيسات داخل ييه موجود يي قيهجه دار کوردیي ياغود امنيت و لا دوام قطه نظر دن مير کافي بولديني قدرده جريئي و برکندن

**فصل ۱**

**آبوناك شرائط عمومیه**

ماده ۱ - شرک آبونه لک غامه زنده ياييه جي تأسيسات داخل ييه حقهده نظامنامه امکانه اشبو آبونان سندی مندرجاته توفیق حرکک ايڭلش و تأسيسی طلب ايڭلش . پوئیس کي ک يني اقتدارک امور متعه ده استعمال ايڭلش اوزره سنوی صرفيات مدتی درت يوز ساعترن و امور ياييه ده استعمال ايڭلش اوزره سنوی صرفيات مدتی يوز اتي ساعترن دون اولمق شرطيه لاقول بر سنه مدته آبونه اولان هر ذاته الکتریکي قاقاری مؤسس بولونان سولاقدره قدرت الکتریکي في شرطنامه سي امکانه توفیقاً اعطا ايلر . اقتداري ذوالي ساعت سکرده تجارخانه لری قايان و جريان الکتریکيک مذکور ساعترن سوکره استعمال ايده يله جيکي تامينه خادم بر اولونماتيک ديسر و غنور وضع ايڭلش ارباب صنایع ايچون تامين اولونان استعمال مدتی اوج يوز ساعت تيزل ايڭلش . طلب ايڭلش اقتدار الکتریکي اوتوز کياروات ايله آتش کيلو . وات آرمه سنده ايهه آبونانک مدتی لاقول ايکي سنه اوله جتدر . طلب ايڭلش اقتدار الکتریکي آتش واتدن فضل ايهه آبونان مدتی لاقول اوج سنه اوله جتدر .

ماده ۲ - آبونه اولي ايشه ن ذلت شبعه لک و کي شرکک شبعه لک کرک آلات مترعه لک حسن حاله عافه سي تامينه مقتضي معاملات اجرایی خصوصاً باقات ايڭلش صاحبک و لا صاحب لک مساعدسي استعمال و باصاحي کنديني اولديني قدرده اشبو مساعدتي اعطايه مجبوردر . کذا تأسيس ايده لک عباري هادی الايجاب نقطه استناد اوله جي ياغود اشبو مجاري کدرکامي تشکيل ايله جيکي ايهه احبابک دخی مساعدسي استعمال مجبوردر . اشبو ساعترلر شرکته مجازاً اعطا ايڭلش اوداق مطبوعه اوزره تحريز ايده لک و مساعدتي استحصال ايتش اولان ذاتک آبونانی عتد بولقدن سوکره دخی ديگر آبونه لره قوت الکتریکي اعطاسي تاميناً اعطا اولونه جتدر .

**فصل ۲**

**شعبه لک تأسيس**

ماده ۳ - جريان الکتریکي مستهلاک غامه ي درونه شرکته تأسيس ايده لک بر شعبه واسطه سي سوق ايده جکدر .

ماده ۴ - باشليجه قاطع دوره قوتلوس و محوله موقعي داخل اولق اوزره شبعه لک تأسيس ايچون اشبو آلات قدر قوت يني مواد و ادوات و ياييه جي عمليات شرکته وضع و اجرا و حسن حاله عافه ايده لک شرککک مالی اوله جتدر .

شعباتک موجب اولديني مصارف آبونه طرفندن روجه ذير تسويه ايده جکدر :

۱ - ايکي يک ايکي يوز ياغود ده آزار وات و برن شعبات ايچون يکدن تادييه ايڭلش اوزره درت ليرا ؛

۲ - ايکي يک ايکي يوزدن زوده وات و برن شعبات ايچون اشبو مقدارک فوقنده هر ۵۰۰ وات و لا کسوري اقتدار ايچون سالف الذکر درت ليرايه لارم ليرا ضم ايده جکدر .

۳ - ايکي يک ايکي يوز ياغود ده آزار وات و برن شعبات ايچون ورلسي لازم کان ۴ ليرا آبونه طرفندن يکدن تادييه ايده لک روجه ذير اجورات شهره لک اعطاسنه شرکته مساعدت ايده يله ري :

۱ الی ۵۰۰ واتق آبونالره مخصوص شبعه لر ايچون بدل ايجار شهری ۶ غروش ؛

۵۰۰ الی ۱۱۰۰ واتق آبونالره مخصوص شبعه لر ايچون بدل ايجار شهری ۸ غروش ؛

۱۱۰۰ الی ۲۲۰۰ واتق آبونالره مخصوص شبعه لر ايچون بدل ايجار شهری ۱۰ غروش .

بو مساعدت يالکتر مستاجر لره اعطا ايده يله ري .

۴ - بو شرائط شبعه لک طولي حد اعظمي اون مترو اولق اوزره

**FORCE MOTRICE** Police N° \_\_\_\_\_

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## SOCIÉTÉ ANONYME OTTOMANE D'ÉLECTRICITÉ CONSTANTINOPLE

— (CHIFFRE) —

### Police d'abonnement au compteur

— (CHIFFRE) —

Par le fait d'avoir signé la présente police d'abonnement, M \_\_\_\_\_  
dénommé ci-après « l'abonné » habitant Quartier \_\_\_\_\_ Rue \_\_\_\_\_  
Immeuble N° \_\_\_\_\_ exerçant la profession de \_\_\_\_\_ agissant à titre  
de (1) \_\_\_\_\_ souscrit un abonnement de \_\_\_\_\_ ans à la distribution d'énergie électrique  
de la **Société Anonyme Ottomane d'Electricité.**

L'abonné a pris connaissance du règlement pour les abonnés ci-annexé et déclare accepter  
toutes les clauses et conditions de ce règlement.

L'installation de l'abonné comprendra :

| Désignation des appareils | Nombre | Puissance en Kw. | Désignation des appareils       | Nombre | Puissance en Kw. |
|---------------------------|--------|------------------|---------------------------------|--------|------------------|
| b/ Force motrice          |        |                  | c/ Courant pour d'autres usages |        |                  |
| Moteur de .....           |        |                  |                                 |        |                  |
| " " "                     |        |                  |                                 |        |                  |
| " " "                     |        |                  |                                 |        |                  |
| " " "                     |        |                  |                                 |        |                  |
|                           |        |                  |                                 |        |                  |
|                           |        |                  |                                 |        |                  |
|                           |        |                  |                                 |        |                  |
|                           |        |                  |                                 |        |                  |
|                           |        |                  |                                 |        |                  |
|                           |        |                  |                                 |        |                  |
| TOTAL...                  |        |                  | TOTAL...                        |        |                  |

Tout changement de l'installation susmentionnée doit être immédiatement avisé à la Société.  
L'abonné déclare avoir obtenu du propriétaire de l'immeuble précité l'autorisation ci-jointe  
pour faire procéder à cette installation et la mettre en fonctionnement.

