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Public Power for Industry: A Re-Examination of the New Brunswick Case, 1940-1960

WHEN UNIVERSITY OF NEW BRUNSWICK STUDENTS staged their satirical Winter Carnival musical in 1958, they chose as their target the provincial government's new development strategy. "We gotta have power/ we gotta have power", chorus members sang, "we gotta have power/ cause the kilowatt hour is the only thing that's gonna save No Brewswick".[1] Power was an easy target – perhaps as easy as the province's archaic liquor laws. For throughout the 1950s, New Brunswickers were inundated with speeches, newspaper articles and radio broadcasts promoting the economic benefits of publicly-sponsored electrical development. Both the Progressive Conservative government of Hugh John Flemming and the province's public power utility, the New Brunswick Electric Power Commission (NBEPC), claimed that "power was the key" that was going to "unlock the treasure chest of resources" in New Brunswick. The treasure sought by provincial leaders was not located in the traditional growth sector of the provincial economy, the forests, but in the recently-discovered motherlode of minerals in northern and western New Brunswick. During the 1950s, and to a lesser extent the 1960s, mineral development was the principal focus of economic planners in New Brunswick. In order to facilitate development of the new mineral staple, the government and the utility followed a "power for industry" growth model based on the provision of inexpensive electricity to heavy industry.

New Brunswick's "power for industry" strategy was an attempt by the province to share in the benefits of the Second National Policy, which was emerging in Canada during the post-war era. Like the original National Policy, the Second National Policy, in Janine Brodie's words, was "an amalgam of several distinct policy initiatives, which together constituted a model for economic growth and development".[2] In

1 Stephen E. Patterson, "Around the World in 80 Minutes: A Musical Comedy in Three Acts", unpublished script, 1958, personal copy of James Kenny. Thanks for this reference to Peter Kent, who starred in this production. An earlier version of the present study was presented to the Atlantic Canada Studies Conference, Charlottetown, Prince Edward Island, May 1998. The authors thank the participants at this conference for their helpful comments. Thanks also to the *Acadiensis* readers. James Kenny and Andrew Secord gratefully acknowledge the Social Sciences and Humanities Research Council of Canada, which supported this research.

2 On the Second National Policy, see Janine Brodie, *The Political Economy of Canadian Regionalism* (Toronto 1990), pp. 135-80. See also Vernon Fowke, "The National Policy – Old and New",

James L. Kenny and Andrew Secord, "Public Power for Industry: A Re-Examination of the New Brunswick Case, 1940-1960", *Acadiensis,* XXX, 2 (Spring 2001), pp. 84-108.

addition to limited Keynesian stabilization policies and social welfare programmes, one of the key elements of the Second National Policy was the growing drift of Canada into the American economic sphere, a drift facilitated by federal policies encouraging American corporate investment. Much of that investment was in Canada's natural resource sector and focused specifically on resources of the "new industrialism", such as ferrous and non-ferrous minerals, pulp and paper and hydroelectricity.[3] The rise of continental resource capitalism[4] led activist provincial governments to encourage, through a variety of incentives, the development of their resources by large corporations, many of which were American.[5] Provincial governments in Alberta and Quebec actively courted American capital to develop oil, mineral and hydroelectric resources during this era. Saskatchewan's Cooperative Commonwealth Federation government tried to play a more aggressive role in setting the terms of resource exploitation with American-based private corporations but ultimately had little success.[6] The story was somewhat different in Atlantic Canada. In Newfoundland, Joey Smallwood spent the better part of 20 years trying to lure European, rather than American, investors to Labrador where he hoped they would discover mineral resources and develop hydroelectric power at Churchill Falls.[7] The Nova Scotia government of Robert Stanfield took a different approach to economic planning, using incentives to lure non-resource based manufacturing industries, but these almost always ended in failure.[8] New Brunswick's "power for industry" strategy bore more similarities to the provincial growth strategies outside the region, for it was

Canadian Journal of Economics and Political Science, XIII, 3 (August 1952). While the Second National Policy is most visible in the post-war period, it is important to note that some of its elements – particularly American investment in the "new industrial" resources – had been developing since the end of the First World War. One such example is New Brunswick's pulp and paper industry, which attracted American investment as far back as the 1920s. See William 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.

3 On the "new industrialism", see Harold Innis, "The Canadian Mining Industry", in Mary Q. Innis, ed., *Essays in Canadian Economic History* (Toronto, 1956), pp. 309-20 and Brodie, *The Political Economy of Canadian Regionalism*, pp. 136-8.

4 The term has been used by Melissa Clark-Jones to describe the Canadian economic growth regime during the post-war era. See Clark-Jones, *A Staple State: Canadian Industrial Resources in Cold War* (Toronto 1987). A more comprehensive historical account of Canadian-American relations during the period is provided in Lawrence Robert Aronson, *American National Security and Economic Relations With Canada, 1945-1954* (Westport and London, 1997).

5 Brodie, *The Political Economy of Canadian Regionalism*, p. 160. This provincial activism has been described by some scholars as "province-building". While this is a useful concept, it is important to recognize that "province-building" took place within the larger context of the Second National Policy.

6 John Richards and Larry Pratt, *Prairie Capitalism: Power and Influence in the New West* (Toronto, 1979), chapters 4-8. In the 1970s Saskatchewan nationalized the potash industry, with mixed results. See Kenneth Lyle Taylor, "The Pursuit of Industrial Development in New Brunswick and Saskatchewan, 1945-1960: A Comparative Study", M.A. thesis, University of New Brunswick, 1995, chapter 3.

7 Philip Smith, *Brinco: The Story of Churchill Falls* (Toronto 1975).

8 See James P. Bickerton, *Nova Scotia, Ottawa and the Politics of Regional Development* (Toronto, 1990), chapter 4. Good overviews of the region during the time period in question are: Carman Miller, "The 1940s: War and Rehabilitation" and Margaret Conrad, "The 1950s: Decade of Development", in E.R. Forbes and D.A. Muise, eds., *The Atlantic Provinces in Confederation* (Fredericton and Toronto 1993). An exception to this orientation of the Stanfield government is found in its use of

intended to take advantage of the broader trend of continental resource exploitation.[9] In particular, it was designed explicitly to attract extra-provincial capital – in most cases, American – to develop provincial staples associated with the "new industrialism".

In earlier studies of post-war New Brunswick, R.A. Young has portrayed provincial economic planning and the eventual implementation of the "power for industry" model in the 1950s as a failure. In a 1988 article on reconstruction policy in New Brunswick during the 1940s, he argues that New Brunswick's failure to improve its economic position relative to the rest of Canada in the post-war period was not caused by "powerful external factors like trans-provincial firms and central government policies" but, rather, was an internal failure on the part of the provincial government. In particular, he criticizes the Liberal administration of John B. McNair for ignoring the recommendations of the province's Committee on Reconstruction which, among other things, had recommended the rationalization of primary resources and the development of electrical power capacity to attract industry to the province. Worried that established elites would oppose these initiatives and concerned about the province's lack of expertise, the McNair government chose to spend post-war treasury surpluses on public works and infrastructure that supported what Young describes as traditional clientele networks. In doing so, Young argues, New Brunswick missed a tremendous development opportunity.[10] However, a close examination of power development during the immediate post-war years – one of the key recommendations of the Report on Reconstruction – suggests that clientelism may not have been the most important obstacle to provincial reconstruction.[11] Clientelist politics may have played a role in "dulling reform impulses" within the McNair government, but the decision not to proceed with power development in the 1940s reflected a more complex conjuncture of factors facing the province. These included uncertain

Crown forest leases to attract the Swedish multinational pulp and paper giant, Stora Kopparberg, to Cape Breton. See L. Anders Sandberg, "Forest Policy in Nova Scotia: The Big Lease, Cape Breton Island, 1899-1960", in Sandberg, ed., *Trouble in the Woods: Forest Policy and Social Conflict in Nova Scotia and New Brunswick* (Fredericton, 1992), pp. 84-9.

9 The "power for industry" strategy was very similar to Ontario's "development" strategy earlier in the century. See H. V. Nelles, *The Politics of Development: Forests, Mines and Hydro-electric Power in Ontario, 1849-1941* (Toronto, 1974).

10 R.A. Young, "'and the people will sink into despair': Reconstruction Policy in New Brunswick", *Canadian Historical Review,* 69, 2 (June 1988), pp. 127-66.

11 Young's conceptualization of clientelism and his understanding of its practice in New Brunswick has been challenged by William Parenteau. Parenteau objects to Young's portrayal of a monolithic forest interest opposed to modernization and supporting the continuation of clientelism. He argues that, by the 1940s, two distinct factions of capital were competing for the province's forest resources. While the lumber barons – who were the old patrons of many small New Brunswick communities – were very much part of the traditional clientele system, the pulp and paper corporations advocated depoliticization and the establishment of a modern state that ensured long-term corporate stability. See Parenteau, "Forest and Society in New Brunswick: The Political Economy of the Forest Industries, 1918-1939", Ph.D. thesis, University of New Brunswick, 1994, chapter 4 and conclusion; see also Parenteau, "Settlement and the Forest Frontier Revisited: Class Politics and the Administration of the New Brunswick Labor Act, 1919-1929", in Daniel Samson, ed., *Contested Countryside: Rural Workers and Modern Society in Atlantic Canada, 1800-1950* (Fredericton, 1994), pp. 222-3.

demand, technical problems and the financial constraints of large-scale borrowing necessary to build increased electrical capacity. The last factor was especially important in a province with a legacy of underdevelopment and on-going fiscal crises.

