NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

AN ORDER OF THE BOARD

NO. P.U. 27(2022)

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 an application by Newfoundland and Labrador Hydro for approval of the recovery of costs associated with the Business Systems Transformation Program.

Background

In 2015 Newfoundland and Labrador Hydro ("Hydro") began participating in the corporate Business Systems Transformation Program, a shared services program established by Nalcor Energy ("Nalcor") to address technical and functional concerns with certain processes and systems not meeting the evolving needs of each of Nalcor's subsidiary companies, including Hydro. The Business Systems Transformation Program consists of three projects:

i) migration of the existing enterprise resource planning system from JD Edwards World to JD Edwards EnterpriseOne;
ii) implementation of the planning, budgeting, and forecasting solution Cognos TM1; and
iii) establishment and implementation of an Information Management Program.

In its 2017 general rate application Hydro proposed to recover the costs of its participation in this program.[1] As part of a Settlement Agreement filed in the proceeding and approved by the Board in Order No. P.U. 16(2019), these costs were removed from the revenue requirements for the 2018 and 2019 test years and set aside in a deferral account pending further review and the filing of further information by Hydro.

On June 22, 2018 Hydro filed the *Corporate Business Systems Transformation Program Justification Report* which set out additional information in relation to the inadequacies of

[1] The forecast costs were approximately $2.54 million in 2018 and $3.04 million in 2019.

Hydro's existing business and information management systems as well as the benefits associated with its participation in the Business Systems Transformation Program. The report also outlined the methodology for allocation of Business System Transformation Program costs to Hydro through an intercompany administration fee and the cost recovery methodology proposed by Hydro.

In Order No. P.U. 23(2019) the Board stated that, while it was satisfied that it may be appropriate for Hydro to consider upgrades or replacement of its business and information management systems, Hydro had not shown that proposal was the least-cost solution. The Board further stated:

> 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.[2]

The Board approved the establishment of the proposed Business Systems Revenue Requirement Deferral Account beginning in January 2018 for the deferral of business system fees and information system costs associated with the Business Systems Transformation Program, with recovery and disposition to be subject to a future order of the Board.

Application

On May 25, 2022 Hydro filed an application (the "Application") requesting approval of:

(i) the methodology for allocation of costs associated with Enterprise Resource Planning like-for-like and Information Management Program implementation; and

(ii) recovery of the costs associated with implementation of the Enterprise Resource Planning like-for-like and the Information Management Program through customer rates to be established in Hydro's next general rate application, including:

   (a) actual deferred costs of approximately $5.5 million; and

   (b) forecast future costs with forecast deferred costs to the end of 2022 estimated to be approximately $1.2 million, with costs thereafter estimated at $6.5 million.[3]

The Application was copied to: Newfoundland Power Inc.; the Consumer Advocate, Dennis Browne, Q.C.; a group of Island Industrial customers: Corner Brook Pulp and Paper Limited, Braya Renewable Fuels (Newfoundland) GP Inc. (formerly known as NARL Refining Limited Partnership), Vale Newfoundland and Labrador Limited; the communities of Sheshatshiu, Happy Valley-Goose

[2] Order No. P.U. 23(2019), page 7.

[3] Hydro anticipates filing separate applications for cost recovery associated with budgeting and forecasting software and functionality enhancements associated with the Enterprise Resource Planning system. Hydro intends to continue to defer these costs, without cost recovery, through the deferral account approved in Order No. P.U. 23(2019).

Bay, Wabush, and Labrador City; Iron Ore Company of Canada; Praxair Canada Inc.; and Teck Resources Limited.

On June 15, 2022 the Board issued requests for information ("RFI"s) and on June 16, 2022 Newfoundland Power issued RFIs. Hydro submitted its responses to the RFIs on June 28, 2022.

Newfoundland Power filed comments on July 5, 2022. Hydro filed a reply submission on July 8, 2022.

No other RFFIs or submissions were filed.

