DECISION

IN THE MATTER OF an Application by New Brunswick Power Corporation pursuant to subsection 103(1) of the *Electricity Act*, S.N.B. 2013, c. 7, for approval of the schedules of rates for the fiscal year commencing April 1, 2020 and for an Order approving changes to NB Power's Financial Risk Management Policies and an Order approving changes to the Financial Risk Management Policies of NB Energy Marketing Corporation.

(Matter No. 458)

October 2, 2020

NEW BRUNSWICK ENERGY AND UTILITIES BOARD

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NEW BRUNSWICK ENERGY AND UTILITIES BOARD:

Acting Chairperson:	François Beaulieu
Members:	Michael Costello
	John Patrick Herron
Counsel:	Ellen Desmond, Q.C.
Chief Clerk:	Kathleen Mitchell

APPLICANT:

New Brunswick Power Corporation:	John Furey

INTERVENERS:

J.D. Irving, Limited:	Christopher Stewart
Liberty Utilities (Gas New Brunswick) LP (formerly Enbridge Gas New Brunswick Limited Partnership):	Romain Viel
Dr. Roger Richard:	Per se
Utilities Municipal:	Scott Stoll
PUBLIC INTERVENER:	Heather Black

A. Introduction

[1] The New Brunswick Power Corporation (NB Power) applied to the New Brunswick Energy and Utilities Board (Board) on October 2, 2019 (Application) for an Order approving its proposed rates to charge for its services for the fiscal year commencing April 1, 2020 (test year). Based on revenue requirements of $1,815.6 million, NB Power initially sought a rate increase of 2% across all customers classes.

[2] NB Power also requested an order approving the changes to NB Power's Financial Risk Management Policies and an order approving changes to the Financial Risk Management Policies of the New Brunswick Energy Marketing Corporation (Marketing Corporation).

[3] A Notice of the Application was published on the Board's website and in the daily newspapers in the province of New Brunswick. A pre-hearing conference was held on October 29, 2019, at which time a number of procedural issues were addressed, including the hearing schedule. An oral hearing commenced on February 5, 2020.

[4] Members of the public were invited to submit letters of comment by January 31, 2020. The Board received 46 letters of comment with the vast majority expressing concerns about the proposed rate increase. The Board has reviewed these letters. During the hearing, NB Power was provided with the opportunity to respond to these concerns.

[5] In support of its Application, NB Power presented six witness panels. Three of its witnesses were declared as experts. Mr. Larry Kennedy, Vice President with Concentric Advisors, ULC (Concentric), was qualified as an expert in the area of depreciation and valuation studies for gas and electric utilities. Mr. Claude Godin, Director of Energy Data Analytics and a senior consultant with DNV GL Insights USA, Inc. (DNV GL) and Mr. Curt Puckett, Head of Department – Key Initiatives with DNV GL were declared experts in meter data acquisition, meter data management, load research and energy analytics.

[6] Two interveners and Board staff submitted evidence in this matter.

[7] The Public Intervener presented the evidence of Mr. Robert Knecht, principal of Industrial Economics, Incorporated. He was declared an expert in the areas of regulatory economics and ratemaking.

[8] Liberty Utilities (Gas New Brunswick) LP (Liberty Utilities) submitted evidence prepared by Mr. Ralph Zarumba, Vice President with Concentric. He was qualified as an expert in the area of economics and policy relating to regulated utilities.

[9] Board staff submitted evidence prepared by Mr. Dustin Madsen, Consultant. He was declared an expert in the areas of providing financial advisory services to participants in the Canadian electric utility industry, and providing regulatory advice for cost of service, rate design, finance, tax, and economic analysis.

[10] At the commencement of the hearing, NB Power requested that certain costs in relation to a research project that had been previously undertaken by Joi Scientific be removed from the revenue requirements.

[11] Mr. Keith Cronkhite, Senior Vice President, Business Development & Strategic Planning at NB Power, explained this request. He testified that NB Power had entered into a licensing agreement with Joi Scientific in the fall of 2016. It was NB Power's objective to obtain provincial and federal funding for the licensing requirements, with the intent that no costs would be borne by ratepayers. Although provincial funding was secured, efforts to obtain federal funding were not successful as of the commencement of this proceeding.

[12] NB Power accordingly reduced its original revenue requirements by $1.4 million to $1,814.2 million. This reduced the requested rate increase to 1.9% across all classes of customers.

[13] By motion dated March 19, NB Power requested that the Board adjourn this proceeding sine die. This was on the basis that NB Power had moved its operations to "mission critical" work as a result of the COVID-19 pandemic. On March 19, the Province of New Brunswick declared a State of Emergency, with a Mandatory Order that all businesses in the province reduce operations to critical functions. The Board granted the adjournment on March 24.

[14] On August 5, NB Power filed a Notice of Motion to lift the adjournment, requesting that the Board now render its decision in the current matter in the normal course and set March 31, 2021 as the date for the requested rates to take effect. Although the State of Emergency

was, and is still in effect, the terms of a revised Mandatory Order dated July 31 removed the critical functions requirement of the March 19 declaration. NB Power stated that it was at a "steady state of operations" in which normal business functions are being performed, subject to directives and policies aimed at minimizing transmission of the COVID-19 virus.

[15] Following a motion hearing on September 10, which was open to the general public, the Board rendered a decision which lifted the adjournment and set a time at which any change in rates is to take effect. The reasons for that decision may be found in the Board's Ruling on Motion dated October 2.

B. Legislative Framework

[16] The *Electricity Act*, S.N.B. 2013, c.7 (Act), subsection 103(1), requires NB Power to apply to the Board for approval of its rates to take effect on April 1 for each fiscal year.

[17] An application must include NB Power's projection of its load and revenue, its revenue requirements and its proposed schedules of rates. If satisfied that the rates are just and reasonable, the Board will approve the rates, or it will fix other rates that it finds to be just and reasonable.

[18] Subsections 103(7) and 103(8) state as follows:

> **103(7)** In approving or fixing just and reasonable rates, the Board shall base its order or decision on the Corporation's revenue requirements, taking into consideration
>
> (a) the policy set out in section 68,
>
> (b) the most recent integrated resource plan approved or deemed to be approved by the Executive Council under section 100,
>
> (c) the most recent strategic, financial and capital investment plan filed with the Board under section 101,
>
> (d) any requirements imposed by law on the Corporation that may be relevant to the application, including, without limitation, requirements regarding demand-side management and energy efficiency plans and renewable energy requirements,

(e) any directive issued by the Executive Council under section 69 that may be relevant to the application, and

(f) any policy established by a regulation made under paragraph 142(1)(f) that may be relevant to the application.