Elsewhere Young has examined the implementation of the public power development strategy in the 1950s. He argues that the principal impetus for economic planning in the province came from the increasingly professional and autonomous power utility rather than the Flemming government.[12] Taking advantage of the government's desire to attract capital to the province, NBEPC engineers successfully promoted a "power for industry" strategy designed to foster the growth of the utility as much as to further the wider public interest.[13] This is only part of the story. Clearly all institutions tend to operate in their own self-interest, but the adoption of the new growth strategy reflected a number of other factors. Principal among these were the discovery of base metals in 1953, the Cold War milieu which increased the value of this new resource and the general continentalist orientation in Canadian economic affairs during the era of the Second National Policy. Moreover, the NBEPC was only partially responsible for the new economic strategy. There was an underlying logic to the growth strategy in this era which promised material and political benefits to the utility, business and government; and each of these interests was actively involved in the restructuring process.

The use of public power to promote industrial development had first been debated in New Brunswick earlier in the century; indeed, the question of whether the public NBEPC or private industry should develop hydroelectric power at Grand Falls, on the St. John River, was a key issue in the 1925 provincial election. In that contest the provincial Liberals – who were the main advocates of public power – were defeated, and the incoming Conservative government of J.B.M. Baxter gave the pulp and paper giant, International Paper, the right to develop the Grand Falls site.[14] Thereafter two distinct electrical generation systems developed in the province.[15] In the north,

12 R.A. Young, "Planning for Power: The New Brunswick Electric Power Commission in the 1950s", *Acadiensis*, XII, 1 (Autumn 1982), pp. 73-99.

13 This paper does not address Young's assertion that, in pursuing its own interests, the NBEPC's actions "coincided less than completely with the larger interests of New Brunswickers" (ibid., p. 99). Identifying a "public interest" is problematic. Instead, this paper explains the origins and nature of the social relations of the "power for industry" growth strategy which emerged between 1940 and 1960. This we locate within the context of a more general provincial response to on-going underdevelopment and the perceived opportunities of further integration with the American economy. These factors underlay the growth of public power and the NBEPC during the post-war period and shaped future state "development" initiatives.

14 The public power movement of the 1920s has been well-documented. Of particular importance, see Parenteau, "The Woods Transformed" and Christopher S. Beach, "Electrification and Underdevelopment in New Brunswick: The Grand Falls Project, 1896-1930", *Acadiensis*, XXIII, 1 (Autumn 1993), pp. 60-85. An earlier and less satisfying account of the relationship between electrification and underdevelopment is found in Peter J. Wylie, "When Markets Fail: Electrification and Maritime Industrial Decline in the 1920s", *Acadiensis,* XVII, 1 (Autumn 1987), pp. 74-96. The early years of the NBEPC are documented in Christopher Armstrong and H.V. Nelles, *Monopoly's Moment: The Organization and Regulation of Canadian Utilities, 1830-1930* (Philadelphia, 1986), pp. 301-3.

15 On the development of power during this period, see Andrew Secord, "Megaprojects in Maritime Canada: A Case Study of the New Brunswick Electric Power Commission", D.Phil. thesis, University of Sussex, 1994, chapter 2.

electrical production and distribution was controlled almost entirely by pulp and paper interests, of which International Paper was the biggest, and it was used almost exclusively for industrial operations. In the south and central parts of the province, electrical production and distribution was fragmented among many small producers, including the publicly-owned NBEPC. Underlying the development of these two distinct and unconnected electrical systems was a de facto economic strategy focused on meeting the demands of particular pulp and paper corporations.

This growth strategy met with some early success. Between 1925 and 1930, two of the principal pulp and paper interests, International Paper and Frasers, expanded quickly in New Brunswick. International Paper built a 550-ton-per-day paper mill at Dalhousie (one of the largest in North America at the time) supplied with power from their 80,000 horsepower hydroelectric development at Grand Falls. In 1928 Bathurst Power was taken over by International Paper and expanded production to 130 tons per day. Frasers expanded their sulphite pulp production at their Atholville and Edmundston mills to 550 tons per day and added groundwood production of 140 tons per day in Edmundston. Premier Baxter negotiated with International Paper to ensure that Frasers was reserved 20,000 horsepower of power from Grand Falls. While the agreement allowed NBEPC up to 6,000 horsepower of power from the Grand Falls site, it also contained a clause prohibiting the utility from reselling the power to any pulp and paper producer, effectively ensuring International Paper's power monopoly. International Paper was also given the right to develop any further hydro resources on the St. John River below Grand Falls.[16]

While International Paper controlled much of the power generation in the north, after 1930 the NBEPC expanded incrementally in the southern and central parts of the province. The public utility's commissioners during this period were government appointees who had been active in the anti-public power campaign of 1925, and they dutifully tried to avoid competition between the NBEPC and private power producers. Consequently, the public utility expanded only in response to the petitions of rural residents, consumers of industrial power and private power producers wishing to sell their operations to the government. Throughout the 1930s a number of small private and community distributors of electricity – many of them equipped only with small diesel-electric or hydro generators – sold their operations to the NBEPC. In 1931 and 1936 the public utility added two new coal units at Grand Lake, in southern New Brunswick, which more than doubled its generating capacity. These additions, however, were purely reactive measures taken in response to petitions from larger power consumers. Typical of this was the first Minto thermal coal plant, which was constructed in 1931 in response to petitions from the Maritime Electric Corporation in Fredericton and the Canadian Cottons mill in Marysville. Even in this case, where two large power users requested public power, the NBEPC's commissioners hesitated to approve the Minto development until all private power options had been explored.[17] By 1940 the NBEPC had 20.3 megawatts of capacity and more than 17,000 customers, up from 1,118 at the beginning of the previous decade, but the expansion

16 Parenteau, "The Woods Transformed", pp. 27-43.

17 Minutes of 20 May and 27 June 1930, Vault Copy, New Brunswick Electric Power Commission Central Records [NBEPC Records], Fredericton, New Brunswick.

was essentially the outcome of an incremental growth strategy.

Meanwhile, the electrical policy which was designed in the 1920s to accelerate economic growth had, by the 1940s, become a significant constraint on economic growth more generally. Growth and investment in the forest sector – particularly pulp and paper – dropped off precipitously in the 1930s, and the economic failures of this period forced the provincial government to try to formulate a new growth strategy. The first attempt was the Advisory Board for Economic and Industrial Development (ABEID) established in 1939. Composed of local business leaders from a variety of sectors, this board was to advise Premier McNair on industrial development. With the onset of war it directed its efforts almost exclusively at securing war contracts for New Brunswick businesses.[18] The ABEID ultimately had little success both in this endeavour and in meeting the larger objective of bringing industrial development to the province. In a 1942 memorandum to McNair, J.R. Petrie,[19] the ABEID's economic advisor, attributed these failures and the ineffectiveness of the board more generally to the weakness of local capital, the lack of labour skills within New Brunswick and the inability of the province to attract large-scale industrial users of electricity.[20] Much was made of New Brunswick's limited electrical power capacity throughout the war by federal politicians and bureaucrats when trying to explain Ottawa's failure to direct war contracts to the province. However, the federal government showed little willingness to improve the situation. In 1940 the federal cabinet had dismissed out of hand a request from McNair for funds for infrastructure development, which included the expansion of electrical generating capacity.[21] McNair would make his case in a more public forum in 1943. Appearing before the House of Commons Committee on Reconstruction and Re-establishment, he emphasized the urgent need for federal and provincial state initiatives designed to develop power for both industry and rural electrification.[22] This theme was repeated throughout the reconstruction era, but little help was forthcoming from Ottawa until the 1950s, and even then in a very limited fashion. Nevertheless, the Second World War had highlighted New Brunswick's power problems and implicated them in the province's failure to improve its economic situation. In the future, advocates of public power in New Brunswick would point to these wartime failures when advancing their cause.[23]

The second attempt at defining a new growth strategy was the province's

18 Minutes of 24 October 1939, Advisory Board for Economic and Industrial Development [ABEID Records], MC 506, MS 1, Provincial Archives of New Brunswick [PANB], Fredericton, New Brunswick.

19 Between 1941 and 1945, Petrie, who held a Ph.D. in economics from McGill University, served as Secretary of the ABEID, Deputy Co-ordinator of War Industries for New Brunswick, Economic Advisor to the New Brunswick Committee on Reconstruction and Professor of Economics at the University of New Brunswick.

20 "Confidential Memorandum to Premier, 1942", MC 506, MS 2, ABEID Records, PANB.

21 See Ernest R. Forbes, "Consolidating Disparity: The Maritimes and the Industrialization of Canada during the Second World War", in *Acadiensis,* XV, 2 (Spring 1986), pp. 3-27. Forbes's explanation for the lack of wartime industrial activity in the Maritimes emphasizes the regional biases of federal bureaucrats and politicians, most notably C.D. Howe.