L'abonné s'engage à payer les taxes suivantes :

|                                           |                                  |
|-------------------------------------------|----------------------------------|
| 1 Branchement de _____ Watts _____ Mètres | Somme une fois payée P. or _____ |
| 1 " " " " " "                             | Taxe mensuelle " " _____         |
| Compteur " " " " " "                      | " " " " " " _____                |

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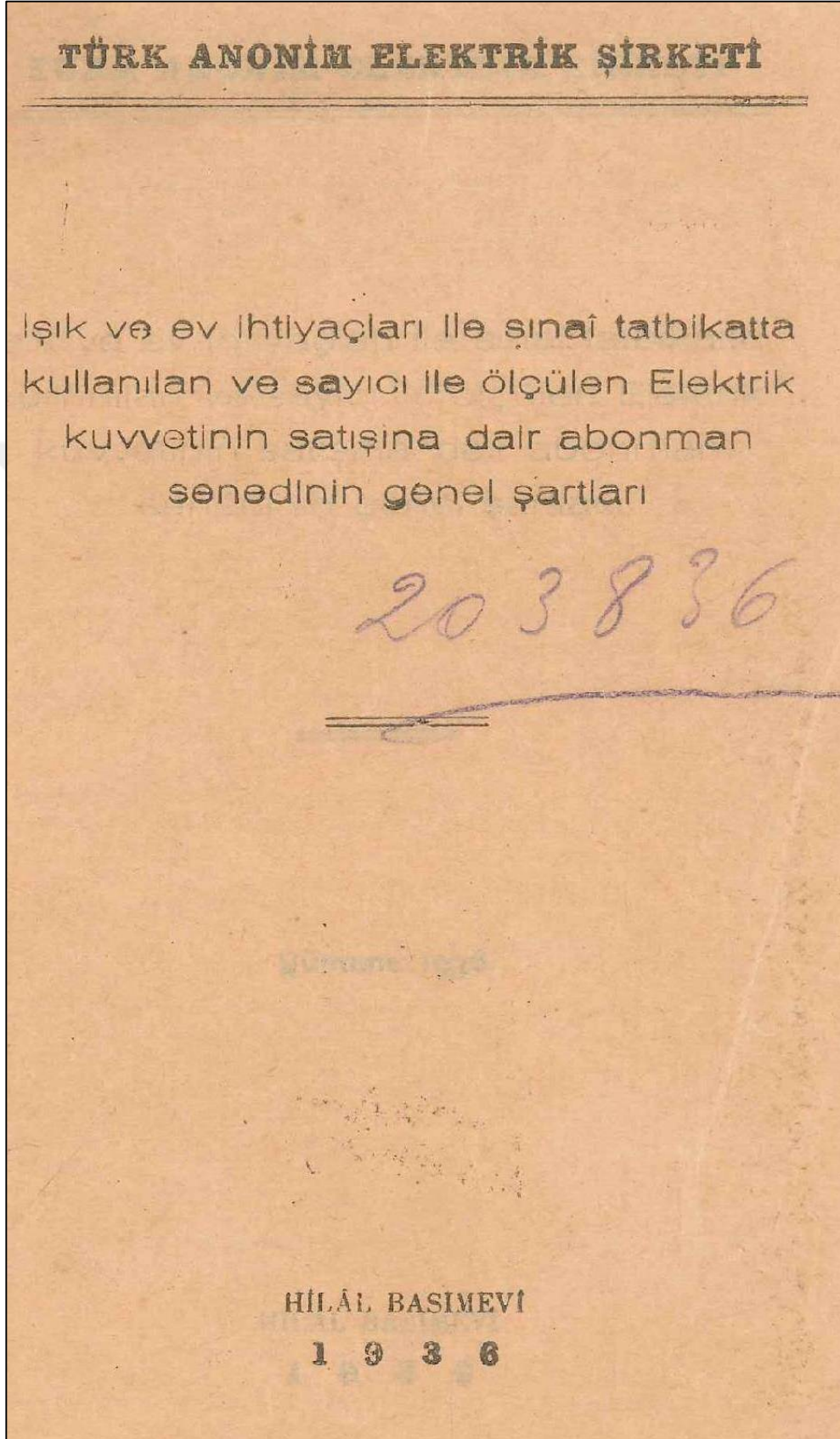
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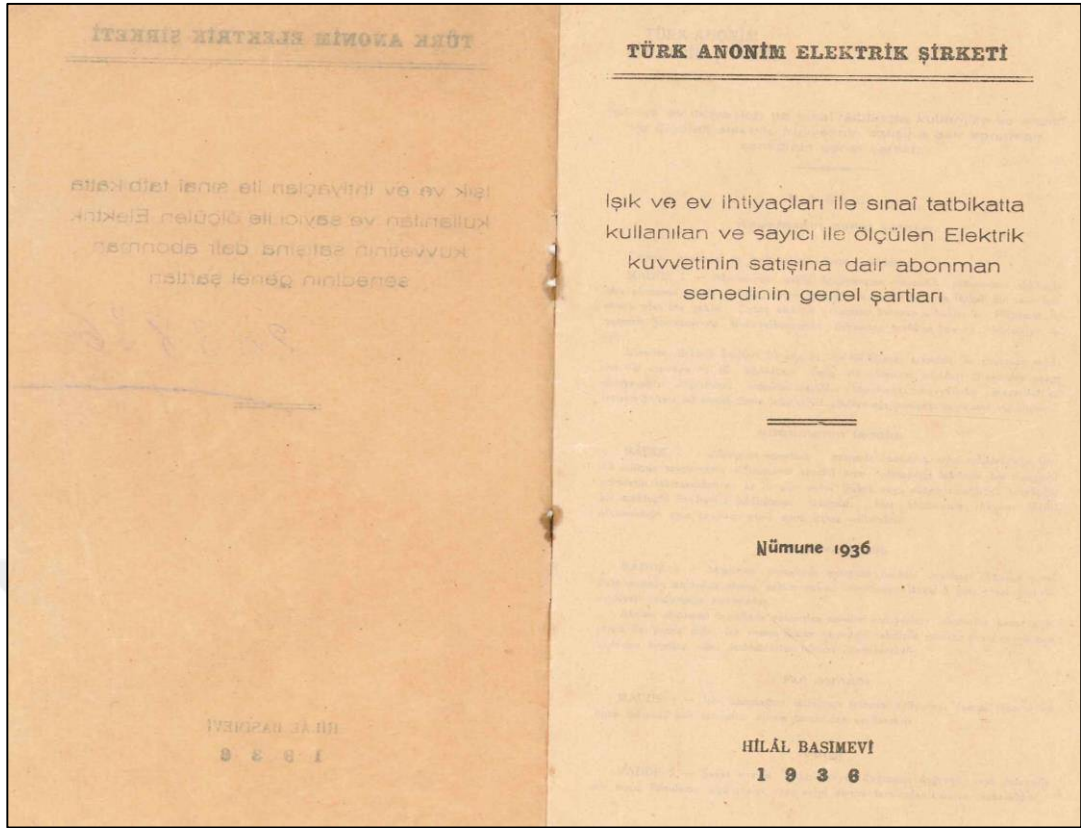
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(1) Propriétaire ou Locataire.

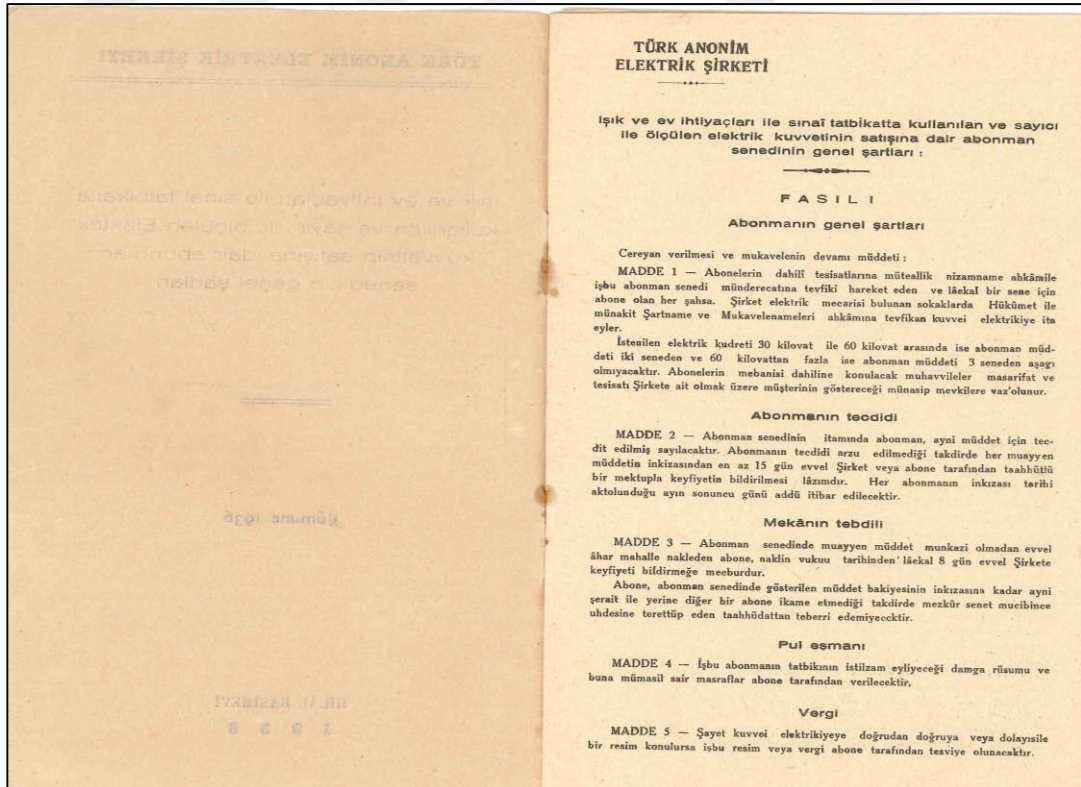
Subscription Contract for the consumption of electricity, cover page (1936).  
(Personal collection of U. Duygu Aysal Cin).