103(8) In approving or fixing just and reasonable rates, the Board may take into consideration

(a) accounting and financial policies of the Corporation,

(b) matters of cost allocation and rate design,

(c) customer service related charges,

(d) the Corporation's demand-side management and energy efficiency plans, and

(e) any other factors that the Board considers relevant.

[19] Section 68, as cited in paragraph 103(7)(a) states:

68 It is declared to be the policy of the Government of New Brunswick:

(a) that the rates charged by the Corporation for sales of electricity within the Province

(i) should be established on the basis of annually forecasted costs for the supply, transmission and distribution of the electricity, and

(ii) should provide sufficient revenue to the Corporation to permit it to earn a just and reasonable return, in the context of the Corporation's objective to earn sufficient income to achieve a capital structure of at least 20% equity,

(b) that all the Corporation's sources and facilities for the supply, transmission and distribution of electricity within the Province should be managed and operated in a manner that is consistent with reliable, safe and economically sustainable service and that will

(i) result in the most efficient supply, transmission and distribution of electricity,

(ii) result in consumers in the Province having equitable access to a secure supply of electricity, and

(iii) result in the lowest cost of service to consumers in the Province, and

(c) that, consistent with the policy objectives set out in paragraphs (a) and (b) and to the extent practicable, rates charged by the Corporation for sales of electricity within the Province shall be maintained as low as possible and changes in rates shall be stable and predictable from year to year.

[20] As part of its jurisdiction to fix rates under section 103, the Board has authority to review the Financial Risk Management Policies of NB Power.

[21] For those policies related to New Brunswick Energy Marketing Corporation, section 66 of the Act, provides as follows:

Financial risk management policies

66(1) The Marketing Corporation is subject to the financial risk management policies established by the Corporation and approved by the Board.

66(2) A transaction entered into by the Marketing Corporation that is in compliance with the financial risk management policies approved by the Board shall be deemed to be prudent and reasonable

C. Issues

[22] The issues to be determined by the Board in this decision will be addressed under the following categories:

1. Load Forecast and Revenue Requirements;
2. Cost Allocation;
3. Revenue and Rate Design;
4. Approval of the Financial Risk Management Policies for both NB Power and for New Brunswick Energy Marketing Corporation; and
5. Miscellaneous Issues.

D. Analysis

1. Load Forecast and Revenue Requirements

[23] In its annual application requesting approval of its proposed rates, NB Power must include its load and revenue forecasts, its revenue requirements, and proposed schedules of rates. These issues will be considered in the following paragraphs.

a. Load Forecast

[24] NB Power filed its load forecast for in-province customer requirements for the ten-year period from fiscal year 2020-2021 to 2029-2030. In its evidence, NB Power states that the load forecast is prepared based on a cause and effect analysis of past loads and trends. The analysis uses data gathered through customer surveys and assessments of economic, demographic, technological, and other factors affecting the utilization of electrical energy.

[25] The forecasted in-province energy load for the test year is 14,511 gigawatt hours (GWh), an increase of 151 GWh from the estimated load of the previous year. Forecasted annual peak demand for the test year is 3,080 megawatts, which is a slight increase of 0.3% from the 2019-2020 forecast.

[26] The load forecast incorporates several key assumptions. In this hearing, only one issue related to the load forecast was the subject of cross-examination. This deals with the 30-year average temperature history that NB Power uses to define "normal weather" in its load forecast.

[27] In Matter 430, the Board directed NB Power to evaluate whether the continued use of a 30-year heating degree day average was still appropriate, and to provide the results of the evaluation in this application.

[28] NB Power filed those results and based on its evaluation, it recommended "…that NB Power adopt a 20-year rolling average as the basis for the normal weather assumption in future Load Forecasts." Under cross-examination by Board staff, NB Power was asked why the 20-year average was not applied to the current application. It responded there was insufficient time to incorporate the new results into the budgeting process for the test year.

[29] Given that NB Power has conducted the study, the Board will approve the use of the 20-year heating degree day rolling average going forward basis. As indicated by NB Power, the 20-year rolling average has been found to be more accurate. This approach will begin with the 2021-2022 fiscal year.

[30] The Board accepts the load forecast, as filed.

b. Revenue Requirements

[31] NB Power is responsible for providing its budgeted revenue requirements for the test year. The revenue requirements include the following amounts, which incorporate the $1.4 million reduction referred above:

Component	REVISED Budgeted Revenue Requirements
(1) Fuel and purchased power expense	$662.6 million
(2) Operations, maintenance and administration	$507.3 million
(3) Depreciation and amortization	$331.0 million
(4) Taxes	$49.0 million
(5) Finance costs and other income	$209.5 million
(6) Net change in regulatory balances	$13.9 million
(7) Net earnings	$40.9 million
Total revenue requirements	**$1,814.2 million**

Note: Financial tables reflect differences due to rounding

[32] Having carefully considered all of the evidence, the Board approves the revenue requirement amounts as filed by NB Power for Taxes, Finance costs and other income, Net change in regulatory balances, and Net earnings.

[33] The Board will address the three remaining revenue requirement components below.

(1) Fuel and Purchased Power Expense

[34] NB Power forecasts the fuel and purchased power expense to be $662.6 million for the test year, representing approximately 37% of NB Power's total revenue requirements. In forecasting this expense, NB Power relies on a modeling/costing program called PROMOD. This program is designed to optimize the economic dispatch of the generation resources, purchased power and export sales in a manner that provides the lowest cost energy to meet the needs of New Brunswick customers.

[35] As part of its evidence, NB Power provided detailed production modeling inputs and outputs, which allows parties to determine the reasonableness of the forecasted costs. No intervener challenged the fuel and purchased power cost forecasts, with the exception of one item, identified by Board staff. This relates to the Pokeshaw Wind Farm contract and the embedded generator rate that was used as an assumption in the budgeting process.