Application Evidence

The Application outlined a number of reasons for the decision to proceed with the Business Systems Transformation Program in 2015. The primary driver for the Enterprise Resource Planning system migration was the age and technology limitations of Hydro's existing system which was nearly 20 years old and no longer adequately addressed the business and environment in which Hydro operated. A second driver was the risk that, if no action was taken, there may have been a period without extended support for critical components of the system before its replacement was implemented as the upgrade is a multi-year project. The primary driver of the information management upgrade was the 2015 Information Management Capacity Assessment which indicated that Hydro was at a low level of information management maturity and at risk of non-compliance with legislative requirements. This assessment identified the need for additional information management resources, toolsets, policies and guidelines to provide enhanced management and security of information.

Since the implementation of the Business Systems Transformation Program the program has evolved to reflect changing business priorities.[4] The program is now somewhat different than was contemplated in 2018 and, as a result, Hydro's proposals are limited to the costs associated with the foundational upgrade implemented to address the business risk associated with the limited functionality and usability of the system, the restricted security model, and the end of support for the previous program as well as the costs of establishing and implementing an Information Management Program. Costs related to the remaining scope of the Business Systems Transformation Program will continue to be deferred for future recovery subject to approval of a separate application.

The Application detailed the options that were evaluated by Hydro in its decision to proceed with a shared services offering with Nalcor as well as the cost allocation methodology for the costs

[4] The upgrade of the existing Enterprise Resource Planning program to EnterpriseOne was completed using a phased approach. The first phase was the migration from JD Edwards World to JD Edwards EnterpriseOne, referred to as the like-for-like implementation. Following a scope and prioritization review the scope and execution approach was changed resulting in a delay in the implementation of additional components that were intended to further enhance enterprise resource planning functionality. Implementation of the planning, budgeting and forecasting solution Cognos TM1 was paused to reassess the needs of the business.

charged to Hydro for its participation in the Business Systems Transformation Program and its proposals with respect to recovery of the costs.

Alternatives

The Application stated that there were three alternatives available to Hydro to address its existing business system needs: i) deferral of system upgrades; ii) execution of system upgrades independent of Nalcor (i.e., a Hydro-only approach); or (iii) participation in a shared-services offering with Nalcor.

The Application stated that deferral of the upgrades would have been imprudent given the limitations of the existing system, technical support challenges and Hydro's potential risk regarding its legislative obligations, and deferral was therefore considered a non-viable alternative. The Hydro-only model was screened out from in-depth evaluation as it was not considered to be a prudent option. It would involve duplicate services as Hydro would have had to recruit and train its own personnel and also independently source, implement, maintain and support its own information system infrastructure. The costs for a Hydro stand-alone approach were estimated to be $25.1 million over ten years.[5] In addition preliminary assessment and implementation costs would have been incurred and Hydro's return on rate base would have been approximately $5.7 million over a ten-year period.[6]

The Application also stated that having a separate Enterprise Resource Planning system would isolate Hydro from the rest of the organization and would require Hydro to provide services that are currently shared, such as payroll and health and safety. The sharing of these common service costs among the entities within the organization has existed for an extended period of time and supports Hydro's mandate of providing least-cost reliable service to customers as it reduces duplication of effort between both organizations and reduces Hydro's costs. The Application further stated that, in addition to the risk of system incompatibility, the increased costs associated with providing the currently shared-services would be counter to Hydro's legislative obligation to provide service at the lowest possible cost consistent with reliable service.

Participation in a shared-service offering was stated to be the only reasonable option given the complex nature of Hydro's business, its integrated nature within the broader structure of the organization, the costs and business risk associated with transitioning to and maintaining separate business and information management systems, and its legislative mandate to provide service at the lowest possible cost consistent with reliability. By participating in the Business Systems Transformation Program, the Application stated that Hydro was able to avail of economies of scale and reduce costs for its customers by incurring only a portion of the overall costs, avoiding the preliminary assessment costs and a return on rate base on the assets. The Application asserted that, based on the conclusion that Hydro likely would have adopted a similar

[5] The system compared was JD Edwards EnterpriseOne.