22 "Submission on Behalf of the Province of New Brunswick by Honourable J.B. McNair to the Special Committee of the House of Commons on Reconstruction and Re-establishment", RS 414, 2-21, Records of Premier J.B. McNair, PANB.

23 The opinion that inadequate power supplies contributed to the failure to obtain wartime industry was, according to Reg Tweeddale, chairman of NBEPC in the 1950s, widely held. See Transcript of

Committee on Reconstruction, appointed in 1943, and modelled on a similar federal committee established in 1941. It was composed largely of state "experts" – including Dr. Norman MacKenzie (president of the University of New Brunswick), J.G. Boucher (chairman of the NBEPC) and John McKinnon (of the New Brunswick Federation of Labour). The Reconstruction Committee travelled throughout the province, holding public hearings and inviting the views of local citizens and organizations, although very few citizens actually presented their views. More influential were the briefs presented by the forest industries and the ideas of J.R. Petrie, who served both as the committee's secretary and the province's deputy coordinator of War Industry.[24] In 1944 the committee's report, written in large part by Petrie, set out a three-pronged economic growth strategy for New Brunswick.[25] The Committee identified the province's resource-export sectors as key to future economic growth. Of these, a rationalized forest sector with new wood-processing operations was seen as central to New Brunswick's reconstruction. Notably, no mention was made of linkages into input-manufacturing or large-scale consumer industries. Second, the committee recommended that the provincial state play a more active role in promoting economic growth in the resource sectors, especially in forestry through the management of Crown Lands. Third, the report acknowledged the need for outside investment in the resource sector and, in particular, in the processing of resources within the province.[26] To promote this last goal, the Report called for the provision of cheaper and more plentiful electricity as its "highest priority".[27]

While the Report identified electricity as central to industrial rehabilitation, it took a cautious approach to expanding public power: "It is . . . recommended that in areas where generating and distributing efficiency can be increased, and costs to the consumer lowered, the Provincial Government acquire existing facilities which are privately owned and operated".[28] This was still an incremental approach to power planning where the analysis was done by "areas" as opposed to the entire province, nor would it supply the volumes of electricity required by new pulp and paper mills or any other large industrial enterprise. Archival records do not reveal why the

Interview with Tweeddale by Andrew Secord, 23 November 1988, Prince William, N.B., p. 16, MC 1677, MS 3, PANB.

24 The forestry section of the Report was written by a committee of forest engineers from International Paper, Frasers Pulp and Paper, Bathurst Pulp and Paper, the Director of Extension at the federal forestry office and the Extension Officer of the province. It was presented originally as the combined brief of the Canadian Forestry Association and the New Brunswick Forest Products Association and integrated into the Report. On the details of the Reconstruction Committee's hearings, see Young, "'and the people will sink into despair'", pp. 136-40.

25 New Brunswick, *Report of the New Brunswick Committee on Reconstruction* (Fredericton, 1944).

26 Traditional areas of tension between local and external capital were omitted from the report, as were the controversies over settlement policy on Crown Lands, working conditions in the woods, high-grading by paper companies and corporate anti-competition strategies. On the history of these tensions in the interwar period, see Parenteau, "Forest and Society in New Brunswick".

27 Other initiatives promoted by the committee to achieve industrialization included provincially sponsored research and marketing facilities and, in the tradition of Maritime Rights, cheaper transportation to Central Canadian markets. See *Report of the New Brunswick Committee on Reconstruction*, pp. 54-5.

28 *Report of the New Brunswick Committee on Reconstruction*, p. 53.

Committee did not promote a more aggressive power development strategy. Perhaps most importantly, the province was in dire financial circumstances. Indeed, in 1940 Canada's major banks refused to refinance New Brunswick's bonds unless the government allowed one of their representatives to plan the provincial budget. The province initially acceded to this request but later rejected the banker's demands that taxes be increased. Modest wartime economic growth within the province apparently reassured the banks, and they continued to back the province's bonds. However, the province's precarious financial situation was apparent to all, and this made it difficult to borrow money.[29] This fact played an important role in understanding the pace of electrical development during the 1940s. Most observers agreed that hydroelectric development was the best option for large-scale power expansion; over the long term it was cheap but in the short-term it involved heavy front-end costs. The province's shaky finances were therefore a serious impediment.[30] But despite the weakness of the Reconstruction Report in this area, a new consensus was emerging within the provincial state. The key elements of the new growth model included a focus on general accumulation conditions (rather than the accommodation of individual business interests), as well as acceptance of the centrality of resource exports and foreign capital as the engine of growth. Within this resource-led strategy, electricity was identified as one of the principal constraints.

New initiatives were apparent with the establishment of a Resources Development Board (RDB) in 1944. Its broad mandate was consistent with the Reconstruction Committee's emphasis on resources, especially re-structuring in the forest industry. Two key extra-bureaucratic actors associated with the RDB would play important roles in shaping New Brunswick's development strategy over the next 15 years. Both John Bates and H.J. Rowley had extensive connections with the pulp and paper industry and the war economy. In addition to Rowley (who was appointed chairman) and Bates, the RDB was composed of Miramichi lumber operator G.P. Burchill and W.A. Harrison, the former executive assistant to federal Minister of Munitions and Supply C.D. Howe.[31] The board was charged with promoting "the development of both primary and secondary industries in this province by whatever means it may have at its disposal".[32] This mandate reflected both the importance of the resource sector and the equating of resource development with general economic growth. The RDB marked a departure from previous provincial attempts at stimulating growth. In

29 On New Brunswick's financial difficulties during this period, see Young, "'and the people will sink into despair'", pp.131-3 and Jennifer Dorothy Francisco, "New Brunswick Finances, 1917-1952", M.A. thesis, University of New Brunswick, 1992, pp. 90-118.

30 The Reconstruction Committee's reticence in promoting public power may also have reflected the lack of basic technical information on the availability of power on the St. John River system (aside from the Grand Falls site which was already committed to two pulp and paper mills).

31 J.S. Bates to Deputy Minister of Lands and Mines, 13 January, 3 April 1944, RS 106, Box 43, "New Brunswick Resources Development Board 1943-1944", PANB. Rowley was Director of the Chemicals and Explosives Division of the Allied War Supplies Corporation during the war. Previously he had been director of research and development with major paper companies. Burchill was a local lumber mill owner who had been president of the Canadian Lumber Association, the Canadian Forestry Association and a prominent MLA. Harrison had been executive assistant to C.D. Howe, the powerful Minister of Munitions and Supply.

32 Order in Council (6 April 1944), MBU-IV-21-59-8, MC 1246, Burchill Papers, PANB.

particular, the influence of local business interests was lessened, technical expertise was emphasized, a broad mandate was established, and provincial funds were made available to promote resource development. At a general level, the RDB was in fact part of a broader transformation of state activities that had been ongoing since the 1920s when multinational pulp and paper corporations demanded state expertise and a stable investment climate.[33] However, the RDB marked an attempt to extend these principles of the modern state to the general question of resource-led growth.

The RDB soon expanded its mandate into the electrical sector. Informed by the NBEPC in 1944 that the utility had no plans to investigate large-scale electrical development, especially hydroelectrical power, the board took the initiative, contracting with Power Corporation of Montreal to investigate the electrical potential of the St. John River system.[34] Within a few months, the Montreal consulting firm had identified Tobique, Beechwood and Mactaquac as the most promising sites for hydro development.[35] By this time RDB members had concluded that only hydro power would provide relatively competitive power for new industry in New Brunswick, and the board subsequently devoted a significant portion of its efforts in the 1944-48 period towards hydro promotion.[36]

Significant technical problems slowed the pace of power development in New Brunswick during the late 1940s. Hydro dams alone on the St. John River system producing power on a "run-of-river" basis were subject to large fluctuations in available water supplies. In the spring and autumn months the flow of water was at its maximum and the hydro generators could produce their maximum output. However, in the winter and summer months, with much lower rainfall, power production would drop drastically. Thus, a hydro plant alone could not produce the base-load power which industry required. Storage dams on the headwaters of the river system could, by holding back water, distribute the flow more evenly and thus increase the year-round base-load supply. In the case of the St. John River system, however, this meant constructing dams and flooding lands, including lands in the headwaters in Quebec and Maine, a situation that would require negotiation at both the inter-provincial and international levels. The alternative was to create a province-wide hydro-thermal power grid. Hydro sites would be connected via high-voltage transmission lines to thermal units, which could be used as back-up to supply power when the hydro units had low water flows.