[36] Mr. Craig Church, Senior Corporate Modeler at NB Power, testified that when a PROMOD run was conducted in June 2019, a proxy energy price was used to forecast generation from the Pokeshaw Wind Farm. At that time, a contract and negotiated price had not yet been finalized with Pokeshaw. In October, before NB Power filed the Application, it finalized a contract price with Pokeshaw. The new contract price is confidential but it does impact the revenue requirements.

[37] Given that this new embedded generation amount was available to NB Power prior to filing its evidence in October, the contract price should be factored into the budget for the fuel and purchase power expense, replacing the proxy price that had been used in the PROMOD run.

[38] The Board will approve the budget for the fuel and purchased power expense, subject to this adjustment as disclosed in a response to an undertaking, marked as Exhibit NBP 15.05C.

(2) Operations, Maintenance and Administration

[39] The proposed Operations, Maintenance and Administration (OM&A) budget of $507.3 million represents a decrease of $8.9 million from the approved revenue requirements for 2019-2020.

[40] Two issues were raised in connection with Research and Business Development Opportunities and Smart Communities Projects. These are reviewed below.

i. Research and Business Development Opportunities

[41] As part of its OM&A budget, NB Power has budgeted monies for what is referred to as “demonstration initiatives.” NB Power states that, as a result of carbon legislation and the fact that there is low load growth in the province, it must pursue new and strategic investments to explore opportunities and develop solutions for its customers. There are two such initiatives budgeted in the test year.

(a) Small Modular Reactors

[42] The first is the investment in Small Modular Reactors (SMRs). This project was initially identified in Matter 430. In that proceeding, Mr. Michael Hare, Deputy Chief Nuclear Officer at NB Power, testified that a nuclear research cluster has been established in Saint John to determine whether current SMR technology can be scaled to a commercial range. At that time, NB Power was providing internal resources or in-kind support to the project. In the 2019-2020 test year, it was estimated that the cost or value of the in-kind support was approximately $0.7 million. No incremental cost was budgeted.

[43] In this proceeding, NB Power states that it continues to support this initiative, but there has been no decision to make a capital investment. It should be noted that SMRs are a known concept and NB Power is collaborating with other stakeholders to develop a prototype that could be commercially successful.

[44] During cross-examination, Mr. Hare testified that the same team members will be involved in the project for the upcoming test year. While there may be a small amount of money spent on hired services, the spending profile will not be substantially different than the previous test year.

[45] The Board will continue to monitor this project in future test years.

(b) Maritime Iron

[46] The second demonstration initiative is a project exploring the feasibility of an iron production facility at Belledune in partnership with Maritime Iron.

[47] This project was also introduced in Matter 430. At that time, NB Power explained that a successful iron production facility could produce an energy-rich process gas for use as an alternative fuel at the Belledune Generating Station. This could potentially reduce coal consumption at the generating station. It could also allow for the continued operation of the power plant beyond 2030, being the accelerated phase-out date for conventional coal-fired electricity generation in Canada. NB Power stated that this project is based on a customer request which may generate new load for the utility. It further stated that there is a potential for reduction of greenhouse gas emissions, and accordingly, the reduction of carbon costs.

[48] In the 2019-2020 test year, NB Power budgeted $0.25 million for this project, and stated that there may be additional costs for internal labour and hired services. The forecast for 2019-2020 is $1.3 million, which is significantly over-budget. For the test year, NB Power is budgeting $0.3 million.

[49] This project depends on a unique process. While NB Power has been exploring the technical aspects of dealing with this type of by-product, Maritime Iron has been working through the financial analysis. NB Power does not have insight into whether the project will be financially feasible for Maritime Iron. Mr. Madsen, in his written evidence, points out that a more comprehensive cost benefit analysis should be provided.

[50] There are risks associated with this project. First, the Board notes that NB Power does not follow a particular policy when deciding to invest in these projects. Second, it is unclear from the evidence that the financial feasibility has been evaluated in terms of weighing the costs against the benefits to ratepayers. Third, there is a risk that the facility itself and its commercial operations may not be viable financially. Finally, there is a risk that NB Power may be unable to successfully use the by-product gas.

[51] The presence of the above risks, combined with the absence of a policy for making these types of investment decisions, calls into question the benefits to ratepayers. As it stands,

this project is speculative. The Board is not satisfied as to the prudence of this spending and will disallow $0.3 million from the revenue requirements.

ii. Smart Communities Projects

[52] As part of its annual filing, NB Power is required to provide details on capital projects that have an investment of $5 million or more. NB Power is budgeting $59.7 million in relation to its Smart Grid initiatives. Of this, $23.1 million is allocated to "Smart Communities" projects.

[53] Smart Communities projects deploy and test new smart energy technologies and rate schemes. Working with Siemens, NB Power will build new cloud-based software platforms that control and optimize Distributed Energy Resources (DERs) and provide insight into how DERs will impact the local grid in the future. Ms. Stephanie Langlais, Controller, Energy Smart NB at NB Power, testified that there are three such projects planned for the test year. These are discussed below.

(a) Atlantic Smart Grid (Shediac/Amherst)

[54] The Atlantic Smart Grid project, located in Shediac, is comprised of three main work streams: the development of a solar farm, a residential study, and retrofitting two commercial buildings to be net zero. Much of the current focus is on planning, engineering and preparation, with deploying, testing and research to take place over the next three years.

[55] The total estimated cost for this project is $27.9 million, including capital and OM&A expenses. In support of this project, NB Power has secured funding from the federal government. Ms. Langlais testified that this amounts to $17.8 million. The timing and receipt of these funds depend on certain milestones being met. In addition, Siemens is providing an in-kind contribution of $0.81 million.

(b) First Nations

[56] A second project relates to an agreement that is being negotiated for a First Nations Microgrid. This entails the development of a solar microgrid project within a community.

[57] In this case, the test year budget is $6.5 million, inclusive of capital and OM&A expenses. The pre-filed evidence suggests that potential external funding for this project is expected to be $4.6 million for the test year.

[58] Ms. Langlais testified that while an agreement in principle has been reached with a First Nations community, a referendum in the community must first be held before NB Power can proceed with this project.

(c) Hall's Creek

[59] The Hall's Creek project is a new smart community demonstration initiative under development in southeastern New Brunswick. The project anticipates the sale and construction of 100 new homes, with several to be built in the test year.

[60] Ms. Langlais testified that NB Power is currently working on a construction package with a homebuilder to determine the design of these houses, the building standards, and the technology to be included within the package.

