

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF THE *PUBLIC UTILITIES ACT*

- and -

IN THE MATTER OF an application by **NOVA SCOTIA POWER INCORPORATED** for approval of its 2025 Storm Cost Recovery Rider (SCRR)

BEFORE: Richard J. Melanson, LL.B., Panel Chair
Steven M. Murphy, MBA, P.Eng., Member
Jennifer L. Nicholson, CPA, CA, Member

APPLICANT: **NOVA SCOTIA POWER INCORPORATED**
Michael Willett, Director, Regulatory Finance

INTERVENORS: **CONSUMER ADVOCATE**
David Roberts, Counsel
Michael Murphy, Counsel

SMALL BUSINESS ADVOCATE
E. A. Nelson Blackburn, K.C.
Melissa MacAdam, Counsel

INDUSTRIAL GROUP
Nancy Rubin, K.C., Counsel
Dylan MacDonald, Counsel
Brienne Rudderham, Counsel

DEPT. OF NATURAL RESOURCES AND RENEWABLES
Daniel Boyle, Counsel

BOARD COUNSEL: William L. Mahody, K.C.

FINAL SUBMISSIONS: October 16, 2024

DECISION DATE: **December 2, 2024**

DECISION: The application is approved. NS Power is entitled to recover \$24 million for 2023 under the Storm Cost Recovery Rider.

TABLE OF CONTENTS

1.0	INTRODUCTION	3
2.0	DISCUSSION AND ANALYSIS	4
2.1	Storm Rider Terms	6
2.2	Post-Tropical Storm Philippe Qualifies as a Level 3 Storm Under the Storm Cost Recovery Rider	7
2.3	Prudence of NS Power's Storm Responses.....	12
2.4	NS Power Has Established \$21.8 Million in OM&G Costs, Plus Approximately \$2.2 Million in Financing Costs, are Recoverable Under the Storm Cost Recovery Rider	14
2.5	Issues Being Considered in Other Matters	17
2.5.1	Storm Hardening and Reliability Plans.....	18
2.5.1.1	Findings.....	26
2.5.2	Storm Response Performance Indicators	32
2.5.2.1	Findings.....	35
3.0	CONCLUSION.....	35

1.0 INTRODUCTION

[1] On May 1, 2024, NS Power applied to recover a portion of the operating, maintenance and general (OM&G) storm restoration costs the Company incurred in 2023, totaling \$21.8 million, plus approximately \$2.2 million in financing costs, for a total of \$24 million, pursuant to a Storm Cost Recovery Rider (SCRR). The Board had approved a SCRR in a decision about NS Power's 2022 General Rate Application (see: 2023 NSUARB 12). The purpose of this SCRR application is to allow NS Power to recover OM&G costs expensed in 2023 for significant storms, classified as Level 3 and 4 storms, if these costs exceed the amount previously estimated and included in rates. The SCRR was approved for a three-year trial period starting in 2023. This application will have different impacts on different rate classes but will result in an overall average increase in rates of approximately 1.4%.

[2] The Board initiated a review process, involving information requests (IRs), evidence and submissions. The Industrial Group, Consumer Advocate (CA), Small Business Advocate (SBA), and Department of Natural Resources and Renewables (NRR) intervened in the proceeding. The CA retained Constantine P. Gonatas of CPG Advisors Inc., on contract to Grid Strategies, LLC, as a consultant. The SBA engaged consultants John Athas and Melissa Whitten, of Daymark Energy Advisors, Inc. (Daymark). All consultants filed evidence in the matter.

[3] This decision aims to address the key issues raised through this proceeding, including whether all the OM&G costs claimed in the application are recoverable under the SCRR, the reasonableness and prudence of the incurred costs, and the appropriate forum for the continued evaluation of NS Power's storm hardening and resiliency plans.

[4] In 2023 there were six Level 3 storms. The Board finds that the storm restoration costs incurred of \$21.8 million, and associated financing costs of approximately \$2.2 million, are recoverable under the SCRR and that these costs were reasonable and prudent. The Board approves the SCRR tariff included as Attachment 3 to the response to NSUARB IR-16. The Board finds that it is appropriate to address ongoing issues related to storm hardening and resiliency programs, including metrics for measuring their effectiveness, in other Board processes. The Board has provided further comments and directions in this proceeding.

2.0 DISCUSSION AND ANALYSIS

[5] NS Power proposed the SCRR as part of its 2022 General Rate Application (2022 GRA). NS Power classifies storms from Level 1 to Level 4, based on criteria in its Emergency Services Restoration Plan (ESRP). In the 2022 GRA, NS Power proposed that base allowances for storm restoration OM&G costs for all storm categories be included in the revenue requirement. These estimated costs were based on a five-year historical average, excluding Post-Tropical Storm Dorian, which was an extreme weather event and, at the time of the application, the costliest storm in NS Power's history.

[6] The inclusion of Post-Tropical Storm Dorian in the five-year average would have increased the proposed OM&G storm restoration cost revenue requirement by \$3.5 million annually. Instead, NS Power proposed the SCRR to address significant weather events. The basic elements of the proposed SCRR were that actual OM&G costs for Level 3 and 4 storms would be tracked. If they exceeded the amount in base rates, they could be recovered through the SCRR starting January 1st in the second year after the test year.

The recovery of the costs cannot exceed 2% of NS Power's retail revenues for the year in question. There is a potential deferral mechanism if this situation arises.

[7] Ultimately, the signatories to a settlement agreement in the 2022 GRA agreed to the SCRR, on a trial basis, for the years 2023 to 2025. The Board approved most of the GRA Settlement Agreement, including the parts about the SCRR [see: 2023 NSUARB 12 (2023 GRA Decision)]. The 2023 GRA Decision discussed the purpose of rate riders, such as the SCRR, that allows for a true up of operating costs. They are generally only allowed where the costs are volatile and/or difficult to predict, potentially significant, and, generally outside the utility's control. They also avoid including estimated costs for extreme events, that may or may not happen, in base rates. Extreme weather events are one type of costs covered in rate riders approved in many jurisdictions.

[8] The GRA Settlement Agreement was Schedule "A" to the Board's Order dated March 27, 2023. The following parts of the terms of settlement are specifically related to the SCRR:

Storm Rider

- For purposes of the years 2023, 2024, and 2025 only, as applied for, per Storm Cost Recovery Rider Direct Evidence PR-01 page 106 and PR-01 Att1v, but, modified as per Section 13 of NS Power's Rebuttal Evidence, to eliminate the volume provision of the Balance Adjustment from the Storm Rider.

- The parties agree that NS Power will have the option to apply to the Board for recovery of costs through the Storm Rider in the event that Level 3 and Level 4 storm restoration expense exceeds \$10.2 million in 2023, \$10.4 million in 2024, and \$10.4 million in 2025. The Storm Rider terminates after recovery of costs from 2025.

