

1 Q. On page 9, lines 4-6 of Order No. P.U. 27(2022), the Board stated the following:

2 “The Board also noted that it agrees with Newfoundland Power’s position that future
3 applications for cost recovery of Enterprise Resource Planning functionality enhancements
4 should demonstrate how the benefits to customers of the enhancement outweighs the
5 associated costs.”

6 Please provide the analysis that demonstrates how the benefits to customers would outweigh
7 the associated costs for each of the projects requested to be transferred to Hydro’s Regulated
8 business and to be included in rate base.

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11 A. The JD Edwards EnterpriseOne (“JDE E1”), TM1 (“TM1”), and Information Management (“IM”)
12 represent necessary replacements of legacy systems that had reached the end of their useful
13 service lives. Each directly supports Newfoundland and Labrador Hydro’s (“Hydro”) mandate to
14 provide safe, reliable, and least-cost service. In the Board of Commissioners of Public Utilities
15 (“Board”) Order Nos. P.U. 23(2019) and P.U. 27(2022), the Board recognized that replacing or
16 upgrading business and IM systems was reasonable and maintaining the status quo was not a
17 viable option.

18 Similarly, the Accounts Payable (“AP”) Automation, Software Upgrades and Minor
19 Enhancements and the renewal of Hydro’s Microsoft Enterprise Agreement, support Hydro’s
20 ability to deliver reliable, efficient, and secure operations. These initiatives enhance system
21 functionality, strengthen cybersecurity, improve internal controls, and reduce the risk of service
22 disruption, privacy breaches, and financial loss. Deferring these investments would expose
23 Hydro to material cybersecurity, operational and regulatory risks, and would not be consistent
24 with its legislated mandate. Further, these technologies were identified as the only viable
25 alternatives.

26 Hydro has outlined the customer benefits for each project below.

1 ***JDE E1 (Enterprise Resource Planning System)***

2 Hydro implemented JDE E1 in 2018 to replace its legacy Enterprise Resource Planning (“ERP”)
3 system, which had reached the end of its useful service life. The legacy system was critical to
4 core business functions, including maintenance, financial management, payroll, vendor
5 management, and customer service. Continued reliance on that system would have exposed
6 Hydro to an unacceptable risk of system failure, data loss, and operational disruption, risking
7 Hydro’s ability to provide reliable, least cost service.

8 The implementation of JDE E1 provides the following customer benefits:

- 9 • Ensures continued access to critical operational and customer information, thereby
10 supporting reliable service delivery to customers;
- 11 • Reduces the risk of unplanned system failures and associated service disruptions;
- 12 • Enhances operational efficiency through improved system functionality and integration,
13 contributing to controlling administrative costs, consistent with least-cost service
14 delivery to customers; and
- 15 • Supports Hydro’s ability to manage its resources in a manner consistent with least-cost
16 service delivery.

17 Transition from JDE World to a supported JDE E1 environment was required due to loss of
18 vendor support for the legacy system, and ensures ongoing system supportability, security, and
19 cybersecurity compliance. Consistent with the Board’s prior findings, the replacement of
20 deficient legacy systems was reasonable, and maintaining the status quo was not a reasonable
21 alternative. The resulting benefits, including improved reliability, reduced operational risk,
22 enhanced cybersecurity, and greater efficiency, directly support customer service and outweigh
23 the associated costs.

24 ***JDE E1 Additional Functionality Enhancements***

25 The additional functionality enhancements further strengthen the improvements available in
26 the JDE software by automating manual processes, improving system integration, and mitigating
27 operational risk.

