DECISION **2025 NSEB 12**
M12217

NOVA SCOTIA ENERGY BOARD

IN THE MATTER OF THE *PUBLIC UTILITIES ACT*

- and -

IN THE MATTER OF THE *PRESCRIBED PROJECTS REGULATIONS*

- and -

IN THE MATTER OF an application by **WASOQONATL TRANSMISSION INCORPORATED** for certain approvals about a capital project for the construction of a 345 kV transmission intertie between Nova Scotia and New Brunswick

BEFORE: Roland A. Deveau, K.C., Vice Chair
Richard J. Melanson, LL.B., Member
Steven M. Murphy, MBA, P.Eng., Member

APPLICANT: **WASOQONATL TRANSMISSION INCORPORATED**
Mary Ellen Greenough

INTERVENORS: **CONSUMER ADVOCATE**
David J. Roberts, Counsel

SMALL BUSINESS ADVOCATE
Melissa MacAdam, Counsel
Rebekah Powell, Counsel

EASTWARD ENERGY INCORPORATED
Allison Coffin
Angela Costello

EVERWIND NS HOLDINGS LTD.
Brendan Chard
Noah Entwisle, Counsel
Michael Simms, Counsel

INDUSTRIAL GROUP
Nancy G. Rubin, K.C.
Brianne Rudderham, Counsel

DEPARTMENT OF ENERGY
Daniel Boyle, Counsel

PORT HAWKESBURY PAPER LP
Melanie Gillis, Counsel
David MacDougall, Counsel

RENEWALL ENERGY INC.
Daniel Roscoe

SWEB DEVELOPMENT
Mason Baker

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

FINAL SUBMISSIONS: September 12, 2025

DECISION DATE: **November 20, 2025**

DECISION: **The Board approves Wasoqonatl's Reliability Intertie application at forecast project costs of $684.7 million, to be confirmed in a subsequent application to approve final project costs**.

TABLE OF CONTENTS

1.0 SUMMARY

[1] Wasoqonatl Transmission Incorporated (WTI or Wasoqonatl) applied to the Nova Scotia Energy Board on April 10, 2025, for certain approvals about a capital project for the construction of a 160 kilometre 345 kV transmission intertie between Nova Scotia and New Brunswick. The Project is forecast to cost $684.7 million and is expected to be in service in late 2028.

[2] The transmission intertie is comprised of two portions of a transmission line on separate sides of the NS-NB provincial border, but together they form a single 160 km intertie. The intertie will lie parallel to the existing NS-NB Tie Line, sharing most of the existing right of way and reinforcing the existing interconnection built in 1976. It will connect to NS Power's system at the Onslow substation outside Truro, Nova Scotia, cross the provincial border into New Brunswick, and interconnect with NB Power's grid at the Memramcook and Salisbury substations outside Moncton, New Brunswick.

[3] The *Prescribed Projects Regulations (Regulations)*, enacted by the Province of Nova Scotia under Section 21B of the *Public Utilities Act*, define the scope of the Project and authorize NS Power to enter into an ownership arrangement through which the Canada Infrastructure Bank (CIB) may invest in the Project. This investment will provide equity with a low cost to the Project for the first 30 years of operation. As part of this ownership structure, the Wskijnu'k Mtmo'taqnuow Agency Limited (WMA), representing all 13 Mi'kmaq communities in Nova Scotia, was provided with an opportunity to invest in the Project. The application stated that these financing arrangements will yield a net present value cost savings to Nova Scotia electricity customers of approximately $200 million.

[4] The application identified several other benefits. The Project is needed to achieve significant provincial and federal policies and legislative requirements, including the requirement that at least 80% of the electricity NS Power supplies to its customers be renewable electricity by 2030; the phasing out of coal-fired electricity generation by 2030; and the requirement to meet greenhouse gas (GHG) and carbon dioxide (CO_2) emission caps by 2030. NS Power's integrated resource planning has demonstrated that the Reliability Intertie is the most cost-effective way of providing grid stability and integrating renewable energy into Nova Scotia's power grid to meet these legislative requirements by 2030.

[5] This application was conducted by way of a paper hearing process. Board Counsel consultants reviewed various aspects of the application, including the planning and cost-benefit modeling analysis of the Project; cost of capital; and the Project's design, costing, procurement, construction, governance, and risk assessment. The Small Business Advocate filed its consultant's report, which reviewed the need for the Project, Wasoqonatl's cost-benefit analysis, and issues about the construction and operation of the New Brunswick portion of the transmission line.

[6] Based on the evidence, the Board finds that the Project is needed to achieve significant provincial and federal policies and legislative requirements, including reaching targets of 80% renewable energy, meeting GHG and CO_2 emission caps, and phasing out coal-fired electricity generation by 2030. The Project is the most cost-effective way to provide grid stability and support the integration of renewable energy generation into Nova Scotia's power grid to achieve these legislative targets. The Board accepts the evidence that the financing arrangements achieved through the participation of the CIB

and the WMA will result in a net present value cost savings to Nova Scotia electricity customers of about $200 million. Further, the Board finds that the Project is technically sound and all aspects of executing a transmission line of this complexity and scale have been thoroughly considered; procurement strategies employed by WTI are appropriate; the forecast project cost is reasonable given the scope and complexity of the work; and WTI has implemented measures intended to mitigate risks.