[Board Order: M10431]

[9] The SCRR wording was provided in a Compliance Filing in the 2022 GRA. It was also incorporated in the March 27, 2023, Board Order.

2.1 Storm Rider Terms

[10] The SCRR applies to all electric rate schedules except the Wholesale Market Non-Dispatchable Supplier Spill Tariff, the Load Retention Tariff, and the Extra Large Industrial Active Demand Control Tariff. For the years 2023-2025, the SCRR allows NS Power to recover:

...actual Level 3 and Level 4 storm costs as defined in the Company's Emergency Services Restoration Plan (ESRP), in excess of the amount of Level 3 and Level 4 storm costs included in NS Power's revenue requirement as approved by the NSUARB.

[Exhibit N-1, Attachment G-2, p.1]

[11] The eligible OM&G costs include:

...non-capital preparation, response, and restoration related costs including but not limited to: (1) storm preparedness including crew staging and related logistical expenses; (2) incremental NSPI wages, benefits, and overtime pay related to storm recovery; (3) costs of external service providers and mutual aid utilities hired by the Company during restoration efforts; (4) materials and supplies used to repair damaged assets and any associated expenses; and (5) other recoverable expenses, including extra costs for temporary repairs and to expedite the permanent repair of damaged property, and expenses incurred for providing services to customers whose electric service has been interrupted.

[Exhibit N-1, Attachment G-2, p.1]

[12] The SCRR contains a balance adjustment mechanism for the recovery of eligible OM&G storm restoration costs. SCRR costs are allocated to customer classes based on NS Power's most recent Cost of Service Study. These costs will be charged on a kWh basis for bundled customers. NS Power will direct-bill customers taking service in the competitive Wholesale and Retail to Renewable to Retail markets "...in accordance with the customer's class energy bill if served by NS Power under its bundled service offering." Attachment 3 to the response to NSUARB IR-16 has the tariff amounts derived from this process. As previously discussed, recovery under the tariff cannot exceed 2% of NS Power's retail revenues for 2023. NS Power's potential recovery in this proceeding is under the 2% threshold.

[13] NS Power applied under the SCRR indicating that, in 2023, it incurred \$21.8 million more in OM&G storm restoration costs than the \$10.2 million for Level 3 and 4 storms already included in the revenue requirement for that year.

2.2 Post-Tropical Storm Philippe Qualifies as a Level 3 Storm Under the Storm Cost Recovery Rider

[14] In a SCRR application, only OM&G costs incurred because of Level 3 and 4 storms can be considered. There were no Level 4 storms in 2023. The SCRR incorporates the ESRP definition of a Level 3 storm. Section 5.1.3 of the ESRP defines a Level 3 storm as follows:

Level 3 – Provincial Service Restoration Response

A Level 3 service restoration response shall be initiated by the Storm Lead when it is anticipated that restoration will be completed within 72 hours with more than 50,000 customers out, or will take longer than 36 hours with less than 50,000 customers out. Once initiated, a Level 3 service restoration response shall remain in place until power is restored to all customers affected by the storm event unless the restoration response is raised to Level 4.

[M11287, Exhibit N-1]

[15] Post-Tropical Storm Philippe was forecast to bring significant wind and rain to Nova Scotia on October 7, 2023. The weather event did not materialize as forecasted and the impacts to NS Power's grid were relatively minor. Less than 5,000 customers lost power because of this storm. In IRs, both the Industrial Group and Board Staff asked how Post-Tropical Storm Philippe qualified as a Level 3 or 4 storm in these circumstances.

[16] NS Power's response to NSUARB IR-5(a) indicates that, based on weather forecasts, its damage prediction model, as reviewed by its Emergency Response Team (ERT), predicted impacts of 41,000 outages on October 4, 77,000 customer outages on October 5, and 91,000 customer outages on October 6, 2023. While Post-Tropical Storm Philippe weakened just before it hit the province, NS Power said that, based on the

worsening weather forecasts and damage prediction modeling, it was appropriate for the ERT to declare a Level 3 storm and prepare accordingly.

[17] The utility spent \$1,926,718 for these emergency preparations. These costs related primarily to opening NS Power's Emergency Operations Centre, securing and staging internal and external resources, and booking accommodation and meals for these crews. This is consistent with Appendix D-1, attached to the application, showing that the primary cost drivers were contracts with external parties (\$1,060,064), overtime labour (\$602,569) and meals and travel (\$129,769).

[18] No party to the proceeding submitted that the Post-Tropical Storm Philippe OM&G storm restoration costs were not recoverable because Philippe was not a Level 3 storm. Nevertheless, the Board considered whether the costs should be allowed. In the *2023 GRA Decision*, at para. 316, the Board described NS Power's storm classifications:

- Level 3 – Provincial Service Restoration Response: less than 50,000 customers affected, and restoration expected to require more than 36 hours, or more than 50,000 customers affected but restoration expected to be completed within 72 hours.
- Level 4 – Corporate Service Restoration Response: more than 50,000 customers affected, and restoration expected to require more than 72 hours.

[19] The wording in the *2023 GRA Decision* was based on the way NS Power's consultant, Concentric Energy Advisors, had described the storm classifications. A literal reading of the classification definitions, as summarized above, could lead to the conclusion that while restoration times are based on expected results, the actual number of customers impacted, as opposed to the anticipated number, determined the level of a storm under the SCRR. In this case, fewer than 50,000 customers had outages and there was no evidence it took more than 36 hours to restore power to them.

[20] The Board has considered the text, context, and purpose of the SCRR and the actual language in the ESRP definitions. The Board agrees with NS Power that where there is a reasonable basis for anticipating a Level 3 storm will occur, and a Level 3 emergency storm response is initiated under the ESRP, the OM&G storm restoration costs associated with the event are properly classified as Level 3 storm costs for the purposes of the SCRR. This is so even if the storm does not, in fact, cause outages that reach the anticipated thresholds.

[21] The SCRR incorporates the language of the ESRP definitions. Because of the nature of the ESRP, it is reasonable to interpret the Level 3 storm definition as speaking in terms of both anticipated outages and anticipated restoration times. The entire ESRP is a plan of action based on anticipated power grid damage. It informs the appropriate level of action to prepare so power restoration can take place as quickly and efficiently as possible. NS Power will not know the actual damage a storm will cause until after the fact.

[22] Obviously, NS Power must act before the storm arrives. It, therefore, follows that if the impacts of a Level 3 storm are reasonably anticipated, the corresponding OM&G preparatory costs are part of the costs recoverable under the SCRR. This preparation must be done under the ESRP regardless of whether the storm has the predicted results. As well, the anticipatory nature of the Level 3 storm thresholds is consistent with the SCRR tariff language allowing recovery for "...storm preparedness including crew staging and related logistical expenses...."

