

THE LEGAL FRAMEWORK OF ENERGY INFRASTRUCTURE IN BULGARIA – AN ATTEMPT AT MODERNIZATION UNDER ECONOMIC CHALLENGES (1879–1939)

Dr. Neli Radeva, Assoc. Prof.

University of National and World Economy

Abstract. The electrification of Bulgaria represents one of the fundamental processes in the country's modernization following the Liberation, reflecting the state's aspiration for economic and technological renewal. The construction of Bulgaria's energy infrastructure was undertaken to provide electricity not only for the population but also for all branches of the national economy. In the early years after the Liberation, the emergence of electrification in Bulgaria was associated not only with the modernization ideas of the founders of the young state but also with the technological progress of Western Europe.

This study aims to examine the legislative initiatives in the field of energy that clearly outline a consistent policy for the establishment of a national energy system. Through a series of legislative acts – from the Law on the Encouragement of Local Industry and Trade of 1905 to the Decree-Law on Electrification of 1935 – a comprehensive normative framework was created, laying the foundations of national energy policy. Overall, electrification in Bulgaria developed primarily through strong state protectionism, reflected in the gradual establishment of a comprehensive normative and institutional framework and the centralized management of electricity production, transmission, and distribution. Private initiative was present in the early stages, but its role diminished progressively over time.

The study's methodology includes a historical approach, through which the gradual development of electrification and the related legislative framework are traced. A legal-analytical approach is applied for a detailed review of the content, objectives and mechanisms of action of key regulatory acts. A comparative law method is also used to identify the evolution of state intervention at different stages. Through institutional analysis, the role and interaction of the competent state bodies involved in energy policy are clarified.

Despite certain shortcomings, Bulgarian legislation in the field of electrification emerged as one of the most significant features of state policy aimed at economic and social renewal during the period from the Liberation to the Second World War.

A novel contribution of this study is the systematization of the legislative acts regulating the electrification of Bulgaria in the period 1879 – 1939, tracing their evolution and internal coherence. The research provides an in-depth analysis of the role of each normative act. It traces the establishment of a coherent state policy that laid the foundations for a national energy system. The study outlines the institutional interactions and conflicts between state structures, offering a deeper understanding of the mechanisms through which the national electrification program was implemented. It traces the transformation from local, private, and municipal electricity sources to the concept of a centralized national electricity supply system under state control, thereby revealing the connection between electrification and the country's modernization. It further contributes a critical assessment of the weaknesses and limited economic resources that influenced the pace of electrification, thus providing a balanced scholarly evaluation of the process.

Keywords: electrification; modernization; Law on Water Syndicates; Decree-Law on the Electrification of Bulgaria

Introduction

The electrification of Bulgaria represents one of the fundamental processes in the modernization of the country following the Liberation, reflecting the state's aspiration for economic and technological renewal. The construction of Bulgaria's energy infrastructure was carried out to ensure the supply of electricity to the population and all branches of the national economy (Spirov 1999, p. 13). Initially, the process of electrification developed slowly and within a limited territorial scope. Remarkable, however, was the Bulgarian people's strong desire for renewal and industrial development.

The legislative initiatives in the energy sector clearly delineated a consistent policy for the establishment of a national energy system aimed at stimulating industrial production, developing infrastructure, and improving living standards. Thus, during the 1920s and 1930s, the process of electrification emerged as a crucial factor in Bulgaria's technological and economic advancement and as an important indicator of its transition toward a modern industrial state.

1. General Characteristics of Electrification in the Principality/Kingdom of Bulgaria (1879 – 1939)

In the years immediately following the Liberation, the advances in the field of electrification were minimal. The country's economic situation began to change in the latter half of the 1880s and throughout the 1890s (Kostov, Penchev et al. 2013, p. 104). It was during this period that new individually electrified facilities began to appear¹. Among the first to introduce this major innovation were the textile factory Uspex in Gabrovo (1888)² and the First Bulgarian Agricultural and Industrial Exhibition (1892), among others (Spirov 1999, pp. 23 – 32).

On November 1, 1901, the Pancharevo Hydroelectric Power Plant (HPP)³ began operating for public lighting in the capital. In the same year, to provide electricity for the tram system, the Maria Luiza Thermal Power Plant (TPP) was constructed, along with an adjacent tram depot (Spirov 1999, pp. 45 – 51).

The process of electrification gradually extended to other cities. In 1906, the Usteto HPP in Gabrovo commenced operation. The first diesel power plant (DPP) in Bulgaria was built in the town of Lom in 1912. Electrification soon reached Varna, where the DPP began functioning on January 1, 1914. On the same day, the Elina HPP in Kazanlak also started operation, among others (Spirov 1999, pp. 61 – 79).