The technical problems became clear as the RDB studied the potential hydro sites. The location of these St. John River sites in the northwest of the province meant that the NBEPC would have to consider exploiting regions into which it had not yet expanded, for International Paper had no interest in becoming a large-scale power producer. International Paper's original plans for the Grand Falls site – namely to produce all of its power requirements and to sell surplus power to the NBEPC – had been limited by its inability to obtain storage in Maine and Quebec which would have

33 Parenteau, "Forest and Society in New Brunswick", chapter 4 and conclusion.
34 "Minutes of Meeting of RDB and Power Commission in Saint John, August 4, 1944", MBU-IV-21-59-8, MC 1246, Burchill Papers, PANB.
35 "Progress Report: N.B. Water Power Studies, February 1945", RS 414, McNair Papers, 15-7, PANB.
36 "Minutes of RDB Meeting, February 20, 1945", p. 6, RS 414, McNair Papers, 15-5, PANB.

provided base-load power.[37] The company therefore was forced to supplement its hydro power with a much more expensive thermal plant and to reduce the operating capacity of its Dalhousie paper mill on a regular basis due to lack of power. By the post-war period International Paper had decided against becoming a large-scale private power producer and itself began pressuring the government for supplementary power.[38] The problems presented by the lack of upriver storage were also cited by the Power Corporation when, in 1947, it rejected an attempt by the RDB to interest it in owning a power development at Beechwood. In 1946 New Brunswick officials opened a dialogue with their Maine counterparts in an attempt to obtain storage along a Maine tributary of the St. John River, but these discussions eventually stalled.[39]

The only other significant producer in the province which could have been a candidate for developing hydroelectric power was the Saint John-based New Brunswick Power Company (NBPC). One might expect that this corporation, which sold power almost exclusively to an urban market (generally much more profitable than rural markets), might have had enough capital to embark on power expansion. However, this was not the case, as the political struggles of the 1920s between public and private power coalitions had resulted in a dual urban system with two sets of distribution lines. The lines of the municipally-owned Saint John Power Commission were supplied by the NBEPC, and the private system was supplied by the NBPC's coal-fired generator in Saint John. The small market combined with the competition of the municipal utility provided little scope for expansion. Moreover, throughout 1947 and 1948 industrial consumers of power in Saint John lobbied the NBEPC for additional power at reasonable rates. This pressure eventually led to the public expropriation of the New Brunswick Power Company in 1948.[40]

The RDB found the publicly-owned NBEPC no more interested in developing hydroelectricity on the St. John River than were private interests. The public utility was decidedly lukewarm to hydroelectric development between 1944 and 1948, despite the fact that it was unable to meet industrial demand in these years, resulting in power shortages and even rationing in 1948. Instead, the utility focused on the incremental expansion of its coal-fired generating capacity to meet the needs of rural electrification, particularly in the south of the province.[41] For a small utility which generated no significant economic surpluses, there was a logic in this approach which was spelled out by the utility's chief engineer in a 1946 critique of the RDB's proposed hydro development at Tobique. In it he outlined the economic and technical problems of large-scale hydro for the existing rural electrification model of growth.

37 The pulp and paper giant had tried unsuccessfully to have special legislation passed in Maine giving it access to storage sites along the St. John River in Aroostook County, Maine. See Richard Judd, *Aroostook: A Century of Logging in Northern Maine* (Orono, 1989), pp. 233-42.

38 President of International Paper to McNair, 19 September 1947, RS 414, McNair Papers, 15-1, PANB.

39 H.J. Rowley to J.B. McNair, 15 October 1946, RS 414 F4a2, McNair Papers, PANB.

40 Rowley to McNair, 17 February 1947, RS 414-15-1, McNair Papers, PANB; A. Carton to McNair, 15 October 1947, RS 414-10-1, McNair Papers, PANB and Minutes of the Meeting of 28 November 1947, pp. 6-7, NBEPC Records.

41 New Brunswick was not alone in this concern for rural electrification during this era. See Clinton O. White, *Power for a Province: A History of Saskatchewan Power* (Regina, 1976), chapter 11.

The critique stressed the compatibility of small-scale coal expansion with rural electrification and incremental expansion of the distribution system. Coal generation had relatively low capital costs which could be financed without difficulty, and the fuel costs could be adjusted as demand increased, thereby reducing financial risk and meeting short-run load increases as they developed. The generating units could also be constructed in the longer term with relatively short lead times. For the rural and domestic markets, where the availability of power (rather than its price) was the objective, the system met the NBEPC's objective of meeting demand with little financial risk. The proposed large-scale hydro projects on the St. John River lacked flexibility because of their high capital costs. They also were "run-of-river" systems which, without storage, would produce maximum power only during the spring and autumn periods and necessitate additional investment in interconnections and thermal units for back-up. Without large up-river storage arrangements with the State of Maine and the Province of Quebec, or without an expensive provincial grid system, large-scale hydro would risk the financial viability of the NBEPC. In addition, there was no guarantee that the power could be sold, again adding to the risk.[42]

During these immediate post-war years the RDB and the NBEPC pursued very different electrical policy models. The RDB, charged with promoting the full development of provincial resources, expanded its mandate to promote hydroelectric development along the St. John River as a means of providing power for potential industrial consumers. The NBEPC model could not have been more different; it had developed to serve an incrementally expanding southern system. Individual businesses and rural communities were accommodated on an ad hoc basis. As their power needs were relatively small, they generally could be accommodated through expansion of the major coal-fired units located at Grand Lake. There could also be political benefits for the utility's political masters associated with the process of rural electrification; while the utility did employ criteria to determine into which areas electrical services were to be extended, political concerns could also seep into the decision-making process.[43] Indeed, there was a small coalition of local interests materially connected with the NBEPC model, including rural farmers and residents, coal miners and operators, coal-design consulting engineers and distribution line contractors. However, there is no evidence that any of these groups actively organized to resist the RDB's new strategy for hydro development in the 1940s.

These very different electrical development models began to converge in 1948 when the provincial Liberal government, supported by the opposition Conservatives, committed itself to a public power system. Central to this public system was a mixed hydro-thermal system connected by a high-voltage transmission grid. This vision was publicly articulated by the hydro critic in the Conservative opposition, Hugh John Flemming, who would later become premier, in his "power speech" to the Legislative Assembly on 9 April 1948. Flemming argued for a state monopoly of electrical power based on a hydro-thermal system with the early development of the Beechwood site

42 "Comments on Report on Tobique River", 1 April 1946, RS 414-10-12, McNair Papers, PANB. The utility's initial objection to hydro development was registered at a meeting with the RDB in 1945. See "Minutes of RDB Meeting, February 20,1945", RS 414-15-5, McNair Papers, PANB.

43 For a sample of the political correspondence in 1945 regarding line extensions, see RS 414-10-1, 414-10-5, 414-10-13, McNair Papers, PANB.

(which was, coincidentally, located in his constituency) and described the economic logic behind the "power for industry" system. The economies were to come from larger generating units and the increased efficiency of an integrated grid system. To obtain power for industry without the complications of storage, the province needed an interconnected grid which would connect the large-scale hydro to the thermal units. In such a system, the NBEPC would control the entire transmission system to ensure that it met the needs of provincial-level co-ordination rather than the particular needs of local utilities.[44]

To facilitate the public power model Premier McNair, acting on RDB chairman Rowley's advice, took measures to reform the NBEPC in 1948. The utility's headquarters were moved from Saint John to Fredericton, an organizational review was initiated and the quality of the engineers hired by the utility was emphasized. Moreover, the premier appointed Rowley to the NBEPC Board of Commissioners, where he met with limited success in developing an integrated grid system during the 1948-53 period.[45] In terms of hydro development, the utility concerned itself for the most part with attaining storage in Maine and Quebec. When negotiations with Maine stalled in 1948, the RDB advised McNair to have the question referred to the International Joint Commission (IJC) which was then dealing with a similar storage issue on the Columbia River on the west coast. On 8 December 1948 McNair wrote, with the blessing of Maine's governor, to newly-installed Prime Minister Louis St. Laurent requesting that the Canadian government refer the question of storage to the IJC.[46] The request was favourably received and, in September 1950, the governments of Canada and the United States officially asked the IJC to investigate "what projects for the conservation and regulation of the waters of the Saint John River system above Grand Falls would be practical in the public interest".[47] Over the next five years the issue would be studied by an IJC-sponsored St. John River Engineering Board composed of utility officials and the United States Army Corps of Engineers.

In the meantime the NBEPC decided in 1950 to proceed with a smaller hydro project at Tobique. The Tobique site was chosen because its storage, on the east side of the St. John River system, was entirely within New Brunswick. Also contributing to the decision were the power demands of Edmundston and International Paper and the project's relatively low capital cost compared to proposed developments at Beechwood and Mactaquac. In the Tobique case, the utility was able to solve the storage, demand and financial problems without committing itself to an integrated system.

Although the technical and social organization of the production of electricity in

44 For the "power debates" and confirmation of the convergence between the two political parties on electrical policy see *Synoptic Reports of the New Brunswick Assembly*, (1948), pp. 243-6, 279-82, 290-5.

45 Minutes of the Commission, 28 October 1948, NBEPC Records.

46 Noting that American authorities were requesting storage rights on the Columbia River within British Columbia, Rowley suggested that "we might at this time most opportunely introduce the St. John River watershed question and balance the West against the East with respect to reciprocal agreements". See Rowley to McNair, 10 April 1946, RS 414 F4a2, McNair Papers, PANB. McNair's request was made two years later. See McNair to Louis St. Laurent, 8 December 1948, RS 414 C11, McNair Papers, PANB.