[23] The Board should also be cautious of an interpretation that might act as a disincentive for proper storm restoration preparedness by creating uncertainty as to

potential recovery at the time decisions are made. This last consideration has only a limited impact on the interpretive exercise because of NS Power's statutory duty to provide reasonably safe and reliable electricity.

[24] In this matter, the reasonableness of NS Power's decision to declare Level 3 storms is easily and objectively ascertainable for all the 2023 Level 3 storms other than Post-Tropical Storm Philippe. The Board requires storm outage analysis reports for all storms causing more than 30,000 outages. NS Power filed these reports for the other 2023 Level 3 storms. These other storms all had actual impacts beyond the threshold levels for the number of customer outages or the duration of the outages set out in the ESRP definitions.

[25] The classification of Post-Tropical Storm Philippe must be made based on the information NS Power knew at the relevant time. The utility's response to NSUARB IR-12(a) said that it uses "...multiple weather sources as inputs to the outage prediction model, updating and tracking these inputs multiple times daily to adapt plans as weather forecasts change." NS Power advised that Environment Canada forecasts were consistent with those of other weather forecasters.

[26] NS Power provided the Environment Canada forecasts for the days leading up to and including October 7, 2023. These weather forecasts predicted wind gusts of up to 110 km/h for some coastal areas of Nova Scotia, with the October 7 forecast predicting somewhat less wind, but local gusts up to 100km/h. NS Power advised these types of winds "...can cause significant damage to infrastructure, trees, and potential impact to [a] significant number of customers." This statement is consistent with the information in the application concerning the other Level 3 storms. A review of the storm outage analysis

reports filed in this matter for the other 2023 Level 3 storms indicates significant damage occurred during wind events with wind gusts like those predicted for Post-Tropical Storm Philippe.

[27] NS Power also said that its damage prediction model "...has been continuously enhanced and calibrated to reflect current system conditions and anticipated impacts." Nevertheless, the model outputs and the reliability of the model's predictions is heavily reliant on the accuracy of the weather forecast inputs. The Board notes that on the morning of October 7, 2023, while less wind was forecast, the weather forecasts were still predicting significant wind gusts for some coastal areas, particularly in Southwest Nova Scotia. The following chart shows three scenarios from NS Power's damage prediction model for number of outages in the three days leading up to and including the day Post-Tropical Storm Philippe impacted Nova Scotia:

Date	Low	Medium	High
Thu 10/5/2023	50,956	65,936	77,464
Fri 10/6/2023	60,426	77,248	91,782
Sat 10/7/2023	49,938	61,937	72,832

[Exhibit N-5, Response to Board IR-12(a), PDF p.31]

[28] A storm that causes more than 50,000 outages is either a Level 3 or Level 4 storm, depending on the anticipated restoration times. The OM&G restoration costs of such a storm can be considered under the SCRR. With Post-Tropical Storm Philippe, the high and medium case model outputs all predicted outages well beyond the threshold on the day of the storm and the two days leading up to it. Even the low case scenario predicted more than 50,000 outages, except on the day of the storm when the figure fell 62 outages below the threshold. NS Power says because Post-Tropical Storm Philippe

arrived just 22 days after Hurricane Lee, which had caused extensive damage and left parts of the grid at risk, it was prudent to declare a Level 3 storm with these model outputs. The Board agrees with this assessment and finds NS Power's reported damage prediction model outputs form a reasonable basis for classifying Post-Tropical Storm Philippe as a Level 3 storm.

2.3 Prudency of NS Power's Storm Responses

[29] No party in this proceeding expressly took the position that this application should be denied, in whole or in part, because of alleged deficiencies in NS Power's past storm hardening and resiliency management practices. Daymark suggested that NS Power's application could be considered deficient because it did not have a comprehensive written five-year Reliability Plan. Ultimately, the SBA did not adopt this position in closing submissions. The details surrounding this issue are discussed in more detail below. The Board is satisfied that NS Power provided the information that the Board's 2023 GRA Decision directed the Company to submit.

[30] The prudency of NS Power's storm response and the related costs has been an issue in many recent Board decisions. In [2024 NSUARB 115] related to Hurricane Fiona, the Board found it would be too speculative to disallow costs for imprudence because of the allegation that NS Power had not introduced additional resilience to its electrical system. Doing so would presume that there were specific investments that were technically feasible and affordable, and that would have made a difference to the costs incurred because of Hurricane Fiona. The Board concluded that concerns about resiliency were better addressed in other pending processes, such as the implementation of the asset management recommendations arising from the Board's

recent decision in its review under s.30(5)(a) of the *Public Utilities Act* [2024 NSUARB 59], the development and review of NS Power's Climate Change Adaptation Plan, ACE Plan and other capital expenditure proceedings and NS Power's annual performance standards reviews.

[31] In this proceeding, most of the evidence from Daymark and Dr. Gonatas related to improving reliability and resiliency, and how to better assess the outcomes of NS Power's initiatives. There were also recommendations on how to better track the adequacy and efficiency of the storm responses. Much of this evidence is addressed later in this decision.

[32] No evidence was presented in this matter that additional efforts would have reduced the storm preparation and restoration costs. Therefore, the Board's discussion and analysis in earlier decisions including [2024 NSUARB 115 and 116] about NS Power's stewardship and the resilience of the electrical network, and how these concerns might best be addressed, apply equally in this proceeding. In addition, the evidence suggests that NS Power prepared appropriately for the 2023 Level 3 storms per its ESRP.

[33] The Board finds there is no evidence before it to find that NS Power acted imprudently as it relates to its OM&G Level 3 and 4 storm restoration efforts prior to, during and after the 2023 storms. The Board finds NS Power's storm responses were, therefore, prudent and reasonable.

2.4 NS Power Has Established \$21.8 Million in OM&G Costs, Plus Approximately \$2.2 Million in Financing Costs, are Recoverable Under the Storm Cost Recovery Rider

[34] NS Power spent \$32.1 million in OM&G costs related to storm preparation and restoration for Level 3 storms in 2023. There were no Level 4 storms that year. The total amount in 2023 base rates for Level 3 and 4 storms is \$10.2 million.

