**NEWFOUNDLAND AND LABRADOR**
**BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**

# AN ORDER OF THE BOARD

## NO. P.U. 23(2019)

**IN THE MATTER OF** the Electrical Power Control Act, 1994, SNL 1994, Chapter E-5.1 (the "*EPCA*") and the Public Utilities Act, RSNL 1990, Chapter P-47 (the "*Act*"), as amended, and regulations thereunder; and

**IN THE MATTER OF** a general rate application by Newfoundland and Labrador Hydro to establish customer electricity rates for 2018 and 2019; and

**IN THE MATTER OF** the proposed test year costs related to the Business Systems Transformation Program.

## Application

Newfoundland and Labrador Hydro ("Hydro") filed a general rate application on July 28, 2017 which proposed to include in the 2018 and 2019 test years the costs associated with its participation in the Business Systems Transformation Program, a shared services program developed by Nalcor Energy ("Nalcor"). The forecast costs were approximately $2.54 million in 2018 and $3.04 million in 2019. In a settlement agreement filed as part of the general rate application and accepted by the Board in Order No. P.U. 16(2019) the parties agreed to the following with respect to these costs:

> All costs and expenses related to the Business Systems Transformation Project described in the Application, which are forecast to be $2.54 million in 2018 and $3.04 million in 2019 shall be removed from the Revenue Requirements in the Test Years and set aside in a deferral account. The reasonableness and prudence of these costs will be reviewed with the recovery of any of these costs to be determined by an Order of the Board. Hydro shall provide a report by June 22, 2018 that (i) explains the costs with supporting detail on the reasonableness and prudence of such costs and (ii) sets out a proposal on the timing for the review of the costs and a proposed definition of the deferral account to be created.[1]

On June 22, 2018 Hydro filed the *Corporate Business Systems Transformation Program Justification Report* which provided additional information on the Business Systems Transformation Program and the associated costs and benefits (the "Justification Report"). This report included an update as to Hydro's estimated costs for the program in the amount of $1.69

[1] Settlement Agreement, April 11, 2018, page 3.

million in 2018 and $2.36 million in 2019. This report also proposed a definition for the proposed Business Systems Revenue Requirement Deferral Account to be effective beginning in January 2018 for the recovery of the costs of the program.

The Justification Report explained that the costs associated with the Business Systems Transformation Program are borne by Nalcor and recovered through inter-company administration fees which are recorded by Hydro as operating costs. The total cost to Nalcor for the program was projected to be $44.1 million, including approximately $2.6 million related to preliminary assessment costs to be absorbed by Nalcor. Hydro's projected share of the program costs was estimated to be 52.6% or approximately $23.2 million to be recovered over the period 2016-2030.[2] The report also explained that the updated 2018 costs of $1.69 million do not include any costs associated with information management systems but the 2019 costs of $2.36 million include a business systems fee of $1.68 million and an information systems fee of $0.68 million.

According to the Justification Report the Business Systems Transformation Program which is being managed and executed by Nalcor was established to "address technical and functional concerns with current processes and systems not meeting the evolving needs of each of Nalcor's subsidiary companies, including Hydro."[3] The program consists of three projects:

i) Upgrading the current enterprise resource planning system from JD Edwards World to JD Edwards EnterpriseOne ("EnterpriseOne");
ii) Implementing the planning, budgeting and forecasting solution Cognos TM1; and
iii) Implementing a corporate information management program.[4]

The Justification Report explained that JD Edwards World was implemented almost 20 years ago and changes in technology and the regulatory landscape require that Hydro adapt how it does business. The report set out that in 2015 it was decided that JD Edwards World needed to be evaluated on the basis of its functionality and data standardization and integration. According to the report, while essential business improvements in the existing system could be achieved through the use of third-party add-ons, this would result in ongoing maintenance and data integration challenges, data duplication, and increased reconciliation efforts and support costs. Additionally it was noted that JD Edwards World did not allow access for mobile technology.

