Q. Reference: "2021 Capital Budget Application," Newfoundland Power, July 9, 2020 Volume 1, Customer Service Continuity Plan, Attachment 1 "Ernst & Young LLP Customer Information System: Assessment Results and Planning Recommendations" at p. 23.

On what basis was the duration (i.e., 21 months) of the implementation period determined? How detailed are the requirements at this stage? What percentage of contingency is included in this estimate?

A. **A. General**

Newfoundland Power's *Customer Service Continuity Plan* is the result of a multi-year effort to assess and plan for replacement of its Customer Service System. The plan includes a project scope with 3 stages: (i) Pre-Implementation; (ii) Implementation; and (iii) Post-Implementation.

This project scope was based on an independent assessment of the Company's operations by Ernst and Young LLP ("EY"). EY's work included assessments of: (i) current market trends; (ii) potential changes to Newfoundland Power's business processes and related technologies and data; and (iii) opportunities to improve the customer experience into the future.[1] The outcomes of these assessments informed EY's recommendations of the level of effort required and estimated duration of each stage of the project.

To ensure its plan is consistent with current industry experience, Newfoundland Power also conducted site visits with utilities who have recently completed similar projects, vendor product demonstrations, and other industry research.[2]

The results of this comprehensive assessment and planning process have ensured Newfoundland Power's project scope for its *Customer Service Continuity Plan* is adequate and consistent with industry best practices for a project of this scale.[3]

B. Response

The following provides further information on the development of the project scope for Newfoundland Power's *Customer Service Continuity Plan.*

[1] See the *2021 Capital Budget Application, Volume 1, Customer Service Continuity Plan, Attachment A*.
[2] See the *2021 Capital Budget Application, Volume 1, Customer Service Continuity Plan,* page 9.
[3] Multi-stage approaches for installing modern Customer Information Systems are standard industry practice. For more information, see the *2021 Capital Budget Application, Volume 1, Customer Service Continuity Plan*, page 14, footnote 41.

Pre-Implementation Stage

The Pre-Implementation stage of the *Customer Service Continuity Plan* focuses on procuring the services of a software vendor and third-party System Integrator to implement a modern Customer Information System ("CIS"). This two-stage procurement effort is consistent with industry best practices.[4]

Newfoundland Power's plan indicates that a Procurement Advisor will be hired to provide expertise in completing competitive tendering processes to select a software vendor and System Integrator. EY's detailed calculation of costs associated with this effort are provided in response to Request for Information NLH-NP-010.

Implementation Stage

The Implementation stage includes the design, development, testing, training and deployment of the new CIS. The estimated duration of the Implementation stage is 21 months. A 21-month Implementation period is within the range of typical industry experience for projects of this scale.[5]

EY recommended a 21-month implementation timeframe for Newfoundland Power based on the results of its assessment and planning effort. Key findings that informed the duration of the Implementation stage include:

(i) A mapping exercise of critical business processes determined that Newfoundland Power's processes are comparable to other utilities. The business process maps provide significant detail on existing workflows. In reviewing these maps, EY determined Newfoundland Power's existing business processes can be delivered through a new CIS via the base package or standard configuration. Changes to existing business processes during the Implementation stage are therefore expected to be minimal. Potential changes are expected to be implemented under 2 scenarios: (i) to minimize the need for software customization; and (ii) to improve the efficiency or effectiveness of existing processes in serving customers.

(ii) An edge application disposition review determined that 20, or 36%, of the applications integrating with the existing system can be retired. These applications provide functionality that is standard with a modern CIS. All of these applications were internally developed by Newfoundland Power. The level of effort to decommission these technologies is therefore expected to be minimal during the Implementation stage.[6] The number of applications remaining that will

[4] Two-stage procurement efforts to contract a software vendor and then a System Integrator are considered industry best practice. For more information, see the *2021 Capital Budget Application, Volume 1, Customer Service Continuity Plan*, page 14, footnote 42.

[5] Industry ranges for CIS implementations range from 18 to 24 months. See the *2021 Capital Budget Application, Volume 1, Customer Service Continuity Plan, Attachment A,* page 21.

[6] See response to Request for Information NLH-NP-003.

integrate with the new CIS, based on EY's experience, is manageable and comparable to similar sized utilities.[7]

(iii) A data quality assessment determined that the quality of Newfoundland Power's customer data is "very good" in comparison to other utilities. However, consistent with current industry experience, considerable effort is anticipated during the Implementation stage to convert and migrate the necessary customer data. Data conversion and migration will require the development of automation tools and approximately 5.5 FTEs during the Implementation stage.[8]

These assessment findings, among others, provided a reasonable level of detail to estimate the level of effort required to implement a modern CIS at Newfoundland Power. This, in turn, informed the estimated duration and cost of each aspect of the project.

With respect to contingency, the *Customer Service Continuity Plan* applies a 10% contingency during the Implementation stage.

Post-Implementation Stage

The Post-Implementation stage focuses on returning the Company's operations to business as usual following deployment of the new CIS. To achieve this, the Post-Implementation stage will ensure additional resources are available to support employees in using the new system to serve customers.

The duration of Newfoundland Power's Post-Implementation stage is estimated at 4 months. This is within the range of what is commonly required for projects of this scale.[9]

Newfoundland Power's *Customer Service Continuity Plan* was developed based on an understanding of risks that typically affect the duration and complexity of projects of these scale, including Post-Implementation stages. Typical risks include inadequate staffing, insufficient testing, software customization, and insufficient or poorly timed training.[10] The *Customer Service Continuity Plan* is designed to mitigate these risks. As examples, the plan:

(i) Outlines a resourcing plan that includes an adequate balance of internal and external expertise throughout the duration of the project;[11]

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7 See the *2021 Capital Budget Application, Volume 1, Customer Service Continuity Plan, Attachment A, Appendix C*, page 12.

8 See response to Request for Information NLH-NP-007.

9 TMG Consulting observes that the post-implementation stages typically span 3 to 9 months. See *CIS Replacement Risk Mitigation, System Stabilization,* April 2016, page 31.

10 These risks are consistent with those noted by TMG Consulting in *CIS Replacement Risk Mitigation, System Stabilization,* April 2016, page 32.

11 See the *2021 Capital Budget Application, Volume 1, Customer Service Continuity Plan, Attachment A,* page 22, Figure 6.2.

(ii) Minimizes the need for software customizations that increase the risk of technical or functional issues during the Implementation and Post-Implementation stages;

(iii) Includes a robust series of tests of the new CIS during the Implementation stage, including data conversion tests, to minimize potential technical or functional issues during the Post-Implementation stage;

(iv) Times the delivery of training of system users to minimize potential inefficiencies during the Post-Implementation stage; and

(v) Follows change management practices that are consistent with industry best practices.[12]

By developing strategies to mitigate these risks, Newfoundland Power has ensured the estimated duration of the Post-Implementation stage is adequate.

[12] See response to Request for Information NLH-NP-013.