Figure 7 – Breakdown of 2023 Actual Operating Costs to Base Rates by Level

Storm Type	Actual (\$ million)	Base Rates (\$ million)	Variance (\$ million)
Level 1 and 2	\$12.0	\$7.2	\$4.8
Level 3 and 4	\$32.1	\$10.2	\$21.9
Total	\$44.1	\$17.4	\$26.7

[Exhibit N-1, Figure 7, p. 14]

[35] Dr. Gonatas questioned why 2023 storm preparation and restoration costs were higher than those reported for Hurricane Dorian when the damage caused was less. The basis of Dr. Gonatas' opinion appears to be that there were many more total damage incidents (downed poles, downed wires, and tree contacts) associated with Dorian (3,206) than the total damage incidents caused by the 2023 storms (872 incidents, excluding Phillippe which caused little damage). Yet, Dr. Gonatas said the remediation costs for the 2023 storms (again excluding Phillip) were comparable to Dorian despite the significant difference in total damage incidents. He recommended that the Board obtain an explanation about this from the utility.

[36] NS Power explained this difference in its Rebuttal Evidence. It stated that the data set Dr. Gonatas relied upon was either "incomplete or misunderstood." The Board agrees that Dr. Gonatas' analysis is not really an apples-to-apples comparison. The Dorian costs appear to be capital storm restoration costs, while the 2023 storm costs used in his tables appear to be OM&G costs. NS Power pointed out that there are both

capital and OM&G components to storm restoration to be considered. It provided a more detailed explanation, which the Board finds persuasive, as follows:

The simple reason that the 2023 storms incurred more costs than Hurricane Dorian is that there were nine storms or weather-related events in 2023, six of which were Level 3 storms, and three of which were either level 1 or 2 storms. It is also important to note that NS Power is only seeking to recover the incremental OM&G costs and respective financing costs over the amount in rate base. The total capital expenditure for 2023 storms was \$10.2 million, and the total OM&G expenditure was \$44.1 million. As part of this Application for implementation of the SCRR, NS Power is seeking to recover the \$21.9 million difference between the \$32.1 million and the \$10.2 million in base rates for Level 3 and 4 storms plus financing costs.

[Exhibit N-11, p. 14]

[37] NS Power provided a comprehensive breakdown of 2023 storm restoration costs by account for the six Level 3 storms in 2023:

Figure 4 – Breakdown of 2023 Operating Storm Restoration Costs by Account

Account	Level 1 & 2 Storms	Level 3 & 4 Storms	Total Combined Storms
Contracts	\$ 7,293,493	\$ 21,964,387	\$ 29,257,880
Overtime Labour ⁴	\$ 2,658,767	\$ 6,425,143	\$ 9,083,910
Meals & Travel	\$ 466,635	\$ 2,709,729	\$ 3,176,364
Materials	\$ 363,999	\$ 791,796	\$ 1,155,795
Regular & Term Labour	\$ 803,257	\$ 1,116,194	\$ 1,919,451
Other	\$ 596,374	\$ 403,660	\$ 1,000,034
Miscellaneous Revenue (Bell Contribution)	\$ (150,928)	\$ (1,346,934)	\$ (1,497,861)
Total Combined Costs	\$ 12,031,598	\$ 32,063,975	\$ 44,095,573

[Exhibit N-1, Figure 4, p. 13]

[38] NS Power also provided a detailed breakdown of the approximately \$22.0 million in contracts costs set out in the above table. The Company provided further details on costs in IR responses. There was no evidence presented showing these operating costs were not required to restore NS Power's grid.

[39] In IR-5, the Board asked NS Power why there were storm costs from prior period storms included in the storm costs in 2023. NS Power stated that it uses accruals

to capture its best estimate of storm costs included in a given year, but that until final invoices are received, the final cost is unknown and the accrual may be under or over estimated. NS Power further explained that its revenue requirement for each year is its best estimate of costs that will be incurred in that calendar year, and that actual calendar year costs are compared to the revenue requirement for purposes of the storm rider.

[40] No party opposed the way NS Power included the costs for prior storm periods. The inclusion of what essentially amounts to true ups for prior storm periods in the actual 2023 calendar year Level 3 or 4 storm costs is acceptable from an accounting perspective. It matches what is included in the 2023 revenue requirement for Level 3 and Level 4 storms with the actual amount expended in 2023 for Level 3 and Level 4 storms. The Board, therefore, in the circumstances of this application, accepts this accounting treatment for the purposes of calculating the storm costs applicable to the 2023 SCRR.

[41] In its evidence, Daymark noted that NS Power's response to Board IR-10 was "sufficiently unclear to raise the concern that some costs to be recovered through the SCRR are also included in rate base" and asked that the Company confirm that any risk of double collection of costs is eliminated. In its Rebuttal Evidence, NS Power provided additional detail and confirmed that there is no double collection of costs. In its Submissions, the SBA states that it appears the risk of double collection is limited and that the additional detail provided by NS Power was useful and should be provided in future SCRR applications.

[42] The issue of potential double recovery of costs is about whether amounts claimed in this matter had already been included in inventory in the base rates established in the 2023 *GRA* Decision. NS Power explained how the cost of inventory is included in

a separate account and recorded as an asset on the balance sheet until consumed. Once consumed, the inventory cost is transferred to an operating or capital account, depending on the nature of the project. NS Power explained the process for ensuring that costs accumulated in a storm restoration project are properly allocated to a capital or operating account.

[43] Because costs can only be included in one account, the Board finds that NS Power adequately explained why there was no double recovery for inventory amounts included in this application. That said, the Board agrees with the SBA that the level of detail provided in NS Power's Rebuttal Evidence should be included in future SCRR applications.

[44] Based on the foregoing evidence and analysis, the Board finds that NS Power's evidence is sufficient to establish that the costs claimed in this proceeding were incurred responding to Level 3 storms as contemplated by the SCRR. The Board is further satisfied that NS Power's response to each of the Level 3 storms was generally in accordance with the ESRP. The Board also finds the level of detail in the application is sufficient to establish the amount of the claim.

[45] The SCRR balancing mechanism for cost recovery allows for financing costs. NS Power provided a calculation confirming that these financing costs total approximately \$2.2 million. The Board has reviewed these figures and finds the amount of approximately \$2.2 million in financing costs is recoverable.

2.5 Issues Being Considered in Other Matters

[46] In its 2023 *GRA* Decision (Matter M10431), the Board found that when NS Power submits a SCRR application for Board approval, it is appropriate for the

assessment of the application to include a full review of all storm restoration costs (including capital expenditures), storm hardening costs and vegetation management costs during the related year. The Board, therefore, directed NS Power to include full detail on all these costs in each Storm Rider cost recovery application submitted during the three-year storm rider trial period. Following this directive, NS Power's 2023 SCRR application includes details related to its storm hardening, vegetation management, and reliability initiatives and costs.

2.5.1 Storm Hardening and Reliability Plans

[47] NS Power's application stated that the Company is developing and using more resilient design standards as a means of trying to harden its infrastructure to make it more resistant to adverse events, such as windstorms and ice storms. These new efforts include installing higher class poles, which can better withstand the elements and not be as impacted by trees. The Company is also using stronger insulators designed for equipment exposed in coastal areas. NS Power further noted that it is pursuing system hardening through grid modernization and stability initiatives covering distribution automation, reclosers and monitoring.