Despite the progress achieved by the time of the First World War (WWI), outside the five mentioned cities most settlements continued to rely on oil lamps for lighting.

It was only after WWI that comprehensive plans for Bulgaria's electrification began to take shape. Despite the postwar economic crisis, industrial output increased (Berov 1999, p. 508). It was during this period that efforts were undertaken to revive and restore the national economy (Spirov 2004, p. 48). A series of laws were adopted with the aim of accelerating the process. Initially, engineers focused on the utilization of the country's abundant water resources. In accordance with government policy during the interwar years and the accelerated pace of industrial development, several key power plants were built: the Pastra HPP (1925), the Rila HPP (1928), and the Kurilo TPP near Sofia (1928) (Berov 1989, p. 442). Efforts were also made to electrify Plovdiv, with the Vacha HPP beginning operation in 1933. The state pursued an active policy to expand electricity supply in the Stara Zagora region, the Gabrovo–Tarnovo area, and elsewhere (Georgiev & Pankov 2001, pp. 109 – 125).

2. Legal Regulation of Electrification in Bulgaria from the Liberation to 1939

The aspiration for renewal and modernization manifested itself in the very first legislative initiatives. A modest yet significant attempt in this direction was made with the adoption of *the Law on the Encouragement of Local Industry and Trade*⁴ in March 1905. The legislator provided special benefits for all industrial enterprises, including those involving electrical installations for mechanical power supply. Unfortunately, other potential applications of electricity remained limited (Penchev 2017, p. 178).

A similar tendency can be observed in *the Law on the Encouragement of Local Industry*⁵ of 1909. Among the benefits envisaged were incentives for enterprises engaged in the production and supply of motive power for industrial purposes. Thus, state control over electricity production was maintained. The law stipulated that electric energy should be supplied under tariffs and conditions

developed and approved by the Ministry of Commerce and Agriculture (Penchev 2017, p. 178).

More substantial progress was achieved with the adoption of *the Law on Water Syndicates* (LWS)⁶ on October 6, 1920. This law regulated the establishment of water syndicates, including for the purpose of energy production. To promote the development of electrification, it allowed syndicates to obtain, free of charge, the land necessary for electricity transmission and related facilities, provided that such land belonged to the state, the districts, or the municipalities.

The primary goals of electricity generation were use of electric energy in households and industry. In this way, the law expanded upon the earlier legislative vision, which had limited the use of electricity mainly to mechanical power for industrial purposes (Penchev 2017, p. 182).

The legislator envisaged a comprehensive program to unify hydroelectric and thermal power plants. The state was entrusted with the construction, operation, and maintenance of a unified transmission network connecting all hydroelectric and thermal power plants throughout the country. The Supreme Water Council within the Ministry of Agriculture and State Properties /MASP/ was granted the authority to require all power plants to join the national grid, to expand their installations when necessary, and to comply with related technical requirements (Penchev 2017, p. 178).

The law guaranteed the state's right of priority in energy construction over cooperative, municipal, and private enterprises. The state was authorized to grant the operation of state-built hydroelectric plants to water syndicates, municipalities, or, in exceptional cases, to private individuals.

For the first time, the construction of a comprehensive, interconnected national electrification system was regulated by law. The act facilitated the building of several hydroelectric power plants across the country. Nevertheless, it also exhibited weaknesses – such as an overestimation of the role of hydropower in national electrification, the rigid principle of total utilization of water resources regardless of economic feasibility, and other shortcomings (Penchev 2017, p. 183). The law also addressed the construction of dams for electricity generation. However, the available financial resources were insufficient, which significantly slowed the electrification process (Spirov 1999, p. 121).

In 1925, the Bulgarian Engineering and Architectural Society undertook the preparation of a draft law for the systematic electrification of Bulgaria. Art. 1 of the proposal defined systematic electrification as a primary industrial and economic objective of the state. To facilitate the implementation of this task, it was proposed that a State Electrification Council be established. However, the council did not begin functioning until 1928 (Spirov 1999, pp. 121 – 122).

*The Law on Municipal Economic Enterprises*⁷ (1927), also played a significant role in the country's electrification efforts. The regulatory framework established by this law encouraged increased municipal investment in power plants, transmission

lines, substations, and electricity distribution networks, thereby strengthening local participation in Bulgaria's overall electrification process.

Once again, in pursuit of Bulgaria's modernization, *the Law on the Organization of the Ministry of Public Buildings, Roads, and Public Works*⁸ (MPBRPW) of 1928 established a Division for Electrification and Industrial Enterprises. This division functioned as the central authority responsible for the nation's electricity supply. However, this decision created institutional dualism and a jurisdictional struggle between the respective departments within the MPBRPW and the Ministry of Agriculture and State Properties (MASP) in the implementation of state policy in the field of electrification (Penchev 2017, pp. 187 – 188).