[6] Preliminary assessment costs included interviews, requirements gathering and analysis, development of business cases, presentations and RFPs. These costs were not charged to Hydro and they were not included for approval in the Application.

solution and product as Nalcor, the shared-services approach was the least-cost alternative for Hydro.

Cost Allocation Methodology

The acquisition and implementation costs related to Enterprise Resource Planning like-for-like system and the Information Management Program are incurred by Nalcor and Hydro's portion of the costs are charged as operating costs through intercompany administration fees. The costs associated with the Enterprise Resource Planning like-for-like system and the Information Management Program implementation up to the end of 2021 are $22.6 million ($21.6 million and $1.0 million, respectively). Hydro's allocated portion of the $22.6 million was determined to be $13.2 million based on Hydro's cost allocation methodology and Nalcor's *Intercompany Transactions Costing Guidelines*. The Application noted that the allocation methods for information systems and other administrative fees were reviewed by the Board's experts during Hydro's 2013 general rate application and were found to be reasonable.

Business Systems Transformation Program costs that meet the capitalization criteria are allocated to Hydro on a pro-rata basis though the intercompany fees. The pro-rata sharing is based on the average of two ratios: Hydro's share of overall JD Edwards users and Hydro's share of overall full-time equivalents (FTEs), both in relation to Nalcor and its subsidiaries. The Application stated that the only exception to the pro-rata process is when a capital cost is incurred for the benefit of Hydro only; the costs are charged solely to Hydro and not allocated to Nalcor and its subsidiaries. Business Systems Transformation Program costs that are ineligible for capitalization are allocated in the same manner as capital costs.

Cost Recovery

The Application requests approval of the deferred costs associated with the implementation of the Enterprise Resource Planning like-for-like system and the Information Management Program for recovery from customers through rates to be established through Hydro's next general rate application. A total of $5.5 million has been deferred by Hydro to the end of December 2021 as part of the Business Systems Fee.[7] An additional $1.2 million is forecast for 2022.[8] Approval is also requested for recovery of forecast costs for 2023-2029 estimated to be $6.5 million.[9]

Submissions

Newfoundland Power stated that it did not object to Hydro's proposed recovery of costs. Newfoundland Power noted that the Board has accepted that a high level of integration in Hydro's business systems may be required in the circumstances. Newfoundland Power also noted that Hydro provided an analysis of the selected system from a Hydro-only perspective, which

[7] This amount includes $4.0 million for the Enterprise Resource Planning like-for-like component, $1.1 million for Utiligy360 and $0.4 million for the IM component (Table 5, page 15).

[8] Forecast amounts for 2022 include $0.9 million for the Enterprise Resource Planning like-for-like component and $0.3 million for Utiligy360 (Table 5, page 15).

[9] This amount includes $1.2 million in each year for 2023-2027 and $0.4 million in 2028 (Table 6, page 16).

showed that this alternative would result in additional costs to customers.[10] Newfoundland Power commented that this analysis was limited as it does not assess the cost of alternative solutions that may have been available to meet Hydro's requirements independent of those of Nalcor. Newfoundland Power acknowledged that the unique terms of the shared-services approach, along with the passage of time, would practically limit any comparative analysis undertaken by Hydro at this time. Newfoundland Power also noted the ongoing changes in Hydro's organizational structure as a result of Nalcor operations moving under Hydro and Hydro's statement that future changes to the organizational structure would not be expected to result in a material impact on the costs allocated to Hydro.[11]

With respect to future applications for cost recovery of Enterprise Resource Planning functionality enhancements, Newfoundland Power submitted that the evidence filed should demonstrate how the benefits to customers outweigh the associated costs. Furthermore, in Newfoundland Power's view, it may be appropriate for the Board to reconsider whether future capital investments related to other services shared between Hydro and Nalcor should be reviewed via the normal capital approval process to ensure alternatives are appropriately assessed prior to costs being incurred and proposed for recovery from customers.