[48] With respect to its reliability investments, NS Power stated that it assesses reliability investments that prioritize the mitigation of the highest risks on the system for the greatest number of customers. In 2023, NS Power undertook the following steps to improve reliability for customers:

- NS Power created a Reliability team with almost 60 existing NS Power employees focused on reliability improvements and added a Director and four Reliability Advisors – one for each operating area of the province (Metro, West, the Northeast

and Cape Breton), to enhance its approach in the pursuit of improved reliability for customers.

- In 2023, the Company invested \$32 million in vegetation management (tree trimming and removal). This is an increase of more than 25% over the amount spent each year from 2018-2022 (on average). This amount is broken down to \$22 million in capital investment for the establishment of new rights-of-way and the widening of existing rights-of-way and \$10 million of operating expenses primarily for the maintenance of current rights-of-way. In 2024, NS Power plans to increase its investment in vegetation management by another 40% to \$45 million and sustain that level of investment for the next several years.
- 2023 was year one of a five-year Reliability Plan, with the goal of improving reliability as the Company hardens its grid and moves forward with the clean energy transition.
- NS Power hired 11 new planners and 21 wiring inspectors since 2021 and is actively recruiting power line technicians to bring the total to 195 by the end of 2024.
- The number of NS Power vegetation management crews increased from 45 to 65 in 2023, with a further increase to 80 to 85 crews expected in 2024.
- In 2023, the Company continued utilizing technology and innovation such as drones and satellite imagery to assess areas that require immediate focus on vegetation management and equipment replacement.
- NS Power has and continues to invest in its build-to-roadside strategy for distribution infrastructure, as the Company continues to prioritize, where permitted, the transition of off-road sections of power lines to roadside.

- The Company further noted that it is actively working to gain permission from landowners, customers, and communities to cut and remove more trees near power lines and increase rights-of-way and decrease the proximity of trees to the power lines.

[49] Regarding NS Power's storm hardening efforts, Dr. Gonatas' evidence highlighted two areas for which he has concerns: distribution infrastructure hardening and vegetation management. With respect to NS Power's assertions that it is making progress with hardening infrastructure, Dr. Gonatas reviewed data on pole wind ratings and compared these to actual wind gusts from recent storms to assess whether NS Power's distribution infrastructure can withstand strong storms. He also reviewed IRs responses and NS Power's 2024 ACE Plan to assess the Company's vegetation risk management efforts, and to evaluate whether NS Power is making progress upgrading poles to withstand strong storm wind gusts.

[50] Concerning NS Power's efforts to harden its distribution system by installing heavy-duty poles, Dr. Gonatas asserted that the Company has not yet taken meaningful action because its installed base of distribution poles cannot withstand strong storm winds. With respect to NS Power's vegetation management activities, Dr. Gonatas believes that the Company is vulnerable to hazard trees located outside its rights-of-way. Dr. Gonatas, therefore, recommended that the Board direct NS Power to:

1. Provide a hardening plan that includes:
 - a. An assessment of cost-effective deployment of heavy-duty poles rated for wind gusts of at least 110 km/h, identifying cases where benefits from resisting higher wind gusts together with the economic value of fewer customer outages outweigh costs;
 - b. Updating poles with heavy-duty rated poles for assets selected for routine replacement where poles are exposed to high wind gusts;

- c. Updating at-risk distribution lines to vertical distribution conductor geometries without cross-bars since these substantially reduce recovery time labor and costs; and
 - d. Evaluation of targeted undergrounding for locations with high customer density and high wind gust exposure.
2. Explain whether it is using all available authority to obtain hazard tree removal outside its rights of way, and to provide details regarding steps taken in that regard. If NS Power is using all available authority, and if its existing authority is insufficient, then I recommend the Board direct NS Power to state what legal or regulatory changes would or could enable hazard tree removal outside its right of way.

[Exhibit N-8, pp. 3-4]

[51] Mr. Athas and Ms. Whitten noted that NS Power provided details on its intended reliability investments in Figure 26 of the application. As an aside, the Board notes that the referenced Figure was not provided in the SCRR application, but instead was provided in NS Power's 2023 Performance Standards Annual Report, filed under Matter M11627. Nevertheless, Mr. Athas and Ms. Whitten asserted that it appears NS Power believes the information in the Figure represents the Company's reliability plan.

[52] Because of this assertion, Mr. Athas and Ms. Whitten stated that the SCRR application could be viewed as deficient by the Board in that it does not include evidence of a robust reliability plan but instead provides an incomplete vegetation management plan that covers only 2023 - the first year of what is supposed to be a five-year plan. Further, they argued that figures provided by NS Power for the intended investments in reliability are insufficient for stakeholders to assess whether NS Power's investments were conducted as intended and whether they should have reduced the cost and duration of any outages during 2023. Mr. Athas and Ms. Whitten said that knowing NS Power intends to spend money on vegetation management does not provide information about where, when, and what type of work is to be conducted and how that work should be used in assessing NS Power's results in its annual Performance Standards Report.

[53] Mr. Athas and Ms. Whitten also contend that NS Power's proposed use of the statistical measure, wind-normalized System Average Interruption Duration Index (SAIDI), is not supported by the evidence filed in this proceeding. They challenged normalized SAIDI as a valid reliability metric and said it shows a narrow and linear relationship within a certain range of wind speeds. Mr. Athas and Ms. Whitten also noted that the metric only appears to be used by NS Power and is not cited by the Canadian Electricity Association as a reliability metric. They assert that the metric should not be used to evaluate the effectiveness of NS Power's reliability investments moving forward.

[54] Based on their review of the evidence, Mr. Athas and Ms. Whitten recommended that the Board require NS Power to submit a full version of its robust five-year Reliability Plan, including any missing components as identified in their evidence. They also recommended that NS Power identify any changes, updates or amendments to the Plan with any future SCRR applications. In addition, they recommended that the Board direct NS Power to file further evidence on the effectiveness of NS Power's reliability metric for normalized SAIDI.

[55] In its Rebuttal Evidence, NS Power responded to Dr. Gonatas' recommendations. First, NS Power noted that it uses the criteria set out in its feeder risk profiles to understand the criticality of deploying alternative designs, including the use of heavy-duty poles. Alternative designs are then evaluated and prioritized on high-risk feeders. The Company argued that these asset management mechanisms to assess criticality and determine its pole replacement and update strategy are the most cost-effective solution. As such, NS Power believes that it is not necessary to proceed with Dr.

Gonatas' recommendation to assess deployment of heavy-duty poles for wind gusts of at least 110 km/hr.