[7] Accordingly, the Board approves Wasoqonatl's application, subject to the reporting directives outlined in this decision. The Board's approvals include:

- The forecast project costs of $684.7 million, to be confirmed in a subsequent application to approve final project costs;
- The inclusion of the project costs in the opening rate base, including a regulatory asset for the assets to be constructed and located in New Brunswick, and an allowance for funds used during construction;
- A depreciation methodology based on a straight-line basis over 45 years; and
- A return on equity for WTI calculated as a weighted blend for the respective equity contributions of NS Power, the CIB and WMA, resulting in a blended return on equity (ROE) of 4.28%. The ROE for the respective partners are 1.15% for the CIB, 6.63% for WMA and the Board-approved ROE for NS Power from time to time (i.e., currently 9.0%).

2.0 PROJECT DESCRIPTION

[8] The application relates to the construction of a 160 km 345 kV transmission intertie between Nova Scotia and New Brunswick (Reliability Intertie or Project). The Reliability Intertie will lie parallel to the existing NS-NB Tie Line, sharing most of the existing right of way. It will reinforce the existing interconnection built in 1976 between the Nova Scotia Power Incorporated (NS Power) system and the New Brunswick Power Corporation (NB Power) system. The Reliability Intertie will connect to NS Power's system at the 67N Onslow substation outside Truro, Nova Scotia, cross the provincial border into New Brunswick, interconnect with NB Power's grid at the Memramcook and Salisbury substations, and terminate at the Salisbury substation outside Moncton, New Brunswick.

[9] The Reliability Intertie is comprised of two portions of a transmission line on separate sides of the NS-NB provincial border, but together they form a single 160 km intertie. The Nova Scotia portion of the Project (NS Assets) will consist of approximately 95 km of the 345 kV transmission line (L8006) from NS Power's 67N Onslow substation to the New Brunswick provincial border. It will require upgrades to the Onslow substation and the rerouting of a segment of NS Power's existing L7018 230 kV transmission line to accommodate the substation upgrades.

[10] The New Brunswick portion of the Project (NB Assets) will consist of approximately 65 km of the 345 kV transmission line from the New Brunswick provincial border to NB Power's Memramcook Substation-4590 (L3224), which then proceeds to NB Power's Salisbury Substation-4592 (L3226). Upgrades will be required to both the Memramcook and Salisbury substations and the reconfiguring of NB Power's existing L3006 345kV transmission line to accommodate the Salisbury substation upgrade.

[11] The Project is forecast to cost $684.7 million and is anticipated to be placed in service in Q4 2028.

3.0 ORGANIZATIONAL STRUCTURE OF PROJECT

[12] The *Regulations* permit WTI to have an organizational structure that allows the CIB to participate in the Project with NS Power. These *Regulations* permit an ownership arrangement by which the CIB will invest equity in the Project at a significantly reduced ROE for the first 30 years of the Project's operation. For this period, the ROE on the CIB's equity will be set at 1.15%. The organizational structure under the *Regulations* also allows for an equity investment by WMA, supported by financing arrangements between WMA and the CIB pursuant to the Bank's Indigenous Equity Initiative. Its equity funding will earn a 6.63% return. WMA is owned by Nova Scotia's 13 Mi'kmaq First Nations. With NS Power's equity contribution to WTI proposed to be at the Board-approved rate for NS Power from time to time (i.e., currently 9.0%), WTI's proposed blended ROE would be 4.28%.

[13] A limited partnership, called Wasoqonatl Transmission Limited Partnership (WTLP), was created to implement the above equity investments. WTLP will be the sole shareholder of WTI. All limited partnerships require a general partner to manage their affairs. This requirement is addressed in the WTLP First Amended and Restated Limited Partnership Agreement dated March 4, 2025, which provides the general partner with a broad authority to manage the partnership business. In the case of WTLP, the general partner will be called Wasoqonatl Transmission GP Incorporated (WTGPI). NS Power and the CIB will be the sole shareholders of WTGPI, each owning 50% of the issued

shares. Pursuant to a shareholders' agreement dated March 4, 2025 (Shareholders' Agreement), the original board of directors of WTGPI, which will manage WTLP, will consist of six people. NS Power and the CIB will each have the power to appoint three WTGPI directors, which is also consistent with their equal shareholdings in this general partner.

[14] Pursuant to the Shareholders' Agreement, many of WTGPI's decisions, including major decisions in the management of WTLP, require the unanimous consent of WTGPI's board of directors. For those decisions that do not require unanimous consent, equal representation on the WTGPI Board of Directors, and the lack of a casting vote in WTGPI's articles of association, creates the possibility of a deadlock. This is addressed in the Shareholders' Agreement through a series of escalating events, including a second directors' meeting, a shareholders' meeting where unanimous approval is required, and a meeting between the Chief Executive Officers (CEOs) of the CIB and NS Power. Ultimately, if the issue cannot be resolved to the satisfaction of both NS Power and the CIB representatives, a stalemate is declared, and the issue remains unresolved.