In its reply submission Hydro reiterated that the passage of time prevented it from reasonably being able to source reasonably comparable information for a Hydro-only solution.[12] Hydro noted that its business requirements for an Enterprise Resource Planning system, budgeting and forecasting system, and information management were directly comparable to Nalcor's requirements. Based on this, as well as the existing integration with Nalcor and the shared-services model, Hydro stated that a Hydro-only option was not in the best interest of its customers and the shared-service model reduces duplication of effort between both organizations. According to Hydro, if a stand-alone Enterprise Resource Planning system for its regulated operations had been pursued, customers would have paid for the whole of that cost, including the preliminary assessment fees and the return on rate base on those assets.

With respect to Newfoundland Power's recommendation on future capital investments related to shared-services, Hydro submitted that the ownership of the asset should determine the method by which cost recovery of shared-services initiatives are requested from the Board, whether through inclusion in a future capital budget application or through review of operating expenses. Hydro's position is that the Board can perform a full and proper regulatory review of the costs related to any future shared-services initiatives regardless of the approach to cost recovery. Hydro noted that, in Order No. P.U. 23(2019), the Board stated that it was satisfied that the costs can be fully reviewed and tested in this process.

[10] PUB-NLH-004.
[11] NP-NLH-003.
[12] PUB-NLH-004.

Board Findings

The Application requests approval of the methodology for allocation of costs associated with the Enterprise Resource Planning like-for-like and Information Management Program and the recovery of these costs through customer rates to be established in Hydro's next general rate application. The costs include actual deferred costs of approximately $5.5 million as well as forecast future costs, with forecast costs to the end of 2022 estimated to be approximately $1.2 million and costs thereafter estimated at $6.5 million.

In considering the Application the Board must assess whether Hydro has demonstrated that the costs incurred for its participation in the Business Systems Transformation Program are consistent with least-cost service and should be recovered from ratepayers through rates to be set in the next general rate application. In Order No. P.U. 23(2019) the Board agreed that it was reasonable for Hydro to consider upgrading or replacing its existing business and information management systems but found that Hydro had not provided evidence as to whether there was a Hydro-only solution that was feasible and cost-effective. The Board concluded that Hydro had not shown that its participation in Nalcor's Business Systems Transformation Program was the least-cost solution and that, in light of the planned phased approach and the delay of the implementation of the Information Management Program, it was expected that with more time Hydro would be able to better quantify the savings associated with its proposed approach. The Board notes that, since that time, the additional functionality enhancements have been delayed and that the cost savings identified in 2018 were based on full implementation of all three components of the Business Systems Transformation Program and were related primarily to additional functionality enhancements and business process changes related to technology improvements not yet implemented.[13]

Given that four years has passed since the Business Systems Transformation Program evaluation, Hydro was not able to provide information that was reasonably comparable to the information obtained in 2015 for the full Business Systems Transformation Program scope across all Nalcor entities.[14] Hydro did provide an internal analysis of the business case which showed that a stand-alone approach would have cost approximately $25 million over ten years, compared to $14.3 million allocated to Hydro over the same ten-year period for its share of the Business Systems Transformation Program led by Nalcor.[15] The Board shares the concerns expressed by Newfoundland Power in regards to the limited applicability of this analysis as it does not assess the cost of alternative solutions that may have been available to meet Hydro's requirements independent of those of Nalcor. Despite this the Board acknowledges the practical limitations that Hydro faced in obtaining information with respect to alternatives that might have been available at the time that the project began several years prior. In the absence of this information the Board accepts that the analysis which Hydro was able to do shows that Hydro's costs in a stand-alone model would likely have been much higher than with the shared-services approach. The Board notes that there would also have been additional costs associated with the preliminary

[13] PUB-NLH-002.
[14] PUB-NLH-004.
[15] Application, Table 1, page 8.

assessment and implementation and Hydro's return on rate base on the asset. The Board is of the view that the shared-services approach is preferable to a stand-alone model, considering the sharing of information required in the context of the corporate structure of Nalcor and Hydro. In the circumstances the Board is satisfied that the shared-services approach for the Enterprise Resource Planning and the Information Management Program through the Business Systems Transformation Program led by Nalcor is reasonable and consistent with the provision of least-cost service.