1 Examples of additional functionality implemented and the efficiencies created include:

- 2 • Employee Self-Service eliminates the bi-weekly paper-based paystub and annual T4 slip,
3 which were printed and mailed to more than 1,500 employees (organization-wide).
4 Employees now retrieve this information from the electronic database. In addition,
5 employees can update their personal information online, which ensures timely and
6 accurate information. This also allows Human Resources staff to reduce data entry
7 associated with those tasks and complete more value-added work without increasing
8 staff complement.
- 9 • Crew Scheduling module supports better logistics planning for crews. For example, work
10 orders can be bundled by area, enabling Hydro to optimize the distribution of work
11 amongst crews, which can increase available resources for field work. Crew scheduling is
12 also integrated directly in JDE, which increases the ability of the systems to “talk” to
13 each other and pull information, such as real-time work order information, that would
14 otherwise have been more difficult, or not possible, to retrieve.¹
- 15 • Online requisition system automates procurement approval workflows and tracking,
16 improving processing efficiency, reducing approval delays, and supporting the timely
17 procurement and delivery of goods and services that are essential to efficient utility
18 operations and system reliability.
- 19 • Customer service automated work orders improves visibility for Customer Service
20 Representatives on where a particular work order is within the process. Customers can
21 obtain real-time information from Hydro’s customer service department on the status
22 of their request. Additionally, customer service automated work orders reduce the risk
23 of error and rework and improve safety outcomes by assigning work to those with
24 proper training and qualifications to complete it (i.e., meter replacements are
25 performed by meter shop personnel or electricians, based on the voltage of the meter).

26 The implementation of all these enhancements benefit customers through the avoidance of
27 costs and enabling more accurate and timely responses to customer requests and inquiries.

¹ As noted in Appendix D to the application, the previous technology was an external application to the previous JDE World system.

1 Hydro acknowledges that many of these benefits are not readily quantifiable; however, they are
2 nonetheless significant. The avoidance of high-impact events (such as system failure or data
3 loss) provides substantial value to customers by preserving service continuity and avoiding
4 potentially significant future costs.

5 These qualitative and quantitative benefits outweigh the associated costs, as collectively, the
6 functionality enhancements improve its service delivery for customers, mitigate risk within
7 critical business processes and reduce administrative duplication and costs.

8 ***TM1 (Depreciation and Asset Management System)***

9 Hydro implemented TM1 software in 2018, including Releases 1.1 and 1.2, as a replacement for
10 its legacy Capital Asset Projection Module (“CAPM”), which had reached the end of its useful
11 service life and was no longer supported by the vendor. CAPM did not evolve with the changing
12 needs of the business and did not provide flexibility to make changes to budgets or forecasts or
13 to perform scenario analysis, thus limiting the ability to efficiently evaluate projects and
14 infrastructure investments.

15 The continued use of an unsupported and aging system posed risks to the accuracy of financial
16 information. Failure of such a system, or the inability to maintain and access it, would have been
17 disruptive to Hydro’s ability to plan and budget its capital projects, submit complete and
18 accurate regulatory filings, potentially creating delays in critical projects and therefore
19 operational disruptions which impact Hydro’s customers. Hydro’s ability to accurately budget
20 and forecast or monitor the financial status of its capital projects can also impact financial
21 outcomes on such projects. Accurate and timely financial information with respect to Hydro’s
22 capital projects helps ensure that projects are completed in a least cost manner for customers.
23 TM1 improves the accuracy of depreciation calculations that underpin rate-setting, enhances
24 the reliability of financial information used in regulatory filings, and reduces operational and
25 financial risk. These improvements support sound regulatory decision-making and help ensure
26 that customers are charged fair and reasonable rates over time.

1 Consistent with the findings in Board Order No. P.U. 23(2019), the replacement of deficient and
2 unsupported legacy systems was reasonable, and the status quo was not a viable option.

3 ***IM System***

4 Hydro implemented its IM system, primarily utilizing Content Manager software, in 2018 as part
5 of the Business Systems Transformation program. This system supports the management of
6 information throughout its lifecycle, from creation to disposition.

7 The IM system is essential for ensuring Hydro's compliance with applicable legislative and
8 regulatory requirements governing information management. The absence of such a system
9 would expose Hydro to risks related to non-compliance, including potential regulatory
10 consequences, inefficiencies, and operational disruptions.

11 The IM system enhances transparency and accountability, improves the efficiency of
12 information retrieval, and reduces the risk of loss, mismanagement, or inaccessibility of critical
13 records. These benefits support regulatory compliance and operational continuity while
14 avoiding costs associated with non-compliance and inefficiencies.