[15] The Board does not need to specifically determine whether such an unresolved issue would be covered by the arbitration clause of the Shareholders' Agreement, although it appears to be an option. In any event, neither the CIB nor NS Power have the power to ultimately control the outcome of a matter in dispute that WTGPI is trying to decide and that is not otherwise provided for by prior agreement. As WTGPI is responsible for the management of WTLP, which owns WTI, (and, as described below)

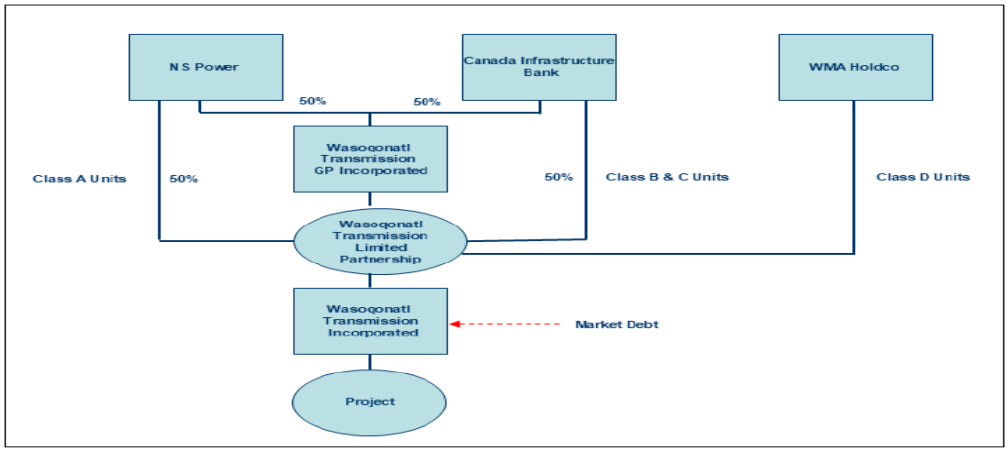
NS Power and the CIB have an equal number of voting units in WTLP, the legal or *de jure* control over management (or lack thereof) is maintained in the ownership chain.

[16] NS Power will own 33% of the equity in WTLP by holding Class A voting units. The CIB will hold 33% of the equity in WTLP through Class B voting units. This means that NS Power and the CIB will each own 50% of the voting units in WTLP. In addition, the CIB will own 24% of the equity in WTLP through ownership of Class C non-voting units. WMA will own the remaining 10% equity in WTLP by holding Class D non-voting units. The attributes of these respective units are discussed in more detail below when the Board addresses approval of the capital structure and return on equity.

[17] Following the Project's commercial in-service date, the limited partnership structure will have an equity allocation of NS Power at 33%, the CIB at 57% and WMA at 10%. The application states the "net impact of the financing arrangements with the CIB and WMA is a net present value (NPV) saving for Nova Scotia customers of approximately $200 million, relative to conventional project financing."

[18] The organizational structure, including voting, is graphically represented in Figure 10 of the application:

Figure 10: Organizational Structure for Wasoqonatl Transmission Incorporated



[Exhibit W-1, Figure 10, p. 40]

4.0 REQUESTED APPROVALS

[19] On April 10, 2025, Wasoqonatl applied to the Board seeking several approvals for the Project. Wasoqonatl seeks approval under s. 35 of the *Public Utilities Act,* RSNS 1989, c 380 (*PU Act*) of the following items:

- Acceptance of forecast project costs of $684.7 million;
- To include amounts in the opening rate base, including a regulatory asset for the assets to be constructed and located in New Brunswick and an allowance for funds used during construction;
- A depreciation methodology based on a straight-line basis over 45 years; and
- A return on equity for WTI calculated as a weighted blend for the respective equity contributions of NS Power, the Canada Infrastructure Bank and Wskijnu'k Mtmo'taqnuow Agency Limited.

[20] This application was reviewed in a paper hearing process. Experts' reports were filed by Board Counsel and the Small Business Advocate. Evidence by Board Counsel consultants included reports by Bob Fagan, Senior Vice President at Synapse Energy Economics (Synapse), who generally compared WTI's modeling approach and the outcomes of NS Power's most recent Integrated Resource Plan (IRP) to the updated modeling results and findings presented in the application; Dr. Sean Cleary, CFA, Professor of Finance at the Smith School of Business at Queen's University, who reviewed the appropriateness of WTI's financing arrangement and cost of capital matters; and Midgard Consulting Inc. (Midgard). As outlined in greater detail later in this Decision, Midgard reviewed various technical aspects of WTI's application, including the Project's design, costing, procurement, construction, governance, and risk assessment. The Small Business Advocate filed an expert report by Jeffrey D. Bower, Principal Consultant for Daymark Energy Advisors (Daymark), who reviewed specific parts of the application, including the need for the Project, WTI's cost-benefit analysis, certain elements of the

financing structure, issues about the construction and operation of the NB Assets, and identifying certain ongoing risks that WTI and NS Power should mitigate and monitor. The issues identified by Wasoqonatl and raised by the intervenors are considered below in this decision.

5.0 LEGISLATION - PRESCRIBED PROJECTS REGULATIONS

[21] WTI's ownership structure and the lower-cost financing of the Project is accommodated by the *Prescribed Projects Regulations*, which were made by Governor in Council under s. 118 of the *PU Act*, OIC 2024-401 (effective October 24, 2024), NS Reg 234/2024. The authority to make the *Regulations* was conferred upon Cabinet by s. 21B of the *PU Act*, which was added by the *Energy Reform (2024) Act*, and received Royal Assent on April 5, 2024.