## Subscription Contract for the consumption of electricity (1936) I:



## Subscription Contract for the consumption of electricity (1936) II:



## Subscription Contract for the consumption of electricity (1936) - III:

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**Cerayanın inkıtarı**

MADDE 6 — Mübır sebeplerden veya Hükümet emrinden resmen ıcrasına mısaae edılmıř olan umumı veya humıf ameliyattan mımbaıs avhalde cerayanın muvakkaten inkıtas uđramasından dolayı abonman sahibinin bir gına tazminat ve zarar ıziyan talebine hakk ılmıyacak ve fakat iřbu abonman senedinin 25 inci maddesinde muharer asgırı istihlakı seneviye miktarı inkıtan imtidat eylediđi müddet nisbetinde tenkis edilecektir.

Gerek vukuu evvelden malüm ve gerek arızı bir inkıtadan sonra řirket, aboneye iřarı keyfiyet etmeđe mecbur olmaksızın kudreti elektrikiyei mecarıye iade edebileceđi ve cerayanı bilâ ihbar hatta iade edilmis olmasından dolayı gerek eđhasa arız olabilecek kazalardan ve gerek abonenin tesisatında vukuu gelebilecek hasaratın me'sul olmıyacaktır.

**Elektrik kuvvetinin kullanılması**

MADDE 7 — Abone, sayıcıdan geđen cerayanı arzu eylediđi veçhile istimal edebilecektir.

řu kadar ki mezkur cerayan, ne bilvasıta ve ne de dođrudan dođruya abonanın senedile tayin edilen tarife fevkinde bir üret tediyesini istilzam eden hususatta kullanılmıyacak ve imtiyaz sahibinin tahrii mısaaesi olmadıkça kısımen veya kâmilan ihara devredilmıyecektir.

**Abonenin řikâyatı**

MADDE 8 — Abone tarafından dermeyan olınacak řikâyetler, daima tahriren ve řirket müdiriyyetine hitaben vuku bulacak ve řikâyetnameler řirketin merkez idaresine veya şubelerine tevdi oluncaktır.

Başka suretle vaki olacak řikâyetler muteber olmıyacaktır.

**F A S I L II**

**Tevzi şubesi, sâit sütun, sayıcı, kurşun mühür ve saire**  
**Tevzi Şubesi ve tađdiye sütunları**

MADDE 9 — Elektrik cerayanı tevzi şubesi tabir edilen ve kurşunla memhur ve müzaplari muhtevi umumı tevziat sandıkçasıle muhayet bulan bir mecca vastasıle řirket şebekesinden tađdiye edilen bina mehalisine kadar ırsal olunur. řirket tarafından tesis edilen iřbu şube, şebekeli tevziyenin cezal asılyesinden maduttur. Şubelerin inşaa masrafları, ebniye sahipleri veya aboneler tarafından deruhte olunur. İřbu şubelerde lüzum görülebcek tadilât ve tevziat gibi her nevi ameliyei ırcı eylemek hakkı münhasıran řirkete aittir.

řirket, şubeleri tarife komisyonu marifetile tayin edilecek üret mukabilinde abonelere ıcar etmek hakkı ihtıyârını muhafaza eyler.

Bu tađdirde, şube sandıkçası üzerine diđer abonelerin tesisatını da řirketin rap- teylemesine muvafakat etmeđi abone şimdiden taahhüt eder. Abone, şubenin isti-

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malini münhasıran kendine hasıreylemeđi arzu ettiđi tađdirde masarifi tesisatının tamamını defaten tedıye etmek mecburiyetindedir. Ademi tedıye halinde řirket bir gına ihbar ve protesto keşidesine hacet olmaksızın masarifi mezburenin hini itasına deđin cerayanı kat'edecektir.

**Sâit sütunlar**

MADDE 10 — Umumı sandıkçadan itibaren yapılacak tesisatın ırsızı ve bu- nun ıcap edeceđi masarifi abone veya abonelere ve yahut bina sahiplerine aittir. Muhtelif müstecidler tarafından ırsal edilen binada umumı sandıkçadan itibaren abone veya abonelerin humıf tesisatlarına kadar imtidat eden ana hafına sâit sâ- tun tabir edilir. Sâit sâitunlar, ya bina sahipleri ve yahut bunların ruhsatıle bir veya bir kaç müstecir tarafından imal ettirilir. řirket masarifi aboneye sâit olmak şartile sâituna sâidin kendi marifetile ırsasını ve yahut sâit sâitundan řirketin ma- lımatı olmaksızın ve muntazam mukavelename teati edilmeksizin, gayri meşru sur- rette cerayan ahzına mâni olacak münasip tedbirlerin bizzat abone tarafından itti- hazını taleb sahlıyettardır.

**Tefiş ve mesaha cihazları**

MADDE 11 — řirket lüzum görüceđi emniyet mesaba ve tefiş cihazlarını vaz'edecektir. İřbu cihazlar daima řirketin mülkü mutlak kalacaktır.

Abone iřbu cihazların ıcarı ve hümmhalde muhafazası için tarife komisyonu marifetile tayin edilecek ücretleri řirkete tedıye eyliyecektir. řirket vaz'edeceđi muh- telif cihazları kurşunla mühürleyebilecektir.

**Sayıcılar**

MADDE 12 — Abonelere ita olunan kudreti elektrikiye miktarı, řirket tara- fından konacak ve daima řirketin malı kalacak olan bir sayıcını işaretlerine müsteniden faallalarla kayd ıaptedilecek ve iřbu sayıcı abone nezdinde müesses kudretle münasip olacaktır.

Abonemin gerek kullandın lâmbalardan ve gerek sair cihazlardan mütevellit bu- lunsun, sayıcı üzerinde fazla bir hamule idame etmesi memnudur.

Sayıcının, üzerinde bulunan fazla bir hamulede dolayı temir veya tebdili ik- tiza eder ise bu yüzdən vuku bulacak biledimle mırzaflar tamamea me'sul bulunan aboneye ait olacaktır.

Bundan başka řirketin tevziat sandıkçası müzrap, sayıcı ve sair eđhizei tef- tişiyisi aboneye veya müstahdemineine affı ınsadı kabul, ihmal veya kasat dolayısıyla hasara uğradık tađdirde bu yüzdən vukubulacak zarar ve ıziyanı da abone řirkete tazmin eyliyecektir.

**Cihazların yeri, memurların girmeleri, tamirat masrafları**

MADDE 13 — Tevzi şubesi, sayıcı, tevziat sandıkçası ve emniyet ve tef- tiş cihazlarının vaz'ı için abone řirkete ihtizazattan masun ve tamamen mahfuz,

## Subscription Contract for the consumption of electricity (1936) IV:

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münasip bir yeri meccanen ırac ve tahsis etmek mecburiyetindedir. Bu yer abone ile řirket tarafından müstefika tayin edilecektir.

İřbu cihazların bulunduđu mevkilere hıviyet varakasını hâmil řirketin mahsus ve muvazaf memurlarının ve hususi vazife varakasını hâmil amelesinin her an ve zamanda girmelerine mısaaede edilecektir.

