

1 **Reference: Schedule B Projects and Programs over \$750,000**

2
3 **Q. Page 67, Memorial Substation Refurbishment and Modernization Substations.**

4 **a) Will Memorial University be providing any contribution towards the cost of**
5 **completing the Memorial Substation project? If there is no contribution,**
6 **please explain why Newfoundland Power considers this to be appropriate**
7 **and fair and whether this approach is consistent with treatment of other**
8 **customers in General Service Rate Class 2.4.**

9 **b) Memorial University will also be conducting work on its own electrical**
10 **assets in the Memorial Substation during 2023-2024 and Newfoundland**
11 **Power is proposing a project for the substation that will commence in**
12 **2024 and be completed in 2025. Please confirm that the scope outlined of**
13 **Newfoundland Power's proposed capital budget relates only to assets**
14 **owned by Newfoundland Power and does not include work on Memorial**
15 **University's assets.**

16 **c) Will Newfoundland Power employees or contractors be engaged to**
17 **complete any work on the assets owned by Memorial University? If yes,**
18 **how will the costs be tracked to ensure the costs for the Memorial**
19 **Substation project only include costs relating to Newfoundland Power**
20 **assets?**

21
22 A. a) Newfoundland Power is not requesting a contribution from Memorial University
23 towards the cost of completing the *Memorial Substation Refurbishment and*
24 *Modernization* project. This is consistent with the Company's *Schedule of Rates,*
25 *Rules & Regulations* and in the treatment of other General Service Rate #2.4
26 customers.¹

27
28 Memorial ("MUN") Substation is a 66 kV – 12.5 kV substation located in the centre of
29 St. John's. It has been in service for 57 years and consists of transmission
30 infrastructure that is integral to the Company's 66 kV transmission network serving
31 St. John's Region.² It also contains infrastructure necessary to provide service to
32 Memorial University.

33
34 Transmission lines 12L and 14L connect MUN Substation to King's Bridge Road
35 Substation in the east end of St. John's, and Stamp's Lane Substation in the centre
36 of St. John's, respectively. The transmission infrastructure at MUN Substation
37 consists of the 66kV transmission breakers, switches, controls and other equipment
38 necessary to keep 12L and 14L in service.³ Reliable operation of transmission lines
39 12L and 14L is necessary for the reliable operation of the 66 kV transmission
40 network within St. John's Region, and to provide reliable service to customers in

¹ Newfoundland Power's *Schedule of Rates, Rules & Regulations, Effective July 1, 2023* was approved by the Board in Order No. P.U. 17 (2023).

² MUN Substation was originally constructed in 1966. A substation expansion took place in the mid-1970s. Additions included a switchgear expansion, new protection and controls, a new power transformer, and new transmission line breakers.

³ See Newfoundland Power's *2024 Capital Budget Application*, report *2.1 Substation Refurbishment and Modernization, Appendix C: Memorial Substation Refurbishment and Modernization, Section 2.3 66 kV Infrastructure* for additional details on the 66 kV assets at MUN Substation.

1 St. John's Region.⁴ Since the transmission infrastructure at MUN Substation is
 2 necessary to provide reliable service to customers throughout St. John's Region,
 3 Memorial University is not required to make a contribution towards the
 4 refurbishment and modernization of those transmission assets.

5
 6 MUN Substation is located within the Memorial University campus. As a result,
 7 Memorial University receives service from Newfoundland Power directly at MUN
 8 Substation.⁵ Service delivery from MUN Substation represents Memorial University's
 9 primary supply point and is not considered a special facility under Newfoundland
 10 Power's *Schedule of Rates, Rules & Regulations*.⁶ Memorial University is therefore
 11 not required to pay a contribution for the service provided through MUN Substation.⁷

12
 13 Newfoundland Power's other General Service Rate #2.4 customers receive service at
 14 various voltages and configurations.⁸ Similar to Memorial University, Newfoundland
 15 Power does not require its other General Service Rate #2.4 customers to provide a
 16 contribution to maintain the service. For example, if a Newfoundland Power
 17 transformer supplying a different General Service Rate #2.4 customer failed,
 18 Newfoundland Power would not seek a contribution from the customer in order to
 19 continue to provide service.⁹

20
 21 Also consistent with Memorial University, any contributions required from other
 22 General Service Rate #2.4 customers would be requested by Newfoundland Power in
 23 accordance with the Company's approved *Schedule of Rates, Rules & Regulations*
 24 and General Service Contribution in Aid of Construction Policy where applicable.¹⁰

25
 26 b) It is confirmed. Newfoundland Power's proposed capital budget relates only to
 27 assets owned by Newfoundland Power. Memorial University is completing a
 28 separate project related to assets owned by the University.