[61] This project is still in the very early stages. While the project schedule suggests that construction would start in the spring of 2020, no homes have yet been constructed or sold. The project costs, including capital and OM&A expenses, are budgeted at $4.5 million. NB Power has secured funding of $1.3 million for the test year.

(d) Conclusion - Smart Communities Projects

[62] The above three projects represent significant spending for ratepayers over the next three years.

[63] NB Power has however, secured external funding for portions of these projects, which may assist in better understanding the impact of DERs and provide useful information that will benefit ratepayers in the future.

[64] The Board approves the capital costs and OM&A expenses for these projects for the test year. NB Power is directed to provide a further and improved level of detail for each of these projects in the next general rate application. A review will be held at that time to determine if these projects are unfolding as planned, and if continued investment is prudent.

(3) Depreciation and Amortization

[65] As part of its filing, NB Power provided information on its budgeted depreciation and amortization expense for the test year. NB Power has budgeted $331.0 million, an increase of $30.3 million from 2019-2020.

[66] There were several reasons for this increase, including a significant increase in nuclear depreciation in the amount of $17.1 million. This arises from major inspections and overhauls related to the periodic outages at Point Lepreau Nuclear Generating Station. It also included an increase related to a change in the accounting treatment of leases.

[67] Partially offsetting increases in depreciation is a decrease in various distribution and transmission assets. This decrease is supported by a study conducted by Mr. Kennedy. He employed the use of Iowa curves to consider the life of various assets and the appropriate depreciation periods to be used.

[68] In his evidence, Mr. Madsen questions the change in depreciation and the results of Mr. Kennedy’s study. He proposes the use of alternative Iowa curves, which would better align the lives of the assets with their actual retirement history, and better reflect the operational characteristics of the assets.

[69] Mr. Kennedy provided convincing evidence as to why the Iowa curves suggested by Mr. Madsen were not appropriate, given the use of statistics and data points that support the useful life of the assets.

[70] The Board accepts the evidence of Mr. Kennedy and approves the depreciation and amortization expense of $331.0 million.

2. Cost Allocation

[71] Cost allocation is an important aspect of rate setting. Once the revenue requirements are approved, such costs must then be assigned to customer classes.

[72] NB Power utilizes an embedded Class Cost Allocation Study (CCAS) methodology, which allocates the total cost of providing service among rate classes, and compares allocated costs to the revenue generated by each customer class. The result is expressed as a revenue-to-cost ratio for each customer class and is used as the basis for rate adjustments.

[73] NB Power is not proposing any changes to the CCAS. The study, as filed, includes the changes that were ordered in Matter 430, but no further changes were made.

[74] Mr. Knecht made recommendations with respect to the CCAS. His recommendations would have two impacts. They would (a) increase the revenue-to-cost ratio for the Residential Class; and (b) generally serve to move non-residential distribution voltage customer revenue-to-cost ratios closer to unity, while lowering revenue-to-cost ratios for transmission voltage customers.

[75] Utilities Municipal also requests that changes be made to the CCAS, in particular, as it relates to storm costs. In its view, there should be a direct allocation of storm OM&A costs in proportion to the historic spend on storm assets. It acknowledges that, while the change in allocation will not impact the amounts to be paid by its members, or even the transmission class, it will impact the revenue-to-cost ratios and may impact future decisions. Mr. Scott Stoll, counsel for Utilities Municipal, argued that where better information is available, it should be used in ratemaking.

[76] While the recommendations of Mr. Knecht and Mr. Stoll have merit, the Board is concerned about the load data that underlies some of NB Power's key allocation factors.

[77] This concern was expressed in Matter 430 and remains a concern today. In that matter, the Board found that the load data was stale and that a load research program must be put in place. This remains the Board's view. If the Board had more confidence in the data, smaller changes in the CCAS could be made each year and better, more accurate information could inform the result. Unfortunately, the stale load data currently being used does not inspire confidence that changes should be made until this issue is addressed.

[78] In the absence of any overriding reason, the Board will not entertain changes to the CCAS until such time that better load research is available for review and consideration.

3. Revenue and Rate Design

[79] During the hearing, there was limited evidence and cross-examination with respect to rate design.

[80] In its filing, NB Power states that it has asked for a uniform rate increase, given the lack of confidence that the Board has expressed in the data that underlies the CCAS. In its view, there will be more timely and fitting opportunities to apply differential rate increases once the rate design matter is concluded.

[81] Mr. Knecht submits that a rate design change is required, particularly as it relates to the General Service I and General Service II classes. While he acknowledges that load research is required, the revenue-to-cost ratios for the General Service classes have required adjustment for some time, and improvements in load research are not likely to affect this result.

[82] The Board expects to address this issue in Matter 357 and will not approve a differential rate increase for the General Service I and II rate classes at this time.

4. Financial Risk Management Policies

[83] In a decision in Matter 251 dated on October 24, 2014, the Board determined that it had jurisdiction to review and approve the Financial Risk Management Policies of NB Power pursuant to section 103 of the Act. In accordance with section 66 of the Act, the Board is also required to approve the Financial Risk Management Policies established by NB Power, and to which the Marketing Corporation will be subject.

[84] In its evidence, NB Power states that, as a result of its purchase of the Bayside Generating Station, either NB Power or the Marketing Corporation (acting on NB Power's behalf) will be required to procure or sell natural gas on a go forward basis.

[85] In addition, a decision was made by NB Power Board of Directors to remove the 36-month restriction on the Marketing Corporation to complete financial transactions. Policies were adjusted to allow for financial transactions to be linked to whatever period is required to mitigate the exposures created by a contract. This alignment, between the hedge and the anticipated period of the item being hedged, is expected to reduce the risk to NB Power. Given these new circumstances, changes to several financial risk management policies were required.

[86] The following policies were amended to reflect the changes:

NB Power Policies	
F-1	Financial Risk Management Framework Policy
F-3	Commodity Price & Foreign Exchange /Interest Rate Risk Policy
F-5	Operational Risk Policies
Marketing Corporation Policies	
NBEMC-1	Financial Risk Management Framework Policy
NBEMC-2	Market Risk Policy
NBEMC-3	Commodity Price & Foreign Exchange Risk Policy
NBEMC-5	Operational Risk Policy Directions

[87] The Board has reviewed these proposed changes and has considered the rationale for proposing these amendments. The purchase of the Bayside Generating Facility is complete and as a result, NB Power must now procure or sell natural gas.