In terms of the planning, budgeting and forecasting systems, the Justification Report set out the existing systems identified for replacement: i) the Capital Asset Projection Module used for depreciation budgeting and projections which was implemented in 2000 and did not evolve with the changing needs of the business; and ii) the Clarity software which was used for operating budgeting and forecasting purposes. According to the Justification Report Hydro's process for planning and budgeting required the use of multiple Microsoft Excel files and software applications and the use of multiple budgeting tools prevented the integration of capital and operating budgeting and forecasting processes leading to significant manual processes which lacked interconnectivity. In relation to information management systems a capacity assessment

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[2] In the general rate application Hydro's estimated percentage share was 45.6% but according to NP-NLH-357 this share was revised to reflect updated financial forecasts and use allocations. Hydro explained in NP-NLH-358 that the annual business systems fees are subject to changes in costs related to the program.
[3] Hydro, *Corporate Business Systems Transformation Program Justification Report*, page 4.
[4] Ibid.

was completed in 2015 which identified the need for increased information management resources, toolsets, policies, guidelines to provide enhanced management, security of its information, and the requirement for increased diligence in meeting legislative requirements.

The Justification Report detailed the benefits associated with the enhanced functionality and processes associated with the Business Systems Transformation Program, including improved data analysis and reporting capabilities, a reduction in manual processes and interfaces with a corresponding reduction in risk of errors and rework associated with errors, electronic workflows, integration of budgets and forecasts, and a modern and efficient user interface. In addition the program would enable Hydro to expand its information management tools, policies and guidelines, manage and secure its information assets and increase its legislative and regulatory compliance.[5]

According to the Justification Report a phased approach was to be taken with respect to the implementation of the Business Systems Transformation Program with full implementation expected in 2020 as detailed below:

i) Initial implementation of all modules of the enterprise resource planning system EnterpriseOne in May 2018 and to continue to 2020;
ii) Implementation of Cognos TM1 in July 2018 and to continue into second quarter of 2019; and
iii) Implementation of the foundational framework for the information management program in the next two to three years, however this has been delayed as a result of allocation of information management resources to the Muskrat Falls Inquiry.[6]

Following the filing of the Justification Report Hydro provided additional information in response to requests for information issued by Newfoundland Power and the Board.

**Submissions**

Newfoundland Power submitted that Hydro's decision to address its requirements for new business systems through a shared services program led by Nalcor effectively circumvented the Board's established process for review of large capital expenditures. Newfoundland Power referenced the rules and practices set out in the Board's Capital Budget Guidelines which govern the capital project approval process, specifically the requirement to show that all reasonable alternatives have been considered, and that the proposed expenditures will provide tangible benefits to ratepayers, such as information showing a positive net present value or that it proposed a resolution to an identified deficiency. Newfoundland Power stated:

> Hydro's justification of the BST Program presents a cost-benefit analysis that compares the costs of its chosen software systems against a single alternative, the status quo. Newfoundland Power acknowledges that, in light of the stated deficiencies and shortcomings of Hydro's existing business systems, the status quo is not a reasonable alternative. What is not clear from the evidence, however, is whether other vendors' software solutions, or a Hydro-only approach to replacement of its business systems, may have been reasonable alternatives in the circumstances.

[5] Hydro, *Corporate Business Systems Transformation Program Justification Report*, page 5.
[6] Ibid., page 5.

> The information and documentation presented in support of the proposed BST Program does not include detailed analysis of the comparative benefits of the software solutions offered by other vendors. Nor does it include a detailed cost-benefit analysis comparing the other alternatives noted in the Justification Report.[7]

Newfoundland Power submitted that Hydro did not consider or conduct cost-benefit analyses of alternatives other than the adoption of a single integrated solution and that there is no detailed analysis that demonstrates that this is the least-cost solution for Hydro's customers as compared to a Hydro-only program. Newfoundland Power noted that Hydro's five-year capital plan continues to include forecast capital expenditures in Information Systems and Computer Operations, even though Hydro has indicated that it intends to utilize the shared services model for significant future information systems capital expenditures. Newfoundland Power submitted that the Board must determine the appropriateness and timing of the recovery of Hydro's share of the costs of the Business Systems Transformation Program from customers in light of Hydro's stated expectation that cost savings sufficient to achieve cost neutrality with the status quo will be achieved once the program has been fully implemented.

The Consumer Advocate supported the position put forward by Newfoundland Power in its submission.