[22] Section 21B allows Governor in Council to "prescribe a project in relation to which a public utility is authorized to enter into an ownership arrangement with a third party", provided four conditions are met:

> (a) the project is required to meet an environmental goal or target established pursuant to an Act or a regulation;
>
> (b) the project is intended to be operated by the public utility;
>
> (c) the project is not a project that the IESO is conducting a procurement for; and
>
> (d) the ownership arrangement provides a benefit to ratepayers.

[23] Subsection 21B(2) deems an "ownership arrangement" to be a public utility with all the powers and authorities of the public utility project partner (in this case, NS Power) and is subject to oversight by the Board. Under subsection (6), the term "ownership arrangement" is not intended to require any particular corporate structure. Subsections (3) to (5) provide that the Board must establish a separate rate base for each

ownership arrangement and determine the revenue requirement that shall be recovered through an annual assessment against the public utility participating in the ownership arrangement. The public utility is entitled to recover the approved assessment annually from its customers.

[24] Cabinet prescribed the Reliability Intertie under the *Prescribed Projects Regulations*. Section 3 of the *Regulations* defines the scope of the Project (which is consistent with the description earlier in this decision) and authorizes NS Power to enter into an ownership arrangement for the Project with the Canada Infrastructure Bank. Section 3 provides:

> **Prescribed project under Section 21B of Act**
>
> **3 (1)** The NS-NB Reliability Intertie Project is prescribed as a project under Section 21B of the Act.
>
> **(2)** The project includes all of the following:
>
> (a) designing, developing, engineering, procuring, constructing, owning, operating and maintaining a new 345 kV transmission line, and the associated station upgrades, which will traverse from Onslow, Nova Scotia, to the New Brunswick border, and includes, without limitation, all associated works, activities, infrastructure and rights of way;
>
> (b) funding the construction of and, in co-operation with New Brunswick Power Corporation, designing, developing, engineering and procuring a new 345 kV transmission line, and the associated station upgrades, that New Brunswick Power Corporation will own, operate and maintain at no additional cost to Nova Scotia Power Incorporated and which will traverse from the New Brunswick border to Salisbury, New Brunswick, and includes, without limitation, all associated works, activities, infrastructure and rights of way.
>
> **(3)** Nova Scotia Power Incorporated is authorized to enter into an ownership arrangement for the prescribed project with the Canada Infrastructure Bank through which the Canada Infrastructure Bank may partially own and/or invest in the ownership arrangement.
>
> **(4)** In determining an ownership arrangement's revenue requirement, the Energy Board must consider all costs, charges and fees incurred by the ownership arrangement in connection with the prescribed project.

[25] Accordingly, by virtue of the *Regulations*, NS Power has entered into an ownership structure with the CIB and the WMA and negotiated financial support for the

Project through a financing structure in which the CIB will provide equity at a lower cost to the Project for the first 30 years of operation. As noted above, WTI submits that the financing arrangement will reduce costs for ratepayers by an NPV of approximately $200 million.

[26] There is a potential jurisdictional issue about the scope of the Board's review in this matter. The Governor in Council can only prescribe a project authorizing a public utility to enter an ownership arrangement with a third party if the project is required to meet an environmental goal or target established by legislation. This proposed transmission line is specifically described in the *Prescribed Projects Regulations* and is prescribed to allow a third-party ownership arrangement. The Governor in Council has determined through legislation that the Project is necessary. This is consistent with its inclusion in the Province's *Clean Power Plan*.

[27] Therefore, it is arguable that the Project's necessity has already been determined, and the Board's jurisdiction is limited to a review of the Project's proposed design, construction, capital costs, financing arrangements (including the ROE), and the ownership arrangement between the parties. Based on a reading of the legislation, interpreted considering its text, context, and purpose, the Board would likely have made this finding if the issue had been raised by the parties. No party directly advanced this position or undertook a statutory interpretation exercise to support it. The Board has, therefore, assessed the necessity of the Project based on the evidence before it. Given the Board's ultimate determination that the Project is necessary, the jurisdictional issue is moot in any event.

6.0 ISSUES

[28] Several issues related to the Project were canvassed in the evidence of WTI, the Small Business Advocate's consultant, and the Board Counsel's consultants. These issues were examined in Information Request (IR) responses, as well as in the parties' closing submissions. The Board will address these issues, in turn.

7.0 ANALYSIS AND FINDINGS

7.1 Integrated Resource Plan & Economic Modeling

7.1.1 IRP Modeling

[29] On November 30, 2020, NS Power submitted a report to the Nova Scotia Utility and Review Board entitled "Powering a Green Nova Scotia, Together 2020 Integrated Resource Plan" (2020 IRP). This report was the result of extensive modelling and engagement with interested parties. The 2020 IRP provided a series of findings and recommendations about a long-term strategy to achieve decarbonization targets. These were summarized in an Action Plan and Roadmap.

[30] In accordance with commitments in the 2020 IRP, as environmental policies and legislation evolved, NS Power engaged in an Evergreen IRP process. Modelling was updated and further input from interested parties was sought about the latest available information. The Evergreen IRP was completed in August of 2023. Since then, annual Action Plan and Roadmap Updates have been filed. The 2025 update was filed on April 30, 2025 (see Matter M12247).