[88] Mr. Madsen strongly supports the decision to remove the 36-month restriction on the Marketing Corporation to complete financial transactions. In his view, this change will assist NB Power in managing its risk.

[89] The Board approves the policies, as filed.

5. Miscellaneous Issues

a. Updating Information

[90] Throughout the hearing, several parties commented on Mr. Madsen's recommendation that NB Power should provide an updated forecast of its costs at the time of the hearing. In his view, forecasts vary materially from year to year, which impacts on the ability of the Board to approve rates that will assist NB Power in reaching its equity goal.

[91] NB Power expressed concern with updating forecasts, submitting that it is unlikely to mitigate the inherent risks in NB Power's operations in-year. In its view, the Board should base its decision on the reasonableness of the test year budget at the time the application is made, subject only to material or exceptional circumstances.

[92] The Board agrees with NB Power on this issue. The application, once filed, is a snapshot of revenues and costs at a given point in time. It is a representative set of numbers that can be tested, given the assumptions that are put forward. Updating one or all costs, after the filing has been made, may lead to a longer hearing process or possibly place an asymmetrical risk on NB Power.

[93] NB Power does however have an obligation to advise the Board if there has been a material or exceptional change in its evidentiary package or if an external event has occurred that will impact on its filing. The Board will deal with these updates on a case by case basis. In any event, if corrections to evidence are required, such corrections should be made at the earliest opportunity.

b. Energy Smart NB

[94] Energy Smart NB comprises three interrelated components: Smart Habits, Smart Grid and Smart Solutions. Smart Habits includes the Demand Side Management (DSM) programs, the primary goal of which is to promote the efficient use of energy in the homes and businesses of ratepayers.

[95] Pursuant to the section 117.1 of the Act, NB Power is tasked with developing and delivering programs in relation to energy efficiency, energy conservation, and demand-side management in New Brunswick.

[96] In 2020-2021, the DSM plan includes $16.5 million for energy efficiency programs. NB Power states that it will continue to offer such programs in the residential, commercial, and industrial sectors.

[97] NB Power is also tasked with the delivery of energy efficiency programs. With respect to the test year, NB Power states that these are funded through the Low Carbon Economy Fund initiative provided by the federal government. It states that $14.8 million will be leveraged to offer all fuels programs to New Brunswickers.

[98] With respect to energy efficiency programming, Liberty Utilities submits that, while NB Power's current mix of spending may suppress accelerated load growth during peak periods, it does not reduce the peak or adequately target a reduction in the load. In its view, NB Power, as the exclusive DSM provider, has an obligation to incent customers to consider a variety of fuel sources for its space heating, in an effort to reduce the peak load during the winter season.

[99] As submitted by Mr. Romain Viel, counsel for Liberty Utilities,

> … NB Power has an obligation to incent and enable customers to select from a variety of fuel sources, including non-electric sources such as propane, oil and natural gas, particularly when NB Power is approached by a builder or an individual looking to construct a new building. At the very least, NB Power's energy smart team should be providing these potential customers with information and education…

Mr. Viel points out that this was Efficiency New Brunswick's mandate before its merger with NB Power.

[100] The Board agrees that customers should be informed and be provided with the best information possible, as it relates to the cost of winter space heating and the utility's strategy to shift demand from peak periods. This strategy will enable customers to make educated choices.

[101] NB Power, in its evidence, states that it will be reviewing DSM spending levels in detail as part of the 2020 integrated resource plan (IRP) process.

[102] As a result, NB Power is directed, as part of its review, to consult with Liberty Utilities and other interested alternative heating source industries, in the development of its programs, particularly those programs that are aimed at reducing the winter peak. Where possible, collaboration with other industries should be encouraged.

[103] Board staff will coordinate the consultation process in the coming months.

c. Marginal Cost Study

[104] The issue of a marginal cost study was raised by Liberty Utilities. It submits that NB Power should be required to prepare this study now, which would quantify the marginal cost to

generate an additional kilowatt hour of generation capacity in order to serve a customer. In its view, a study of this nature would help establish the appropriate price signals for customers.

[105] This is not the first time the issue of a potential marginal cost study has been raised. Almost two years ago, in Matter 375, the Board determined that the nature, benefits and priority of a marginal cost study would be best considered as part of the rate design process in Matter 357. NB Power submits that there is no basis for the Board to reconsider its decision.

[106] Mr. Zarumba submits that commencing the study now would allow for efficiencies to be gained. He states that NB Power is currently collecting data in preparation for its IRP. In his view, much of this information also forms the base of a marginal cost study and there are economies of scale if the study were to commence at this time.

[107] It should be noted that Matter 357 is moving forward and it is anticipated that NB Power will be provided with further directions in the coming months. A marginal cost study may be ordered at that time. A final decision with respect to a marginal cost study should be made in that context.

[108] Nonetheless, the Board does find value in the submission that much of the data now being collected for the purpose of an IRP could potentially be used for a marginal cost study. NB Power should make every effort to avoid the duplication of data collection for a marginal cost study that may be required in the future.

d. Cost Control

[109] During the hearing, several parties questioned NB Power on its efforts to control its costs.

[110] Particular attention was made to the most recent mandate letter from the Minister of Natural Resources and Energy Development dated November 27, 2019, which specifically directs NB Power to achieve an equity target of at least 20% by 2027 through cost reductions and other appropriate mechanisms that will maintain low and stable rates for New Brunswickers.

[111] Several interveners emphasized the importance of NB Power making gains towards its equity target. Progress has been slow in the past several years and further efforts are required to meet what is now an ambitious target.

[112] Mr. Madsen, in his written evidence, made several recommendations where, in his view, efficiencies may be found. Many of these recommendations are very valuable on a go forward basis.

[113] Mr. Stoll, when commenting on the mandate letter, states that this directive now "…requires extra focus on cost control" and that "…it doesn't appear there has been any meaningful change taken by NB Power in its approach."

[114] In his closing argument, Mr. Christopher Stewart, counsel for J. D. Irving, Limited, acknowledged that controlling and reducing costs is complex and "excruciatingly difficult." He submitted that, although not all of NB Power's costs are directly within its control, difficult choices need to be made. He submitted that choices are not being made to the extent that is required in the current environment.