[56] NS Power's Rebuttal Evidence also addressed Dr. Gonatas' recommendation to update poles with heavy-duty rated poles for assets selected for routine replacement where poles are exposed to high wind gusts. The Company noted that its wood pole replacements are typically identified through routine line inspection programs and capital project scoping where they are prioritized based on the assessed asset field condition and potential consequence of failure. Any identified wood pole damage or deterioration may then prompt targeted asset replacement through direct pole-by-pole intervention or may inform development and prioritization of a larger capital project as appropriate to the circumstances.

[57] In addition, based on outage data from 2019-2023, NS Power stated that distribution outages resulting from defective equipment, including wood pole failures, accounted for approximately 19 % of all interruption events. Wood poles were responsible for 2.38 % of these events, or 0.46 % of all events. In addition, during this period, the overall failure rate for the inventory of NS Power's poles was only 0.0152 % per year. NS Power also noted that the single largest contributor to the frequency of outages resulting from pole failure is due to foreign interference, largely motor vehicle accidents. Falling trees bringing down wires and thereby snapping the connected poles is another significant cause of pole failures, and this can occur regardless of wind gust rating. As such, most events that cause pole replacements are not necessarily a function of the pole's actual condition or the pole's ability to withstand certain wind strengths. NS Power believes that after accounting for these external factors, its current performance of

distribution wood poles is not a significant factor in customer reliability issues. The Company, therefore, contends that its current distribution asset monitoring programs are appropriate, and proceeding with Dr. Gonatas' recommendation is not needed.

[58] With regard to Dr. Gonatas' recommendation to update at-risk distribution lines to vertical conductor geometries with crossbars, NS Power stated that horizontal distribution framing with wooden cross arms is a lower cost option for customers and is consistent with established work methods and existing fleet boom height/capacity. NS Power has an existing standard for vertical framing, but this design is utilized mainly in situations where horizontal clearances are an issue (e.g., tight clearances between buildings/trees) and for heavy and medium angle corners. In addition, compared to horizontal framing, vertical framing generally requires additional primary space and leads to the installation of higher poles. As a result, in situations where vertical framing is appropriate, NS Power said that savings in installation associated with the cross arm is typically more than offset by the additional installation costs associated with the higher height pole and steel insulator brackets. Further, the Company stated that in its experience, the recovery time and labour associated with storm restoration of vertical and horizontal framing construction types is similar, and in some configurations vertical framing can take longer to restore than horizontal framing. Consequently, NS Power does not believe that a widespread change from horizontal framing will provide significant value for ratepayers.

[59] In its Rebuttal Evidence, NS Power also responded to Dr. Gonatas' recommendation to evaluate targeted undergrounding of infrastructure in locations of high customer density and high wind gust exposure. NS Power stated that it is required to

deliver power at the lowest cost for customers and underground infrastructure is elected when it provides power service at the lowest cost. Further, to balance affordability for all customers, NS Power requires a contribution from interested parties, such as developers, to account for the difference in cost between overhead and underground infrastructure. NS Power stated that it continues to monitor emerging technology and trends on undergrounding through its reliability teams and subject matter experts where applicable.

[60] NS Power's Rebuttal Evidence also addressed Dr. Gonatas' concerns related to vegetation removal outside of the Company's rights-of-way. NS Power stated that when priority areas are identified on private property, the legal, and NS Power's preferred and most cost-effective approach, is to seek the voluntary permission of individual landowners. The Company also stated:

...While there are circumstances where the company may pursue acquisition of an easement or a right of way to access and manage problematic vegetation, this is not a decision made lightly. The process of obtaining such legal rights is both time-consuming and costly, may not lead to the desired outcome, and requires careful consideration to ensure that it aligns with the best interests of all customers. Nova Scotia Power takes this step only when necessary, and always with the intent to balance operational efficiency with respect for property law principles and private property rights.

NS Power meets regularly with stakeholders including local governments in an effort to actively gain permission from landowners, customers and communities to cut and remove trees near power lines and increase rights-of-way and the proximity of trees to the power lines. A key element of the reliability team plan is to engage with customers and communities to talk about the impact of trees on the power system so that NS Power and customers are aligned on the value of this work.

[Exhibit N-11, p.11]

[61] As it relates to Mr. Athas' and Ms. Whitten's concerns about the sufficiency of NS Power's five-year Reliability Plan, in its Rebuttal Evidence NS Power said that its current SCRR application provides all the information directed by the Board in its 2023 GRA Decision. This includes a full review of all storm restoration costs (including capital expenditures), storm hardening costs and vegetation management costs during 2023. NS

Power also stated that it will uphold all Board directives, including the Board's recent direction in the 2023 Performance Standards Decision (Matter M11627), to prepare a comprehensive, written version of the Company's five-year Reliability Plan by December 31, 2024. This plan will include specific actions and related timing, demonstration of why particular investments were selected, and quantification of the level of reliability or resilience improvement expected from each investment.

[62] Concerning the normalized SAIDI metric, NS Power's Rebuttal Evidence noted that the Board's *2024 ACE Plan* Decision (Matter M11458) directed the Company to continue to study the issue of normalized SAIDI and provide further information and potential alternatives to the way normalized SAIDI is presented, in the 2025 ACE Plan.

2.5.1.1 Findings

[63] In terms of assessing the economic benefit of fewer customer outages resulting from poles resisting higher wind gusts compared to the increased costs associated with heavy-duty poles, Dr. Gonatas identified the Value of Lost Load (VoLL) approach as a standard means of making this assessment. However, in response to NSUARB IR-1a), he noted that quantifying the VoLL is not without challenges, as most estimates are based on "expressed preferences from surveys rather than revealed preferences." He further stated that he has not yet developed an opinion as to what VoLL estimates could be applied in this case. NS Power views the considerable uncertainty regarding the distribution of costs of power outages across society as a major hurdle to implementing such a metric. Based on the evidence, the Board finds that the potential use of the VoLL metric by NS Power has not yet been fully explored. As such, the Board will not direct NS Power to proceed at the current time with Dr. Gonatas' recommendation

to complete an assessment of cost-effective deployment of heavy-duty poles rated for wind gusts of at least 110 km/h, identifying cases where benefits from resisting higher wind gusts together with the economic value of fewer customer outages outweigh costs.

[64] In its Reply to Closing Submissions, NS Power stated:

Regarding consideration of the economic impact of outages, NS Power assesses lost revenue while customers are without power, and all incremental costs associated with restoring service. Additionally, NS Power considers the overall economic impact of an outage at the feeder level when developing mitigation plans through its Asset Management Framework and Feeder Risk Profile criteria. For example, the load and the number of customers on a feeder are used to assign criticality ratings. These factors directly relate to the economic impact of an outage and are used in determining the most appropriate investment strategy. In NS Power's submission, the existing Asset Risk framework and reporting against existing performance standards metrics suffice.

