

1 **Q. (Reference Application, EY Report, page 8) It is stated “Aging infrastructure**
 2 **increases integration and cybersecurity risks and becomes costlier to maintain as talent**
 3 **acquisition/retention scarcity increases.” Please quantify the savings in integration,**
 4 **cybersecurity and maintenance costs brought on by the proposed new CSS and**
 5 **explain how these savings have been incorporated in the 2021 Capital Budget**
 6 **Application.**

7
 8 A. Newfoundland Power’s *Customer Service Continuity Plan* addresses all risks, costs and
 9 potential savings resulting from implementation of a modern Customer Information
 10 System.

11
 12 With respect to integration costs, modern Customer Information Systems are designed to
 13 readily integrate with other commercial software products (e.g. ESRI Geographic
 14 Information System).¹ This capability mitigates the need for complex and costly
 15 customizations to integrate applications with the new system.

16
 17 Additionally, there are currently 56 applications integrating with Newfoundland Power’s
 18 current Customer Service System (“CSS”). An assessment by Ernst and Young LLP
 19 (“EY”) determined that 20 internally developed applications provide functionality
 20 standard with a modern Customer Information System.² These applications are therefore
 21 expected to be retired and will not be integrated with the new system.

22
 23 Each application integrating with the new system would require configuration and
 24 testing. As a result, reducing the number of applications integrating with the new system
 25 will reduce the complexity and cost of future system upgrades.

26
 27 With respect to cybersecurity costs, Newfoundland Power implements a Cyber Risk
 28 Management Program to manage cybersecurity for all critical infrastructure.³
 29 Cybersecurity risks have increased materially for utilities.⁴ Increased risks result from
 30 the widespread use of operations technology within utilities and the continual evolution
 31 and sophistication of cybersecurity threats. Cybersecurity is now an integral part of
 32 providing safe and reliable electrical service to customers at least cost.⁵

33
 34 The proposed new Customer Information System will include vendor support and
 35 upgrades to address any potential vulnerabilities within that application. However, this

¹ Modern Customer Information Systems integrate with other commercial software products either natively, using predefined APIs, or by leveraging an open architecture framework that facilitates interconnectivity among software applications.

² See the *2021 Capital Budget Application, Volume I, Customer Service Continuity Plan, Attachment A, Appendix C*, pages 6 to 8.

³ See response to Request for Information CA-NP-014.

⁴ For example, in 2019 the North American Electric Reliability Corporation (“NERC”) reported that a vulnerability in the web interface of a vendor’s firewall was exploited, allowing an unauthenticated attacker to cause unexpected reboots of the devices. See *Lessons Learned: Risk Posed by Firewall Firmware Vulnerabilities*, published September 4, 2019.

⁵ See the *2021 Capital Budget Application, Volume I, Schedule B*, pages 91 to 92.

- 1 will not mitigate capital expenditures required for, as examples, firewall upgrades,
2 network security or access management for the Company's other critical infrastructure.
3 Newfoundland Power is therefore not forecasting any savings in cybersecurity in its
4 5-year capital plan.⁶
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6 With respect to maintenance costs, see response to Request for Information CA-NP-075.

⁶ See the *2021 Capital Budget Application, Volume I, 2021 Capital Plan*, Appendix B, Page B-6.