In its submission Hydro explained that it was involved in each stage of the development of the Business Systems Transformation Program, including program development, review of options for the enterprise resources planning system, the request for proposals for the planning, budgeting and forecasting software and the design, build and implementation of the systems. Hydro noted that vendor support for its enterprise resource planning software will substantially end by March 2020. Further the review conducted in 2015 determined that this software lacked data standardization and integration which impacts the availability of quality, reliable data required to inform decision making and necessary equipment maintenance activities and does not provide sufficient options to enhance productivity, improve reliability and customer service and achieve long-term reductions in operating and administrative costs. In terms of planning, budgeting and forecasting Hydro explained that its process was limited to the use of multiple Microsoft Excel files and software applications which prevented the integration of budgeting and forecasting processes for operations and capital which resulted in significant manual process that operated independently. In relation to information management Hydro explained that the assessment that was conducted in 2015 identified the need for increased information management resources, toolsets, policies, and guidelines. According to Hydro an information management program which provides for consistent information management practices, procedures, expertise, and a strategic approach is essential to ensure legislative compliance.

Hydro submitted that it has demonstrated that its chosen approach and proposed expenditures are consistent with the least-cost provision of service to customers. Hydro submitted that participating in the Business Systems Transformation Program enabled Hydro to avoid certain substantial costs it would have incurred on its own. In particular Hydro explained that its participation in the program avoided assessment costs of $2.6 million and negated the need to raise capital for the project and seek a return on the program assets. Hydro also submitted that its cost-benefit analysis

[7] Newfoundland Power Submission, page 4.

demonstrated that the implementation of the program supports Hydro's mandate of least-cost reliable service. This analysis reflected identified annual efficiency gains of $415,000 as well as additional efficiencies required to achieve cost neutrality, in the amount of $565,000, which would be achieved in the long-term. In comparing Hydro's cost for JD Edwards World in 1999 of $12.8 million to its cost for the Business Systems Transformation Program of $23.2 million, Hydro submitted that the proposed costs are prudent given the enhanced functionality and broader scope and that the proposed costs are within a reasonable range of increased expense over a 20-year timeframe.

In terms of Newfoundland Power's comments related to the Capital Budget Guidelines Hydro stated:

> The substance of the issue can be provided a full and proper regulatory review through the general approach applicable to operating expenses. Public utilities must be permitted to consider all choices when deciding upon the overall, least-cost method of providing service. This will always be through a combination of deploying assets and contracting for services. It is unnecessary to artificially force a capital asset analysis approach where the Board has the full ability to consider the cost and value of contracted services.[8]

According to Hydro it has demonstrated that its chosen approach and the proposed expenditures meet the mandate of management to result in power delivered to consumers at the lowest possible cost consistent with reliable service. Hydro submitted that its proposal to recover the costs of its participation in the Business Systems Transformation Program by charges to the operating account be approved.

**Board Findings**

The Business Systems Transformation Program is a Nalcor capital project in which Hydro is participating as an affiliate of Nalcor. Hydro has been apportioned a share of the costs of this program and seeks to recover these costs from ratepayers as operational costs. Newfoundland Power submitted that these costs should be reviewed as though they were Hydro capital costs, whereas Hydro argued that the costs are properly reviewed as operating costs as proposed. The Board accepts that it is within the prerogative of management to make decisions related to Hydro's business and information management systems. Nevertheless it remains incumbent on Hydro to demonstrate that the costs proposed to be recovered from customers in relation to these systems are reasonable and necessary in the circumstances, particularly given that the costs are being charged to Hydro by a non-regulated affiliate company. The Board is satisfied that the costs can be fully reviewed and tested in this process as proposed by Hydro.

Hydro has provided evidence in relation to the inadequacies of its existing business and information management systems as well as the benefits associated with its participation in the Business Systems Transformation Program. Newfoundland Power has acknowledged that in light of the stated deficiencies and shortcomings of Hydro's existing business systems, the status quo is not a reasonable alternative. Based on the evidence the Board believes that it is reasonable for

[8] Hydro Submission, page 6.

Hydro to consider upgrading or replacing its existing business and information management systems.