[NS Power Reply to Closing Submissions, p. 4]

[65] The Board does not fully agree with NS Power's submission. Instead, the Board believes that the VoLL metric could be potentially useful in not only completing an assessment of the type recommended by Dr. Gonatas, but also in evaluating NS Power reliability investments. In his Closing Submission, the CA appeared to agree by suggesting that the Board should direct NS Power to look for ways to update its risk-based asset management approach to give consideration to the economic impact of outages. Therefore, the Board directs NS Power to study and report on the potential use of the VoLL metric in the Company's reliability investment planning process. This includes assessing how the metric might be used in NS Power's capital approvals application process. It is too late for NS Power to complete this exercise for incorporation into the Company's five-year Reliability Plan, which is to be filed with Board by December 31, 2024. Similarly, it is likely too late for the study report to be included with the 2025 ACE Plan application. As such, the Board directs NS Power to provide a report on this VoLL assessment in the Company's 2026 ACE Plan application.

[66] Dr. Gonatas has recommended that NS Power update poles with heavy-duty rated poles for assets selected for routine replacement where poles are exposed to high wind gusts. As part of NS Power's storm hardening initiatives, the Company indicated that it is focused on enhanced design standards for wood structures where appropriate to improve resiliency to adverse weather and tree impacts. This includes updating its pole standards to include larger, higher-class poles and use of new pole materials (such as composite poles) where appropriate, that can withstand more severe weather and the strain placed by trees. NS Power is also taking specific action to conduct targeted pole upgrades and replacements when warranted. The Board is also persuaded by NS Power's evidence related to the main causes of pole failures and agrees with the Company that Dr. Gonatas' recommendation appears to underappreciate that poles snapping in high winds are a very low percentage of the most common cause of outages.

[67] The Board, therefore, finds that proceeding with Dr. Gonatas' recommendation is not needed at this time. The Board notes, however, that during the 2025 ACE Plan proceeding, NS Power can expect the Board to ask for an update about the status of the Company's enhanced pole-design standards. This will likely include a request for an update on the Company's progress in revising its Distribution Standards to add the CSA standard high-wind weather load of 110 km/hr on un-iced infrastructure in addition to the "heavy weather loading" standards.

[68] In his Closing Submission, the CA suggested that the Board should direct NS Power to provide an update to its risk-based asset management approach to ensure that storm risks are properly taken into account. The Board finds that this direction is not required, as this issue is being addressed in other Board proceedings, which will likely

include additional stakeholder and intervenor processes. These proceedings include the Board's recent review of the extent, condition and value of NS Power's property and assets under s.30(5)(a) of the *Public Utilities Act* [2024 NSUARB 59]. In its decision, the Board directed NS Power to undertake several initiatives to improve its asset management activities. Other proceedings include NS Power's most recent GRA (where the Board directed NS Power to file its Climate Change Adaptation Plan with the Board by December 31, 2025), NS Power's ACE Plan and other capital expenditure proceedings and, NS Power's annual performance standards reviews.

[69] With regard to Dr. Gonatas' recommendation to update at-risk distribution lines to vertical conductor geometries with crossbars, NS Power asserts that horizontal distribution framing with wooden cross arms is a lower cost option for customers and is consistent with established work methods and existing fleet boom height/capacity. In his Closing Submission, the CA stated that this conclusion is not supported by the evidence in this proceeding. He suggested that NS Power appears to have limited experience with vertical framing upon which to base its assertion. He, therefore, suggested that the Board direct NS Power to provide further support for its conclusion.

[70] In its Rebuttal Evidence, NS Power stated that it is exploring all avenues to improve reliability performance of the system including appropriate recommendations for updated pole framing, to ensure the system is optimally configured to respond to storms and high wind conditions. The Board is encouraged by these steps. However, the Board agrees with the CA that NS Power's assertion about horizontal distribution framing with wooden cross being a lower cost option than vertical framing is not fully supported by the evidence in this proceeding. NS Power attempted to address this concern in its Reply to

Closing Submissions. The Company's Reply noted that it has extensive experience with both horizontal and vertical framing, and that it estimates there is roughly a 50% time saving in storm restoration of horizontal framing.

[71] While these submissions may be accurate, the Board finds that the evidence in this proceeding does not provide sufficient detail to provide the needed support. The Board, therefore, agrees with the CA that NS Power's assertions related to the use of vertical framing needs further support. NS Power has previously been directed by the Board to file its five-year Reliability Plan by December 31, 2024. Once filed, the Board expects to open a new proceeding to allow the Board and parties to review the content of the plan. During that proceeding, the Board (and parties if they wish) intends to explore and test NS Power's assertions about the use of vertical framing. This will likely include, but not be limited to, a review of a) the percentage use of vertical framing on the Utility's distribution system, b) cost information to show the typical costs to install horizontal and vertical framing, and c) cost support to show whether there is storm restoration costs savings with horizontal framing vs vertical framing. After the review is completed, the Board will then determine whether it is necessary to proceed with Dr. Gonatas' recommendation to update at-risk distribution lines to vertical conductor geometries with crossbars.

[72] As it relates to Dr. Gonatas' recommendation concerning undergrounding of NS Power infrastructure, this issue has previously been addressed by the Board in Matter M11169. In its decision in that Matter, the Board noted that in NS Power's capital approval processes, including ACE Plan proceedings, investments such as undergrounding may be raised as an alternative to some projects, and NS Power must

ensure that it is able to properly assess this and other resiliency enhancing alternatives in appropriate cases. The Board notes that if NS Power has not appropriately assessed undergrounding in cases where that assessment is warranted, project approvals may be delayed.

[73] Dr. Gonatas expressed concerns related to vegetation removal outside of the Company's rights-of-way. In his Closing Submission, the CA submitted that NS Power has not fully addressed Dr. Gonatas' concerns, and that the Board should direct the Utility to do so. NS Power does not appear to have addressed this issue in its Reply to Closing Submissions. However, in its Rebuttal Evidence, NS Power argued that any proposal for legal or regulatory change beyond what already exists to enable hazardous tree removal on private property is best left with elected officials to pursue through the legislative process. The Board agrees. Prior to such changes taking place, the Board also agrees with NS Power that when priority areas are identified on private property, the preferred and most cost-effective approach is to seek the voluntary permission of individual landowners.

