

## **Electrification and Underdevelopment in New Brunswick: The Grand Falls Project, 1896-1930**

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## Electrification and Underdevelopment in New Brunswick: The Grand Falls Project, 1896-1930

INDUSTRIAL REGIONS THROUGHOUT the world developed central station electric systems between the 1890s and 1930. These major new economic, political and cultural institutions provided an organized form of delivering energy that proved essential for diversified economic development in the industrial conditions of the early 20th century.<sup>1</sup> From 1903 to 1925 the vision of central station electrification in New Brunswick focused on the development of the Grand Falls of the St. John River, the Maritimes' largest natural waterpower.

In an initial phase, development rights were granted to capitalists who promised to develop the site for industrial and general power loads. Competition policies and marketing problems delayed development. At the same time, the developmental potential of electrification entered the provincial political discourse, and the province participated in an international planning process with The State of Maine which focused on developing reservoir storage sites for the project. The momentum which had been building towards the use of Grand Falls for a central station electric system evaporated in 1911, however, after the development rights were transferred to the International Paper Company.

In a second phase, the central electrification vision was revived in the 1920s. The province expropriated the development rights from International Paper in 1923. Under the leadership of Premier Peter Veniot, plans were formulated to develop Grand Falls as the cornerstone of a system servicing the entire province. Before the project could be carried out, however, a new government was elected. Premier John Baxter negotiated the return of Grand Falls to International Paper in 1926. Under corporate ownership, Grand Falls power was used solely for pulp and paper manufacturing between 1926 and 1959, when the facilities were incorporated into New Brunswick's evolving central station system.<sup>2</sup>

1 The best general history on electrification is Thomas P. Hughes, *Networks of Power: Electrification in Western Society, 1880-1930* (Baltimore, 1983). For central Canada, see John H. Dales, *Hydroelectricity and Industrial Development: Quebec, 1898-1940* (Cambridge, Mass., 1957) and H.V. Nelles, *The Politics of Development: Forests, Mines & Hydroelectric Power in Ontario, 1849-1941* (Toronto, 1974). For the Maritime Provinces, see Peter J. Wylie, "When Markets Fail: Electrification and Maritime Industrial Decline in the 1920s", *Acadiensis*, XVII, 1 (Autumn 1987), pp. 74-96.

2 A comprehensive study of the Grand Falls project has not been published previously; aspects of the 1920s phase have been examined in: Bill Parenteau, "The Woods Transformed: The Emergence of the Pulp and Paper Industry in New Brunswick, 1918-1931", *Acadiensis*, XXII, 1 (Autumn 1992), pp. 5-43, W.Y. Smith, Jr. "Axis of Administration: Saint John Reformers and Bureaucratic

The successful construction of the Grand Falls project in the early 20th century could have been a turning point in a comprehensive development strategy that might have significantly altered the processes of deindustrialization and underdevelopment in New Brunswick. Creation of such an institution could have imposed system in place of fragmentation and could have provided a countervailing force to the capture of the province's political economy by the pulp and paper industry. The abandonment of Grand Falls in 1926, and more importantly, the vision of central station electrification that it represented, became powerful evidence of the deindustrialization and underdevelopment New Brunswick experienced instead.

The economic development potential of a central station electric system has a firm theoretical basis. It arises from an institution's constant search for more and different kinds of consumers. Successful systems do not simply supply energy; they also seek to create new demand for it. The most important economic goal for central station electric systems is to achieve a high percentage of average load to peak load. This high "load factor" is necessary to maintain a relatively even flow of energy through its generating facilities, and thus to generate consistent financial returns to pay for the system's enormous fixed costs. Greater predictability, stability and sustained profitability can be achieved by combining homes, businesses, small manufacturers and large industries into a single system servicing an entire regional population.<sup>3</sup>

The diversity load factor concept evolved as an economic principle only gradually during the period the major central station electric systems in the world were being established, between 1890 and 1930. The creation of regional monopolies met considerable resistance until regulatory mechanisms or public controls could be developed and legitimated.<sup>4</sup> The connections between central station electrification and increased productivity rates, flexible manufacturing planning and new industries were becoming clear only to the most advanced industrialists and policymakers in the world during the 1910s and 1920s.<sup>5</sup> In Canada "demand-led" electric systems utilizing water for energy evolved first in Ontario and Quebec.<sup>6</sup> The promotion and planning of the Grand Falls project in New Brunswick coincided with the development of central station hydroelectric systems in central Canada and elsewhere. In perceptions of the developmental potential of central electrification, New Brunswick did not lag far behind other regions.

Centralization in New Brunswick, 1911-1925", M.A. thesis, University of New Brunswick, 1984; Arthur T. Doyle, *Front Benches and Back Rooms: a story of corruption, muckraking, raw partisanship and intrigue in New Brunswick* (Toronto, 1976), ch. 13, Paul McIntyre, "The Development of Hydro-Electric Power at Grand Falls, New Brunswick: An Issue in Provincial Politics, 1920-1926", M.A. thesis, University of New Brunswick, 1973, W.A. Dixon, "History of the New Brunswick Electric Power Commission", unpublished manuscript, 1968, N.B. Power Library, Fredericton. Portions of this study also appear in Christopher S. Beach, "Pulpwood Province and Paper State: Corporate Reconstruction, Underdevelopment and Law in New Brunswick and Maine, 1890-1930", Ph.D. dissertation, University of Maine, 1991.

- 3 Hughes, *Networks of Power*, pp. 2-17; Dales, *Hydroelectricity and Development*, pp. 1-25; Louis C. Hunter and Lynwood Bryant, *A History of Industrial Power in the United States, 1780-1930: The Transmission of Power* (Cambridge, Mass., 1991), vol. 3, pp. 275-83.
- 4 Christopher Armstrong and H.V. Nelles, *Monopoly's Moment: The Organization and Regulation of Canadian Utilities*, (Philadelphia, 1986), pp. 141-2, 158-61, 187-8, 321-8.
- 5 Hunter and Bryant, *Transmission of Power*, ch. 5.
- 6 Dales, *Hydroelectricity and Development*, pp. 21-7.

There were always competing ways of organizing the delivery of energy to consumers. Major new industries could develop their own energy sources when adequate power was unavailable for purchase, or if it was cheaper to be self-sufficient. Some new industries, such as newsprint paper or aluminum, consumed so much energy they were willing to acquire rights to entire watersheds, either to assure their own energy requirements, or to prevent competitors from acquiring them.<sup>7</sup> When single industries captured entire watersheds, the developmental potential of the water resource was sharply curtailed. In an area such as New Brunswick, which possessed limited natural energy resources, such watershed capture would have potentially devastating consequences for diversified development.

Hydroelectric systems possess greater developmental potential than thermal electric systems. Thermal systems are flexible: fuel can be stored indefinitely and purchased only when merited by market demand; generating facilities can be designed to varying capacities and then easily increased, depending on current market conditions; capital expenditures can be made only when justified by current markets. Hydroelectric systems are less flexible: water can be stored in reservoirs for only brief periods, so the basin's profit potential is lost if the waterpower is not constantly converted into usable energy; generating and storage facilities are expensive, and must be designed to accommodate both current and potential future markets; initial capital costs are higher than can usually be justified by current markets. While the development risks are greater than thermal systems, potential returns are higher because operating costs are fixed at a low rate over a long period. Once the risks are assumed, the hydroelectric system is driven to create new demand for its product. Under load factor principles, it is driven to seek diversified, and not merely industrial, loads.<sup>8</sup>

The developmental potential of hydroelectricity was played out most forcefully in the Canadian provinces with the most natural waterpower. With the sole exception of Grand Falls (and perhaps the Bay of Fundy), the Maritimes as a region is too low and its watersheds too small to replicate the dynamic that central station hydroelectric systems brought to Ontario and Quebec. This does not mean that the region could not have combined its limited water resources with its coal to create central electric systems. Other regions used thermal electricity to develop and maintain industrial currency.<sup>9</sup> From a developmental perspective, however, the Grand Falls project presented the best opportunity in the Maritimes to begin the process of central station electrification.

A final theoretical point relevant to the Grand Falls project concerns the cultural impact of central electrification. The process of creating the institutions necessary to carry out a central station electrification project is in many ways more important than its ultimate degree of success in stimulating diversified economic development. Thomas Hughes argues that each regional system became a unique "cultural artifact"

7 Royal S. Kellogg, *Pulpwood and Wood Pulp in North America*, (New York, 1923), p. 23; Dales, *Hydroelectricity and Development*, ch. 7; James K. Hiller, "The Politics of Newsprint: The Newfoundland Pulp and Paper Industry, 1915-1939", *Acadiensis*, XIX, 2 (Spring 1990), pp. 3-39.