Memurları mezkur, bildüm muayene ve tamirleri ve tebeddülât ve tadilatı serbestçe ırcı edebilecektir. Abone, mephusünanah tesisatta řirket memurları ta- rafından ırcı edilecek salıfızıkır ameliyata münasat etmemegi taahhüt eyler.

Anıfılıbeyan ameliyattan masrafları, ameliyat echizenin tabii surette eskimesin- den mütevellit olmak şartile řirkete ve bundan gayri ahvalın kâffesinde ve bilhas- sa zikrolunan cihazların veya tesisatın muayene olan hususât haricinde suistima- linden mımbaıs bulunduđu halde aboneye ait olacaktır.

**řirket echizesinin muhafazası**

MADDE 14 — řirkete ait tesisat üzerinde her nevi ameliyat veya tadilat ırcı etmek veya ettirmek sayıcı, katı devre veya sair echizei tefişiyeyi ayar veya bunların akasını her ne suretle olursa olsun tebdil etmek, sâitunu sâitte veya tađdiye sütununda ameliyat yapmak veya yaptırmak abone ve bina sahibi için kat'ıyyen memnudur. Kezalik řirket tarafından mevzu kurşun veya mühürleri fek, tadil veya mevkilerini tebdil etmek kat'ıyyen memnudur.

İřbu ameliyattan ırcasına yalnız řirket sahlıyettardır. řirkete ait cihazlarda bir bozukluk veya hıfâtı mutad bir hal arız olduđu zaman abone, derhal řirkete tahriren iřarı keyfiyet etmeđe mecbur olup tevziat sandıkçası, itihkak kutusu ve sair echizeyi bizzat aşamaz. Hiç bir bozuk sayıcı veya tefiş cihazı aboneye tah- riren ihbar edilmedikçe kaldırılmıyacaktır.

**Mühürlerin fekkı, řirket cihazlarının tahribi**

MADDE 15 — řirket, salıfızıkır madde mufadma muğayir bir hareket' gör- düđu tađdirde cerayanı gayri meşru surette istimal veya istimaline teebbüs edi- diđini itidilâle hakkı olacak ve teebbüsün fıl ile neticesin neticesinmedigine de- lâletli hal ile bizzat hükmıdecektir.

Böyle bir hal vukuunda abone, abonman senedini ve iřbu nizamnameyi imza etmekle, řirketin başın bir muameleye tevessül etmeksizin ve bir gına ihbaratta bulunmađa hacet kalmaksızın kendi hakkında aşğıdaki tedbirleri itihaz eylemesini kabul eder.

- 1 — Mühürün kırılması, fekkı veya tahrii halinde abone, tebdil tazminatı ol- mak üzere mühür başına řirkete 500 kuruş tediyesine mecbur olacaktır.
- 2 — řirkete ait bir katı devrenin tebdil veya takviyesi halinde řirkete beher katı devre için 500 kuruş tedıye edecektir.
- 3 — Abone, gerek kendi ve gerek memurları tarafından řirketin cihazları üze- rinde ırcı edilmis ameliyat veya tebeddülâtın dolay ıtesisatın en son muayenesin- den itibaren istihlak edilebilmesi melhur bildüm fazla kuvvei elektrikiye bedelinı tam tarife mucibince řirkete tedıye eyliyecektir.

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İřbu istihlak miktarı, řirket tarafından resen tayin edilecek ve tesisatın son muayenesi tarihinden itibaren gızır eden her ay için tayin olınacak miktarı abon- manın biadayeti tarihinden itibaren en ziyade istihlakâtı olan ayın % 20 fazlasile tahassul eden istihlakı yekünundan az olmıyacaktır.

4 — Marüzikır tedbirlerden masda řirket, echize veya mecarı üzerinde gayri meşru surette yapılan ameliyattan mımbaıs zararlarının tazmini için abone hakkında bildüm kanunı yollar ile takibatta bulunmak hakkını muhafaza eyler.

14 üncü madde ahkımına muhalif hal vukuunda řirket, derhal abonman sene- dinin feshile cerayanı kesebilir. Abone, abonman senedinin bu suretle feshinden dolayı kendisinin řirket aleyhinde dava ikame etmek hakkını ıskat eder.

**Sayıcıların ılemesi, muayene ve tekrar ayar**

MADDE 16 — Sayıcı % 5 den ziyade ıleri gider yahut geri kalsıra buna gayri muntazam işler bir sayıcı nazariile bakılacaktır.

Bu iki halde muayenesinin yapıldık tarihden evvelki kırsat tarihi ile muayene- nin ırcı edildiđi tarih kuyudatı bozuk olduđu tahakkuk eden sayıcının tamir ve- ya tebdiline kadar olan müddet için ıcabı veçhile tashih edilecek ve fakat ondan evvelki sayıcıların sarfiyatında tebeddülât ırcı olunmayacaktır.

Maahaza, her hađı bir sebepten dolayı sayıcı büsbütün duracak olursa is- tihlak edilen kuvvei elektrikiye miktarını tayin için bozuk sayıcının tamir ve ya yeni bir sayıcı ile tebdil edildiđi tarihten sonra yapılacak sayıcı kırsatlerine yeni sayıcının meşhut olacak kuyudatı esas itihaz edilecek ve maamafih bu bap- ta hususiyeti ahval dahi nazarı itibara alınacaktır.

řirket, müşterinin tesisatına ikinci bir sayıcı vaz'etmek sahlıyettini haizdir, O halde istihlakât, her iki sayıcı ırsatının vastasıle taayyün edecektir.

Sayıcıların biri bozulduđu tađdirde yalnız ikinci sayıcının ırsatı muteber addolunacaktır.

Her iki sayıcı dahi aynı zamanda bozulmuş olur ise, bir sayıcının bozul- ması halinde tatbiki ıcap edeceđi yukarda yazılı ahkâm tatbik edilecektir.

Abone sayıcı veya echizei tefişiyesinin muayenesini her zaman isteyebilir .

Sayıcı veya echizei tefişiyenin muayenesini arzu eden abone, iřbu muaye- nenin ırcasını řirketten tahriren talep edecektir. Muayene řirketin tensibi veçhile cihazın bulunduđu mahalde veya řirketin teerübehanesinde yapılacak ve abonemin muayenede hazır bulunmađa sahlıyettini olacaktır.

Cihazın, abonemin zararına olarak % 5 ten fazla bir fark ile ıilediđi tebeyyün ederse abonemin řikâyeti muhik sayılacak ve cihaz yeniden tanzim veya tebdil edi- lerek bozukluk hamule fazlasından mütevellit bulunmamak şartile aboneden muayene ücreti alınmayacaktır.

Cihazın, muntazaman veya abenenin lehine olarak ıilediđi tebeyyün ederse řir- ketin nizamatusında muharer olan muayene ücreti aboneye ait olacak ve ilk istih- lakât faturasına ilâve edilecektir.

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F A S I L I I I

**Dahili tesisat**

**Abonenin tesisatı**

MADDE 17 — Dahili tesisat, masarifi aboneye ait olmak üzere abonenin kendi arzu eylediği ve Hükümetçe musaddak tesisat müteahhitleri arasından itihap edeceği bir müteahhit marifetle iera edilir. Tesisatı dahiliye, şirketin fenni talimat ve tesbitatına tamamille tevafuk etmelidir.

**Tesisat emniyetinin muayenesi**

MADDE 18 — Tesisatın tamamen ikmalini müteakip şirket, işbu tesisatın ilk muayenesini meccanen iera eder. İşbu muayeneden maksat, kudreti müessesenin tayini ve verilen sair malumatın tetkiki ile tesisatın elektrik şebekesine raptından diğer tesisatın hareketlerinin intizamına nakisa ve emniyeti umumiyeye hael tari ol-miyacağına şirketçe itimaa hususidir.

İşbu muayene dolayısıyla şirket istimal edilen malzemenin cinsi ve tarzı tesla-ri hususunda bir gına mes'uliyet deruhte etmez.

