

1 **Reference: Schedule B, Page 66: Replacement Meters (\$662,000)**

2

3 **Q. Schedule B page 68 states "A forecast increase in expenditures in 2027 is due**

4 **to an expected transition to Advanced Metering Infrastructure ("AMI")**

5 **technology, with the installation of meters that are compatible with both AMR**

6 **and AMI meter reading systems."**

7

8 **Newfoundland Power further states on Schedule B page 69 "Newfoundland**

9 **Power has identified that its existing meters are exposed to risk of asset**

10 **stranding due to the potential requirement to implement AMI technology. The**

11 **deployment of AMI technology would require most existing AMR meters to be**

12 **removed from service. The installation of replacement meters using AMI**

13 **technology starting in 2027 is intended to help mitigate the risk of stranding**

14 **AMR meters."**

15

16 **Please reconcile these two statements including information on the risk**

17 **exposure of stranding existing AMR meters.**

18

19 A. Both citations are intended to convey the same information. The installation of

20 replacement meters using AMI technology starting in 2027, cited on page 69 of

21 *Schedule B*, would use the same meters that are compatible with both AMR and AMI

22 meter reading systems as cited on page 68.

23

24 The implementation of dynamic rates would require the use of AMI technology. Under

25 this scenario, AMR meters would be required to be removed from service. This exposes

26 the Company's existing AMR meters to a risk of becoming stranded given dynamic rates

27 may become cost effective for customers in the future.¹

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29 The risk of stranding AMR meters can be mitigated in two ways.

30

31 First, by implementing AMI technology only when it becomes least cost for customers.

32 A 2019 market potential study completed by Dunskey Energy Consulting determined that

33 dynamic rates may become cost-effective for customers between 2030 and 2034.²

34 Newfoundland Power's current AMR meter inventory will have an average age of

35 approximately 16 years in 2030 and 20 years in 2034.³ It is expected that the current

36 AMR meter inventory will be nearly or fully depreciated in that timeframe.⁴

37

38 The second way to mitigate the risk of stranding AMR meters is by installing specialized

39 meters compatible with both AMR and AMI meter reading systems in the years prior to

1 Since 2018, essentially all of the Company's meters are AMR meters.

2 See *Schedule E – Potential Study Addendum: Demand Response Assessment* filed as part of the *Electrification, Conservation and Demand Management Plan: 2021-2025*.

3 The Company began installing a limited number of AMR meters in 2006 for safety, access, and efficiency purposes. In 2013, the Company began purchasing only AMR meters for all new and replacement meter installations. In 2016, the Company accelerated the transition from vintage electromechanical meters to AMR meters as described in report *4.4 2016 Metering Strategy* filed with its *2016 Capital Budget Application*. The accelerated transition to AMR meters was the least cost approach based upon the operating savings achieved.

4 The *2019 Depreciation Study* determined the average service life of the Company's AMR meters is 18 years.

1 the AMI implementation. These specialized meters would be installed for any new
2 service requests, replacements due to damage or deterioration, and replacements due
3 to government testing requirements. These specialized meters would ensure that
4 meters installed in the years immediately prior to an AMI implementation would not
5 need to be replaced after only a few years in service.

6
7 However, the reduction in risk of asset stranding from these specialized meters is
8 somewhat limited due to several factors, such as the implementation timing, incremental
9 cost of the specialized meters⁵ and the risk of technological obsolescence.⁶ Installing
10 these specialized meters too far in advance of an AMI implementation could increase
11 costs for customers. As a result, the Company expects to begin installing meters
12 compatible with both AMR and AMI technology in 2027.⁷

13
14 The Company's plans for AMI will be refined regularly as new information becomes
15 available on the benefits of dynamic rates and as technology advancements are
16 achieved in AMI technology. Ongoing rate design and load research studies will inform
17 the business case for AMI technology when it is developed.

⁵ The material cost of an AMR meter is approximately \$50, compared to \$185 for the specialized AMR/AMI meter.

⁶ AMI technology has continually evolved with improved communication networks and additional functionality. Installing specialized meters too far in advance of an AMI implementation increases the risk of the meters becoming obsolete prior to the full AMI implementation.

⁷ The Company estimates it could take between three to five years for a complete AMI meter deployment. Hence, at a minimum, the transition to AMI meters would have to start three to five years prior to their required use.