8 Wylie, "When Markets Fail", pp. 84, 89, 95.

9 Hughes, *Networks of Power*, examines the developmental dynamic of three major systems which utilized coal.

evolving out of a complex set of interacting technical, economic, political and social factors. The imposition of "system" on previous "complexity" had a transforming effect on the cultures which experienced the process, primarily because the transforming process itself involved conflict and struggle.<sup>10</sup> In Canadian historiography, H.V. Nelles' study of the "politics" of electrification in Ontario is the preeminent case study of this transforming process. Nelles argues that small business interests, not industrialists or urban monopolists, developed sufficient political will to force the creation of Ontario's unique public central station electric system.<sup>11</sup> The Grand Falls project was New Brunswick's best opportunity to replicate these successful cultural transformations. The continual efforts to build the project in the early 20th century can be viewed as a struggle to overcome the province's economic and social fragmentation.

In recent literature, three writers have discussed the relationship between electrification, politics and economic underdevelopment in New Brunswick. In his study of the central station electrification process which eventually occurred in New Brunswick in the 1950s, Robert Young finds that the New Brunswick Electric Power Commission became a powerful economic and political institution, driven by its own organizational dynamics, during the period it evolved as a primary instrument for development in the province. Young is critical of some of the effects of the NBEPC's corporate mentality, arguing that too much political power was concentrated in this single development agency.<sup>12</sup> At the same time, he does not deny that the process of rebuilding the commission into a durable institution was intimately intertwined with significant economic and political transformation in the province.

Young's critique is ironic when viewed from the perspective of the earlier failure to create a central station electric system. Peter Wylie asserts that aggressive state intervention was essential for electrification and industrial diversification in the Maritimes in the 1920s. In Wylie's view, appropriate market incentives for central electrification did not exist, and political solutions became the only reasonable alternative. Wylie concludes that the Maritimes industrial sector was "doomed to a natural obsolescence", however, because the conditions for political action were not also present.<sup>13</sup> Wylie builds his thesis by comparing central Canadian successes with Maritime failures. His argument is derivative of Nelles' argument, i.e. that central electrification arose from the political evolution of Ontario's small business class, a process that Wylie asserts was not replicated in the Maritimes.<sup>14</sup>

10 Hughes, *Networks of Power*, pp. 1-2, 405.

11 Nelles, *Politics of Development*, chs. 6, 7, pp. 464-88.

12 R.A. Young, "Planning for Power: The New Brunswick Electric Power Commission in the 1950s", *Acadiensis*, XII, 1 (Autumn 1982), pp. 73-99. Like Nelles' *Politics of Development*, Young is more interested in the political aspects of electrification than in its relationship to economic development.

13 Wylie, "When Markets Fail", p.74.

14 The relationship between the missing Maritimes small business class and underdevelopment forms, of course, the central thesis in the work of T.W. Acheson. A clear statement appears in his "The Maritimes and 'Empire Canada'", in David Jay Bercuson, ed., *Canada and the Burden of Unity* (Toronto, 1980), pp. 101-2.

Most recently, Bill Parenteau has argued that political advocacy of the Grand Falls project as a means to central electrification in New Brunswick constituted a search for an economic panacea rather than a serious attempt to reverse the processes of deindustrialization. In Parenteau's view, New Brunswick could not hope to replicate the positive impact of electrification in Ontario and Quebec, but had to follow its own unique path of development based on development of its forest resources.<sup>15</sup> While Wylie asserts that electrification was essential for economic development, Parenteau claims that central electrification had marginal significance and that politicians promoting it were merely avoiding more important development issues. Close examination of the evolution of the Grand Falls project in New Brunswick allows further review of these approaches. This study supports Wylie's conclusions more than those offered by either Parenteau or Young. It concludes that the successful development of the Grand Falls project for a diversified power load could have altered the developmental path in New Brunswick significantly. In addition to the actual energy which it might have generated, new economic, political and cultural links could have formed a basis for resisting the dominating rise of pulp and paper.

The first promoter to invest in the potential of Grand Falls as a power site was a railroad man. William Cornelius Van Horne, the builder of the Canadian Pacific Railway during the 1880s, was by the 1890s ready to increase his considerable wealth through a program of financial diversification. Following his retirement from the railway, Van Horne became involved in several important development projects in New Brunswick. He built a summer home in the southwest coastal area and was instrumental in developing tourism in St. Andrews. He acquired controlling interests in Saint John's street railway and electric lighting companies. He was instrumental in Canadian Pacific's acquisition of the New Brunswick Railway and its extensive timberlands in the mid-St. John River valley. The timberland would become an important ingredient in another industry Van Horne was interested in, pulp and paper manufacturing. The other key ingredient for development of this new industry was the Grand Falls power site. Acting with two other partners in the venture, Van Horne acquired the development rights to Grand Falls in 1896.<sup>16</sup>

Marketing problems delayed construction of the project, however. Pulp and paper projects throughout Canada faced uncertain access to American markets, and the growth of the industry was consequently delayed. Van Horne participated in the political manoeuvring which attempted to overcome the problems; meanwhile, he did not utilize his development rights at Grand Falls. These delays led to political pressures within New Brunswick. When Van Horne had not begun work on the project by 1898, the provincial assembly amended Van Horne's charter to give his corporation until 1901 to commence construction.<sup>17</sup> In 1901 the government granted

15 Parenteau, "The Woods Transformed", p. 23.

16 Walter Vaughan, *Sir William Van Horne* (Toronto, 1926), pp. 287-8, 336, 351. On Canadian Pacific's acquisition of the New Brunswick Railway lands, see *New Brunswick Acts* (1891), ch. XV and (1929) ch. XXX.

17 *N.B. Acts* (1898), ch. LXX.

a replacement charter requiring Van Horne to commence construction by 1 March 1903.<sup>18</sup>

Since pulp and paper development problems were still unresolved in 1903, New Brunswickers began to reconceptualize the Grand Falls project as having potential for more than pulp and paper manufacturing. Improvements in long distance transmission technologies had recently made the distribution of electricity throughout the St. John River valley, and beyond, a realistic possibility.<sup>19</sup> Between 1903 and 1911, provincial leaders tried to convert the project into an instrument for diversified development. The attempts included ongoing negotiations with promoters and the politicization of comprehensive development strategies. The local efforts were, however, frustrated by the slow course of contemporaneous international negotiations on the development of Canada's forest and water resources.

When Van Horne had still not commenced construction at Grand Falls by the 1903 deadline, Liberal Premier Lemuel Tweedie decided to obtain a new, competing set of promoters. The most interesting feature of the new charter was the expansion of the purpose of the development. The power was to be "utilized for the operation of industries and works within the Province of New Brunswick", with any "surplus" power to be sold in neighbouring Maine.<sup>20</sup> By 1907, Liberal Premier William Pugsley reported that the new company proposed to construct a "heavy line" to Saint John, provided the city granted a tax exemption.<sup>21</sup>

The 1905 changes did not eliminate Van Horne from the project. Although his provincial charter was declared null and void, his leases were still recognized as valid. Van Horne immediately countered the provincial challenge by acquiring a federal charter under the constitutional theory that the project was for the "general advantage" of Canada. To overcome his dependency on a pulp and paper factory as his only market for Grand Falls power, he began to promote the idea of transmitting power to the city of Saint John, where the power could be used to serve the street railway and electric utility companies he owned there.<sup>22</sup>

Although confusion reigned between the province and the two competing franchises, and construction was delayed by this confusion as well as other problems, the idea of the Grand Falls project was developing a significant place for itself within the province's political discourse. The new sense of available options contributed to the revival of opposition politics in New Brunswick after 1903. In this context, government parties began to pay more attention to articulating visions for development.<sup>23</sup> Liberal Premier Clifford Robinson's 1908 platform statement

18 *N.B. Acts* (1901), ch. LXXXIII.

19 Hunter and Bryant, *Transmission of Power*, pp.225-6. Politicians in New Brunswick were fully aware of the new technologies: see *Synoptic Reports of the N.B. Assembly* (1903), pp. 55-6.

20 *N.B. Acts* (1905), chs. XVII and XVIII, p. 134.

21 *Assembly Reports* (1907), p. 160.

22 *Assembly Reports* (1905), p. 142. The promotion of competing electric utilities was common during the organizational phase of the industry. See Armstrong and Nelles, *Monopoly's Moment*, pp. 4, 159-61.

23 Calvin A. Woodward, *The History of New Brunswick Provincial Election Campaigns and Platforms, 1866-1974* (Toronto, 1976), pp. 4, 33.

summarized the new rhetorical style — and the place of the Grand Falls project within it.