Binaberin dahili tesisatın kusuru olmasa yüzünden yangın zuhur eder veya eş-has ve eşyaya kaza arız olursa şirketin mes'uliyeti mevzuu bahsolmaz.

Şirket, tesisatın noksanları havi olduğunu, kullandığı esnada gördüğü takdirde mezkûr noksanların izalesine değin cereyanı kat'edilecektir.

**Tesisatın tadili**

MADDE 19 — Abone şirkete keyfiyeti iş'ar etmeksizin tesisatını evvelce abo ne olunan kudreti teavüz edecek bir tarzda hiç bir vehile tebdil edemez ve şir- ketin tahiri müasadesini almadıkça tadilâtı iera eyleyemez.

Balâda müaderîr ahkâmı muhalif olarak kudreti müessesenin tezyit edildiği şir- ketçe müşahade olunduğu takdirde işbu fazlâh, esatî istimalin emri tayininde na- zarı dikkate alınacak ve son muayenesin iera olunduğu ayın bidadetinden itibaren mezkûr tezyitî tatbik olunsakır. Maasafih şirketin talebi üzerine abone, şirketin muvafakatını istihâl edinceye kadar işbu fazla kudreti ref'etmeğe mecburdur.

**Dahili tesisata duhul**

MADDE 20 — Şirket, abone tarafından tesis edilen kudreti ve tesisatı dahi- liyenin vaziyetini lüzum gördükçe muayene etmeğe salâhiyetardır. Cerek dahili ve gerek harici tesisatı elektrikiyenin tetkik ve muayenesine şirketçe ihtiyaç görüldüğü takdirde abone işbu tesisatın bulunduğu mahallere usulü dairesinde hüviyet varaka- sını hâmil şirketin hakikî memurlarının veya vazife varakasını hâmil şirket ame- lesinin her zaman ve her günün her saatinde serbestçe girmelerine müsaade etmeğe mecburdur.

**Şartname tadilâtı**

MADDE 21 — Şartnamenin her hangi bir maddesi Vekâleti Celile karârile ta- dil olunduğu halde şirketin işbu abonman senedinin devamı müddetince o tadilâtı müşteriyi tatbik etmeğe hakkı olacağı gibi müşterinin dahi mukavelenameyi feshe- dip cereyan almaktan sarfınasaz eylemeğe hakkı olunsakır.

- 7 -

F A S I L I V

**Mukavelename mucibince tarife**

MADDE 22 — 17 Haziran 1339 ve 1 mart 1926 tarihli itilâfnameler mucibince kuvveti elektrikiye azamî satış tarifeleri her kilovat saat için aşağıdaki düs- turlara tevfikân ve kuruş olarak hesap olunmuştur.

A — Tensirat ve havayıcı beytiye için:

$$3,9 \frac{S'}{S} + 0,85 \frac{23}{F} + 0,28 K$$

B — Tatbikatı sınıye için:

$$1,95 \frac{S'}{S} + 0,425 \frac{23}{F} + 0,14 K$$

İşbu dusturlarda S harfi unvan ve vazifeleri tevsih ve tesbit edilen elektrik müvellidi merkez fabrikasının işletme daimî amelesinin bin dokuz yüz yirmi bir (1337) senesi zarfındaki 12 aylık yevmiyeleri vasatîsî itibarile aylık ücreti olmak üzere beherine isabet edsa ve 44 lira ve 55 kuruş olarak tayin edilmiş bulunan ücretlerin vasatî miktarını.

S' — Mezkûr aylık ücretlerin lira olarak her 3 ay nihayetindeki vasatî müs- takbelini.

F — Kambiyo fiatının her günlük miktarlarını muhtevi olmak üzere her 3 ay nihayetinde borsa komisierliğine tasdik ettirilecek olan cetveller üzerine Türk lira- sının lsviçre frangı olarak tasyyün edecek vasatî fiatını.

K — 12 Kânunuevvel 1918 tarihli mukavelei müzeyyelenin üçüncü maddesi mucibince, fabrikada mevcut kömür tonlâtosunun lira olarak mal olduğu esman- nın üçer aylık vasatî fiatını irae eder.

Bu üç vasatî miktarlar her üç ay nihayetinde şirket tarafından takdir ve biri Nafia Vekâleti Celilesi, biri İstanbul Belediyesi ve biri de şirket tarafından mansup üç azadan mürekkep bir komisyonu mahsus marifetile tetkik olunsakır.

Turukla imme tensiratından masda şartnamenin 25 inci maddesinde muharrer Hükûmete ve İstanbul Belediyesine ait hizmetatı umumiyeye ve meahit, müessesatı hayriye, mektepler ile hastaneler için salibi imtiyaz balâda muharrer tensirat ve havayıcı beytiye tarifesi üzerinde % 50 tenzilât iera edilecektir.

**Tarifelerin tadili**

MADDE 23 — Abone, işbu abonman senedinin esnası mer'iyetinde yukarıdaki 22 inci maddede mezkûr mukavelename müzeyyeden muahhar diğer bir muka- veleri müzeyye ile salîfüzzikîr tarifelerde vukua gelebilecek tadilâtı tevfiik hareket eylemeği taahhüt eyler. Tarifelerde iera olunabilecek tadilât, ait olduğu merci tara- fından tayin edilecek tarzihden itibaren mevkîi tatbika vaz'olunsakır.

**Makbuzların tediyesi, kuyudat kıraatı**

Madde 24 — İstihlâkât bedeli ile muhtelif ücretatı muammame, şirket müdürü tarafından münmâz makbuzun ibrazı üzerine tediye olunsakır. Abone, bu mak- buzlarda hata olduğu bahanesile nask bulundukları meblağı tediyeinden imtina etmi-

## Subscription Contract for the consumption of electricity (1936) - VI:

8 —

yecek ve mezkûr makbuzlarda yapılabilecek tashihler ondan sonraki makbuzun tan zimi zamanında nazarı itibara alınacak.

İstihlâk edilen kuvveti elektrikiye miktarları şirket tarafından tensip edilecek mu- ayyen fâsılala kaydolunacak ve sayıcının gösterdiği son rakamı muhtevi olarak abone nezdine bir varaka bırakılacak ve bu suretle kaydolunan istihlâkât faturala- rının tanzimine esas olunsakır.

Gerek işbu abonmana ve gerek aynı abonenin sair mevkilerde kendi namına muharrer diğer abonmanlarına mütâallik faturanın ibrazı tarihinden 8 gün zarfında esmanî tediye edilmediği takdirde şirket, aboneye ihtara mahal kalmaksızın, bedeli mezkûr tesviye edileceye kadar elektrik cereyanını kat'edilebilecek ve abone ise abon man senedinde muayyen müddetin inkızasına değin uhdesine müterettip taahhüda- tından teberri edemeyecektir.

Abone ile şirket beyinde ihtilâf zuhurunda bu ihtilâftan dolayı mahkemeye müracaat edilmiş olsa bile şirket elektrik kuvveti vermekte devam ettiğe abone ge- rek abonman bedelini, gerek istihlâk ettiği cereyanın esmanını muntazaman tediye- den hiç bir suretle imtina edemeyecektir.

**Taahhüt olunan asgarî istihlâkât**

MADDE 25 — Abone olan her şahıs tesisini talep eylediği kudreti elektrikiye için umuru unmayede kullandığı takdirde senevî 400 saatlik ve umuru beytiyede istimal edildiği takdirde senevî 150 saatlik asgarî bir istihlâkî taahhüt etmek mee- buriyetindedir.

Müesseselerini akşamları saat sekizde kapayan ve elektrik cereyanının mezkûr saattan sonra istimal edilemeyeceğini temine hadim olmak üzere müesseselerinde zatîhareke bir disjonktör faslı itisat tesis ettiren erbabı sanayi için taahhüt olu- nan istihlâk müddeti 300 saate tenzil edilecektir.