47 Brooke Claxton to E.M. Sutherland, 28 September 1950, RS 414 C11, McNair Papers, PANB.

New Brunswick changed very little between 1940 and 1952, the NBEPC's generating capacity tripled during the period. Its share of the total production of electricity within the province grew with the take-over of the New Brunswick Power Company in Saint John in 1948. But little progress was made in developing a province-wide grid or exploiting the hydro resources of the St. John River. Moreover, electrical rates remained among the highest in Canada and provincial per capita consumption of electricity was only 30 per cent of the national average.[48] What was significant about this period was the provincial state's recognition that electrical policy was a fundamental part of future economic growth and that the sector needed to be restructured with an emphasis on public power. While electrical development was central to the plans of the province's Reconstruction Committee and the RDB, the consensus around public power emerged only after the private sector showed no interest in power generation. The new strategy was part of a general response to underdevelopment, conceived by a new class of professionals with a commitment to resource-led economic growth, especially in the forestry sector.

While clientelism undoubtedly operated in New Brunswick in the 1940s, there is little evidence that it played a crucial role in explaining the slow pace of public power development during the 1945-52 period.[49] One obvious place to look for evidence of clientele networks impeding the movement to hydro power during this period is in the relationship between Minto coal interests and provincial politicians. At first glance it appears that coal operators and their workers had the most to lose from the RDB's interest in hydroelectric development; moreover, these interests had, in the past, exerted a strong influence on the provincial government.[50] However, our research has turned up no evidence of opposition from coal operators to proposed hydroelectric expansion in the 1940s. It appears that the coal lobby recognized that the scope of the public utility's expansion plans (especially the proposed hydro-thermal grid) meant that there was much potential business for the various coal interests. Such an expansion would be impossible in New Brunswick without hydroelectric development of some sort. In the next decade the coal interests would express some concern over the construction of the Tobique hydroelectric plant but devoted most of their attention to ensuring that the NBEPC fired its thermal generators with coal rather than oil.[51]

Several factors made a shift to a "power for industry" model especially risky in 1948. These included the uncertain electrical demand for large volumes of electricity, the on-going problems with storage and the financial constraints on large-scale borrowing. These were economic and technical constraints which posed unacceptable

48 NBEPC, *Annual Reports,* 1940 and 1952.

49 Young points to provincial expenditures on highway upgrading and rural electrification, rather than "power for industry", as evidence of the influence of clientelism. However, he never identifies the actors involved or demonstrates how the clientelist networks operated in opposition to the Reconstruction Committee's proposals.

50 Allen Seager, "Minto: New Brunswick: A Study in Canadian Class Relations Between the Wars", *Labour/ Le Travailleur,* 5 (Spring 1980), pp. 81-132.

51 In his letter to the deputy premier, A.M. Tooke, of the Coal Operators' Association, noted that the Association had been under the impression that the demand for power was so great that hydro and thermal power could exist together quite comfortably: A.M. Tooke to A.J. West, 25 May 1953, RS 415 N2K, Hugh John Flemming Papers, PANB.

risks for a small province with a legacy of underdevelopment and on-going fiscal problems. It has been suggested that the province's fiscal limitations could have been overcome had the province spent the increased revenues produced by post-war federal-provincial financing arrangements on proposals such as the development of public electricity for large industrial consumers rather than on public works, such as road paving and rural electrification. This view has been challenged by Jennifer Francisco, on the grounds that the Reconstruction Committee's proposals were premised on Ottawa taking over responsibility for costly social welfare programmes in the post-war period. When Ottawa and the provinces failed to work out a new fiscal framework in the immediate post-war years, tax rental agreements were devised. While these agreements did increase the province's revenue, the amounts were not adequate to make the Reconstruction Committee's proposals affordable.[52] Moreover, as E.R. Forbes has noted, there was undoubtedly public pressure for the development of services, the absence of which was, in part, a legacy of underdevelopment: "Paving highways in this period meant escape from impassable mud in the spring and 'washboard' roads with their choking, sickening dust in the summer. Electrification meant electric lights instead of lamps and lanterns in houses and barns and access to the new consumer society of washing machines, refrigerators and water pumps. Social services included badly-needed schools and a narrowing of the gap in welfare offerings. The aspirations for such conveniences extended far beyond the elite. No provincial government could easily deny to its citizens such services after they were conspicuously available in nearby provinces".[53] The McNair government had limited flexibility in spending its surpluses, a circumstance that did nothing to improve the ability of the NBEPC to embark on capital-intensive hydroelectric developments to meet the projected needs of industry in the future.

Power development in New Brunswick accelerated during the 1950s, particularly after the Conservative government of Hugh John Flemming was elected in 1952. This new government initiated a major restructuring of the province's electrical sector based on the "power for industry" model devised by state planners in the previous decade. The NBEPC was given the mandate to establish a public monopoly of all generation, transmission and distribution in the province. Over the next 15 years the NBEPC not only acquired most of the private and municipal distributors and expropriated the Grand Falls site from Gatineau Power, but also invested in large new hydro projects on the St. John River, most notably at Beechwood, which opened in 1958. The utility also increased thermal coal generation at Minto and Chatham and thermal oil generation in Saint John. During the 1950s the NBEPC increased its output five-fold, from 242 to 1,155 gigawatt hours, and its capacity grew from 65 to 265 megawatts. Whereas private power producers in 1950 generated almost three

52 Francisco, "New Brunswick Finances, 1917-1952", pp. 108-15.

53 E.R. Forbes, "The Atlantic Provinces, Free Trade and the Canadian Constitution", in *Challenging the Regional Stereotype* (Fredericton, 1989), pp. 205-6. Kenneth Taylor argues that the infrastructure created under McNair did not contradict the Reconstruction Committee's proposals. "The development of infrastructure was not merely desirable", he contends, "it was absolutely essential to manufacturing growth and a prerequisite for the development of a modern industrial state". See Taylor, "The Pursuit of Industrial Development in New Brunswick and Saskatchewan, 1945-1960", p. 86.

times as much energy as NBEPC, by 1960 the NBEPC produced 66 per cent of all electrical power produced for sale in the province.[54] Not only did the NBEPC grow very quickly but the relative magnitude of the growth was also exceptional, especially in the case of the Beechwood hydro project, which almost doubled the utility's capacity.[55] Indeed, the NBEPC was transformed from a small public utility serving mostly residential and commercial markets in a market dominated by private producers to a province-wide grid system with a mandate to supply power for industry.

The implementation of the "public power for industry" strategy in the 1950s is explained by a number of factors. At an internal level the NBEPC became more professional and developed a strong planning capacity. The groundwork for this internal development was laid in the late 1940s when the utility, at the government's behest, began hiring a cadre of professional engineers. Planning capacity was further improved through the utility's involvement in the planning and research associated with the St. John River reference to the IJC. Initially charged with studying storage possibilities above Grand Falls, the mandate of the St. John River Engineering Board was expanded in 1952 to include an evaluation of all potential hydro sites along the river, including those south of Grand Falls. Working side by side with representatives of the United States Army Corps of Engineers, and in regular contact with public and private power utilities throughout North America, NBEPC engineers developed technical and planning expertise, as well as a more continentalist outlook. Utility engineers also took from this planning experience an almost messianic view of the transformative possibilities of electric power in society. This view was expresed clearly by Reg Tweeddale, head engineer for the utility, in a memorandum to the utility's Board of Commissioners in 1951: "The economic salvation of the province depends in large measure on greater production, total and per man, and this will only come from the more extensive use of electric power as applied to our industrial life and the development of our province".[56]

Armed with this new expertise and confidence, these engineers prepared a report in the fall of 1952 for the incoming Conservative government recommending the development of a province-wide public power grid based on hydroelectric development. This proposal was strengthened in April of the next year when the St. John River Engineering Board's Interim Report recommended a public power strategy that included the immediate construction of a power facility at Beechwood, the development of interconnections among utilities in Maine and New Brunswick, the development of storage on the St. John River system and an increased emphasis on supplying power for new industries. Notably, private power interests in the province – who were consulted by the board during their investigation – accepted the concept of a public monopoly of new power production and distribution in New

54 Canada, Dominion Bureau of Statistics, *Central Electric Stations* (Ottawa, 1950) and *Electric Power Statistics*, *Volume II* (Ottawa, 1960).

55 In 1965 the NBEPC would expand again, this time with a hydroelectric mega-project at Mactaquac that would more than double the utility's capacity, which at the time was 423 megawatts.

56 Memorandum of 13 October 1951, File 3-333s, Reel 598, St. J.-27, St. John River Correspondence, 1948-1951, NBEPC Records.