[115] Mr. Stewart also argued that NB Power must do its part and control its costs submitting that: "…if they are doing good, then they must be great. And if they are doing great, then they must be excellent." He recommends that the

> … Board direct NB Power to begin focusing on its costs first before revenues. By costs, I am referring to both operating and capital costs. Rate increases should only be approved after all reasonable efforts to mitigate costs have been exhausted by NB Power. A renewed focus on cost control and restraint is required.

[116] The Board agrees. NB Power must find a way to stay within its budget and reduce its costs. The utility must stop overspending on items within its revenue requirements that are within its control. It does not appear there has been any meaningful changes taken by NB Power in its approach to control costs or reduce debt. Only modest improvements have been seen on debt repayment.

[117] By necessity, this will continue to be an item of focus for the Board in future rate hearings.

E. Approval of Rates

[118] Paragraph 103(6)(a) of the Act requires the Board to approve the rates applied for by NB Power, if satisfied that they are just and reasonable. In the event that the Board is not satisfied, the Board fixes other rates that it finds to be just and reasonable.

[119] As previously indicated, NB Power's proposed rate increase of 2% across all customer classes was revised during the hearing to 1.9%. As stated earlier, this decrease results from NB Power removing $1.4 million in expenses, related to Joi Scientific, from its proposed revenue requirements.

[120] Taking into consideration the disallowances associated with the Fuel and Purchase Power expense relating to Pokeshaw Wind Farm, and the Research and Development Opportunities relating to Maritime Iron, the Board approves revenue requirements in the amount of $1,812.8 million.

[121] With these changes, NB Power is directed to provide the Board, for review, its calculation for a revised rate increase across all customer classes, and include its revised proposed schedules of rates.

[122] Subject to its review and validation of the information provided by NB Power, the Board will approve the revised schedules of rates and set the time at which the rates are to take effect, in accordance to the Ruling on Motion dated October 2.

Dated at Saint John, New Brunswick, this 2nd day of October 2020.

François Beaulieu
Acting Chairperson

Michael Costello
Member

DISSENTING OPINION OF MEMBER HERRON

I concur with the majority decision of the Board and with the reasons offered above, with the following additional reasons:

(a) Capital Structure – 20% Equity by 2027

I concur with the majority decision of the Board and with the reasons offered above, with the following exceptions:

(b) Primacy of Cost Control and Rate trajectory

(c) Treatment of Disallowed Spending on Rates

A. Capital Structure - 20% Equity by 2027

[1] The Government of New Brunswick's mandate letter issued to NB Power states, in part, that NB Power is to "Achieve a capital structure of at least 20% equity by 2027 through cost reductions and other appropriate mechanisms that will maintain low and stable rates for New Brunswickers."

[2] This is the first time that NB Power has received such a directive to obtain its objective to achieve a capital structure of at least 20% equity by a specific timeframe, as set out in paragraph 68(a)(ii) of the Act.

[3] There needs to be a heightened urgency within NB Power to improve its equity ratio. Its efforts to reduce debt in advance of considerable capital spending for the Mactaquac Life Achievement Project (Mactaquac Project) has seen only limited progress over much of the past decade.

[4] Mr. Stoll quantified this lack of progress in stating that the debt level was 91.6% in 2017, 91% in 2018, 91% in 2019 and forecasted to be 90% on March 30, 2020.

[5] Mr. Viel stated that New Brunswick ratepayers are reaching a tipping point as NB Power is required to obtain its 80% to 20% equity ratio by 2027, while at the same time mitigate against the capacity shortage from the Mactaquac Project.

[6] NB Power's equity ratio, combined with the finite period of time until 2027, when the utility states that significant capital spending is required for the Mactaquac Project, was a principal concern by all Interveners.

B. Primacy of Cost Control and Rate Trajectory

[7] Mr. Stewart emphasized the need for NB Power to better cost control and make choices that result in cost reductions. He submitted that necessary operational choices are not being made by NB Power to the extent required in the current environment, being the looming costs from the Mactaquac Project.

[8] Mr. Stewart illustrated the importance and positive impact of rigorous cost reduction on the company. He cited that forecasted net earnings in the test year represents only 2.25% of the revenue requirements, suggesting that even a 1% reduction in costs or a sustained period that maintains the current budget would make a significant difference in NB Power's results.

[9] Although, Mr. Stewart did acknowledge that NB Power has made progress with better budgets and processes, he underscored that the current approach to cost control is not working well enough or fast enough.

[10] Citing that the forecasted debt to equity level has virtually not changed over the last decade, Mr. Stoll expressed the concern that NB Power does not generate sufficient funds with the current rate trajectory approach to meet the target equity by 2027. Utilities Municipal is concerned that the current rate trajectory needs to be modified to meet the target equity level.

[11] Mr. Stoll argued that the current rate trajectory and earnings as set out in the 10-Year Plan are overly optimistic, pointing to the challenge posed by significant elements outside of the control of NB Power, including hydrology, weather, and natural gas markets.

[12] Given the volatility and lack of control of factors that have impacted NB Power's ability to meet its equity contributions, Mr. Stoll questioned the prudency of the current rate trajectory. He referenced Mr. Knecht's testimony that the risk in NB Power achieving its target equity is asymmetrically weighted against the company achieving its target equity.

[13] Mr. Stoll argued that the current rate trajectory and earnings ride a fine line, representing a risk that the target equity will be missed by 2027. He also argued that the level of asymmetrical risk to NB Power's earnings and the absence of a cushion in its net income projections create additional risk that larger than forecasted rate increases may be required in an era beyond 2027, when significant investment and expenditures will be required.

[14] Mr. Stoll stated that Utilities Municipal consider the testimony of interveners and the contents of the mandate letter supporting an increasing sense of urgency and prioritization to achieve meaningful progress on improving the equity target. He stated that Utilities Municipal is concerned that the desire to have low and stable rates, as provided in section 68, may over-emphasize the immediate term without due consideration of the potential instability in near future rates. He stated that there is a concern of an increasing risk of larger rate increases in the future and greater instability as we near 2027.

[15] He further added that the Board should indicate the primacy of the future is the focus on cost control as contemplated by the mandate letter, to enhance the prospect of achieving the debt to equity ratio set out in the Act. Mr. Stoll argued that despite the direction set out in the mandate letter, that it does not appear that there has been any meaningful change taken by NB Power in its approach to cost control.