[74] Mr. Athas and Ms. Whitten recommended that the Board require NS Power to submit a full version of its robust five-year Reliability Plan, including any missing components as identified in their evidence. They also recommended that NS Power identify any changes, updates or amendments to the Plan with any future SCRR applications. The Board agrees that a comprehensive written version of NS Power's five-year Reliability Plan is needed to understand how service improvements will be achieved, and against which progress in achieving performance goals can be tracked. As such, in its *2023 NS Power Performance Standards* decision (Matter M11627), the Board directed

NS Power to prepare such a plan and file it with the Board by December 31, 2024. In its Closing Submission, the SBA stated that this direction addresses the concerns of Mr. Athas and Ms. Whitten. No further direction concerning the filing of this plan is currently required. However, once filed, the Board agrees with Mr. Athas and Ms. Whitten that any updates to the plan need to be identified. The Board directs that these updates be filed, as required, in the ACE Plan applications for the year the updates are completed.

[75] With respect to Mr. Athas' and Ms. Whitten's concerns about normalized SAIDI, in its *2024 ACE Plan* Decision (Matter M11458) the Board expressed concern that one singular gust of wind over 80 km/hr could be interpreted as representing an hour of sustained wind gusts, and could, therefore, overstate the number of hours of sustained wind used in the calculation for normalized SAIDI. The Board also noted that when one of the major effects of climate change is removed, such as wind gusts over 80 km/hr, in the case of the normalized SAIDI, the use of such a metric could be questionable. Therefore, as noted by NS Power in its SCRR Rebuttal Evidence, the Board's *2024 ACE Plan* Decision directed NS Power to continue to study the issue of normalized SAIDI and provide further information and potential alternatives to the manner in which normalized SAIDI is presented, in the 2025 ACE Plan. No further direction on this issue is currently required.

2.5.2 Storm Response Performance Indicators

[76] NS Power's SCRR application states that the Company's storm response processes are detailed in its Emergency Services Restoration Plan:

The ESRP is an "evergreen" plan, which is updated and improved over time to reflect lessons learned from each major storm. The NSPI ESRP sets out the approach to providing proper restoration efforts in a timely manner. Each group working under the plan works to ensure costs are managed and decisions are made based on balancing the customer needs and managing safety, environmental impact, productivity, and costs. All decisions

are overseen and approved by the designated Storm Lead. Further, in support of the ESRP, Nova Scotia Power has built a corporate storm response culture; employees are educated and trained in emergency response and many employees have a storm response role. Personnel participate in annual drills to ensure a continual state of readiness to respond to the effects of adverse weather on the power system.

[Exhibit N-1, p. 21]

[77] Under the ESRP, NS Power's event prediction process uses weather forecasts, system data, and the damage experience from past storms to model potential storm impacts to the electrical system, predicting where damage may occur and assessing the magnitude of the damage. NS Power uses this information in pre-event planning to guide decisions and preparations, including determining the event response level and pre-storm deployment of resources. Once NS Power becomes aware of an approaching weather system, the Company's Energy Delivery leadership develops restoration plans based on the forecasted damage model that system planning produces. The goal of this process is to provide customers with the quickest restoration time possible.

[78] NS Power stated that its ESRP is being improved over time to reflect lessons learned from each major storm, where "each group working under the plan works to ensure costs are managed and decisions made on balancing the customer needs... safety, environmental impact, productivity, and costs." The Company, therefore, believes it has defined storm response procedures and financial tracking mechanisms that are used consistently and effectively to respond to storms and restore service to customers as quickly as possible.

[79] In 2023, NS Power undertook the following steps to improve its storm response:

- As of early 2024, NS Power installed 99.9% of its planned smart meters in the province. NS Power's application stated that this has enabled the Company to improve response times during outages. This multi-year project began in 2019 and will be completed in 2024.
- In 2023, the Company continued utilizing technology and innovation such as drones to improve response times to outages.
- Enhancements to the Company's damage prediction model and pre-storm analytics have enabled improved strategic deployment of resources across the province in advance of a storm.

[80] With respect to NS Power's storm response, Dr. Gonatas' evidence focussed on what he believes is the need for NS Power to establish performance measures related to minimizing storm recovery costs. Regarding NS Power's assertion that its ESRP gathers productivity metrics to ensure cost-effective storm response, Dr. Gonatas indicated that he reviewed the ESRP in detail. He also reviewed NS Power's historical storm recovery costs up to and including 2023 and compared the Company's operational performance to incurred costs during those periods. His evidence focused on metrics showing what NS Power accomplished during storm recovery.

[81] Dr. Gonatas contends that NS Power does not appear to measure its performance in minimizing storm recovery costs. He also asserts that NS Power does not appear to incorporate operational efficiency improvement in its ESRP and the accompanying post-event critique subprocess. He considers a key problem to be that NS Power lacks any data or standards by which to measure its storm response effectiveness and to identify areas for improvement.

[82] Based on his review, Dr. Gonatas recommended that the Board direct NS Power to develop performance indicators to track the cost effectiveness of storm response. These performance indicators would be used for two purposes. First, they would provide the Board with available metrics to inform a determination of storm response cost prudence. Second, such metrics would allow NS Power to incorporate better accountability and performance improvement in storm operations and post-storm review.

2.5.2.1 Findings

[83] As noted in its decision in Matter M11169, the Board agrees that NS Power needs to develop better metrics and analysis to evaluate the cost-effectiveness of its resiliency investments. These should be capable of both quantifying the expected benefits of a resiliency investment and measuring the effectiveness of that specific intervention once it is in place. In its Rebuttal Evidence in the current proceeding, NS Power indicated that it will address this issue and provide a related report in its 2025 ACE Plan application. The CA's Closing Submission noted that he considers NS Power's Rebuttal to fully address Dr. Gonatas' recommendation. No further direction from the Board is required.

3.0 CONCLUSION

[84] The Board finds that \$21.8 million in storm restoration OM&G costs, expensed in 2023, and approximately \$2.2 million in financing costs, associated with Level 3 and Level 4 storms, can be recovered pursuant to the SCRR. The Board is further satisfied that the recoverable amount has been properly allocated among the various rate

classes. The Board approves the SCRR as filed and included in the application as Attachment 3 to the response to NSUARB IR-16.

[85] The Board notes that storm costs reports are due on an annual basis for the duration of the trial period for the SCRR, regardless of whether a storm rider application is filed. This report should include a comparison of the actual amounts recovered under the SCRR in the prior year, if applicable, compared to the forecasted revenues, including financing costs.

[86] The Board has commented on numerous issues raised by the Intervenors about storm hardening, resilience, and tracking NS Power's progress. The Board expects continued review and analysis about most of these issues in future proceedings. The only specific directive arising from this proceeding is that NS Power study and report on the potential use of the VoLL metric in the Company's reliability investment planning process in the 2026 ACE Plan, focusing on the items outlined in paragraph [65] of this decision.

[87] An Order will issue accordingly.

DATED at Halifax, Nova Scotia, this 2nd day of December, 2024.



Richard J. Melanson



Steven M. Murphy



Jennifer L. Nicholson