Brunswick. Already predisposed to a public power strategy based on resource development, the Flemming government accepted the recommendations of the NBEPC and gave the public utility a mandate to develop a provincial power grid based, initially, on hydro development.[57]

Over the next decade the increasingly professional NBEPC became both larger and more autonomous from its political masters. Initially under the direct control of the government, management of the utility was passed in 1954 to an interdepartmental Power Committee composed of politicians, bureaucrats and engineers. By the end of the decade, and on the recommendation of the Power Committee, the utility became even more autonomous and depoliticized. While the chairman of the utility continued to be a cabinet minister, the administration of the commission was moved into the utility itself. A general manager and executive committee of senior utility managers were appointed to administer policy and plan the future direction of the commission. While major decisions were still subject to government approval, political interference was lessened. In the process, Young argues, the utility increasingly pursued its own interests. "Power for industry" became the "industry for power" strategy, as utility managers promoted power as a way of meeting their own imperatives for organizational security and growth.[58]

Electrical policy, however, was shaped by factors other than the utility's empire-building. Business interests in two important industries – one old and one new – were strong champions of public power for industrial development during the decade. In the late 1940s the province's principal heavy industry, pulp and paper, had begun to advocate public power. This was an important development, for that industry had been, until that point, the major proponent of private power. Pulp and paper companies such as International Paper were experiencing shortages of power which necessitated the purchase of pre-ground wood from outside New Brunswick in order to operate at full capacity. These purchases both reduced the mill's profits and eliminated jobs in New Brunswick. In 1952 International Paper estimated that employment at their mill and in the woods operation was reduced by 12 per cent due to inadequate power supplies.[59] This was of special concern to the government as the company employed 1,200 people in the mill and up to 6,500 in the woods operation. In a letter appended to the IJC's 1953 Interim Report, International Paper expressed an interest in purchasing future power requirements from the NBEPC and concluded that the public utility could provide cheaper power based on grid economies, larger coal units and the development of lower-priced hydro.[60] The position of the other own-generation power producers in the province – mostly pulp and paper companies

57 International Joint Commission, St. John River Engineering Board, "Water Resources of the Saint John River Basin: Quebec – Maine – New Brunswick", Interim Report to the International Joint Commission, 6 April 1953, RS 415 N4-e-3-IJC, PANB.

58 Young, "Planning for Power", p. 99.

59 Load and Demand General Data 1917-1955, Appendix No. 1 to the "Report on Power Requirements of New Brunswick Electric Power Commission, November 13, 1952", Reel 549, File 3-313 and "Newsprint Mill N.B. International Paper Company, Dalhousie, N.B.", 30 October 1952, Reel 549, File 3-317. NBEPC Records. The grinding of the wood in paper production was the principal power requirement in the production of paper. By purchasing pre-ground wood, the industry could reduce power requirements while maintaining output.

60 "Water Resources of the Saint John River Basin: Quebec – Maine – New Brunswick", 6 April 1953.

such as Frasers, Dalhousie Pulp and Paper and the Irving interests – was similar. Aside from the Grand Falls site, all of their production came from small-scale hydro or small coal-thermal units. The cost of power from further expansion of coal-thermal generation was almost twice as expensive as the proposed public power system. By the late 1940s and early 1950s, then, the pulp and paper companies had come to perceive their power interest to be in public power. Indeed, no records can be found of large industrial producers challenging the move to public power in the 1950s and 1960s.[61]

The other major industrial proponents of public power were multinational mining companies who were proposing to develop New Brunswick's newest resource staple, base metals.[62] Large deposits of lead, zinc and copper were discovered in the Bathurst region of northern New Brunswick in January 1953. The announcement of the discovery precipitated a claim-staking boom – described by The *Financial Post* as the "the most concentrated . . . in Canadian mining history"[63] – which drew the interest of some of the largest mining companies in the world to rural New Brunswick. When the dust had settled, three large American mining firms controlled the most promising properties in the province. The largest of these was Brunswick Mining and Smelting's lead and zinc mine near Bathurst. Established by the Toronto prospector who started the rush, M. James Boylen, controlling interest was soon acquired by the Pennsylvania-based St. Joseph Lead Company. A second promising property was American Metal's Heath Steele mine near Newcastle. The third major interest in the 1950s was a ferro-manganese mine proposed, in 1954, by Stratmat, a subsidiary of the American-based Strategic Materials Limited. The deposits, particularly of lead and zinc, were enormous, and the mining companies were soon talking about building concentrators and smelters to refine their base metals. The processing of this new staple, however, would require large blocks of electricity. From the outset the major mining interests made it clear to the government that they were not prepared to generate their own power; instead, they requested that the province provide power at a low cost. Indeed, throughout the 1953-58 period officials of Brunswick Mining and Smelting and Stratmat emphasized that inexpensive and plentiful public power would be the principal factor determining whether or not New Brunswick's new mineral resources would be processed locally.[64] This emerging mining industry influenced tremendously the development policy of both the government and the utility. At mid-

61 See transcript of Andrew Secord's interview of Tweeddale, MC 1677 MS 3, PANB and James Kenny's interview with W.Y. Smith, 2 November 1989, Fredericton, New Brunswick.

62 Young acknowledges the development of the new mineral industry but views it largely from the perspective of the NBEPC. The industry's requests for power are seen as a demand function for the electrical utility, a happy occurrence that would allow the NBEPC to justify the "power for industry" strategy and further its own expansionist goals. On the development of the province's base metal industry, see James Kenny, "A New Dependency: State, Local Capital, and the Development of New Brunswick's Base Metal Industry, 1960-70", *Canadian Historical Review,* 78, 1 (March 1997), pp. 1-39, Kenny, "'We must speculate to accumulate!': Mineral Development and the Limits of State Intervention, New Brunswick, 1952-60", *Acadiensis,* XXIII, 2 (Spring 1994), pp. 94-123. See also Kenny, "Getting the Lead Out: State, Capital and Society and the Development of New Brunswick's Base Metal Industry, 1952-1972", Ph.D. thesis, Carleton University, 1994 and Taylor, "The Pursuit of Industrial Development in New Brunswick and Saskatchewan, 1945-60".

63 "Bathurst First Time Noranda?", reprinted in *The Northern Light* (Bathurst), 28 May 1953.

64 For instance, see Francis Cameron to W.Y. Smith, 13 September 1954, RS 415 N2g and John Udd to Hugh John Flemming, 30 August 1955, RS 415 F4e3, Fleming Papers, PANB.

century New Brunswick lagged badly behind the rest of the country by almost all economic indicators.[65] Moreover, the forest industry was growing only slowly. The discovery of the new mineral resource offered the province a tremendous opportunity for economic diversification.

The discoveries of lead, zinc and copper in New Brunswick took place in an international climate encouraging mineral exploration and production. Of particular importance were American Cold War policies, supported by the Canadian government, which promoted continental economic integration. During the post-war period American officials became increasingly concerned with the scarcity of domestic reserves of strategic raw materials considered necessary for the production of consumer goods and national security.[66] One response to this concern for "scarce" materials was state-sponsored stockpiling, begun in 1946, by which the American government purchased and stored strategic materials in preparation for war. With the outbreak of the Korean War in 1950, stockpiling was accelerated. Canadian producers were increasingly included, and, in 1951, tariffs on certain strategic Canadian resources entering the United States (including lead and zinc) were lowered. Moreover, American corporations investing in foreign resources (especially in Canada) became eligible for subsidies and low-interest loans from the U.S. government.[67] American concern for scarcity and stockpiling was most clearly defined in 1952 when the Report of the President's Materials Commission (the Paley Commission) was released. Compiled under the direction of William S. Paley, chairman of the Columbia Broadcasting System and tellingly titled *Resources for Freedom*,[68] the Report identified 22 strategic resources crucial to the long-range requirements of American defence and domestic consumption. It recommended the increased stockpiling of these resources and the continuation of existing incentives (such as trade liberalization and tax concessions) to encourage access to foreign resources.[69] Some Canadian political economists have suggested that the American stockpiling effort, and the Paley Report in particular, can be seen as a factor in the increasing ownership of Canadian resources by American multinationals during the decade following the Second World War. Of the 22 "strategic" resources listed by the Report, 13 were found in Canada. The unusually high demand created by American stockpiling efforts combined with lowered duties drew many American-based corporations to Canada.[70]

65 Kenny, "'We Must Speculate to Accumulate!'", p. 102.

66 Aronsen, *American National Security and Economic Relations With Canada*, chapter 4; Richard J. Barnet, *The Lean Years: Politics in the Age of Scarcity* (New York, 1980), chapter 5.

67 Aronsen, *American National Security and Economic Relations With Canada,* pp.114-20. Under the terms of the Torquay trade deal of 1950-51, Canada revoked preferential tariffs given to British tinplate in exchange for lower American tariffs on a number of Canadian minerals and metals, most notably lead and zinc. Refined or smelted base metals were subject to higher duties. See Donald Patton, "The Evolution of Canadian Mineral Policies", in Carl E. Beigie and Alfred O. Hero, Jr., eds., *Natural Resources in U.S.-Canadian Relations: Vol. 1, The Evolution of Policies and Issues* (Boulder, Colorado, 1980), pp. 219-20, United States Tariff Commission, *U.S Import Duties* (1958-1960).

68 *Resources for Freedom: President's Materials Policy Commission Report – Summary of Vol. 1, Foundations for Growth and Security* (Washington, D.C., 1952), p. 1.

69 Ibid., pp. 6-8, 61-68.

70 Clark-Jones, *A Staple State*, pp. 2-21; Clement, *Hardrock Mining: Industrial Relations and Technological Changes at INCO*, pp. 70-75; Dow, "The Canadian Base Metal Industry", chapter 6

The Paley Report and the American stockpiling effort played an important role in shaping New Brunswick's development policy in the 1950s. In later years W.Y. Smith, the province's economic advisor during this period, described the report both as "crucial" and as the province's planning "bible".[71] All of the base metals discovered in northern New Brunswick were designated as strategic resources by the report. Of particular interest were zinc, used in die castings and to galvanize other metal products; lead, used in batteries as cable covering; nickel, used as an alloying element in armourplate, and therefore found in most war materials; and copper, found in many electrical products. The Paley Report predicted that American military and consumer demand for these base metals would rise substantially between 1950 and 1975.[72] The attractiveness of the New Brunswick deposits was also enhanced by the artificially high mineral prices created by Cold War stockpiling during the early 1950s as well as by their strategic location near the Baie de Chaleur which would allow easy access to the American interior by way of the soon-to-be-constructed St. Lawrence Seaway.[73] This particular conjuncture of mineral discoveries, a strong base metal market fueled by the Cold War and predicted rising demand over the next two decades drew to the province large resource corporations with deep pockets, something that had last happened when the pulp and paper industry was establishing itself earlier in the century.

