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“Development of the Sault Montmorency Falls”

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DEVELOPMENT OF THE SAULT MONTMORENCY, BIRTHPLACE OF HYDROELECTRICITY... IN CANADA?

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Keynote address presented on Wednesday October 17, 2018, at the CDA Annual conference in Quebec City, QC

The French version of this paper follows the English version.

La version française de cet article se trouve à la suite du texte en langue anglaise.

GENERAL CONTEXT SURROUNDING THE BEGINNINGS OF ELECTRIFICATION IN QUEBEC CITY

The 19th century was marked by a number of important technological inventions, including without a doubt electricity. The electrical phenomenon had been known to scientists for some time, but the generation of electricity and especially its applications were only discovered in the second half of the 19th century.

The beginnings of electrification date from about the same period in the Quebec City area and in Montreal. The first electric utilities were officially incorporated in 1881. In Quebec City, it was the *Compagnie d'éclairage électrique de Québec et Lévis (CÉÉQ&L)* and the Canadian Electric Light Company. Notable individuals associated with the CÉÉQ&L included the Honourable Pierre Garneau, former mayor of Quebec City; the Honourable Adolph P. Caron; Andrew Thompson; Joseph Bell Forsyth and William Sharples.

The act of incorporation of the CÉÉQ&L, through the vocabulary used and the very ambitious description of the new company's activities, reflected the novelty of the electrical phenomenon, and did not impose any real restrictions on its expansion. Section 2 of the act specifies, among other things, that "*The Company may manufacture, supply, produce, employ, sell or lease the light, heat*

and power produced by electricity in the City and District of Quebec and may establish, construct, purchase or lease, operate and construct all wire lines, pipes or other devices to conduct electricity..."

To put the introduction of this electricity generation in the continental perspective, the first North American commercial power plant was commissioned by Thomas Edison in September 1882. He opened it on Pearl Street in New York City, USA.

In Quebec City, commercial electrical production is first mentioned only two years later in 1884. The *Registre des rôles d'évaluation de la Ville de Québec* and the *Annuaire de la Ville de Québec et Lévis* report the presence of a CÉÉQ&L power plant, located at 16 d'Auteuil Street, "*in front of the Arsenal foundry*", or "*in old military barracks, under the fortification walls near St. Jean Gate*."

The CÉÉQ&L occupied, under a lease with the military authorities, five ninths of the southern part of a warehouse then vacant, also known as "*the former gun carriage shed*" (Figure 1).

All indications are that it was the hiring of Mr. Sigismund Mohr (Ref. 3) as Managing Director and his expertise that launched this company. Although the directors and managers of this company were certainly important people on the political and business scene in Quebec City, they had no technical knowledge of electricity.

The operation of the plant was poorly documented, perhaps due to the short duration of its use. The plant equipment was bought from Royal Electric Co. of Montreal, with whom Mohr had very close ties. The Royal was awarded an exclusive contract to supply production equipment and distribution and lighting devices. Two *Thomson Houston* dynamos provided electrical power to "*9.6-amp arc lamps in stores, ice rinks and other locations*."

At that time, street and public space lighting used either gas or coal oil lamps. These types of devices were unstable, of low intensity, extinguished with the wind and had potential for explosions. Electricity obviously had none of these disadvantages, but its qualities were unknown to the general public. Back then, electricity was still in its infancy. The archives of the City of Quebec and the records of the *Comité des Chemins* provide an eloquent testimony to the steps and efforts of the CÉÉQ&L and its manager to promote electric lighting. Gradually, the company obtained permission from the Committee to install a few electrical fixtures in limited areas.

However, according to the records from that time, despite the enthusiasm and amazement with progress, not everyone accepted having a thermal power plant in a residential area. The archives of the City of Quebec contain a petition dated September 17, 1884, signed by 119 citizens. It states the "*...unbearable suffering. Early*

Figure 1. The first power station (1884-1885) in Quebec City was located on D'Auteuil Street. This building was rented by CÉÉQ&L from the military authorities, and it is highlighted in orange in the lower right corner (ref. 1).

