

1 **Q. C. Douglas Bowman Report, page 40, lines 24-27. Mr. Bowman states “Further,**
2 **similar to its LED Street Lighting Replacement program, Newfoundland Power**
3 **could replace existing meters that have deteriorated or failed with smart meters**
4 **under its Replacement Meters Program, and when connecting new customers to the**
5 **distribution network under its New Meters program.” In recommending this**
6 **piecemeal approach, explain how Mr. Bowman considered whether such an**
7 **approach would be least cost considering:**
8

9 **(i) The material upfront costs for implementing an AMI data collection system**
10 **which would only be used to serve a small percentage of customers in the early**
11 **years of installation;**
12

13 **(ii) The increased administration costs and information technology costs of**
14 **maintaining both AMR and AMI systems; and**
15

16 **(iii) The length of time it may require for a full transition to AMI and the potential**
17 **risks of technological redundancy for the AMI system used in the early years**
18 **of implementation.**
19

20 **A.** Mr. Bowman’s Recommendation #12 is that the Board order Newfoundland Power to
21 *“Conduct a study of the costs and benefits of AMI technology (smart meters) with the*
22 *ultimate goal of replacing the current AMR metering technology that the industry has, or*
23 *is in the process of, replacing. The study should include an analysis of how costs might*
24 *be minimized or spread out over a longer time frame, and other means of funding such as*
25 *what might be available under government net-zero emissions programs. This study*
26 *should be completed by year-end 2024. The Board should not approve any capital*
27 *program associated with the installation of outdated AMR meters.”*
28

29 Mr. Bowman is recommending a study of the costs and benefits of AMI and that the Board
30 no longer approve replacement meters and new meters based on outdated AMR
31 technology that is likely to become stranded.
32

33 (i) With respect to *“The material upfront costs for implementing an AMI data*
34 *collection system which would only be used to serve a small percentage of*
35 *customers in the early years of installation”*, Mr. Bowman is not aware of how
36 many customers might be served in the early years of installation as Newfoundland
37 Power has not submitted a plan to study smart meter implementation. In CA-NP-
38 034 Newfoundland Power states that it is *“preparing to model the costs and*
39 *benefits associated with implementing AMI technology.”* As a result, it is not clear
40 that upfront costs are material or that only a small percentage of customers would
41 be served by smart meters in the early years when Newfoundland Power has not
42 conducted a cost/benefit study or prepared a plan for smart meter implementation.

1 Mr. Bowman points out that it is not possible to install new meters on the premises
2 of every customer overnight. Puget Sound Energy implemented its smart meter
3 program over 6 years. Newfoundland Power implemented its current AMR
4 program over the 2013-2017 time-frame. New Brunswick Power’s smart meter
5 implementation plan included installing 1000 meters in the summer of 2022, and
6 installation and activation of smart meters by region in the 2023 to 2025
7 timeframe.¹ Shenandoah Valley Electric Cooperative is implementing its smart
8 metering program one county at a time.² The fact that more than 70% of Canadian
9 homes and businesses currently use smart meter technology implies that any
10 “material upfront costs” are overcome by the benefits of smart meters.³
11

- 12 (ii) With respect to the “*increased administration costs and information technology*
13 *costs of maintaining both AMR and AMI systems*, Mr. Bowman has not seen
14 evidence supporting this statement and notes that a reference to such evidence is
15 not provided. Mr. Bowman is not aware if these costs are material as
16 Newfoundland Power has not studied smart meter implementation. In CA-NP-034
17 Newfoundland Power states that it is “*preparing to model the costs and benefits*
18 *associated with implementing AMI technology*.” As a result, it is not clear that
19 increased administration costs associated with maintaining both AMR and AMI
20 technology are material.
21

22 Mr. Bowman points that all metering programs take time to implement so there
23 will be a period of transition when both the existing AMR and AMI systems will
24 be in place. Puget Sound Energy implemented its smart meter program over 6
25 years. Newfoundland Power implemented its current AMR program over the 2013-
26 2017 time-frame. New Brunswick Power’s smart meter implementation plan
27 included installing 1000 meters in the summer of 2022, and installation and
28 activation of smart meters by region in the 2023 to 2025 timeframe. Shenandoah
29 Valley Electric Cooperative is implementing its smart meter program one county
30 at a time. In each case the utility proceeded, or is proceeding, with implementation
31 of the new metering technology. The fact that more than 70% of Canadian homes
32 and businesses currently use smart meter technology⁴ implies that any “increased
33 administration costs associated with maintaining both AMR and AMI systems” are
34 overcome by the benefits of smart meters.
35

- 36 (iii) With respect to the “*length of time it may require for a full transition to AMI and*
37 *the potential risks of technological redundancy for the AMI system used in the*
38 *early years of implementation*”, there is always a concern that new technology may

¹ <https://www.nbpower.com/media/1493124/project-status-report-ami-03-2024.pdf> (page 3)

² <https://www.svec.coop/member-services/advanced-metering-infrastructure/> - See When will my meter be replaced?

³ <https://www.nspower.ca/my-energy-insights/smart-meter-faqs> - see Are Smart Meters Safe?

⁴ <https://www.nspower.ca/my-energy-insights/smart-meter-faqs> - see Are Smart Meters Safe?

1 overtake technology that is currently being introduced because technology is
2 always changing. If society always waited until the next big change in technology,
3 we would not have computers. Neither would the Board have approved charging
4 stations because electric vehicle battery and charging technology continue to
5 improve. The fact is, current smart metering technology has numerous benefits
6 relative to AMR technology. Whether or not smart metering technology advances
7 in the near future does not take away these benefits. Mr. Bowman would expect
8 technology change to be addressed in the study he recommends that Newfoundland
9 Power undertake on the costs and benefits of AMI technology. Regardless,
10 although there may be advances in smart metering technology, utilities are
11 overwhelmingly converting to smart metering technology with over 70% of
12 Canadian homes and businesses already using smart metering technology. Clearly,
13 numerous Canadian utilities have made the conversion to smart metering
14 technology in spite of potential technology improvements in the future. One such
15 driver is the potential that AMR technology may soon be obsolete.