Bunula beraber gerek nakli mekân veya azimet dolayısıyla müşterinin, abon- manın taallük ettiği binada cereyan istihlâkâtına hitam vermesi halinde ve gerek istihlâkât faturaları mantukunun ademi tediyesine mebnî müşterinin cereyanı işbu senedin 23 üncü maddesi ahkâmına tevfikân kat'edildiği takdirde taahhüt edilmiş olan asgarî istihlâkât bedeli derhal talep olunabilecektir.

**İstihlâkât Üzerinden avans**

MADDE 26 — Abone tesisatının raptından evvel mer'i bulunan veya bilâhara vaz'edilecek olan nizamata tevfikân şirketin veznesine istihlâkât üzerinden bir avans tediye edecektir. Bu meblağ faiz getirmeyecek ve işbu abonman senedinin hini fes- hinde ve fakat abonenin şirket ile olan kâffei hesabatının tasfiyesinden sonra ken- disine iade olunsakır.

**Mahkemelerin salâhiyeti**

MADDE 27 — İşbu abonman senedinden mütevellit ve halli mehakime müte- allik olan ihtilâftan kemiyet ve mahiyeti itibarile Sult Mahakimine ait olanların Beyoğlu Sult Mahkemesinde ve Mahakimi Asliyyeye ait olanların da İstanbul Mah- keme, Asliyesinde hal ve rüyetini, Hukuk Usulü Muhakemeleri Kanununun 22 inci maddesi mucibince tarafeyn kabul ve taahhüt ederler.

TÖRK ANONİM ELEKTRİK  
ŞİRKETİ  
MÜŞTERİLER DAİRESİ

Işık ve ev ihtiyaçları ile sınırlı tatbikatta kullanılan ve sayıcı  
ile ölçülen elektrik kuvvetinin satışına dair  
abonman senedinin özel şartları

Tesisat numarası

[illegible]

**Abonnement au Compteur (Card for the subscription to electric meter) (front page). (Personal collection of U. Duygu Aysal Cin).**

**SOCIÉTÉ ANONYME OTTOMANE  
D'ÉLECTRICITÉ  
CONSTANTINOPLÉ**

**CATÉGORIE**

**ABONNEMENT AU COMPTEUR**

Installation N° 738  
Client > 738  
Coffret > \_\_\_\_\_

**Zone** Hamboul

Adresse : Levski: 4: 28 Subethane

Genre du Local \_\_\_\_\_ Puissance souscrite en Watts 400 Raccordé le 10.4.20  
Nom du Client Alex. Alexiadis Profession \_\_\_\_\_

**Taxes à payer :**

Quote-part sur les frais du Branchement de \_\_\_\_\_ mètres, soit Ltgs. \_\_\_\_\_ remboursée le \_\_\_\_\_ Sub Quittance N° \_\_\_\_\_  
Avance sur Consommation du courant \_\_\_\_\_ payée le 14.4.20 \_\_\_\_\_

**Locations à payer mensuellement**

Pour location Branchement : Ltgs. 0.20 Pour location Compteur : Ltgs. 0.25

**Compteurs posés :**

|                                   | N°              | N°             | N° | N° | N° | N° | N° |
|-----------------------------------|-----------------|----------------|----|----|----|----|----|
| Plombé par pince . . . . .        | N°              | N°             | N° | N° | N° | N° | N° |
| Marque . . . . .                  | <u>S. L. S.</u> | <u>Gravé</u>   |    |    |    |    |    |
| Numéro . . . . .                  | <u>76960</u>    | <u>1087349</u> |    |    |    |    |    |
| Ampérage . . . . .                | <u>10</u>       | <u>10</u>      |    |    |    |    |    |
| Diagramme . . . . .               | <u>0000.00</u>  | <u>0000.0</u>  |    |    |    |    |    |
| Index à la pose . . . . .         | <u>0087.47</u>  | <u>5578.8</u>  |    |    |    |    |    |
| Index à l'enlèvement . . . . .    | <u>5828.56</u>  | <u>25</u>      |    |    |    |    |    |
| Vitas du Chef de Bureau . . . . . | <u>13</u>       | <u>9</u>       |    |    |    |    |    |

Plaque Faite

175  
Vice du Chef  
de bureau

Divers Mouvements de l'Installation :

*Transfert Proforma Le 28-7-26 au nom de Sidi Aïff*  
*ou même compte, même cot-jour, même location,*  
*même puissance 1000 watts à partir de l'ancien de*  
*ancienneté 10-20-25-30-35-40-45-50-55-60-65-70-75-80-85-90-95-100-105-110-115-120-125-130-135-140-145-150-155-160-165-170-175-180-185-190-195-200-205-210-215-220-225-230-235-240-245-250-255-260-265-270-275-280-285-290-295-300-305-310-315-320-325-330-335-340-345-350-355-360-365-370-375-380-385-390-395-400-405-410-415-420-425-430-435-440-445-450-455-460-465-470-475-480-485-490-495-500-505-510-515-520-525-530-535-540-545-550-555-560-565-570-575-580-585-590-595-600-605-610-615-620-625-630-635-640-645-650-655-660-665-670-675-680-685-690-695-700-705-710-715-720-725-730-735-740-745-750-755-760-765-770-775-780-785-790-795-800-805-810-815-820-825-830-835-840-845-850-855-860-865-870-875-880-885-890-895-900-905-910-915-920-925-930-935-940-945-950-955-960-965-970-975-980-985-990-995-1000-1005-1010-1015-1020-1025-1030-1035-1040-1045-1050-1055-1060-1065-1070-1075-1080-1085-1090-1095-1100-1105-1110-1115-1120-1125-1130-1135-1140-1145-1150-1155-1160-1165-1170-1175-1180-1185-1190-1195-1200-1205-1210-1215-1220-1225-1230-1235-1240-1245-1250-1255-1260-1265-1270-1275-1280-1285-1290-1295-1300-1305-1310-1315-1320-1325-1330-1335-1340-1345-1350-1355-1360-1365-1370-1375-1380-1385-1390-1395-1400-1405-1410-1415-1420-1425-1430-1435-1440-1445-1450-1455-1460-1465-1470-1475-1480-1485-1490-1495-1500-1505-1510-1515-1520-1525-1530-1535-1540-1545-1550-1555-1560-1565-1570-1575-1580-1585-1590-1595-1600-1605-1610-1615-1620-1625-1630-1635-1640-1645-1650-1655-1660-1665-1670-1675-1680-1685-1690-1695-1700-1705-1710-1715-1720-1725-1730-1735-1740-1745-1750-1755-1760-1765-1770-1775-1780-1785-1790-1795-1800-1805-1810-1815-1820-1825-1830-1835-1840-1845-1850-1855-1860-1865-1870-1875-1880-1885-1890-1895-1900-1905-1910-1915-1920-1925-1930-1935-1940-1945-1950-1955-1960-1965-1970-1975-1980-1985-1990-1995-2000-2005-2010-2015-2020-2025-2030-2035-2040-2045-2050-2055-2060-2065-2070-2075-2080-2085-2090-2095-2100-2105-2110-2115-2120-2125-2130-2135-2140-2145-2150-2155-2160-2165-2170-2175-2180-2185-2190-2195-2200-2205-2210-2215-2220-2225-2230-2235-2240-2245-2250-2255-2260-2265-2270-2275-2280-2285-2290-2295-2300-2305-2310-2315-2320-2325-2330-2335-2340-2345-2350-2355-2360-2365-2370-2375-2380-2385-2390-2395-2400-2405-2410-2415-2420-2425-2430-2435-2440-2445-2450-2455-2460-2465-2470-2475-2480-2485-2490-2495-2500-2505-2510-2515-2520-2525-2530-2535-2540-2545-2550-2555-2560-2565-2570-2575-2580-2585-2590-2595-2600-2605-2610-2615-2620-2625-2630-2635-2640-2645-2650-2655-2660-2665-2670-2675-2680-2685-2690-2695-2700-2705-2710-2715-2720-2725-2730-2735-2740-2745-2750-2755-2760-2765-2770-2775-2780-2785-2790-2795-2800-2805-2810-2815-2820-2825-2830-2835-2840-2845-2850-2855-2860-2865-2870-2875-2880-2885-2890-2895-2900-2905-2910-2915-2920-2925-2930-2935-2940-2945-2950-2955-2960-2965-2970-2975-2980-2985-2990-2995-3000-3005-3010-3015-3020-3025-3030-3035-3040-3045-3050-3055-3060-3065-3070-3075-3080-3085-3090-3095-3100-3105-3110-3115-3120-3125-3130-3135-3140-3145-3150-3155-3160-3165-3170-3175-3180-3185-3190-3195-3200-3205-3210-3215-3220-3225-3230-3235-3240-3245-3250-3255-3260-3265-3270-3275-3280-3285-3290-3295-3300-3305-3310-3315-3320-3325-3330-3335-3340-3345-3350-3355-3360-3365-3370-3375-3380-3385-3390-3395-3400-3405-3410-3415-3420-3425-3430-3435-3440-3445-3450-3455-3460-3465-3470-3475-3480-3485-3490-3495-3500-3505-3510-3515-3520-3525-3530-3535-3540-3545-3550-3555-3560-3565-3570-3575-3580-3585-3590-3595-3600-3605-3610-3615-3620-3625-3630-3635-3640-3645-3650-3655-3660-3665-3670-3675-3680-3685-3690-3695-3700-3705-3710-3715-3720-3725-3730-3735-3740-3745-3750-3755-3760-3765-3770-3775-3780-3785-3790-3795-3800-3805-3810-3815-3820-3825-3830-3835-3840-3845-3850-3855-3860-3865-3870-3875-3880-3885-3890-3895-3900-3905-3910-3915-3920-3925-3930-3935-3940-3945-3950-3955-3960-3965-3970-3975-3980-3985-3990-3995-4000-4005-4010-4015-4020-4025-4030-4035-4040-4045-4050-4055-4060-4065-4070-4075-4080-4085-4090-4095-4100-4105-4110-4115-4120-4125-4*