15 The Board approved Hydro's IM related expenditures deferred up to the end of 2022 in Board
16 Order No. P.U. 27(2022) and previously determined in Board Order No. P.U. 23(2019), that
17 upgrades to IM systems were reasonable. Accordingly, the costs of the IM systems are
18 outweighed by the necessity of maintaining regulatory compliance and operational integrity,
19 both of which provide direct and ongoing benefits to customers.

20 ***AP Automation***

21 AP Automation includes the implementation of a modern AP system that is necessary to
22 mitigate risks associated with security and controls, maintain favorable credit and business
23 relationships, and avoid losses from incorrect payments and interest charges.

24 The current AP processes present significant and unacceptable risks to Hydro's business
25 environment. Inefficient and error-prone manual processes increase the risk of fraudulent

1 activity and financial losses, including interest charges, fees and penalties, and missed
2 early-payment discounts due to untimely payments. These risks can ultimately undermine
3 Hydro’s ability to provide customers with the least-cost, reliable electricity service.

4 Payment delays resulting from process inefficiencies or invoice errors can damage vendor
5 relationships and lead to missed or deferred deliveries of critical goods and services, increasing
6 operational risk. Operational risks can impact Hydro’s ability to provide reliable service to
7 customers. In addition, reputational harm arising from payment inefficiencies may reduce
8 vendor willingness to do business with Hydro, potentially increasing costs for customers through
9 reduced competition or higher price bids.

10 ***Software Upgrades and Minor Enhancements***

11 Software Upgrades and Minor Enhancements improve system functionality, ensure seamless
12 integration with other platforms, and reduce the risk of service disruptions. The enhancements
13 also strengthen Hydro’s cybersecurity and help mitigate the risk of privacy breaches. The
14 implementation of these upgrades and minor enhancements helps to mitigate operational risks
15 which could impact reliable service to customers. The mitigation of cybersecurity risk helps
16 prevent potential service disruption and significant cost for customers.

17 ***Renew Microsoft Enterprise Agreement***

18 The renewal of the Microsoft Enterprise Agreement provides Hydro with continued licensing for
19 core Microsoft software products and ensures ongoing access to supported versions, including
20 critical security patches and updates. These systems form the foundational operating
21 environment for the applications and tools used by employees to plan, operate, and maintain
22 the electrical system.

23 Absent renewal, Hydro would face increasing risks associated with unsupported software,
24 including system instability, cybersecurity vulnerabilities, and potential operational disruptions,
25 all of which could result in higher costs and reduced service reliability for customers.

1 ***Summary***

2 For JDE E1, TM1 and IM, the investments were required to replace legacy systems that had
3 reached the end of their useful service lives. The evidence demonstrates that the status quo was
4 not a reasonable alternative. Further, each system replacement/upgrade mitigates material
5 cybersecurity, operational, financial, and regulatory risks, and directly impacts Hydro’s ability to
6 deliver safe, reliable, and least-cost service, in an environmentally responsible manner.

7 From a customer perspective, all of these investments support reliable and secure service
8 delivery, improve the accuracy of cost recovery and rate-setting, strengthen regulatory
9 compliance, and help control and avoid future operating costs.

10 While some benefits are not readily quantifiable, they represent material improvements in
11 reliability, risk mitigation, and operational effectiveness. These improvements contribute to
12 limiting cost pressures over time and support Hydro’s ability to provide least-cost service.
13 The implementation of technology does not necessarily result in year-over-year reductions to
14 operating expenditures; rather, it results in operational efficiencies across the business that
15 create more productive work time for personnel as well as to moderate and avoid what would
16 otherwise be higher operating costs across the business or major incidents such as cybersecurity
17 events. The resulting operational efficiencies and cost avoidance help limit growth in operating
18 costs over time.

19 Hydro believes that the benefits to customers outweigh the associated costs. Accordingly, the
20 transfer of these assets to Hydro’s Regulated business and their inclusion in rate base is
21 reasonable and appropriate.