[31] A reinforced intertie with New Brunswick was seen as an integral component of least cost solutions in both the 2020 IRP and the 2023 Evergreen IRP. It was required in all 24 scenarios modelled in the 2023 Evergreen IRP to support the

integration of variable renewable energy such as wind and solar. These scenarios included an Atlantic Loop integrating Quebec's transmission system with those of New Brunswick, Nova Scotia, and Newfoundland and Labrador; and scenarios without such a loop.

[32] An enhanced intertie with New Brunswick was seen as a priority item in the Evergreen Action Plan and Roadmap, and the updates filed since that time. It was discussed and recognized as a priority item in recent Annual Capital Expenditure (ACE) Plan applications. This intertie is included in *The Path to 2030*, NS Power's written plan to meet legislated decarbonization targets. *The Path to 2030* has been reviewed in the last two ACE Plans.

[33] Mr. Fagan of Synapse commented:

> I find that the results of NS Power's modeling of the Reliability Intertie – supporting its development - are generally consistent with modeling findings from the IRP in 2020 and 2023, both of which found that inclusion of the Reliability Intertie was part of a preferred resource plan.
>
> [Exhibit W-18, p. 4]

[34] Mr. Fagan also stated that a reinforced interconnection "was identified as being a component of a lowest-cost resource plan and included in the resultant IRP Action Plans in both the 2020 IRP and 2023 Evergreen IRP."

[35] Mr. Fagan extensively discusses the following updated economic modelling inputs used in this application compared to the Evergreen IRP:

- load forecasting;
- resource costs;
- the new federal *Clean Electricity Regulations*;
- additional fixed wind;
- battery storage and synchronous condenser projects;

- project completion dates;
- imports based on monthly non-firm availability instead of annually;
- the replacement of maximum hourly dispatch constraints for wind and solar with a minimum number of thermal unit equivalents required to be online;
- the removal of the variable cost of existing wind farms;
- the modelling of less wind and solar in the near term with gradual convergence with the 2023 Evergreen IRP by 2050; and
- the inclusion of additional natural gas capacity, battery storage and synchronous condensers, and a higher total quantity of generation.

[36] Mr. Fagan suggested improvements to future Evergreen IRP planning and updates, with the goal of maximizing the future benefits of the Reliability Intertie. That said, he was generally supportive of the economic modelling and proposed updates and recommended that the Board approve the Reliability Intertie.

[37] Mr. Bower was retained by the Small Business Advocate. He also indicated that a reinforced intertie with New Brunswick had been identified as a key component for integrating wind and solar resources in the 2020 IRP and the 2023 Evergreen IRP. Mr. Bower had some concerns about project risks, NS Power's calculation of the net benefits of the Project, and potential that New Brunswick would benefit from the Reliability Intertie without paying for any part of it. However, he was generally supportive of the economic and sensitivity analysis in the application:

> **Q. Please elaborate regarding the sensitivity analyses conducted for this Application.**
>
> A. NS Power conducted five sensitivities to evaluate the impact of alternative modeling assumptions on the quantification of net benefits of the Project, including low/high fuel costs, accelerated electrification, relaxed carbon emissions policy, and the impact of

> an incremental 100 MW of firm import capacity enabled by the Reliability Intertie. Each sensitivity confirmed significant benefits of the Project.
>
> **Q. Do you agree with the approach used by WTI and NS Power to evaluate the Project?**
>
> A. Yes, I do. Based on my past experience during NS Power's IRP stakeholder processes, I am quite familiar with their modeling tools and approaches. The updated analysis that they presented in the Application is based on a reasonable approach to reflect system constraints within the planning models. The Company performed a reasonable set of sensitivities to explore the value of the Project under uncertain future conditions, and the results are directionally rational.
>
> [Exhibit W-20, p. 13]

[38] While intervenors made various submissions about future IRP modelling, there was no material challenge to the economic modelling and sensitivity analysis supporting NS Power's application.

7.1.2 Reliability and Inertia

[39] WTI highlighted that NS Power's IRP analysis shows that the reinforced NS-NB Intertie offers a project NPV benefit of $533 million for NS Power's customers, compared to alternative investments to meet environmental policy goals and legislated targets of phasing out coal and achieving 80% renewable electricity penetration by 2030. WTI also referenced additional planning studies, including the Large-Scale Integration of Inverter-Based Resources in Nova Scotia report (IBR Report), undertaken by NS Power. The IBR Report concluded that the NS-NB intertie would significantly reduce the inertia required to maintain a low Rate of Change of Frequency (RoCoF), effectively eliminating this as a constraint and enhancing overall system strength and resilience, particularly in the Onslow region.

[40] Inertia in power systems refers to the energy stored in large rotating generators, which gives them a natural tendency to keep rotating. When a power plant fails, this stored energy can temporarily compensate for the power lost from the failed generator. This brief response, typically lasting a few seconds, provides mechanical

systems that control most power plants with enough time to detect and react to generator failure. Inertia is often measured with units of MWseconds (MW.s) or GWseconds (GW.s) as inertia typically only responds for a short amount of time (seconds).