شرکت انجمن الکتریکه  
SOCIÉTÉ ANONYME TURQUE D'ÉLECTRICITÉ

rod. 1079-43,500 file - X1-925 - Soc. An. de Pab. et Imp. - 2534

**تورك آنونىم الكترىق شركتى**  
**SOCIÉTÉ ANONYME TURQUE**  
**D'ÉLECTRICITÉ**

|                    |                 |                       |
|--------------------|-----------------|-----------------------|
| ست (منطقة)<br>Zone | قارنه<br>Carnet | نومروى<br>No. d'Ordre |
|                    |                 |                       |

صره نومروى  
No d'Ordre

12474

تأسيات معايهسى ورقسى

BULLETIN DE VÉRIFICATION D'INSTALLATION

نومروى مشرى

نومروده مفه

سوقاغنده

محل سنده

Il y a lieu de vérifier l'installation intérieure, la colonne montante, la ligne aérienne de

افتدريك تأسيات داخليسى، ستون صاعدي، خط هوايى معايه اذك لازمدر.

M Selamman Ben Ismet

Client No.                      habitant l'immeuble No. 1

sis Rue Baqdchi Capan rue Baqdchi Capan Chemin

Observations spéciales du Service                      دائره مك ملاحظات مخصوصه

RECOUVERTURE ET TRANSFERT

Vu: Le Chef de Service, كورلشدر: دائره مديري

Constantinople, le 28. 10. 26 استانبول

Le Service de l'Exploitation, ايشلته دائرهسى

10.000—Mod. 40—Soc. An. de Pap. et d'Imp.

| نومرو | سوأل Questions              | جواب Réponses  | ملاحظات Observations   | مهندسك مرموظلانى<br>OBSERVATIONS DE L'INGÉNIEUR |
|-------|-----------------------------|----------------|------------------------|-------------------------------------------------|
| 1     | دوره لرك عددى .....         | 7              |                        |                                                 |
| 2     | سورتبارك عددى .....         | 6              |                        |                                                 |
| 3     | تأسياتك نوعى .....          | Bergmen Pichle |                        |                                                 |
| 4     | ناقل لرك جنسى .....         | 1 1/2          |                        |                                                 |
| 5     | تقدیه ستونى .....           | 6 1/2          |                        |                                                 |
| 6     | Colonne d'alimentation ..   |                | Colonne sur le tableau |                                                 |
| 7     | تجزيد .....                 | 0.5 m          |                        |                                                 |
| 8     | Isolement .....             |                | l'encadrement usager   |                                                 |
| 9     | تأسياتك حالى .....          | De Médiaer     |                        |                                                 |
| 10    | Etat de l'installation .... |                |                        |                                                 |
| 11    | معدد نومروى .....           | 102571         |                        |                                                 |
| 12    | Compteur No. ....           | 5              |                        |                                                 |
| 13    | معدد اشارتى .....           | 371,254        |                        |                                                 |
| 14    | Index du Compteur .....     |                |                        |                                                 |
| 15    | صندوقچه نومروى .....        | 2160           |                        |                                                 |
| 16    | Coffret No. ....            |                | 30 - 10 - 926          |                                                 |
| 17    |                             |                |                        |                                                 |
| 18    |                             |                |                        |                                                 |
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| 20    |                             |                |                        |                                                 |
| 21    |                             |                |                        |                                                 |
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| 24    |                             |                |                        |                                                 |
| 25    |                             |                |                        |                                                 |

Constantinople, le                      استانبول

Vu et                      كورلش و

Le Vérificateur, معايه مأمورى

L'Ingénieur, مهندس

(Personal collection of U. Duygu Aysal Cin)

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## APPENDIX G. Urban life before and after the electrification of trams

### Horse-pulled trams in İzmir (Personal collection of U. Duygu Aysal Cin)



### Coaches in front of German Embassy (Alman Sefareti) (Personal collection of U. Duygu Aysal Cin)



**Coaches in Sultanahmed, Istanbul. Carte Postale, no. 1481, Editeur: Max Fruchterman, Constantinople (Phot. Abdullah). (Personal collection of U. Duygu Aysal Cin)**



**Coaches around Bayezid, before the electrification of trams. (Personal collection of U. Duygu Aysal Cin)**



**Coaches around Bayezid, before the electrification of trams. (Personal collection of U. Duygu Aysal Cin)**



**Bayezid, 1932. Editeur: Isaac M. Ahitouv. (Personal collection of U. Duygu Aysal Cin)**



**Tophane before the electrification of trams. Editeur: M. B. no. 48. (Personal collection of U. Duygu Aysal Cin)**



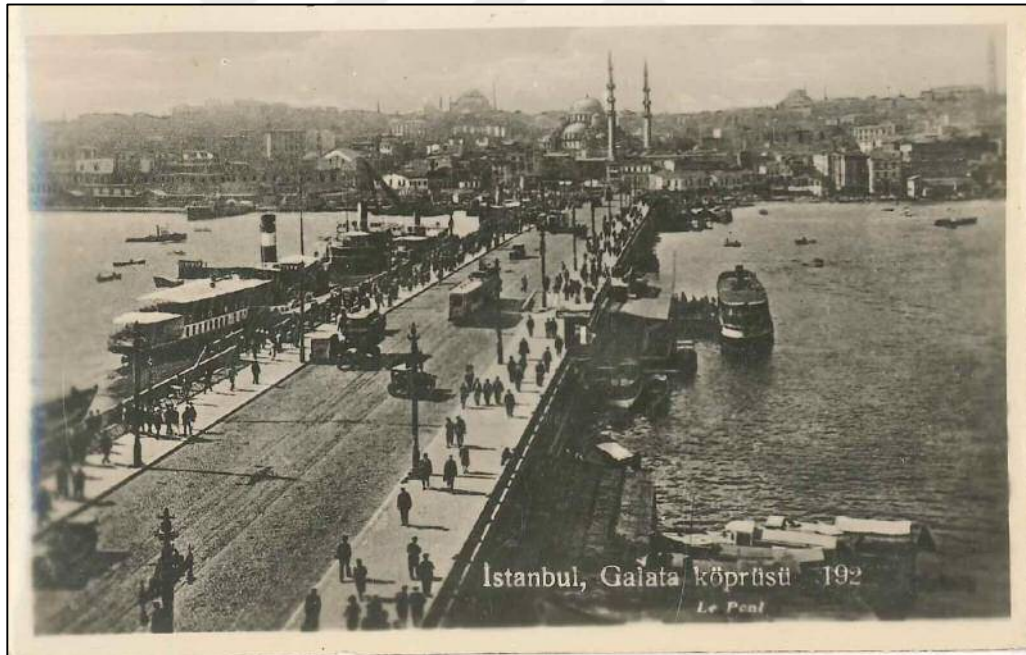
**Tophane after the electrification of trams. Editeur: M.J.C. no. 20. (Personal collection of U. Duygu Aysal Cin)**