⁴ For example, under normal operating conditions, approximately half of the King's Bridge Substation load is supplied over transmission lines 12L and 14L.

⁵ Newfoundland Power owns and operates two power transformers located at MUN Substation along with the 12.5 kV switchgear circuit breakers necessary to deliver service to Memorial University. Memorial University owns and operates infrastructure necessary to accept delivery of service from Newfoundland Power including 12.5 kV switchgear, a switchgear building, and 10 distribution feeder breakers.

⁶ See Order No. P.U. 14 (2023), page 4, lines 29-33 and page 5, lines 9-12. In addition to service from MUN Substation, Memorial University also receives service from the Long Pond Substation ("LPD"). Service from the LPD Substation was considered a special facility by Newfoundland Power was therefore fully funded by Memorial University. See Order No. P.U. 5 (2019).

⁷ In Order No. P.U. 14 (2023), the Board approved supplemental capital expenditures of approximately \$1.6 million to purchase and install a replacement power transformer for MUN-T2 at MUN Substation.

⁸ Newfoundland Power's General Service Rate #2.4 customer rate class serves the Company's largest customers. These include customers where the maximum demand occurring in the 12 months ending with the current month is 1000 kVA or greater.

⁹ Such expenditures would typically be incurred as part of Newfoundland Power's *Replacement Transformers* program.

¹⁰ The Company's General Service Contribution in Aid of Construction Policy requires a general service customer to provide a contribution in aid of construction if the line extension or upgrade for permanent service is in excess of the costs that will be recovered through electricity rates paid by the customer. The Company's *Residential and General Service Contribution in Aid of Construction Policies, Effective January 26, 2023* were approved by the Board in Order No. P.U. 1 (2023).

1 Newfoundland Power owned equipment within MUN Substation includes two 66 kV
 2 transmission line termination structures, 66 kV infrastructure including a 66 kV bus
 3 structure, two 66 kV circuit breakers and associated switches, two power
 4 transformers, three 12.5 kV switchgear circuit breakers, and protection and control
 5 equipment.¹¹

6
 7 The 2024 scope of work being completed by Newfoundland Power at MUN
 8 Substation includes constructing new transformer spill containment foundations and
 9 firewall, replacing the 66 kV bus structure, circuit breakers, switches and potential
 10 transformers, installing new 12.5 kV structures, replacing 12.5 kV circuit breakers,
 11 switches, potential transformers, obsolete electromechanical relays and associated
 12 communications equipment, constructing a new control building and installing a new
 13 ground grid. All of these assets are owned by Newfoundland Power.

14
 15 University owned equipment within the substation includes the 12.5 kV switchgear,
 16 switchgear building and distribution feeders.¹² There are ten 12.5 kV distribution
 17 feeder circuit breakers located in the customer owned switchgear, serving all
 18 St. John's campus buildings, including the Health Sciences Centre, Janeway
 19 Children's Health and Rehabilitation Centre and other buildings on the campus.

20
 21 Memorial University is completing planned upgrades to its distribution equipment
 22 within MUN Substation in 2023 and 2024. This involves replacing obsolete
 23 switchgear and rerouting the University's underground feeders from the existing
 24 switchgear to the new switchgear.¹³ The existing switchgear building will remain in
 25 place until 2024, since Newfoundland Power's switchgear breakers and protection
 26 and controls equipment are located inside this building. The University will remove
 27 the building in 2024.

28
 29 c) Newfoundland Power employees or contractors will not be engaged to complete any
 30 work on the assets owned by Memorial University.

¹¹ The Newfoundland Power-owned 12.5 kV switchgear breakers include two main breakers fed from power transformers MUN-T1 and MUN-T2 along with a bus tie breaker. These breakers are located in MUN's 12.5 kV switchgear.

¹² The switchgear building houses a switchgear lineup of breakers and associated protection and control equipment.

¹³ The customer owned switchgear is 57 years old and is at end of life. This includes the switchgear building, switchgear breakers and protection and control devices. The new customer owned switchgear and protection and controls will be installed within a new switchgear building owned and operated by the University. The customer owned distribution feeders will be rerouted to the new building.