The mineral discoveries gave the Flemming government a very direct political interest in facilitating the processing of the mineral deposits within the province. John Udd, president of Stratmat, anticipated that the New Brunswick ferro-manganese ore bodies would supply ten per cent of the American market and produce up to 500 jobs in the province, providing that a refinery could be built.[74] Brunswick Mining and Smelting officials predicted 1,500 New Brunswick jobs once a smelter was

and R.D. Cuff and J.L. Granatstein, *American Dollars, Canadian Prosperity: Canadian- American Economic Relations, 1945-1950* (Toronto, 1978) chapter 5. Between 1948 and 1955 American control of the Canadian mining and smelting industry increased from 37 to 55 per cent; by 1957 foreign control reached 70 per cent: Dow, "The Canadian Base Metal Industry", p. 153; Clement, *Hardrock Mining*, pp. 71-2. It is notable that Canadian government officials encouraged American investment in Canadian resources throughout the post-war period: Aronsen, *American National Security and Economic Relations With Canada*, chapter 4. This point is further illustrated by a statement made during the 1950s by Kenneth Taylor, Canada's Deputy Minister of Finance, to W.Y. Smith. Referring to the Paley Report, Taylor reportedly told Smith: "I keep it in my desk, and every time I get depressed about the future, I take it out and read it", transcript of interview of W.Y. Smith by James Kenny, 23 September 1990, Fredericton, New Brunswick, p. 10, PANB.

71 Smith Interview by James Kenny, 23 September 1990 and Smith Interview by Andrew Secord, 2 November 1989.

72 Demand for zinc and lead was predicted to rise by 38 and 61 per cent respectively. Copper and nickel, also found in the Bathurst area but in lesser quantities, were also expected to experience increased demand over the 1950-75 period. See *Paley Report: Summary of Volume II: The Outlook for Key Commodities*, p. 118.

73 The Paley Commission also recommended that the United States participate in the construction of the St. Lawrence Seaway to facilitate quicker and safer shipping of Labrador iron ore to the American interior: *Resources for Freedom: Summary of Vol. 1, Foundations of Growth and Security*, p. 74. See also Aronsen, *American National Security and Economic Relations With Canada*, chapter 5.

74 W.Y. Smith to Hugh John Flemming, 24 April 1956, RS 415 F4-e-3, Flemming Papers, PANB. At that time Stratmat had made a commitment to start construction in early 1958, initially to supply 75,000 tons per year to the U.S. market, requiring 30 to 60 megawatts of power.

established.[75] In announcing the government's response to the new base metal deposits, the premier welcomed foreign investment to exploit the resource, noting that mining could "transform the economy of our Province, diversify our industries, bring new employment and new wealth for our people".[76] By 1954, mining had replaced pulp and paper as the focus of the government's economic development strategy. The government offered incentives to the emergent mining industry, including leasing arrangements and tax breaks, but power became the crucial issue. Beginning in 1954 representatives of both St. Joseph's Lead and Stratmat lobbied the provincial government for inexpensive electricity that they argued was necessary for the location of processing operations in New Brunswick.[77]

The size of the mineral discoveries, the government's understanding of their place in the continental economy and the promises of prosperity made by industry executives all made the provincial government vulnerable to demands for low-cost power. A transformation of the electrical sector in New Brunswick was set in motion and the availability of new supplies of electricity became the priority of the provincial growth strategy. The government's perception of the urgency of the power situation was reflected in their press releases, briefs to the federal government for financial assistance, and throughout the internal correspondence of the premier's office with the NBEPC and the Power Committee.[78] Writing in 1954 to Prime Minister St. Laurent about the potential development of the mining industry, Flemming noted that "the chronic shortage of power is the greatest, immediate economic obstacle which we face as a Province".[79] The power problem became the focus of economic negotiations with the federal government, as between 1953 and 1957 the province used the promise of the mining industry to bolster its demands for federal financial assistance for the construction of the Beechwood hydroelectric facility (construction began in 1955).[80] Appearing before the Royal Commission on Canada's Economic Prospects in 1955, Flemming outlined a comprehensive resource development plan based on power resources developed with federal aid. He pleaded that "unless we can supply adequate amounts of low-cost electrical energy this great wealth will only be dug up to be carted away and processed elsewhere. New Brunswick will be destined to be the hewer of wood and the drawer of water that it has been for years past". The province

75 Frances Cameron to W.Y. Smith, 13 September 1954, RS 415 N2g, Flemming Papers, PANB; W.Y. Smith to the Provincial Secretary Treasurer, 16 August 1956, RS 415 K-1-b-1, Flemming Papers, PANB.

76 Premier Flemming's Provincial Affairs statement of 17 January 1953, RS 415 F4e2, Flemming Papers, PANB.

77 For instance, see Cameron to Smith, 13 September 1954, RS 415 N2g, Udd to Flemming, 19 September 1955, Smith to Flemming, 13 January 1955, RS 415 F4e3, Flemming Papers, PANB. See also Kenny, "'We Must Speculate to Accumulate!'", pp. 108-11.

78 The Power Committee would eventually oversee the development of the whole electrical sector.

79 Flemming to St. Laurent, 11 September 1953, RS 415 N2-j Power Development, Flemming Papers, PANB.

80 "The Need for Federal Assistance to New Brunswick for the Development of Electric Power", Submission of the Province of New Brunswick to the Federal Government, 14 November 1955, RS 415 N2g, Flemming Papers, PANB. For details on the government's quest for federal financing, see James Kenny, "Politics and Persistence: New Brunswick's Hugh John Flemming and the Atlantic Revolution, 1952-1960", M.A. thesis, University of New Brunswick, 1988, chapter 2.

then presented a slate of "experts", including representatives of the mining companies, who testified that the location of mineral and chemical refineries in the province depended on the availability of cheap power.[81]

Flemming himself played an active role in shaping utility policy around the "power for industry" strategy. Although Edgar Fournier was the minister responsible for the utility, Flemming attended all commission meetings and involved himself as best he could in the decision-making process. In later years engineer Reg Tweeddale recalled Flemming's "day-to-day interest in the Commission", an interest that often led him to bypass Fournier and deal directly with the engineers.[82] Throughout the decade there were many preachers of the "power for industry" gospel. While the premier and his Keynesian economic advisor, W.Y. Smith, spread the good news at local boards of trade and in federal-provincial relations, the captains of the new mining industry also took every opportunity to make their case. Speaking to the graduating class of the University of New Brunswick in 1957, Brunswick Mining and Smelting president M. James Boylen noted that "It would be of great assistance to us if there were in the Maritime Provinces a source of cheap energy".[83] The consensus around "power for industry" and the very active role played by politicians and their advisors suggests that the government did not play a subordinate role to the public utility in defining the strategy.

The demand created by the anticipated arrival of a large-scale mining industry in New Brunswick not only focused the attention of the government and utility on the "power for industry" growth strategy but it also served to overcome some of the technical and financial problems that had plagued electrical development during the previous decade. The quantity of electricity required by a fully integrated mining development, as well as existing demand from pulp and paper corporations, was enormous. These customers would essentially guarantee the NBEPC a demand for power large enough to reduce the financial risk of proceeding with large-scale hydro development. Moreover, it should be noted that the province and the utility joined forces during the 1953-57 period in an attempt to win federal grants or, at the very least, a low-interest federal loan to make hydro development affordable. While the Flemming government made little progress in this regard with the St. Lauent government, it had more luck with the Progressive Conservative government of John Diefenbaker – who portrayed himself as champion of the outlying regions. After considerable arm-twisting on the part of Maritime provincial governments who wanted the Diefenbaker government to make good on their promise of helping the region, Ottawa provided the province with a low-interest loan to help finance the Beechwood hydro development in 1957.[84]

81 Canada, *Royal Commission on Canada's Economic Prospects: Hearings at Fredericton, N.B., 26, 27, 28 October 1955* (Ottawa, 1955). See also the province's brief to the commission; New Brunswick, *The New Brunswick Economy: Past, Present and Future Prospects* (Fredericton 1955).

82 Transcript of interview of Reg Tweeddale by Andrew Secord, Prince William, N.B., 23 November 1988, pp. 35-7, MC 1677, MS 3, PANB.

83 M.J. Boylen, "New Brunswick – Today and Tomorrow", Convocation Address to the University of New Brunswick, 1957, RS 415 F4e2, Flemming Papers, PANB.

84 See Kenny, "Politics and Persistence", chapter 2 and Margaret Conrad, "The Atlantic Revolution of the 1950s", in Berkely Fleming, ed., *Beyond Anger and Longing: Community and Development in Atlantic Canada* (Fredericton, 1988), pp. 55-96.