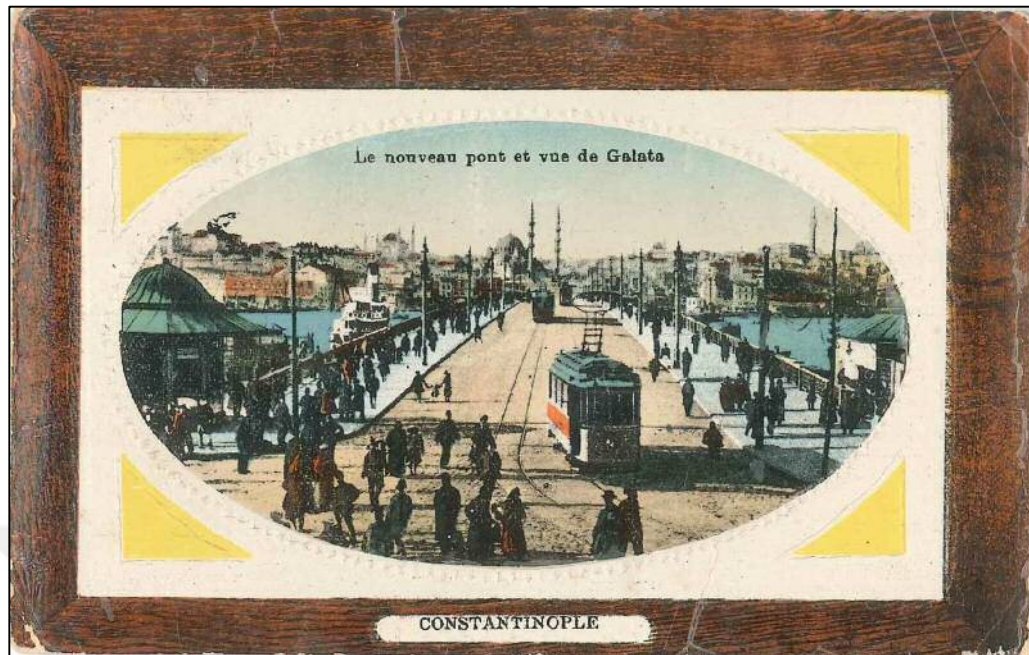
**Electrified trams on Galata, Istanbul, 1919. (Personal collection of U. Duygu Aysal Cin)**



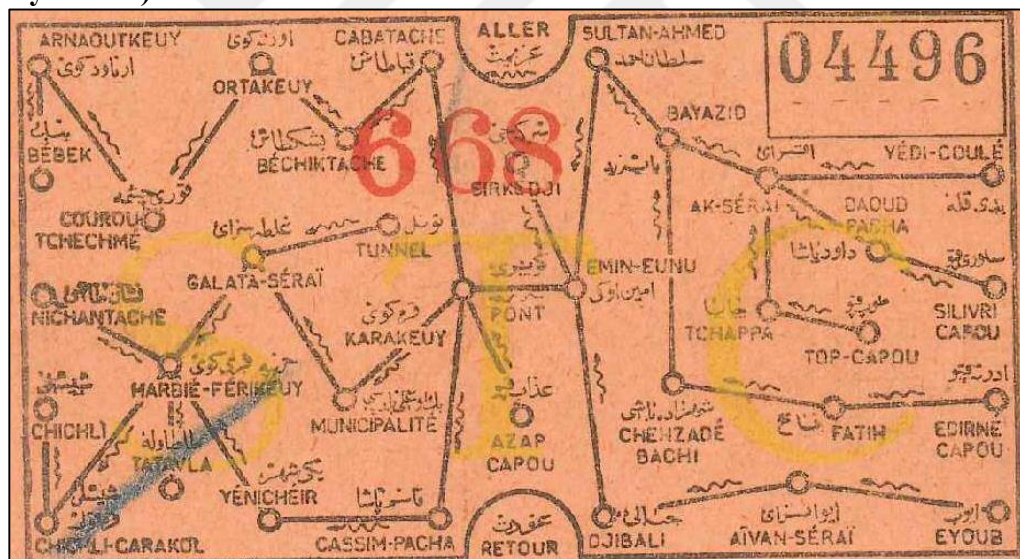
**Electrified trams on Galata, Istanbul, 1920s. (Personal collection of U. Duygu Aysal Cin)**



Electrified trams on Galata, Istanbul, 1921. Carte Postale, no. 49, Editeur: M.J.C.



Itinerary for the trams in Istanbul: Front page (Personal collection of U. Duygu Aysal Cin)



Societe des Tramways de Constantinople, tarifs for the passengers (back page).  
(Personal collection of U. Duygu Aysal Cin)

SOCIÉTÉ DES TRAMWAYS  
DE CONSTANTINOPLE

تذكرة شخصي  
30 ٪  
PARAS  
موقع  
I 11  
II 23  
CLASS. SECT.

Billet personnel valable pour la course non interrompue pour laquelle il a été délivré  
Présenter ce billet à toute réquisition

سواء انقطاع أو زام ايدين سفسيليد برفه فوجت قطاعات تقترق في - كوي ياروي دلفر دكلتي

TARIF PAR SECTIONS ET PAR COURSE NON INTERROMPUE - PÉAGE DU PONT EXCLUS

| SECTION | CLASSE | PARAS | SECTION | CLASSE | PARAS | SECTION | CLASSE | PARAS | SECTION | CLASSE | PARAS |
|---------|--------|-------|---------|--------|-------|---------|--------|-------|---------|--------|-------|
| 1 I     | I      | 30 ٪  | 4 II    | I      | 70 ٪  | 7 V     | I      | 120 ٪ | 10 ٪    | I      | 160 ٪ |
| II      | 20 ٪   | II    | II      | 50 ٪   | II    | 80 ٪    | II     | 140 ٪ | II      | 110 ٪  | 140 ٪ |
| 2 ٪     | I      | 40 ٪  | 5 ٪     | I      | 90 ٪  | 8 ٪     | I      | 130 ٪ | 11 ٪    | I      | 180 ٪ |
| II      | 30 ٪   | II    | II      | 60 ٪   | II    | 90 ٪    | II     | 120 ٪ | II      | 120 ٪  | 120 ٪ |
| 3 ٪     | I      | 60 ٪  | 6 ٪     | I      | 100 ٪ | 9 ٪     | I      | 150 ٪ | 12 ٪    | I      | 190 ٪ |
| II      | 40 ٪   | II    | II      | 70 ٪   | II    | 100 ٪   | II     | 130 ٪ | II      | 130 ٪  | 130 ٪ |

NB

استثناء لروى عدا لافو - وروا كوي قطعه كايكون برفه فوجت 10 پار. انجيمونج 10 پار عسكة و ميكليلانج قسطنطينوسه و كاجتاوله  
Exception pour la section Azap capou - Karakeuy. I cl. 20 paras II cl. 40 paras  
Pour militaires et écoliers voir tarif spécial

## APPENDIX H. Professors in the School of Engineering

### Mehmed Hulusi Bey – Şaka Journal (ITU Rare Books Collection)



### Graduates of 1921-1922 academic year with their professors in the School of Engineering (İTÜ KA, Photograph Albums)