Robinson began by noting that the existing forest-based economy could not sustain the population of the province. New Brunswick needed to reconceptualize its development strategies, he argued, by extracting more value from its natural resource base. The power of Grand Falls could be used to attract pulp and paper manufacturers, while iron and coal resources could be developed in other locations in the province. To feed the new industrial workers and the urbanization that would flow from industrialization, the premier promised that more crown land would be opened for agricultural settlement. On electrification, Robinson promised an expanding and continuing programme:

The government has already adopted legislation in promoting the development of the enormous water power which for untold ages has been wasted at the Grand Falls...[by encouraging] the investment of capital by the Grand Falls Power Company as to enable that company to cheaply supply electric power to all the cities, towns and villages within a practical radius.

He went on to promise a survey of all other provincial water powers and coal deposits which could be used in supplying light and power to the province. The premier ended by pledging continuing support for an older idea that retained a popular following — the valley railway which would encourage Saint John to become Canada's preeminent winter port.<sup>24</sup>

Robinson's development vision was a realistic assessment of the ways in which the province had to develop more comprehensive strategies for utilizing its limited natural resources if it hoped to avoid a continuing loss of population and related wealth.<sup>25</sup> Yet its primary function was to raise the consciousness of the electorate, and to present an optimistic view of the changes that were occurring in the Canadian political economy. The vision only hinted at the province's continuing dependency on outside capital to carry out major development projects. It said nothing about the ongoing international negotiations which would establish the structural terms under which any development from resource exploitation could evolve. As the developmental possibilities of electrification became entrenched in the province's political discourse, a continuing dependency on external forces was among the reasons preventing its realization.

The delays in developing the Grand Falls project still related to the need for an assured market for a portion of its energy. Given the province's forest resources, pulp and paper manufacturing was the most obvious solution. Attracting this manufacturing capital was, in turn, related to two sets of international negotiations between the United States and Canada concerning forest and water resources which

24 Woodward, *Election Campaigns*, Appendix (microfiche), 1908 campaign documents from Saint John *Daily Herald*, 25 February 1908.

25 See Kris E. Inwood, "Maritime Industrialization from 1870 to 1910: A Review of the Evidence and Its Interpretation", *Acadiensis*, XXI, 1 (Autumn 1991), pp. 132-55, making the same argument from a contemporary perspective.



occurred between 1898 and 1911: the pulp and paper tariff negotiations, and the boundary waters negotiations.

As it grew by leaps and bounds, the American pulp and paper industry drifted slowly northward, away from its original urban bases and toward more assured supplies of pulpwood. Scales of production increased dramatically during the 1890s, leading to enormous increases in capital invested in manufacturing complexes. The American mills were increasingly concentrated close to the Canadian border. Ontario led Canadian attempts to withhold access to pulpwood as a means of inducing the migration of the industry's manufacturing component north of the border. The American manufacturers resisted, since they had only recently committed huge sums of capital in constructing major complexes south of the border. Their position was secured in part by protective tariffs. A breakthrough occurred in 1909-1911, when politically powerful newsprint paper consumers such as the major urban newspaper publishers, aided by enactment of a "manufacturing condition" law in Quebec, finally succeeded in persuading the American Congress to eliminate the tariffs on newsprint paper. Adjustments were made in the tariffs on woodpulp during the same period. Although the tariff adjustments were not the only factors in encouraging pulp and paper manufacturing in Canada, the business community reacted to the changes, and most historians have considered them the effective beginning of the industry's migration to Canada.<sup>26</sup>

While tariff negotiations were finally opening the door to new pulp and newsprint paper manufacturing in Canada, the International Joint Commission was created to administer the new International Boundary Waters Treaty. This treaty, signed in 1909, was expected to rationalize the process of developing both industrial and diversified power from the extensive water resources shared by the two countries.<sup>27</sup>

In theory, the tariff adjustment and the treaty should have encouraged the development of Grand Falls, the first by creating an industrial load market for its power, and the second by providing an institutional basis for negotiating storage rights in Maine. In fact, the changes had the opposite effect. The newsprint adjustment brought Grand Falls to the attention of a powerful corporation. The provisions of the new boundary waters treaty did not favour New Brunswick. Natural elevation and political boundaries dictate that the premier natural water power site in the Maritime Provinces is located in the region's extreme northwest corner. As engineering studies would show, only four per cent of the Grand Falls project's potential storage capacity lay in New Brunswick. Of the balance, 23 per cent lay in Quebec, and fully 73 per cent lay across the international border in Aroostook County, Maine.<sup>28</sup> The project could be successful only with the acquisition of storage rights in Maine.

26 For review and analysis of the pulp and paper migration, see Trevor J.O. Dick, "Canadian Newsprint, 1913-1930: National Policies and the North American Economy", *Journal of Economic History*, 42 (1982), pp. 659-87.

27 L.M. Bloomfield and Gerald L. Fitzgerald, *Boundary Water Problems of Canada and the United States: The International Joint Commission, 1912-1958* (Toronto, 1958), pp. 2-14.

28 New Brunswick Electric Power Commission, "Report on Investigation of Grand Falls Power Development on the St. John River", September 1923, p. 4, N.B. Power Library, Fredericton.

In the negotiations which led to the signing of the International Boundary Waters Treaty, the Americans insisted that international jurisdiction be limited to improvements in shared and downstream waters only, and not extended to up-river improvements. From the Central Canadian perspective, this provision had little impact on the Great Lakes-Laurentian system.<sup>29</sup> From the perspective of the Grand Falls project, however, the distinction was vital, since jurisdiction over the potential up-river storage sites was at stake. New Brunswick's representative in the cabinet, former premier and now Public Works Minister William Pugsley, tried repeatedly to have the term deleted.<sup>30</sup> He was unsuccessful, however, and the International Joint Commission was given no power to force Maine to consider storage improvements on the upper St. John River for the benefit of the Grand Falls project.<sup>31</sup>

Without the international jurisdiction, the prospects for obtaining Maine's cooperation were not good. In 1904 an American lumber company had constructed a new sorting boom on the river at Van Buren, Maine and St. Leonard, New Brunswick, designed to divert lumber from New Brunswick mills to American markets by means of a railroad connecting it with Bangor, Maine. The company attached one side of the boom to the New Brunswick shore without provincial approval, and New Brunswick's lumbermen retaliated by blowing up the boom anchors. Before the 1905 driving season, the American company rebuilt the boom and hired gunmen to guard it. The situation held the potential to evolve into a major international incident at a time when diplomats were just beginning to negotiate the International Boundary Waters Treaty. The last thing the Canadian negotiators wanted was interference from northeastern lumbermen involving a mode of transportation (riverdriving) of declining significance. Instead of placing the dispute on its agenda, a special "International Commission Pertaining to the St. John River" was authorized by an exchange of diplomatic letters.<sup>32</sup> But with the problem defused, commissioners were not appointed.

By 1909 interest in the Grand Falls project was reviving, and the inactive special commission presented an opportunity to create a local forum for discussing the Maine storage sites. Two commissioners were appointed from New Brunswick and two from Maine. The subject of storage rights in Maine could not be broached directly, however, because the commission's mandate was limited to hearing evidence concerning the dynamiting of the Van Buren log boom. After conducting initial hearings on this topic, the commissioners obtained authorization to investigate

29 See "Address by Sir George Gibbons, K.C. before the Canadian Bar Association, Toronto, 1916", *Papers Relating to the Work of the International Joint Commission* (Ottawa, 1929), p. 13.

30 Bloomfield and Fitzgerald, *Boundary Water Problem*, pp. 11, 13.

31 Article II of the treaty provided that each country reserve "exclusive jurisdiction and control over the use and diversion...of all waters on its own side which flow into 'boundary waters'". Articles III and IV, in contrast, granted review authority over actual boundary waters and downstream dams which flow into actual boundary waters. See "International Boundary Waters Treaty (1909)", in Charles I. Bevans, ed., *Treaties and other International Agreements of the United States of America, 1776-1949* (Washington, 1974), p. 319.

32 See Thalia O. Stevens, "International Commission Pertaining to the St. John River (1908-1916)", M.A. thesis, University of Maine, 1970, pp. 20-46, and Richard Judd, *Aroostook: A century of Logging in Northern Maine* (Orono, Maine, 1989), pp. 144-6, 170-2.

possible up-river “improvements” which could “facilitate the driving of logs”.<sup>33</sup> This was a diplomatic victory for New Brunswick, since it contradicted the provisions of the new treaty, which had been signed but was not yet ratified.<sup>34</sup> The meaning could be obscured, however, by continuing the pretence that the commission was limited to discussing logdriving.