To avoid such institutional conflicts, in early 1929 the Minister of Agriculture and State Properties issued an order establishing a Commission for the Development of a General Electrification Plan for Bulgaria. In 1933, the commission held its first plenary sessions, which were, however, soon discontinued. That same year, Engineer M. Kalburov, drafted a bill for the electrification of Bulgaria. Due to the conflicting interests of private electric enterprises, the proposed bill was never adopted (Spirov 1999, pp. 125 – 127).

A significant contribution to the development and modernization of the sector was *the Decree-Law on the Electrification of Bulgaria (DLEB)*⁹, enacted in 1935. It largely mirrored the 1933 draft bill but, unlike it, was based on the principles of gradual implementation and active state intervention (Spirov 1999, pp. 127 – 128). The decree defined the scope of national electrification as encompassing the production, transmission, and distribution of electrical energy intended for industrial, transport, domestic, agricultural, and other economic purposes.

Entities authorized to ensure the electricity supply included the state, public organizations, private individuals, and companies. The state, however, retained and exercised both technical and economic control over the activities of electricity supply enterprises.

A key development was the creation of the National Electrification Service, which was delegated a number of significant powers¹⁰. According to the DLEB, the overall management of national electrification was carried out by the Ministry of Communications (MComm.) through: 1) The General Directorate of Public Buildings, Roads, and Public Works; 2) The Electrification Council (EC); and 3) The electrotechnical departments within the various ministries and their subordinate units.

Electrification projects were implemented by state, public, mixed, and private enterprises.

Contracts for electricity supply were concluded with enterprises for a fixed term, after which private electricity supply companies became the exclusive property of the state. An exception was made only for existing electricity supply enterprises at the time of the law's entry into force.

A special commission was established to determine the pricing of electricity purchased from hydroelectric power plants. A price ceiling was introduced, stipulating that the purchase price could not exceed the regional enterprise's production cost in the area of consumption.

Art. 31 – 35 of the DLEB regulated the status of pre-existing electricity supply enterprises and their integration into the national energy system¹¹.

The DLEB also established provisions concerning the supervision of electricity supply enterprises, emphasizing the strong role of state control in the sector.

The legislator also introduced specific economic mechanisms for calculating electricity prices. The state's leading role was firmly reaffirmed in Art. 41 of the DLEB, which stipulated that the supervision of all electricity supply enterprises was to be exercised directly by the Minister of Communications.

To support the country's electrification, the Decree-Law established a "National Electrification Fund" administered by the Minister of Communications. Its primary purpose was to secure the necessary financial resources to accelerate and expand the electrification process. The Fund was financed through various levies, and its resources could be used exclusively for the establishment of state-owned enterprises or for state participation in public and mixed electricity supply companies¹².

The DLEB further regulated procedures for laying all types of power lines, as well as for installing and maintaining their supporting structures, whether on state, municipal, or private land.

The legislator explicitly prohibited the expropriation of churches, barracks, schools, and similar properties for the construction of electricity supply facilities. The buildings and lands listed in Art. 48 of the DLEB could be used only by exception, provided that their intended purpose was not compromised and the relevant authorities had granted their consent.

The law also contained detailed provisions regarding the passage of power lines through forests and populated areas. For newly constructed buildings, the law required that a space of up to seven square meters be reserved in the basement for transformer substations.

The decree-law introduced a strict penal regime for violations related to electricity supply enterprises and facilities, to ensure the lawful operation of the electricity supply system and the protection of the state interest. The prescribed sanctions included imprisonment for not less than three months and fines ranging from 1,000 to 20,000 leva for persons who, without authorization, installed or operated new engines or equipment, or who deliberately concealed information necessary for determining state levies, among other offenses¹³.

For the intentional damage of electricity supply facilities, punishment was imposed under Art. 381 of the Penal Code, while the unlawful use or diversion of electric energy without authorization was treated as theft.

These provisions underscored the mandatory nature of regulation, control, and criminal accountability, ensuring the protection and stability of the electricity supply infrastructure.

The law further regulated the organization, construction, operation, and supervision of hydroelectric power plants and their associated electricity supply enterprises. The Ministry of National Economy /MNE/ was responsible for the development, design, construction, maintenance, and operation of the hydraulic components of state-owned hydro facilities with combined purposes. The actual operation of hydroelectric plants, however, was placed under the control of the MComm. The MNE approved all technical documentation and supervised the construction, maintenance, and operation of the plants, as well as organized the tenders related to this activity¹⁴.

The DLEB also established requirements for qualified staffing: all enterprises were required to employ trained technical personnel and at least one trainee electrical engineer. Senior technical personnel could only be appointed or dismissed with the approval of the MC.