C. Treatment of Disallowed Spending on Rates

a. Interveners

[16] Mr. Knecht stated that he did not believe the overall budget forecast is overstated and did not believe it would be appropriate to make an overall reduction to the test year's revenue requirements. He acknowledged though that the Board may disagree with some aspect of the revenue requirements. He suggested that should the Board make such a determination; the Board has a choice as to how to reflect that finding in the revenue requirements. He stated that in general, the Board can either adjust the proposed rate increase or it can adjust the target net income requirement.

[17] Mr. Knecht noted that in Matters 336 and 375, the Board disallowed certain costs and deducted the disallowed costs from NB Power's overall rate increases in those years. While in Matter 430, the Board disallowed NB Power's proposed accounting change for DSM that had the effect of increasing the test year revenue requirements, Mr. Knecht stated that

the Board allowed NB Power to lower the net income requirement for the year and retain the original proposed rate increase.

[18] Mr. Knecht recommended, in light of NB Power's recent history of underperformance and recognizing the asymmetric risk in NB Power's 10-Year Plan, he submitted that any specific disallowance in the test year revenue requirements be an adjustment to net income rather than a reduction to the proposed rate increase.

[19] Mr. Stoll submitted that the Board could use its judgment when disallowing or disapproving an expenditure under the current circumstance. He submits that the potential for failing to meet the equity target is a factor that the Board could consider in determining what should occur if costs are disallowed. He argued that there is no prohibition on the Board disallowing an expenditure, yet retaining the overall revenue requirements or providing only a partial reduction with the disallowance to be applied to net income in the test year.

[20] Ms. Black stated the mandate letter and the 10-Year Plan both contemplate achieving the 20% equity target around 2027. She further stated that the 10-Year Plan is still subject to considerable uncertainty and that it does not make sense to put the equity target at further risk by denying the requested increase.

[21] Ms. Black agreed with Mr. Stoll that it is within the Board's power to decide whether a disallowance or disapproval of a specific expenditure may be retained within the overall revenue requirements to net earnings in a particular year. Ms. Black also agreed with Mr. Stoll that the Board is required to consider the whole Act purposively when balancing all the factors set out in the legislation for setting rates. Ms. Black submitted that it's the Board's and NB Power's obligations to consider not only the ratepayers today, but also future ratepayers.

[22] She stated that it is not an "all or nothing concept," that the Board has the power to decide what to do with a particular disallowance. She added that the Board should state under what conditions that a cost that is disallowed and not change the rate request, out of a desire to continue building net earnings.

b. NB Power

[23] Mr. Furey submitted that the evidence of Mr. Knecht and the original evidence of Mr. Madsen indicated that the Board has options on what to do with a particular disapproved cost is dependent on how the Board assesses the relative importance of achieving two potentially conflicting goals in the regulatory framework. The first is the attainment of the 20% equity target by 2027. The second is the function of a regulator to be a proxy for competition and to hold the corporation to account.

[24] Mr. Furey stated that he agreed with Mr. Knecht that in the current context, not for all time, it is more important to make progress on the 20% equity goal than it is to send a signal through a disallowance of a particular cost and having it impact on rates. Mr. Furey submitted that to the extent that achieving the 20% goal is not achieved, that puts upward pressure on future ratepayers to achieve the objective. He also stated that he agrees with the approach of Mr. Knecht as it is a balancing between current ratepayers and future ratepayers.

[25] Mr. Furey argued that the Board can balance such competing goals. He further stated that the Board can disapprove a particular cost and not have it impact on rates, which would assist the utility in achieving the 20% equity target.

[26] Mr. Furey submitted that there is a cumulative financial impact on NB Power beyond the year that a cost may be disapproved given the legislative construct on how rates are set under the Act. He chose to illustrate his point in referencing the Board's decisions in Matters 272 and 307, where it disallowed an approximate $0.9 million expenditure for the Tobique Riverbank restoration project.

[27] Mr. Furey argued that the $0.9 million expense disallowed in year one also results in the utility's loss in a rate increase that would have produced $0.9 million in income for each of the years in the 10-Year Plan. He also argued that a $0.9 million disallowance has a "$10 million" impact over the 10-year timeframe. Mr. Furey submitted that the legitimate desire of the Board to send a signal to NB Power is conflicting with the other legitimate objective to obtain the 20% equity target, suggesting that the Board needs to grapple with such a situation.

[28] Mr. Furey also argued that the statutory interpretation of legislative framework under the Act requires the Board to balance all of the competing factors set out in the Act. He stated that the legislation is not constructed to "slavishly" follow a low rate strategy that will never result in achieving the 20% equity target as it would not be in compliance with government policy under section 68 of the Act.

[29] Mr. Furey also stated that the core mandate of the Board is to set just and reasonable rates and that should not involve solely the focus on a particular expenditure. He submitted that the manner that rates are set under the Act compared to a traditional "return-on-equity" regulated utility enables the Board to consider the option to disapprove of an expenditure and not impact on rates. He argued that the manner that rates are set under the Act (not based on a return-on-equity) would not have resulted in a lower rate request if the particular cost in question had been made in its own budget.

[30] An example of such a concern, was raised by Mr. Furey in his final argument related to the Locally Owned Renewable Energy Small Scale (LORESS) Program, Pokeshaw Wind Farm contract. Under this power purchase agreement, it was demonstrated under-cross-examination and through the response to undertaking No. 31 that the contract had been signed at a price different than the embedded generator price that had been assumed in the forecast.

D. Analysis and Recommendations

a. Achieving the Required Capital Structure

[31] The mandate letter issued to NB Power to achieve its legislated capital structure of at least 20% equity by 2027 before the onset of spending on the Mactaquac Project serves as a call to action that heightens the urgency for NB Power to vastly improve its performance and progress in obtaining the targeted capital structure.

[32] NB Power's lack of progress in achieving its equity ratio must be seen by the Board as its most significant concern.

[33] As some Interveners submitted, the mandate letter specifically requires extra focus on cost control to assure its success in obtaining the required equity thickness by 2027. Interveners

are justified to expect NB Power to continue and improve its performance on costs within its control. NB Power's cost control efforts must work better and faster in the near term.