[41] RoCoF is commonly expressed as Hz/s and it is a measure of how quickly the frequency of a power system changes over time, usually after a sudden imbalance between the electricity supply and demand, i.e., disconnection of a generator/load tripping. Upon loss of a generator, frequency will decline, and the rate of change of frequency is slowed by the inherent physical inertia in the rotating mass of generators.

[42] WTI reported that it used PLEXOS software to assess the Project's benefits under two distinct scenarios: one involving the construction of the Reliability Intertie, scheduled to begin operations in 2029, and another assuming no expansion of the existing NS-NB interconnection. While both scenarios achieved several shared objectives, they differed in three key requirements: the minimum system inertia needed at all times; the necessity for additional equivalent thermal units to ensure system security; and the level of interconnection redundancy. Based on the latest cost estimates from the Request for Proposals procurement process and updated financing parameters, WTI indicated that the Project yields an NPV benefit of $533 million compared to alternative investments.

[43] WTI stated that both the 2020 IRP and the 2023 Evergreen IRP applied a minimum synchronous inertia requirement of 3266 MW.s for the Nova Scotia system. In the current analysis, NS Power advanced its inertia modeling by replacing the fixed inertia value with a variable approach, where the minimum online inertia adjusts according to system load. WTI indicated that this method more accurately aligns with the findings of

the IBR Report, which provided a range of scenarios to support this approach. Additionally, the IBR Report established a stability threshold for the minimum level of inertia needed to maintain a RoCoF below 2.5 Hz/s over a 500 ms sampling interval.

[44] WTI emphasized that beyond the need for inertia to support system frequency response, the power grid also relies on additional essential services delivered by synchronous generators. These services include grid reference and formation, damping of voltage and power oscillations, mitigation of voltage transients, extended voltage recovery, and support for protective equipment functionality. The Utility noted that these ancillary services must be recognized and integrated into system planning, an approach aligned with practices in other regions transitioning to higher levels of inverter-based resources like wind and solar.

[45] Building on the findings of the IBR Report, WTI highlighted that NS Power's system planning team conducted dynamic stability studies to determine the minimum number of thermal generators needed online in 2030, both with and without this Project. These studies aimed to maintain the rate of change of frequency below 2.5 Hz/s and to mitigate voltage and frequency oscillations following a potential loss of the existing NB-NS transmission line. The results showed that, without this Project, the minimum number of thermal units required could be reduced to three with the planned integration of synchronous condensers and battery energy storage systems. With this Project, only one thermal unit is needed, due to the substantial decrease in the risk of unintentional islanding that the Project provides.

[46] WTI stated that, without this Project, an annual one-month outage for routine maintenance of the existing intertie line would impose additional operating

constraints to maintain the security and stability of the Nova Scotia power system. During this time, when imports are limited to 50 MW, four thermal units would be needed to manage the outage. WTI also noted that the PLEXOS software, used to evaluate the Project's benefits against other options, incorporated all the advantages of constructing the new transmission line into its analysis.

[47] Midgard did not agree that the Project is essential for mitigating RoCoF-related reliability risks, improving grid stability, and facilitating renewable integration. While WTI referenced operational needs from the IBR Report, Midgard noted that it failed to quantify the risk reduction, provide monetized benefits, or assess alternative non-intertie mitigation strategies. Furthermore, Midgard stated that the IBR Report is incomplete and lacks Electromagnetic Transient (EMT) study results. Midgard opined that there is insufficient evidence to determine whether the proposed second intertie is the sole or most cost-effective solution to address anticipated system inertia deficiencies.

[48] Midgard stated that it sought clarification about the scale of potential load shedding associated with unacceptable RoCoF events through its IRs. Midgard said WTI provided high-level bookend impacts of events that might occur in certain circumstances due to unacceptable RoCoF should the Project not be implemented, with impacts ranging from no load shed to complete system blackout. However, the response did not attempt to quantify the economic consequences of individual load shed events, or their probability/expected annual frequency of occurrence.

[49] Midgard noted WTI’s assertion that Nova Scotia’s relatively weak interconnection, combined with a lack of synchronous nuclear or significant hydroelectric generation, is the underlying reason for its greater susceptibility to RoCoF. However,

Midgard highlighted that the application was narrowly focused on this Project to address reliability issues, including RoCoF, and that WTI did not include a comparative assessment of non-intertie alternatives such as advanced inverter controls, system protection enhancements, or other mitigation strategies commonly used in high-IBR jurisdictions.

[50] Midgard conducted a review of the equations used to establish inertia limits related to system stability and security, highlighting a lack of independent verification, stress testing, and confidence interval reporting for the cited RoCoF and inertia metrics. Midgard noted that according to the IBR Report, several dynamic studies were limited by insufficiently detailed plant models, and critical EMT studies remain unfinished. EMT studies are essential for examining how electrical systems respond to brief disturbances occurring within milliseconds or microseconds. These studies are crucial for developing protective strategies that uphold equipment and system reliability, particularly when assessing the behavior of inverter-based resources integrated into the power grid.

[51] Midgard said WTI has not quantified the net incremental RoCoF management benefits provided by the new intertie, beyond those already delivered by the existing one. It stated the evidence suggests that the existing 345 kV intertie (L-8001) between Nova Scotia and New Brunswick offers minimal reliable RoCoF or stability benefits.