The legalization of electricity supply enterprises was carried out in accordance with the **Law on the Improvement of Settlements**.

The DLEB does not grant preference to either hydroelectric or thermal power plants. In this way, it represents a step forward compared to the LWS of 1920 (Penchev 2009, p. 139).

In the **Decree-Law Amending the DLEB**¹⁵ of 1936, the only modification concerned the extension of the term for concluding contracts with municipalities, which was extended by one year, effective from January 4, 1936. At the discretion of the Minister of Public Buildings, Roads, and Public Works, this period may be further extended by up to 3 months. All other provisions of the 1935 DLEB remained in force.

A significant contribution to the development of Bulgaria's electricity supply system in the 1930s was the **Regulation on the Quality of Materials and the Methods for Constructing Low-Voltage High-Current Distribution Networks**¹⁶ of 1937. This regulation specified the technical standards, norms, and conditions that materials used in the construction of low-voltage overhead and cable distribution networks had to meet. It also detailed the methods for constructing such networks. Supervision of compliance with the regulation was entrusted to local municipal, regional, and state technical authorities.

Detailed explanations and definitions were provided for key concepts such as overhead and cable electricity distribution networks, overhead power lines, cable power lines, and related terms. The regulation also specified general safety rules to be observed during operations and e. t.

The regulation laid the foundations for standardization and technical control within Bulgarian electricity distribution practices and became a

crucial element in the modernization of Bulgaria's electrification process during the 1930s.

Conclusions and Summary

The process of electrification in Bulgaria from the late nineteenth century to the 1930s represents a key stage in the country's modernization and economic development. It is indisputable that electricity production in Bulgaria increased until 1939, yet the country's lag behind most Balkan states was not overcome (Penchev 2009, p. 203). The level of electricity generation remained extremely low compared to other European countries. In terms of electricity consumption per capita, Bulgaria ranked last in Europe (Spirov 1999, pp. 281 – 282). By the end of the Second World War, with few exceptions, the cities were electrified, whereas only one tenth of the villages had electricity (Spirov 1999, p. 283).

During this period, the state gradually established a coherent normative and institutional framework to regulate and direct the development of the electricity sector. The legislative acts demonstrate a clear progression toward the unification of electricity production, transmission, and distribution, while the interaction among the competent institutions shaped the mechanisms of the national electrification policy. A gradual transition took place from local and partial uses of electricity to the concept of a centralized public system under state control. However, the excessive emphasis on state intervention, the underestimation of the economic feasibility of specific projects, and the constraints imposed by financial and institutional instability slowed the pace of electrification.

Despite economic difficulties and institutional challenges, the emerging regulatory framework laid stable foundations for the establishment of a national energy sector, turning electrification into one of the principal drivers of Bulgaria's modernization, industrialization, and economic renewal during the first half of the twentieth century.

NOTES

1. Regarding the first use of electric lighting in Bulgaria, M. Spirov considers that it occurred on July 1, 1879, during the ceremonial evening marking the arrival of the newly elected Prince Alexander Battenberg in the capital. According to him, this event represents the first use of electric lighting not only in Bulgaria but in the entire Balkans. – Spirov, M., At. Georgiev, Ml. Tsonev, *Electrification of Bulgaria (A Brief History)*. Sofia: Heron Press, 1998, pp. 22 – 23.
2. Svoboda newspaper, No. 297, 2.X.1889, regarding the "Uspex" factory, Gabrovo.

3. Spisanie na balgarskoto inzhenerno-arhitekturno druzhestvo. Yubileen sbornik (77).2029 Available from: <https://mdg-magazine.bg/wp-content/uploads/2022/06/Spisanie-na-BIAD-ot-1929web.pdf> [Viewed 2025-09-14].
4. State Gazette No. 66, 26.03.1905.
5. State Gazette No. 53, 10.03.1909.
6. State Gazette No. 165, 22.10.1920.
7. State Gazette No. 275, 9.03.1927.
8. State Gazette No. № 199, 01.12.1928
9. State Gazette No. 3, 04.01.1935.
10. The delegated powers included: The creation of a national electrification plan; Technical supervision over all electrical facilities and installations for the production, transmission, distribution, and use of electrical energy, as well as overall electrical materials and related equipment. – State Gazette No. 3, 04.01.1935.
11. State Gazette No. 3, 04.01.1935.
12. State Gazette No. 3, 04.01.1935.
13. State Gazette No. 3, 04.01.1935.
14. State Gazette No. 3, 04.01.1935.
15. State Gazette No. 79, 09.04.1936.
16. State Gazette No. 243, 03.11.1937.

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Dr. Neli. G. Radeva Assoc. Prof.

ORCID iD: 0000-0002-3230-1778

University of National and World Economy

Sofia, Bulgaria

✉ E-mail: nradeva@unwe.bg