The commissioners were definitely more interested in power storage than in logdriving and proceeded to collect evidence on the river’s storage potential above Grand Falls. At hearings held in Bangor, American and Canadian consulting engineers who had worked on the upper river pointed out the most cost-efficient dam sites and provided the commissioners with flow data. An engineer who had recently worked for Van Horne provided the commissioners with a detailed description of the Grand Falls project itself, including the generating options which resulted from the various reservoir possibilities. Encouraged by this evidence, the commissioners hired their own engineering staff to conduct further studies and to draw up a master plan for the river. Early in 1910, an office was established in Van Buren, Maine, copies of maps and other data were collected, and a series of gauging stations were established to collect data on seasonal fluctuations in the river’s flow.<sup>35</sup>

For a brief period, it appeared that New Brunswick would succeed in reestablishing cooperative relations with Maine. Memories of earlier beneficial economic and social connections still survived, providing a basis for mutual appreciation of the development potential of Grand Falls in the border region. Yet these sentiments were quite fragile. Down-river lumbermen resented their loss of power over the upper river. American corporations were more interested in exploiting Aroostook County’s forest resources than in encouraging diversified development.<sup>36</sup> Thus while electrification presented an opportunity to create a new and unique transnational “cultural artifact” based on the Grand Falls project, it would only occur if sufficient political will could be generated to overcome the narrower economic interests.<sup>37</sup>

The international commissioners were not successful in obtaining the cooperation

33 “Report of the International Commission Pertaining to the Uses of the Saint John River”, 1915, p. 8, New Brunswick Legislative Library, Fredericton.

34 See Franklin O. Leger, *One Hundred Years in the Practice of Law: 1888-1988, Being a Brief History of a Saint John*, New Brunswick Law Firm (Saint John, 1988), pp. 10-25.

35 Testimony of Cyrus Babb and Harold Boardman, 23 February 1910; testimony of George Fowler, Hardy Ferguson and Walter Sawyer, 10 and 11 March 1910; report of Chief Engineer Raney, 20 July 1910, RS 321, vol. V, pp. 1-24, 1854-1940, 2149-2154, Saint John River Commission, Transcripts of Evidence, Provincial Archives of New Brunswick [PANB].

36 Judd, *Aroostook*, pp.175-7. For discussion of a similar process in the transborder St. Croix River valley, see Harold A. Davis, *An International Community on the St. Croix, 1604-1930* ([1950] Orono, 1974), pp. 269-88.

37 By 1910 Aroostook County was already being electrified by power from a hydroelectric facility that straddled the international boundary — with the approval of the New Brunswick legislature. Generating political will was a greater problem in New Brunswick than in Maine. See C. Hazen Stetson, *From Logs to Electricity: A History of the Maine Public Service Company* (Presque Isle, Maine, 1984), pp. 10-13, 17-19.

of Van Horne himself.<sup>38</sup> The competing franchise notwithstanding, Van Horne had always been in the best position to proceed with the development of Grand Falls. After the Conservatives replaced the Liberals in Fredericton in 1908, and in the context of improving prospects for the Canadian pulp and paper industry and the negotiations on international waters, Van Horne completed the engineering and legal studies for the project.<sup>39</sup> The New Brunswick Railway timber block owned by Canadian Pacific was still available as a steady source for pulpwood, and Van Horne had recently gained valuable experience in the pulp and paper industry with his work on the Laurentide mills projects in Quebec. His street railway and utility companies in Saint John could use better sources of electric power. With his financial connections, Van Horne had hoped to eventually dominate pulp and paper manufacturing and to electrify the province by fully developing the power potential of Grand Falls. Other matters occupied his attention, however,<sup>40</sup> and by 1911 Van Horne was willing to entertain offers from other interests eyeing the power potential at Grand Falls.

In 1911 the International Paper Company held more crown land limits in New Brunswick than any other timber operator, and was second only to the Canadian Pacific Railway as an owner of provincial timber assets.<sup>41</sup> The company exported Canadian pulpwood to its factories in the northeastern United States and had led the fight against elimination of the American newsprint tariff. When this strategy failed, the company was forced to re-evaluate potential Canadian manufacturing sites. Grand Falls was the largest undeveloped waterpower site in the greater Gaspé-Maritimes region. If International did not acquire the development rights, a competitor might. The company moved soon after the tariff change, and Van Horne agreed to become a director of International in exchange for his interests in the Grand Falls power project. Negotiations for paying off the interest of the competing Grand Falls Power Company were completed.<sup>42</sup> The two Grand Falls corporations were merged, the provincial government chartered a new corporation, and authorized the conveyance of all the existing franchise rights to it. Once all of this paperwork was completed, control of the new Grand Falls Company was transferred to the International Paper Company.<sup>43</sup>

Instead of constructing a newsprint mill and developing Grand Falls for power, International continued to export Canadian pulpwood to its American factories. As long as the government in Ottawa did not prohibit pulpwood exports from private timberlands, International could evade the manufacturing condition laws by

38 See statement of Chief Engineer Raney to Saint John River Commission, 25 July 1911, RS 321, vol. VI, p. 2167, PANB.

39 Testimony of George Fowler, 10 March 1910, RS 321, vol. V, pp. 1854, 1921-1923, PANB; "Report of H.A. Powell on the Title of the Grand Falls Company, Ltd., to Lands and Power at Grand Falls", January 1924, RS 196, Records of the Grand Falls Power Dam, pp. 34-35, PANB.

40 Vaughan, *Van Horne*, pp. 336, 351.

41 International reached this position by purchasing the Miramichi Lumber Company in 1905 and the Dalhousie Lumber Company in 1908. *Annual Report of the New Brunswick Crown Land Department* (1906), (1909).

42 "Report of H.A. Powell", RS 196, p. 34, PANB.

43 *N.B. Acts* (1911) ch. CXXVII; "Report of H.A. Powell", RS 196, pp. 5-10, PANB.

acquiring its principal raw material from these sources. Although New Brunswick passed its own manufacturing condition law at the same time that it approved the Grand Falls transfer, in 1911, International soon developed means to evade the intent of the law.<sup>44</sup> This newsprint industry leader had too much capital invested in its American factories to quickly shift its manufacturing operations to Canada. It continued to press for repeal of the newsprint tariff exemption; at the same time, it began a decade-long process of converting its aging American mills to other paper grades in anticipation of moving at least some of its newsprint manufacturing capacity to Canada.<sup>45</sup> In the meantime, International's acquisition of Grand Falls prevented Canadian competitors from developing the site.

After the capture of the Grand Falls project by the International Paper Company, the momentum which had sustained the international commission on the St. John River dissolved. The commissioners continued to collect information on the storage issues, and even held hearings on another possible hydroelectric dam site located below Grand Falls. They delayed issuing their final report in the hope that the value of their work would be recognized, but even their final report had to be couched in language that gave logdriving priority over power, as provincial lumbermen remained stubbornly attached to their view of how the river should be operated.<sup>46</sup>

By 1911 the developmental potential of the Grand Falls project had become incorporated into New Brunswick's political discourse, and the process had begun of institutionalizing relations with Maine as a means to resolve the important storage issue. The political will to pursue central electrification as a basic development policy in the province had not yet crystallized, however. Fragmentation characterized the economic and political life of the province, and competitive capitalism remained the basic policy for promoting new development.<sup>47</sup> Unlike Ontario, public ownership was never raised at this stage as an option in connection with Grand Falls, and the province remained dependent on the requirements of outside capital. The first phase of the Grand Falls project was thus limited to conceptualization of possibilities, and it ended in a speculative capture by an external industrial corporation with a narrow conception of its own interests.

Political support for rail-based development projects was, however, more

44 Dominion Forest Service, *Transcripts of Hearings, Royal Commission on Pulpwood* (1924), RG 39, vol. 593, testimony of T.G. Loggie, no. 4, pp. 238-43, testimony of J.W. Brankley, no. 5, pp. 312-14, National Archives of Canada. The manufacturing condition law is *N.B. Acts* (1911), ch. X, amended by *N.B. Acts* (1916), ch. 33. For debate on the ineffectiveness of the law, see *Assembly Report* (1918), pp. 67-70.

45 See International Paper Company, *International Paper Company, 1898-1948: After Fifty Years* (New York, 1948), pp. 17-18, 29, 43-44; L. Ethan Ellis, *Print Paper Pendulum: Group Pressures and the Price of Newsprint* (New Brunswick, N.J., 1948), pp. 119-22.

46 Statements of commissioners, 25 July 1911, pp. 2158, 2181, 2192-4, 21 January 1913, pp. 2500-11, RS 321, vol. VI, PANB; "Report of International Commission", pp. 32-3, 45-53, 55-6.

47 On New Brunswick's political fragmentation during this period, see Carman Miller, "The Restoration of Greater Nova Scotia" in David Jay Bercuson, ed., *Canada and the Burden of Unity* (Toronto, 1980), and Smith, "Axis of Administration", ch. 2.

pronounced than support for electrification.<sup>48</sup> During the same legislative session in which the Grand Falls project was turned over to International Paper, Conservative Premier J.K. Flemming negotiated a complex agreement for construction of the valley railway project, designed to make Saint John more competitive with Halifax as Canada's winter port. Unlike Grand Falls, the province guaranteed the railway's financing. While portions of the railway were constructed, the vital connection between Saint John and the northern line was never completed. The development corporation collapsed, and the province was forced to assume control of the project — and its substantial, unproductive debt load. The first major capital expenditure made for a development project by a New Brunswick government in the 20th century thus ended in disaster.<sup>49</sup> In the future, the Conservatives would be very wary of committing the credit of the province to infrastructural development projects.