[52] Midgard noted that utilities typically aim for 99.9% or higher availability for any critical high-voltage transmission infrastructure. In Midgard's view, the existing intertie would be expected to be offline for no more than 10 hours annually, indicating the approximate duration of yearly stability risk exposure associated with excessive RoCoF.

[53] Regarding the interconnection redundancy offered by the Project, Midgard noted that WTI's statements suggest either the existing intertie line or the new line could independently support the necessary system inertia and RoCoF when operational. WTI argues that while a minimum level of system inertia must always be maintained, operating with a single, non-redundant intertie during the planned summer outages of the existing intertie is considered an acceptable risk once the Project is commissioned. From Midgard's point of view, this implies that, given both lines have the same rating, the existing intertie alone would be sufficient to manage expected system inertia shortfalls within acceptable risk levels outside of scheduled maintenance periods.

[54] Midgard asked WTI whether any of the planned maintenance activities on the existing line could be performed using live-line techniques. Based on WTI's response, Midgard opined that, with the right tools and training, live-line maintenance could reduce the duration of planned summer outages on the existing intertie, even though it is more expensive than dead-line methods. Furthermore, Midgard suggested that if reducing or eliminating these outages significantly lowers the reliability risk that justifies building the new Reliability Intertie, then the annual incremental cost of live-line maintenance should be weighed against the much higher annual capital and maintenance costs of the proposed new line.

[55] Midgard asserted that the evidence does not demonstrate that the proposed Reliability Intertie is the most cost-effective or technically superior approach to addressing long-term reliability concerns linked to rising levels of grid-following IBR penetration. Midgard said the application centers solely on the redundant intertie as the primary solution for mitigating increasing system stability risks related to RoCoF, without offering

a comparative, risk-adjusted analysis of alternative strategies. Midgard believes these could include broader deployment of grid-forming inverters and advanced turbine technologies; enhanced underfrequency load-shedding programs based on absolute and rate-of-change thresholds; or leveraging existing hydro and natural gas/diesel generation assets in synchronous condenser mode.

[56] In its Reply Evidence, WTI highlighted that studies conducted by NS Power show the current interconnection is insufficient to meet system stability requirements. WTI said these requirements, specifically system inertia and RoCoF, are based on the Board's adoption of North American Electric Reliability Corporation (NERC) planning standards. Presently, if the existing intertie fails, the NS Power system would need to operate in island mode. WTI added that to safeguard the grid under such conditions, adequate inertia must be maintained to keep RoCoF below 2.5 Hz over a 500-millisecond sampling interval. WTI said that to meet this threshold, NS Power must keep thermal generation units online. However, with plans to retire these units in the future, relying solely on a single 345 kV tie line does not resolve the risk of separation from the Eastern Interconnection. This contingency still demands sufficient system inertia to maintain RoCoF within acceptable limits. WTI noted that establishing a second NS-NB interconnection would reduce the need for thermal units while enabling greater integration of inverter-based resources (such as wind energy).

[57] WTI noted that there is no need for probabilistic analysis of events related to RoCoF. It cited two Underfrequency Load Shedding (UFLS) events in Nova Scotia since 2020, which occurred because of unplanned outages to the existing NB-NS

interconnection. These events demonstrate that this condition can, and does occur, and must be planned for.

[58] WTI responded to Midgard's statement that the existing non-redundant intertie could sufficiently address the anticipated system inertia shortfall within acceptable risk levels, excluding periods of scheduled maintenance. WTI noted that in the initial modeling of the "With Intertie" scenario, PLEXOS did not account for the need to dispatch in-province synchronous generation to maintain grid stability during an outage of one of the 345 kV transmission lines, a role typically fulfilled by the second interconnection. Following Midgard's feedback, the modeling parameters were revised to reflect this contingency, and the simulations were rerun.

[59] With the updated assumptions that allow for a one-month planned outage of the existing intertie, the Project still demonstrates a NPV benefit to customers of $498 million, though this represents a $55 million decrease from the previously reported $553 million NPV. The updated modeling reaffirms that the Reliability Intertie remains the most cost-effective solution to address the system's need to ensure operational stability, integrate increasing amounts of mandated wind energy, and comply with legislative requirements to reduce emissions.

[60] Regarding Midgard's concern about the absence of dynamic and EMT studies in the application, WTI referenced several studies that included dynamic analyses related to the integration of IBR into NS Power's grid. One report concluded that the interconnection with New Brunswick plays a critical role in maintaining the stability of the NS Power system, with its loss driving most planning and operational decisions. WTI said reinforcing this tie with a second 345 kV transmission line is essential and should be

prioritized as the primary solution, either before or alongside the implementation of other technological measures.

[61] In response to Midgard's comment regarding the absence of EMT studies, WTI acknowledged that EMT analysis has become increasingly valuable in the industry for system planning and operational stability. Since the release of the IBR Report, NS Power has collaborated with interconnection customers and equipment suppliers to develop robust EMT models for future resource integration and system planning. Nonetheless WTI noted these additional tools are not essential to demonstrate that a second interconnection between Nova Scotia and New Brunswick would support the continued reliable operation of the province's electricity system, while also enabling greater penetration of IBR and reducing system emissions. WTI also stated that the previously completed dynamic studies, as referenced, sufficiently support this conclusion.