To demonstrate the reasonableness and prudence of its participation in Nalcor's Business Systems Transformation Program Hydro provided a cost-benefit analysis comparing the proposed business systems to the status quo. Hydro explained that it did not consider other scenarios based on alternate software or vendor options and that the purpose of the analysis was to determine the minimum operating and maintenance savings necessary for the implementation of the new systems to be more economical than continuing with the previous systems.[9] The Board finds the approach taken by Hydro in this cost-benefit analysis to be somewhat unusual. The analysis did not reflect all the costs of the program and one of the two scenarios considered, the status quo, lacks functionality and fails to meet minimum business requirements to continue to operate to 2030.[10] Further the cost-benefit analysis did not, as would ordinarily be done, determine the difference in the cost of the two options but rather calculated the efficiency savings that would have to be realized to result in cost neutrality. Hydro explained that, while it has already identified annual efficiency gains of $415,000 which have been included in the analysis, additional annual efficiency savings of $565,000 would be needed to result in cost neutrality between the two scenarios.[11] Hydro explained that in time it expected that these savings would materialize but was not able to provide support for this position nor how these future savings would be passed on to ratepayers.

While Hydro submitted that participating in Nalcor's Business Systems Transformation Program allowed Hydro to benefit from economies of scale, it did not provide evidence which compared the costs of this program with the costs of alternative approaches. In the course of demonstrating that the proposed costs are consistent with the provision of least-cost reliable power Hydro would be expected to show that reasonable alternatives were considered and that the chosen approach is preferred, either as the least-cost alternative or the only reasonable option. Hydro stated that it did not consider or conduct a cost-benefit analysis of alternative approaches to the enterprise resource planning system other than the adoption of a single integrated solution.[12] The Board accepts that a high level of integration in these systems may be required in the current circumstances but notes that Hydro did not provide evidence related to whether there was a Hydro-only solution that was feasible and cost effective. As a regulated utility Hydro must demonstrate that the proposed approach is preferred in terms of Hydro costs and requirements, apart from Nalcor's costs and requirements. As such Hydro would be expected to show that consideration was given to whether there were cost effective alternatives for Hydro to meet its needs.

The Board is satisfied that it may be appropriate for Hydro to consider upgrades or replacement of its business and information management systems but finds that Hydro has not shown that its proposal is the least-cost solution for Hydro at this time. The Board notes that the program is to be implemented by Nalcor in a phased approach with full implementation not expected until 2020 and that the information management program has now been delayed. As explained by Hydro with

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[9] NP-NLH-366 and Hydro Submission, page 3.
[10] Justification Report, page 14.
[11] PUB-NLH-203. Hydro explained in NP-NLH-369 that, as both the enterprise resource planning and budgeting and forecasting software were still being deployed, it did not have a complete assessment of the known, quantifiable savings associated with the functionality enhancements.[11]
[12] NP-NLH-370.

more time it will be possible to better quantify the savings that will be generated with these systems. Because the associated program costs to be charged to Hydro were not included in the 2018 and 2019 test year costs approved in Order No. P.U. 16(2019) these costs will not be recovered in the rates flowing from the general rate application. In the circumstances the Board finds that recovery of these costs should not be approved at this time but that Hydro may file a further application which sets out additional evidence justifying the recovery of these costs in the context of least cost service. The Board is satisfied that the proposed deferral account should be approved so that the costs can be deferred until the issue of what costs should be recovered from ratepayers is determined by a subsequent order of the Board.

**IT IS THEREFORE ORDERED:**

1. The proposed Business Systems Revenue Requirement Deferral Account, as set out in Schedule A to this Order, is approved.

2. Hydro shall pay the expenses of the Board incurred in connection with this matter.

**DATED** at St. John's, Newfoundland and Labrador, this 13th day of June, 2019.

Darlene Whalen, P. Eng., FEC
Chair and Chief Executive Officer

Dwanda Newman, LL.B.
Vice-Chair

Cheryl Blundon
Board Secretary

## Newfoundland and Labrador Hydro
## Business Systems Revenue Requirement Deferral Account

Newfoundland and Labrador Hydro will create a separate account, beginning in January 2018, into which business system fees and information system costs associated with the Business Systems and Transformation Project will be deferred.

**Disposition of any Balance in this Account**

Recovery and disposition of any amounts charged to this account shall be subject to a future order of the Board.