The Conservative Party had been elected in 1908 on a reform platform. Beginning with the fateful 1911 session of the assembly, however, their development initiatives led them in the opposite direction. A series of corruption scandals dominated the final five years of Conservative government. In the 1917 election campaign, the Liberals promised to institute principles of efficient business management to clean up provincial politics and put New Brunswick back on the path of progress.<sup>50</sup> Once in office, they initiated a series of development policies focused on improving internal infrastructures. The discredited valley railway-winter port concept was abandoned. In its place, the Liberals began to focus on highways and electricity.

The idea of utilizing Grand Falls as a source of power for a central station system was not pursued during the five years that Walter Foster served as Liberal premier (1917-22). His government did, however, set the stage for the subsequent revival of the Grand Falls project. In 1920, after two years of preliminary planning, his government created the New Brunswick Electric Power Commission to construct and operate a central station system for Saint John and to participate in electric developments in other locations.<sup>51</sup> The period 1921-23 would prove to be a time for learning about the difficulties involved in public development of hydroelectric projects.

The Saint John project was plagued with legal and technical problems from the outset. The owner of the land expropriated for the Musquash dam and reservoir claimed an enormous sum for compensation.<sup>52</sup> A lengthy and complex legal and

48 Central station electrification in Canada had not been established as a major development concept at this time. See Nelles, *Politics of Development*, pp. 303-6, and Dales, *Hydroelectricity and Development*, pp. 67-74, 128-30.

49 See Royal Commission on Maritime Claims, *Report* (Ottawa, 1926), pp. 40-1, and Ernest R. Forbes, *The Maritimes Rights Movement, 1919-1927: A Study in Canadian Regionalism* (Montreal, 1979), pp. 75-6.

50 Woodward, *Provincial Election Campaigns*, p. 42. See generally, Doyle, *Front Benches*.

51 In 1918 Foster created a Water Commission in the wake of a legislative debate over the high cost of thermal-powered electricity in Saint John. This led to the creation of the New Brunswick Electric Power Commission in 1920. See *N.B. Acts* (1920), ch. LIII, and Smith, "Axis of Administration", pp. 96-108.

52 See Re N.B. Power Commission and Inglewood Pulp and Paper Co., *New Brunswick Reports*, vol. 53 (1927), p. 325, affirmed on direct appeal to the Privy Council at *Appeals Cases* (1928), p. 492.

political battle was fought between the Saint John City Council and the city's existing private, thermal-based electric utility.<sup>53</sup> While both legal problems were winding their way slowly through special references, the courts and the legislative assembly, the poorly-designed dam burst in a freshet. Still, the dam was rebuilt, the NBEPC began to extend the Musquash transmission lines beyond Saint John towards Moncton.<sup>54</sup>

The second public power project initiated by Foster was less successful than the first. Newcastle's town council, hoping that hydroelectric power could be delivered cheaper than their local thermal power, asked the Foster government to construct a transmission line from the nearest hydroelectric source, a facility on the Nepisiguit River owned by the Bathurst Pulp and Paper Company. The NBEPC signed a contract with the town guaranteeing power at a low fixed rate for five years, but was then only able to obtain a contract with the supplier for one year. At the end of the year, Bathurst's owner, Angus McLean, cancelled the contract when he decided the power was needed for mill expansion. The commission was forced to cover its Newcastle contract with expensive thermal power. A nearby pulp mill operated by the Fraser Company was closed as a result.<sup>55</sup>

The Foster government did not completely ignore Grand Falls. International Paper still owned the development rights. After failing in a final effort to restore the newsprint paper tariff, after 1921 the company was finally getting ready to expand into manufacturing in Canada. The people living in Grand Falls were tired of waiting, however. In 1920 they petitioned the assembly in Fredericton, requesting that action be taken to force the company to develop the site. The assembly enacted a statute which threatened expropriation of the site unless the company proved within three months that it intended to develop it.<sup>56</sup> When International returned a year later asking for another extension, the people of Grand Falls marched on the capital in protest. This time, the assembly enacted a statute providing that the company's franchise would be automatically forfeited if it did not begin development by 1 May 1923.<sup>57</sup>

When a third delegation from Grand Falls descended on Fredericton in March 1923, Foster's successor, Peter Veniot, declared that the province would assume control of the site, and develop and operate it as the cornerstone of a public central system serving the entire province.<sup>58</sup> International Paper's first period of owning the rights to develop Grand Falls had ended.

53 See Smith, "Axis of Administration", ch. 5.

54 Dixon, *History of NBEPC*, pp. 1, 15-21. The NBEPC *Annual Reports* for 1920 through 1924 describe the development, destruction and reconstruction of the Musquash Dam and its distribution lines.

55 Dixon, *History of NBEPC*, pp. 27-9; NBEPC *Annual Reports* (1921-1923); Angus McLean to C.O.Foss, 31 March 1922, and E.A.Smith to Walter Foster, 4 March 1922, RS408, file 48, Walter Foster Papers, PANB.

56 N.B., *Assembly Reports* (1920), p. 239, 255; *N.B. Acts* (1920) ch. LX.

57 N.B., *Assembly Reports* (1921), pp. 62-3, 129; *N.B. Acts* (1921) ch. LXXXVII; Dixon, *History of NBEPC*, pp. 38-40.

58 Dixon, *History of NBEPC*, pp. 42-43.

The Veniot government faced difficult decisions. Deindustrialization was beginning to create endemic crises in the province's finances. The problems had been hidden between 1915 and 1921, when temporary increases in provincial revenues from the lumber industry had helped to balance the budget during a period of increasing capital expenditures. When that industry entered a recession in 1921, the longer-term revenue problem came to the fore. Premier Foster, aided by the then Minister of Public Works Peter Veniot, decided to continue investing in highways and electrification as the best means to improve the economy, and thus, to establish new bases for the falling provincial revenues. To finance these capital improvements, they rationalized the province's borrowing procedures. This meant, however, that the cost of servicing debt was increasing at the same time that revenues were stagnating. The shortfalls were being made up with federal contributions to highway construction and with new gasoline and vehicle taxes, but also by increasing deficits.<sup>59</sup> The Liberals opened themselves to criticism for the financial risks involved in this development strategy, but they remained firmly committed to it. In addition to the promise for transforming the economy, the strategy involved considerable opportunities for immediate employment and the patronage that went along with it.

In light of the problems with the Saint John and Newcastle electric projects, the failure of the valley railway project and the general financial condition of the province, Veniot soon learned to treat the Grand Falls project with care and deliberation. When the project was first announced, however, his expertise centred on highways, and he knew very little about diversified load central station projects. In the next two and a half years, Veniot would become an expert on electrification, as he led an intense effort to convert the developmental vision for Grand Falls into a reality.

In September 1923 the NBEPC engineering staff delivered its first detailed report to Veniot, disclosing both the potential and the problems facing the project. With minimal reservoir storage, the project would match the entire electric capacity from all existing sources in the province (40,000 horsepower). With maximum storage, it could produce more than three times the power of those sources (140,000 horsepower). The biggest problem was that most of the storage was located outside the province. The project would be economically feasible only with the initial development of limited storage in either Quebec's Temiscouata Lake or Maine's Fish River lakes. The report concluded with a discussion of markets and load factors, suggesting that the power could be sold in equal quantities to pulp and paper manufacturers and to utilities for redistribution to smaller manufacturers and domestic users.<sup>60</sup>

The staff report was the first indication that the project would have to be divided into "initial" and "subsequent" phases, with the quantity of power dependent on the acquisition of storage sites outside the province. From this point forward, the government continued to promote Grand Falls as a diversified load project with great

59 Jennifer D. Francisco, "New Brunswick Finances, 1917-1952", M.A. thesis, University of New Brunswick, 1992, pp. 12-37.