The costs associated with Hydro's participation in the Business Systems Transformation Program are recovered through a Business Systems Fee and Information Systems Fee charged to Hydro by Nalcor on a monthly basis. The Application sets out the cost allocation methodology used and includes details on the allocation of capital and non-capital costs as well as program management costs included in the Business Systems Fee and the methodology used to determine the Information Systems Fee.[16] The cost allocation methods for common services were reviewed by the Board's experts during Hydro's 2013 Amended General Rate Application and found to be reasonable.[17] The Board notes that there were no specific concerns raised in this Application with respect to the cost allocation methodology. The Board accepts the cost allocation methodology used in calculating Hydro's costs is reasonable in the circumstances.

Given that the shared services approach and the cost allocation methodology have been found to be reasonable in the circumstances the Board is satisfied that the recovery of the actual deferred Enterprise Resource Planning like-for-like and Information Management Program costs of $5.5 million through customer rates flowing from Hydro's next general rate application is reasonable in the circumstances. Similarly the Board is satisfied that forecast deferred costs to the end of 2022 associated with the Enterprise Resource Planning like-for-like implementation and the Information Management Program implementation of approximately $1.2 million should be recovered through customer rates flowing from Hydro's next general rate application. The Board notes that Hydro is not requesting approval of recovery of any costs associated with the implementation of the enhancements at this time, including the $1 million already deferred by Hydro, due to uncertainty regarding scope and future costs.[18] These costs will continue to be deferred until an application is filed by Hydro for recovery of costs.

With respect to forecast future costs for the 2023 to 2029 period, estimated to be $6.5 million, the Board is not satisfied that recovery of these costs in rates to be established at Hydro's next general rate application should be approved at this time. Given the ongoing uncertainties with respect to the timing of the filing of Hydro's next general rate application and the test years which will be reflected in this application and considering the potential impact of organizational changes on the shared services model and the cost allocation methodology, the Board believes

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[16] Application, Schedule 2.

[17] Brad Rolph, Grant Thornton. *Newfoundland and Labrador Hydro - Evaluating the Pricing Policy for Affiliate Common Services, Common Expenses and Corporate Services.* http://www.pub.nl.ca/applications/ARCHIVE/NLH2013GRA-Amended/files/reports/PUB-Expert-Report-Brad-Rolph-2015-06-01.pdf

[18] PUB-NLH-006.

that the recovery of the forecast costs beyond 2022 should be addressed as part of Hydro's next general rate application proceeding. Until then Hydro can continue to defer these costs.

The Board agrees with Newfoundland Power's position that future applications for cost recovery of Enterprise Resource Planning functionality enhancements should demonstrate how the benefits to customers of the enhancement outweighs the associated costs. In regards to Newfoundland Power's suggestion with respect to the review of future capital investments related to other services shared between Hydro and Nalcor, the Board agrees with Hydro that ownership of the asset should determine the method by which cost recovery of shared-services initiatives are reviewed. The Board's regulatory processes with respect to capital expenditures and operating expenses allow for a full and appropriate review to ensure that only costs necessary for the provision of reliable and adequate service are recovered from customers.

IT IS THEREFORE ORDERED THAT:

1. The recovery of actual and forecast deferred costs up to the end of 2022 associated with the Enterprise Resource Planning like-for like implementation and the Information Management Program, estimated to be $6.7 million, through customer rates to be established in Hydro's next general rate application is approved.

2. Hydro shall pay all expenses of the Board arising from this Application.

DATED at St. John's, Newfoundland and Labrador, this 22nd day of August 2022.

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

Dwanda Newman, LL.B.
Vice-Chair

Cheryl Blundon
Board Secretary