[34] I agree with Mr. Stewart's emphasis on the importance and opportunity found in more rigorous cost control. I agree that a sustained period that maintains the current budget would make a vital difference in the company's results.

[35] As such, I agree with Mr. Stoll and Mr. Stewart that the Board must indicate the primacy focus of future applications will be on cost control, as the mandate letter contemplates to enhance the prospect of achieving the debt to equity ratio set out in the Act.

b. Rate Trajectory and Emphasis on Low Rates

[36] Mr. Stoll clearly articulated that the need for NB Power to better control its costs to enhance the likelihood that the utility will achieve the desired equity ratio. He stated that importance of obtaining the 20% equity ratio by 2027 is further amplified by additional projects that follow the Mactaquac Project, including Millbank, Bayside, and the coincident end of life projects of Point Lepreau Nuclear Generating Station and Coleson Cove.

[37] Mr. Stoll's observations over the onset of further significant spending on the near horizon amplify the angst stated by other interveners over NB Power's lack of progress on improving its equity ratio.

[38] In this context, Utilities Municipal's concern that the rate trajectory needs to be modified to meet the target equity level must be considered. It stated that NB Power does not generate sufficient funds with the current rate trajectory approach to meet the target equity by 2027.

[39] I agree with Mr. Stoll that the current rate trajectory and earnings as set out in the 10-Year Plan are overly optimistic. The volatility of factors outside the control of NB Power have impacted NB Power's ability to meet its equity contributions in past years. I agree that the prudency of the current rate trajectory has been called into question.

[40] The asymmetrical risks weighted against NB Power are apt to continue to significantly challenge the utility's ability to achieve its target equity ratio. Therefore, I find that the current rate trajectory and the net earnings proposed in the 10-Year Plan follow too fine a

line and are thus insufficient. The current rate trajectory represents a risk that the target equity will be missed by 2027.

[41] The mandate letter provides a heightened priority to achieve meaningful progress on improving the equity ratio within a finite period of time. I find that the current rate trajectory over-emphasizes low and stable rates in the immediate term that risks substantially larger rate increases and greater instability as we near 2027.

[42] Sustained cost control combined with a more prudent rate trajectory are both necessary to enhance the corporation to achieving its equity ratio by 2027 and will protect current and future ratepayers from the risk of even higher rates.

c. Treatment of Disallowed Spending on Rates

[43] Mr. Knecht recommended in light of NB Power's recent history of underperformance and recognizing the asymmetric risk in NB Power's 10-Year Plan, that any specific disallowance in the test year revenue requirements be an adjustment to the net income requirement rather than a reduction to the proposed rate increase.

[44] Mr. Stoll agreed with Mr. Knecht's recommendation that the Board could use its judgment when disallowing or disapproving an expenditure under the current circumstances. Utilities Municipal submits that the potential for failing to meet the equity target is a factor for consideration for the Board in determining what should occur if costs are disallowed.

[45] I agree with the recommendation of Mr. Knecht, that is supported by Mr. Stoll and Ms. Black, and note that they were not opposed at the hearing. Both Mr. Stoll and Ms. Black agreed that it is within the Board's jurisdiction to decide whether a disallowance of a specific expenditure may be retained within the overall revenue requirements in a particular year.

[46] I find that the Board has options on what to do with a particular disapproved cost and it is more prudent under the circumstances, to make progress on the 20% equity goal than it is to send a mere signal through a disallowance and impacting on rates.

[47] Ms. Black agreed with Mr. Stoll in stating that "it is not an all or nothing concept." She suggests that the Board should state under what conditions a cost that is disallowed should

not impact rates is an important one to ensure that the rate set is seen to be just and reasonable.

[48] The origin and nature of the disallowance, particularly if the disallowance is not of a magnitude to have altered the rate request, are conditions that the Board should consider. This discretion should not be applied for "all time." If NB Power's equity thickness was beyond the legislated capital structure; such a disallowance may best be reflected in rates. Under the current context, it is more important to make progress on the legislated equity goal.

[49] Accordingly, I must depart from my colleagues as it relates to the disallowance concerning the LORESS program relating to the Pokeshaw Wind Farm Project.

[50] Although NB Power did have the opportunity to update the proxy price that had been used for the June PROMOD run, I find that given the origin of this data discrepancy, the magnitude of this adjustment would not have resulted in a lower rate request. I also find it appropriate in this case for the disallowance not to be reflected in the reduction to the rate request.

[51] I agree with NB Power that it would not have resulted in a lower rate request if the particular cost in question had been made in its finalized budget when it filed this application. I also do not foresee any evidence that would provide reason for the Board to make such a downward adjustment in the rate if NB Power had submitted the contract rate versus the proxy rate that was used in the June PROMOD run at the time of filing. The fact that no intervener pointed out the need for the Board to make the disallowance and subsequent impact on rates is noteworthy.

[52] The core mandate of the Board is to set just and reasonable rates. The rate without the impact of the disallowance from the Pokeshaw contract is no less fair and no less reasonable to current ratepayers under the circumstances. I, however, find that the cascading and compounding effect of the Board's practice of impacting rates for a disallowance of the origin and magnitude of the Pokeshaw contract cost input is less fair and less reasonable to future ratepayers.

[53] Further to a question from Board panel, Mr. Stoll submitted that Utilities Municipal is concerned that the Board does not have the evidence to clearly articulate the consequences

of potentially overemphasizing the desire for low rates in the near term without due consideration of the potential instability in future rates. He specifically cited the Board's practice in reflecting disallowances in rates given the current equity ratio of NB Power.

[54] In a decision dated July 21, 2016 (Matter 307), the Board stated in paragraph 51:

> This expense was disallowed in the 2015/16 revenue requirements. Despite this Board finding, NB Power did in fact spend $1 million for restoration work in 2015/16. The Board will determine if and how this impacts the forecasted equity goal, in a future rate hearing.

[55] I note that to date this analysis has not been completed by the Board.

[56] Mr. Stoll's observation is an important one. The evidence is not constructed to provide the Board the ability to assess the cumulative and compounded effect of the Board's practice of impacting rates through such disallowances.

[57] I strongly recommend that NB Power include, in their next application, a summary statement of the compounded financial impact of the Board's practice to impact rates from such spending disallowances.

Dated at Saint John, New Brunswick, this 2nd day of October, 2020.

John Patrick Herron
Member