60 NBEPC, "Report on Grand Falls", 1923, pp. 4, 29, 34, 38.



potential. At the same time, however, Veniot and the NBEPC staff were forced to temper their enthusiasm with cautionary remarks. A sequence of newspaper articles discloses the resulting political problem. On 9 November 1923, the NBEPC publicized the project as “the Niagara of New Brunswick”, asserting that the “super power scheme” was capable of delivering 140,000 horsepower “throughout the province”. A week later another newspaper reported that “unless” the government “can make very satisfactory arrangements for a supply from these storage areas [in Maine and Quebec] Grand Falls is not nearly as valuable from a developmental point of view as the people think”. Challenged by this adverse publicity, Premier Veniot felt obligated to reiterate the project’s potential in a speech delivered on 29 November 1923:

I can only say tonight that we are approaching it [the Grand Falls project] with the greatest possible care. The people must be patient. We are very anxious for its development, but we will not be stampeded. This undertaking will involve millions of dollars and the future of this province. It is the most serious question that has confronted our people since Confederation. ... (the obstacles notwithstanding) we will be able to meet the wants of the people generally, and the small industries already established better, and at a lower rate, than under private ownership. It might be possible that very large industries may be better served under private ownership ... but anxious as I am to see new industries come to this province, I cannot forget the duty we owe as a government to our own people along domestic as well as industrial lines.<sup>61</sup>

While Veniot and the NBEPC staff continued to promote Grand Falls, offering both glowing predictions and cautionary commentary, the premier quietly referred the engineering report for review by a prominent Ontario consulting engineer, H.G. Acres. Acres advised Veniot that the success of the project depended on two factors — acquisition of sufficient storage, coupled with more satisfactory evidence that a ready market would be available to consume the initial output of the facility. On the storage issue, he suggested that the project be designed for construction in two phases. Assuming that only Canadian storage would be available for the initial phase, he planned a single pressure tunnel with a capacity of 75,000 horsepower, coupled with immediate installation of two generators rated at 25,000 horsepower each. A third generator could be added at a later time, depending on the adequacy of the Canadian storage, or if additional storage could be acquired in Maine. The second phase involved a second pressure tunnel that would double the project’s generating capacity, to a total of 150,000 horsepower. This phase would be completely dependent upon developing further storage improvements in Maine.<sup>62</sup>

61 *Evening Telegram* (Toronto), 9 November 1923; *Telegraph Journal* (Saint John) 20 and 30 November 1923, in NBEPC, Grand Falls newspaper clippings file, N.B. Power Museum, Fredericton.

62 H.G. Acres, “Grand Falls Development: Interim Report on Scheme of Development and Capital Cost”, 15 April 1925, MC507, file MS11, NBEPC records, PANB.



Veniot tabled Acres' report in March 1924, informing the assembly that further market studies and storage negotiations would be pursued and that the project would require at least another year of preliminary work. Veniot asserted that the initial phase of the project could proceed using Canadian storage only. He also divulged that pulp and paper companies had already requested 30-35,000 horsepower, and asserted that another 25-30,000 horsepower could be transmitted as diversified load power to markets in all parts of the province.<sup>63</sup>

Although phrased in an optimistic manner, Veniot's announcements disclosed the difficulties he was having in coming to grips with the Maine storage issue. Without these reservoirs Grand Falls simply could not generate enough power to fulfil Veniot's promises. The NBEPC staff had acquired the data and evidence generated by the defunct international commission, so Veniot was familiar with the previous efforts to generate cooperation in Maine.<sup>64</sup> By the 1920s, however, all direct contact had disappeared, and the premier had no direct line into the state's political leadership. Veniot hoped to renew relations with Maine in other ways. He announced that the Maine and Quebec storage issues would be addressed through the Dominion and United States governments, before the International Joint Commission, in the Quebec legislature, and finally, by negotiating with the International Paper Company, which already owned storage rights in Maine's Fish River lakes area.<sup>65</sup>

Veniot did not intend to open direct negotiations with Maine or try to revive the special joint commission. To cover the possibility that Maine might not cooperate, Veniot ordered the NBEPC staff to survey other potential hydroelectric sites within the province. The staff soon developed a transmission line map that linked Grand Falls with the existing Nepisiguit (Bathurst Company) facility in the northeast, the rebuilt Musquash (Saint John) facility in the south, and proposed links with other possible sites at Lepreau, Magaguadavic, Meductic, Pokiok and Shogomoc.<sup>66</sup> In a speech to the Fredericton Board of Trade, Chief Engineer S.R. Weston asserted that as much as 200,000 horsepower could be generated from waterpower sources located completely within the province.<sup>67</sup> He did not mention the extra time and expense that would result from substituting these inferior sites for Grand Falls.

Meanwhile, the NBEPC engineering staff began more detailed market studies. On the potential demand for a diversified load, every manufacturer and every utility in the province was surveyed with respect to their existing sources and their potential use for Grand Falls power. The survey confirmed what everyone suspected — New Brunswick's power consumers, especially its manufacturers, were struggling along with antiquated, expensive, owner-generated thermal and water power systems. The survey also disclosed that the small manufacturers were eager for power, but would convert to purchased power only if it was cheap enough to offset the capital costs of

63 *Globe* (Saint John), 12 March 1924.

64 NBEPC, *Annual Report* (1924), p. 43.

65 *Globe*, 12 March 1924.

66 NBEPC, *Annual Report* (1924), pp. 5, 42-55; map at pp. 52-3.

67 *Telegraph Journal*, 26 November 1924.

installing the necessary electric motors.<sup>68</sup> Clearly there were risks involved in marketing Grand Falls power on a demand-led, diversified load basis. Since this load was crucial to both the developmental and political goals of the entire project, the government continued to promote it on the basis that half the power would be delivered to utilities and their small manufacturing and domestic customers. The NBEPC staff concluded that the pulp and paper industry could consume the remaining, industrial load, portion of Grand Falls' power. The Bathurst Company's own hydroelectric project on the Nepisiguit River was inadequate for its needs, the Fraser Company wanted to expand, and the International Paper Company was still promising to build a new newsprint mill. If the three northern firms would not agree to reasonable terms, the staff asserted that the crown lands could be utilized to attract other companies. Overall, the market for the initial phase of the project seemed assured.<sup>69</sup>

Veniot and his assistants tried to resolve the reservoir storage issues before negotiating detailed power agreements with the pulp and paper companies. The most important storage site in Quebec, Temiscouata Lake on the Madawaska River, was already owned by the Fraser Company, subject to the overriding expropriation and regulatory authority of the Quebec legislature. Legislation was introduced in Quebec in January 1925, to create a mechanism for New Brunswick to exercise expropriation powers in Quebec. In spite of intense pressure from private utility and pulp and paper interests from both Maritime and Central Canada (who did not want public power to succeed outside Ontario) on 20 March 1925 the Quebec legislature enacted the bill.<sup>70</sup>

Veniot also decided to make a direct approach to Maine. A delegation went to Maine early in February 1925 and offered to transmit 10,000 horsepower into the state in exchange for allowing New Brunswick to acquire and expropriate storage rights. This single attempt at direct diplomacy produced no commitments or promises of cooperation.<sup>71</sup> It did, however, serve as a notice to the state's political leaders that New Brunswick was getting serious about proceeding with the project.

Once the Quebec storage rights were secured, Veniot quickly secured two industrial load contracts for the project. The Fraser Company signed an agreement for the delivery of 20,000 horsepower, which it wanted for an expansion of its Edmundston mill — an unusual plan that involved sluicing duty-free pulp across the international boundary to a new mill in Madawaska, Maine.<sup>72</sup> Veniot also agreed to

68 NBEPC, "Power Survey of New Brunswick, 1924", (unpublished manuscript), at N.B. Power Museum, Fredericton.

69 "Possibilities of Pulpwood Supplies by Watershed"; "Memorandum on Ownership", "Crown Land Pulp and Paper Production", undated typescripts, MC507, files 12/4 and 12/5, NBEPC records, PANB. On International's continuing promises, see *Globe*, 22 March 1924 and *Daily Gleaner* (Fredericton), 29 March 1924.

70 *Statutes of Quebec* (1925), ch. 117; Peter Veniot, "Letter to the Editor", in *Observer* (Edmundston), 4 April 1924; Dixon, *History of NBEPC*, p. 51.

71 *Press Herald* (Portland, Maine), 6 February 1925.

72 Fraser's strategy is described in its *Annual Report*, 1924 MC444, file 1A, Fraser papers, PANB, and in R.B. Hanson to Irving Todd, 10 February 1925, MC1247, item 644, Box 5, Richard Hanson Papers, PANB. In spite of the loss of a major mill, Veniot did not object to the proposal, as it seemed to present a practical way to promote cooperation across the border. See Peter Veniot to Thomas Low, 4 July 1925, RS9, box 1/25-7/25, Cabinet Records, PANB.

deliver 15,000 horsepower to the Bathurst Company. The remaining power from the initial phase would be adequate to service diversified load markets on a limited basis, but would not be sufficient for either a newsprint mill or for additional diversified loads. Negotiations with the third manufacturer interested in the project, International Paper, could not be completed until storage rights in Maine were secured.<sup>73</sup>

The Maine storage issue was addressed in April 1925 during hearings before the International Joint Commission. The proposed headpond began at Grand Falls, extended three miles up-river to the international border, and then continued another 28 miles along the border to a point in the towns of Van Buren, Maine and St. Leonard, New Brunswick. The IJC had concurrent jurisdiction to allow the dam to obstruct the river and to allow the headpond flowage. As noted previously, it had no formal jurisdiction over the storage sites located further up-river in Maine. Other public bodies shared control of the river. Riparian rights on the New Brunswick side were subject to provincial expropriation. The riparian rights on the Maine side were owned by a subsidiary of International Paper and were subject to the regulatory jurisdiction of the State of Maine. In its application for IJC approval, New Brunswick did not propose any storage improvements in Maine, other than the headpond itself.<sup>74</sup>

Maine's Attorney-General appeared at the IJC hearing and asserted that his state was legally entitled to a portion of Grand Falls power because of the headpond flowage. Instead of repeating the previous offer to share power, New Brunswick's representatives argued that the only storage that could be considered a legal and technical basis for sharing power was located up-river in Quebec. The initial hearings were adjourned without resolution of the point.<sup>75</sup> These bargaining positions would prove to be a major turning point in the evolution of the Grand Falls project.