The predicted heavy demand for electricity also served to mitigate the storage problem that had vexed state planners in the previous decade. In the late 1940s and early 1950s, the NBEPC system was very small and, in order to exploit the efficiencies of the large hydro projects, storage was required in order to increase the capacity factor of the hydro units. The inability to acquire this storage from Quebec and Maine was a major constraint on hydro development. The alternative to hydro with storage, as noted earlier, was a hydro-thermal power grid in which hydro met base-load requirements and coal generators could be used during peak periods. The much larger system that would be necessary to meet the anticipated power demands of large industrial consumers made a hydro-thermal grid more economical, and it reduced concerns about the storage problem. By 1955 this fact was recognized by utility managers and the Power Committee who promoted a hydro-thermal grid system, with thermal providing base-load power and hydro supplying the peak load.[85]

The form of thermal power would become the matter of some debate. Until this point the NBEPC had fired its thermal generators with low-quality coal purchased from local coal operators in Minto. Over time a system of subsidization had developed whereby the utility purchased poor-quality slack from these operators at prices normally paid for higher grade coal. In 1955 the Power Committee recommended that this arrangement be abandoned and that all future thermal units be oil-fired, which, it was argued, would be much more efficient.[86] This recommendation had political and economic risks for the provincial government. Not only was the coal industry the only significant employer in the Sunbury County area but it was also very well organized. The owners of the various operations had formed a Coal Operators' Association and the workers were members of the United Mine Workers of America. While these distinct class organizations had clashed in labour disputes throughout the 1930s and 1940s they would unite to pressure the Flemming government to continue the subsidization of the industry.[87] The premier himself would end up mediating this dispute among the Power Committee, the NBEPC and the coal interests. In the end, the coal interests managed to achieve some measure of success. All thermal units built in the 1950s were coal-fired, and the first oil generator would not be commissioned until 1962. Provincial subsidization of the coal industry through NBEPC purchases was lessened but the difference was made up by new federal subsidies wrenched out of the Diefenbaker government.[88] The dispute between power planners increasingly concerned with efficiency and coal interests bent on maintaining traditional subsidies

85 It should be noted, however, that the NBEPC and the government continued to pursue storage agreements with Quebec and Maine. For instance, see Tweeddale to Flemming, 9 February 1955, RS 415 N3c, Flemming Papers, PANB.

86 "Interim Report of the New Brunswick Power Committee to the Cabinet and the New Brunswick Electric Power Commission, 9 November 1955", p. 12, RS 415 N2d2, PANB. The practice of purchasing slack at normal prices was also condemned a year earlier by A.G. Christie in his report to the Dominion Coal Board. See A.G. Christie, "Thermal Power from Canadian Coal: The Maritime Situation", 20 September 1954, pp. 4-5, RS 415 F4e5, PANB.

87 Freeman Jenkins to Hugh John Flemming, 15 July 1954, RS 415 M2A, Flemming Papers, PANB. Another major concern of the provincial coal industry was the NBEPC's purchase of higher quality Nova Scotia coal to fire their thermal generators. For instance, see Paul Fearon to Flemming, 1 October 1955, RS 415 DIB8, Flemming Papers, PANB.

88 "Notes on Meeting with Officials of Dominion Steel and Coal Corp. Ltd. March 15/56", RS 415 N2K1, Flemming Papers and "Minutes of the Meeting on November 14th/57 Held in the Conference

suggests that elements of the "power for industry" model were not universally accepted within the province.[89]

In 1958 the Beechwood hydroelectric plant was completed. Throughout the decade it had been symbolic of the new "power for industry" growth model of the provincial government and the NBEPC. It was therefore somewhat ironic that at the very moment that the megaproject was coming on-stream, the major mining companies, which had lobbied so vigorously for the availability of cheap power, were in the process of suspending operations. These shutdowns had little to do with the slow development or cost of hydroelectricity but were a response to a depressed base metal market created, to some degree, by American economic policies. The boom of the early 1950s had been fueled by American stockpiling of strategic resources, state-sponsored investment incentives and low import duties. These policies (and the end of the Korean War) led in 1953 to a glut of lead and zinc on the world market; prices dropped precipitously, and American mining companies (including St. Joseph's Lead) began calling for higher tariffs to protect the domestic industry. Initially these protectionist voices were rebuffed or appeased (through expansions in the stockpile) by the Eisenhower administration, which was conscious of the strategic value of low tariff walls for friendly neighbours in the midst of the Cold War. However, by 1958 the domestic mining industry could be put off no longer, and the United States imposed quotas on lead and zinc imports from all countries, including Canada. The low prices and uncertainty led in 1958 and 1959 to the temporary shutdown of New Brunswick's two largest mining operations, Brunswick Mining and Smelting and Heath Steele Mines, both of which were still in the process of developing their deposits.[90] Officials of both mining companies assured government officials and local residents that the shutdowns were short-term but their actions highlighted the contingent nature of the "power for industry" growth strategy.[91]

While the NBEPC's growing planning capacity shaped the utility's growth during the 1950s, it is inaccurate to view the utility and its managers as the principal agents of change. Indeed, politicians were intimately involved in the creation both of "power for industry" and the NBEPC's growing autonomy, and they also had much to gain from the political benefits that flowed from a modernized utility. Politicians essentially attempted to modify and use the NBEPC to accelerate the rate of economic growth. Likewise, the growing support of the pulp and paper industry for public power cannot be underestimated in explaining the appeal of the public "power for industry" model. Finally, it is important to recognize the wider political and economic context which shaped the growth of public power in the 1950s. There was a logic to

Room of the Department of Northern Affairs and National Resources Ottawa", RS 415 N4h4b, Flemming Papers, PANB.

89 To further confuse matters, one of the principal oil interests promoting oil for thermal power generation was none other than K.C. Irving, who, at the time, was emerging as the province's dominant business interest. Not surprisingly, he also carried considerable political influence.

90 Kenny, "'We Must Speculate to Accumulate!'", pp. 112-3; Kenny, "Getting the Lead Out", pp. 124-36 and Aronsen, *American National Security and Economic Relations With Canada*, pp. 114-20.

91 Changing market conditions and an interventionist provincial premier, Louis Robichaud, would eventually lead to a fuller development of New Brunswick's mineral resources in the 1960s. See Kenny, "A New Dependency".

the "power for industry" model that reflected a particular moment in capitalist development in Atlantic Canada and North America. The mineral discoveries came about in the midst of the Cold War and growing American corporate control of Canadian resources, circumstances that gave them added significance to both mining companies and the government. The government perceived the new mineral industry as a new economic growth sector, and, as they had with the pulp and paper industry in the 1920s, proved willing to accommodate the demands of large, extra-provincial resource corporations. Having resigned themselves to the idea that "development would come from away" – as had other Maritime governments in the 1950s – the Flemming government was especially vulnerable to the demands of large firms promising the establishment of processing operations in New Brunswick.[92]

The "power for industry" growth strategy worked out in New Brunswick during the post-war years should be viewed as a conscious effort by provincial planners to participate in the Second National Policy of this era. The new strategy was designed to attract large-scale foreign capitalist investment in resource sectors associated with the new industrialism, namely pulp and paper and minerals, resources integral to the increasingly continentalist orientation of the Canadian economy. Base metals were particularly important to "continental resource capitalism" during the early years of the Cold War. Another feature of the Second National Policy era was growing activism and planning by provincial states. The New Brunswick state began "planning for power" just after the Second World War, but the "public power for industry" model was not fully adopted until the 1950s. The slow development of power cannot, however, be attributed to the persistence of clientelist networks within New Brunswick. Due to the problem of storage along the upper St. John River, neither private power producers nor the NBEPC were willing to undertake the large-scale hydroelectric developments necessary to meet industrial demand for power in the 1940s. Moreover, the public utility faced significant financial constraints. Hydro development had high front-end costs, a problem exacerbated by the fact that the "power for industry" strategy was based on attracting customers in the future. The province's poor financial situation – which some have argued was a legacy of the First National Policy – meant that borrowing for expensive power development would be difficult.

Conditions changed in the 1950s to permit the NBEPC and the province to implement a public power for industry strategy. The growing professionalization of the NBEPC was an important factor; equally if not more important, was the industrial potential presented by the discovery of minerals prized by governments and mining corporations in the context of the Cold War. These corporations demanded low cost and plentiful electricity as the price of resource development, and the provincial government, seeing a tremendous development opportunity, listened. The prospect of new mining and processing operations in the province also served to help eliminate some of the technical and financial constraints which had slowed hydroelectric development during the reconstruction period. The perception that the provision of competitively priced power would ensure the development of the province's new

92 James P. Bickerton, *Nova Scotia, Ottawa and the Politics of Regional Development* (Toronto, 1989), p. 138.

industrial staple was an important factor in defining electrical policy in New Brunswick during the 1950s. By the end of the decade, however, it would become clear that power was not enough. Between 1957 and 1960 most of the major mining corporations had placed their development operations in New Brunswick on hold. The reason for this delay was not the failure of the province to provide low-cost power, but a weak base metal market created in large part by changing American trade policy. Here again the pace of economic growth in New Brunswick in the 1950s was shaped by the growing hegemony of continental resource capitalism in Canada.