Interest was growing in Maine in sharing the developmental benefits of Grand Falls power.<sup>76</sup> Within days of the initial IJC hearing, Maine's Governor Ralph Brewster of Maine asserted the state was "unprotected" with regard to obtaining benefits from the project, and he secured emergency legislation which specifically withdrew the benefits of Maine's Mill Act from use by New Brunswick.<sup>77</sup> Under this legislation, the proposed Grand Falls headpond would not be allowed to flow over the Maine side of the border. The province would have to obtain special authority from the Maine legislature and would have to agree to share a substantial portion of the project's power.

73 *Assembly Reports* (1925), p. 250.

74 See International Joint Commission, *In the Matter of the Application of the New Brunswick Electric Power Commission for permission to construct...Grand Falls: Order of Approval, Application, Hearings, 1925* (Washington, 1925), pp. 6-11.

75 IJC, *Grand Falls...1925*, pp. 30-32, 47-50.

76 See IJC, *Grand Falls...1925*, testimony of Charles Keegan, pp. 42-3, 81-3.

77 "New Brunswick Water Power Development", 1 April 1925, *Maine Laws* (1925), pp. 732-9 and ch. 202. The Mill Act allowed flowage expropriation by private riparian owners without special legislation. Veniot hoped to avoid further negotiations with Maine at this time by utilizing its provisions for the Grand Falls headpond.

Veniot soon decided on an alternative course of action. Instead of delaying the project while a complex arrangement could be worked out with Maine, the province could pursue a private agreement with the owner of the riparian lands, International Paper. Up to this point, Veniot had been careful to avoid making any commitments to the company, as he knew that the capacity of the initial, Quebec-storage phase of the project could not accommodate both a diversified load and the newsprint manufacturer. Now the premier felt he could not negotiate a headpond agreement with Maine without also attempting to resolve the more complex, up-river storage issues. As an interim course of action he decided to complete the negotiations with International Paper instead. The agreement reached after this tactical decision would eventually provide Veniot's successor with one of the most important reasons for abandoning the Grand Falls project.

An agreement with International was soon reached. On the province's side, the headpond would be allowed to flow over International's lands on the Maine side of the river. However, the initial marketing plans for the project were significantly altered. The Fraser Company's expansion and the Bathurst Company's immediate requirements were protected. The diversified load power was maintained, but only conditionally. International was not committed to purchasing any power, but the province was obligated to provide the company with 14,000 horsepower on demand. This meant that all of the power to be generated in the initial phase was now legally committed to pulp and paper manufacturing, provided International actually built a new mill in the province. To complicate matters further, International obtained a monopoly over future newsprint paper manufacturing expansion in the province.<sup>78</sup> Veniot could not have been happy with the contract. In addition to the politically sensitive monopoly provision, it created the possibility that the entire Grand Falls project might be limited to servicing an industrial load. Yet other factors supported the agreement. In 1925 it was unlikely that International would construct a newsprint mill limited to only 14,000 horsepower.<sup>79</sup> It was also true that the company was likelier to construct a newsprint mill if it, or the province, could develop storage sites in Maine. Given recent evidence of public support for the project in Maine, Veniot undoubtedly still hoped to negotiate access to diversified load power directly from Maine. He was now prepared to put the best face on the project: the power would be used for new industry and the principle of successful public ownership would be established as a basis for future power projects.

Once agreement was reached with International, the application process before the IJC was completed and Veniot secured authority to borrow up to nine million

78 "Memorandum of Agreement - Contract B", 11 June 1925, MC507, file 9/11, NBEP records, PANB. The monopoly was implied by the fact that the St. John River was the only available resource capable of supporting a newsprint paper mill able to compete under the prevailing conditions.

79 International had recently announced it needed 30,000 horsepower for its planned New Brunswick mill. See *Fredericton Daily Gleaner*, 21 March 1925. Also see Parenteau, "Woods Transformed", pp. 29-30.

dollars for the initial phase of construction.<sup>80</sup> By this time, however, Premier Veniot had more pressing problems. Just as the project was achieving momentum, his government faced a general election.<sup>81</sup> Before he could address the storage conundrum in Maine, he had to maintain political power at home.

The developmental potential of Grand Falls had been part of New Brunswick's political discourse for a generation, and Veniot now made it the centrepiece of his campaign strategy. The details of the headpond agreement with International were not disclosed. Instead, the premier asserted that the initial 50,000 horsepower to be generated at Grand Falls would be used to meet demands along the existing Saint John-Moncton line, as well as to meet the industrial demands in the north. As for additional power, he now stated that "Grand Falls, as well as other water powers in this province, will be developed as occasion demands...no private corporations will be permitted to lay a finger on our water power resources so long as I have the honour of remaining Premier of New Brunswick".<sup>82</sup> Veniot remained hopeful throughout the campaign that the Maine storage obstacle could be overcome, and he was not going to draw attention to the altered form of the project as long as this hope remained.

The Conservative opposition did not focus on Grand Falls, electrification or economic development, but concentrated instead on the financial problems facing the provincial government. In their view, the province had to be wary of investing in capital infrastructures during a period of declining revenues. As a general principle, the Conservatives argued, the province should balance its budget and leave major development projects to the initiatives of private capital.<sup>83</sup> They were nevertheless very careful to avoid taking a clear stance on either the Grand Falls project or public power. Their platform asserted that Grand Falls was "of primary importance" and should be developed, but that construction should be delayed until further financial investigations could be completed and should then only be developed by a "commission" that was independent of "political dictation".<sup>84</sup>

The Grand Falls project could not be isolated from other campaign issues. Angus McLean of the Bathurst Company led a quixotic revolt from the Liberal Party involving demands that the province decrease its stumpage fees as a benefit to the ailing lumber industry. Analysis of the eventual polling results also suggests that a majority of the province's voters were not willing to elect an Acadian Catholic as their premier. While the ethnic-religious question was not used by Veniot's

80 The IJC approved the project without resolving the Maine claim. IJC, *Grand Falls...1925*, pp. 1-4, 67-83, 88, 104., 147-72. For the Grand Falls financing debates, see *Assembly Reports* (1925), pp. 237-9, 248-60.

81 See Woodward, *Provincial Election Campaigns*, pp. 6, 49-51; Parenteau, "Woods Transformed", pp. 25-8, and Doyle, *Front Benches*, c. 13.

82 Woodward, *Provincial Election Campaigns*, Appendix, 1925 campaign documents, "Manifesto of Premier Veniot", *Daily Gleaner* 25 July 1925. Also see *Assembly Reports* (1925), pp. 237-9, 248-60, for the debates on Grand Falls which set the parameters of discourse during the campaign.

83 See Francisco, "New Brunswick Finances", pp.40-4.

84 Woodward, *Provincial Election Campaigns*, Appendix, 1925 campaign documents, "Resolution at Opposition Convention", *Daily Times* (Saint John), 29 May 1925.

opposition, an ugly “whispering” campaign seemed to dominate the closing days of the campaign.<sup>85</sup>

The final debates on Grand Falls itself reflected the increasing bitterness of the campaign. Veniot decided to award construction contracts for the project only five days before the election. Conservative leader John Baxter maintained his party’s previous position — that construction should be delayed for further financial review. Veniot charged that Baxter was setting up a takeover by private corporations, and Baxter responded that the construction contracts had been let only to provide the Liberals with last-minute campaign funds. Perhaps because he had obtained the details of the newsprint monopoly agreement which Veniot had been forced to grant International Paper, Angus McLean published several letters in which he accused Veniot of selling the project out to “foreign interests”. On 10 August 1925 the Liberals were voted out of power.<sup>86</sup>

True to his campaign pledge, the new premier halted construction. Baxter appointed a Moncton businessman who opposed public power as the new chairman of the NBEPC. After ordering an independent financial review and familiarizing himself with the technical and legal details of the project, he decided to abandon the project. In December 1925 Premier Baxter contacted the International Paper Company and asked if it wanted to negotiate the return of Grand Falls.<sup>87</sup>

After securing a new promise from International that it would develop Grand Falls in connection with a new newsprint paper mill, the new government began a publicity campaign to delegitimize the project. The critique focused on the weakest point in Veniot’s plans — the power agreement with International Paper. The new government asserted that under that plan the province would be building the project for the pulp and paper companies, not for the public as had been promised. Baxter especially objected to the provision which required the province to offer 14,000 horsepower at an unspecified price without obligating International to build a mill or purchase any power. In addition, the government asserted that the earlier problems with the Musquash dam and Newcastle contract proved that the province was not suited to manage electric projects. For these reasons, the project was called an “economic impossibility”.<sup>88</sup> Most of the NBEPC staff was laid off, while the outside expert H.G. Acres was retained as the province’s consultant for the new round of negotiations with International. Baxter now quoted Acres as saying he would not have recommended construction “if certain information had not been withheld from him”. The nature of the information was never disclosed.<sup>89</sup>

Baxter felt obliged to delegitimize the Veniot plans because of their obvious popularity. More fundamental reasons can also be adduced for his decision to abandon public development of Grand Falls. The Liberals had been increasing the

85 Woodward, *Provincial Election Campaigns*, pp. 49-51.

86 Parenteau, “Woods Transformed”, p. 27.

87 Archibald Graustein to John Baxter, 14 December 1925, RS196, file A-1, Grand Falls Power Dam papers, PANB.

88 *Assembly Reports* (1926), p. 6; NBEPC, *Annual Report* (1925), pp. 5-6, 42-62, Appendices I, II, III, IV.

89 Dixon, *History of NBEPC*, p. 57. Dixon argues the Acres “information” did not exist.



cost of servicing the provincial capital indebtedness during a period of falling revenues. When first elected, Baxter believed that balancing the provincial budget was more important than pursuit of major development projects. Also, he could not forget the valley railway debacle of the previous decade, which had cost the province the same amount that was projected for Grand Falls. Obviously, Baxter was reluctant to assume the risks inherent in Veniot's electrification scheme.<sup>90</sup> We cannot know whether the Conservatives were committed to any specific deals with capitalist interests, as charged by Veniot during the campaign, but certainly their ideological tendencies favoured capitalist initiatives. The effect of these factors is clear, however. Baxter was not convinced that central station electrification could have enough developmental consequences for the province to overcome his other concerns.

Without continuing public ownership of Grand Falls, Baxter left himself little bargaining leverage for negotiating the return of the project to International. The Fraser Company kept its 20,000 horsepower portion of the project, but the Bathurst Company was eliminated. Bathurst soon joined the St. George Pulp and Paper Company (located in southern New Brunswick) as a subsidiary of International. Baxter gave International control of all possible power projects located downriver from Grand Falls, thereby cutting off access to hydroelectric power for development of competing pulp and paper firms in both the Saint John and Miramichi valleys. This was a much more extensive monopoly than the one granted to International by Veniot the previous year. Adjustments in the terms of the province's crown land leases were dictated to Baxter by International and by the Fraser Company. The province retained the right to only a token quantity of Grand Falls power.<sup>91</sup>

After recapturing Grand Falls, in 1927 International sought legislation in Maine to clarify its rights to make storage improvements above Grand Falls. The bill met stiff opposition in Aroostook County. Voters resented the company's power and recalled its history of broken promises and manipulations. They were unimpressed by International's promise to construct an integrated pulp and paper mill on the international boundary at Van Buren-St. Leonard (similar to the one under construction by Fraser at Edmundston-Madawaska). The legislation failed.<sup>92</sup> International subsequently constructed the power dam at Grand Falls, but could use only Temiscouata Lake for storage. It delivered the power to Fraser in Edmundston and to its own new mill in Dalhousie, and was able to generate 80,000 horsepower from the project without any Maine storage.<sup>93</sup> International never sold any diversified load power to the NBEPC.<sup>94</sup>

90 Francisco, "New Brunswick Finances", pp. 40-4.

91 These negotiations are described in detail in Parenteau, "Woods Transformed", pp. 31-41, utilizing the extensive correspondence files between Premier Baxter and International President Graustein, RS196, Grand Falls Power Dam Papers, PANB.

92 The controversy is described in detail in Judd, *Aroostook*, pp. 233-42.

93 Parenteau, "Woods Transformed", p. 40.

94 Details of the ultimate disposition of power from Grand Falls are provided in Defendant's Factum, filed 26 August 1940, RS43, *Gatineau Power Co. versus Fraser Cos., Ltd.*, New Brunswick Supreme Court, Appeals Division records, PANB, and *Gatineau Power Co. versus Fraser Cos., Ltd.*, *Maritime Provinces Reports* (New Brunswick 1941), vol. 15, pp. 511-50.

Premier Baxter did not completely eliminate the NBEPC. The agency was still used to electrify portions of the province that were not served by private utilities. Without the hydroelectric power of Grand Falls, however, the momentum towards central station electrification ended. The NBEPC began to rely on the province's low-grade coal and small thermal power plants instead. The potential developmental dynamic of a demand-led central hydroelectric system was forgotten. The NBEPC would serve as a useful component of the patronage system, which continued to characterize provincial politics. After the Second World War, the NBEPC evolved into one of the province's principal instruments for economic development. It expropriated Grand Falls from the International Paper Company for the second time in 1959. New Brunswick did not renew the efforts to establish storage reservoirs up-river in Maine, however, but converted the middle portion of the Saint John River into a series of artificial reservoirs instead.<sup>95</sup>

Electrification became a dynamic component in the evolution of industrial societies during the first part of the 20th century. A positive correlation evolved between the process of establishing central station systems and the processes of economic diversification. The creative process was perhaps just as important as the results achieved. Each regional system evolved within its own particular set of opportunities and constraints, and each system created a unique cultural artifact in that process, which was frequently characterized by intense political conflict. Interplay between the dynamics of electrification and these local contingencies led to development — or, in cases of industrial capture, to relative underdevelopment.

The Grand Falls project was initially conceived as an adjunct to new pulp and paper development, and evolved into a promotion with more diversified developmental possibilities. The first turning point for the Grand Falls project occurred in 1911. Once Canada ratified Article II of the International Boundary Waters Treaty and the International Paper Company captured the dam site, the first tentative momentum towards cooperation with Maine was terminated. When the project was revived in 1923, Peter Veniot had not yet discovered the centrality of the Maine storage. In this sense, his plan to develop Grand Falls as the cornerstone of a provincial system can be described as a panacea. After the importance of reservoir storage became clear, Veniot worked hard to resolve the issue. We cannot know if he would have been able to negotiate a fair arrangement with Maine. In 1925 the state's leaders indicated a willingness to bargain with New Brunswick, and local sentiment in favour of the project was increasing. Veniot rejected their overtures in favour of the short-term objective of constructing the first phase. Perhaps Grand Falls could eventually have fulfilled the vision of providing power for a diversified load system. If not, Veniot would probably still have sought to develop such a system by utilizing other energy sources.

The second turning point occurred when John Baxter made two crucial decisions: first, that balancing the budget was more important than electrification, and second, that the risks involved in Veniot's plans and contracts were too great. Time would prove that Baxter was mistaken in believing that he could overcome the province's financial problems simply by balancing the budget. His efforts to introduce new

95 Young, "Planning for Power", pp. 74-5, 81, 96-9.

revenue measures had to be abandoned, and he succeeded in obtaining only limited fiscal relief from the Dominion government. The costs of debt service for capital improvements continued to escalate.<sup>96</sup> Given this record, it is difficult to conclude that the fiscal grounds were a sufficient reason to abandon the Grand Falls project. As for the risks in Veniot's arrangements, Baxter's bargain with International Paper may have been far worse. With public ownership, the Veniot agreement at least preserved the possibility that a central system could be built; without it, New Brunswick's international river was effectively converted into International's New Brunswick river.

The logic of diversified loads suggests that central systems create diversified demand and cannot limit themselves to industrial consumers. While major new industries other than pulp and paper were unlikely to appear in New Brunswick, a central system might have altered the path of development, turning it away from fragmentation and forest dependency and toward political and cultural unification. After the 1925 election, an alternative structure formed instead. The pulp and paper industry henceforth dominated the provincial economy, and the province possessed no major economic agency or business class capable of effective strategic resistance. The province's resources became organized for large forest industries and underdevelopment, not for diversity. In terms of its long-term political economy, New Brunswick is still struggling with the consequences. By the time the NBEPCC was revived in the 1950s and 1960s, concentration of power in a few corporations had become deeply embedded in its political culture.

96 Francisco, "New Brunswick Finances", pp. 45-6, 52-6, 59.