[62] In its submission, the Consumer Advocate cited Midgard's recommendations, including the justification for enhanced reliability, and advised that WTI should implement the suggested measures to mitigate the risk exposures identified by Midgard.

[63] Although the Industrial Group did not provide specific recommendations regarding inertia, it referenced Midgard's concerns. It noted that Midgard identified issues related to the RoCoF and the inertia metrics used to justify the claim that the Reliability Intertie would enhance system stability and support. The Industrial Group noted that no quantified benefits were presented, and Midgard ultimately concluded that the reliability justification was unsubstantiated. The Industrial Group reiterated Midgard's

recommendation about completing the essential EMT studies outlined in the IBR Report and incorporating the updated findings once available.

Findings

[64] The Board has reviewed the information and concerns submitted by the intervenors and Midgard regarding the inertia and RoCoF benefits associated with the Project. The Board finds WTI has provided sufficient evidence to establish that two interties between Nova Scotia and New Brunswick would eliminate RoCoF constraints, thereby enhancing overall system strength and resilience, particularly in the Onslow region.

[65] WTI also demonstrated that the Project will reduce the need for online thermal generation to just one unit. It also indicated that the Project offers a NPV benefit of $533 million, which decreases to $498 million under assumptions that include a one-month planned outage of the existing intertie.

[66] The Board recognizes the current and future implications of declining system inertia and RoCoF, driven by the retirement of thermal power units with rotating mass and their replacement with inverter-based generation. This evolving dynamic behaviour of the power system must be addressed. Based on the evidence presented by all parties, the Board is satisfied that the Project will enhance the reliability of the Nova Scotia grid, support increased integration of IBRs, reduce system emissions, and align with NERC’s interconnection requirements.

[67] In its application, WTI suggests that the inertia and absolute RoCoF limits of below 2.5 Hz/s are based on an adaptation of NERC’s standards approved by the Board. However, the Board observes that the proposed RoCoF value aligns with the industry-accepted range, although determining this value involves complex

considerations. For example, NERC's standard PRC-029-1, Requirement R3, indicates that RoCoF could be less than or equal to 5 Hz/s for inverter-based resources. Similar observations were made by Manitoba Hydro International in the IBR Report (PDF p. 43), noting that a RoCoF of 2.5 Hz/s over a 500 ms sample time is higher than what is typically seen in the industry. The Board recognizes that a lower RoCoF, as proposed by WTI, contributes to increased grid stiffness, thereby increasing system reliability and stability. The Board is satisfied that the proposed RoCoF value benefits the grid and was appropriate to adopt in WTI's modelling.

[68] Despite these findings, WTI's response to NSEB IR-24 highlights that *The Path to 2030* contemplates that inverter-based resources will require additional inertia support as part of the Transmission System Interconnection Requirements. The cost of any additional inertia support will also be borne by ratepayers. Considering the substantial investment in this Project, and the potential need for supplementary inertia technologies, identified in *The Path to 2030,* optimization of inertia resources must be realized. Accordingly, the Board observes that NS Power and the newly established Nova Scotia Independent Energy System Operator (NSIESO) should study these inertia issues to evaluate the mix of technologies delivering grid stability and reliability benefits, ensuring that the overall configuration is optimized to minimize the financial burden on ratepayers.

7.2 Is the Project needed and does it benefit ratepayers?

[69] WTI stated that the Project is needed to meet several provincial and federal policies and legislative requirements, including:

- The *Renewable Electricity Regulations* under Nova Scotia's *Electricity Act* require that, by 2030, at least 80% of the electricity NS Power supplies to its customers

must be renewable electricity, including an additional 1100 GWh of renewable energy from independent power producers;

- The Nova Scotia *Greenhouse Gas Emissions Regulations* under the Nova Scotia *Environment Act* outline specific GHG emission caps for electricity for various time periods through 2030, including financial penalties for exceeding those caps;
- The *Environment Act* also establishes CO_2 emission limits under Nova Scotia's Output-Based Pricing System, taking effect in January 2023. The carbon backstop price mirrors the federal carbon price and is to reach $170/tonne by 2030;
- The Nova Scotia *Environmental Goals and Climate Change Reduction Act* outlines the goal to phase out coal-fired electricity generation in Nova Scotia by 2030; and
- The Reduction of Carbon Dioxide Emissions from *Coal-Fired Generation of Electricity Regulations*, enacted by the Federal government under the *Canadian Environmental Protection Act*, limits coal-fired power plant CO_2 emissions to 420 tonnes by 2030. These limits will effectively phase out unabated coal-fired generation by 2030.

[70] The above policy and legislative requirements must be met by NS Power or it will face significant financial penalties and other enforcement action. The challenge for NS Power is to determine how to integrate renewable generation into its grid to replace its coal fleet's 1200 MW of firm, dispatchable, synchronous generation. NS Power described synchronous generation as being a generating facility's speed that is "directly linked to the grid's frequency, keeping the generator 'in sync' with the system", which "helps stabilize the grid by providing inertia and supporting system voltage and frequency". Inverter based renewable energy sources like wind and solar do not provide

synchronous generation. However, to cost-effectively meet the 2030 renewable energy targets and phasing out of coal, significant amounts of inverter based renewable energy sources (like wind and solar) must be placed on the grid.

[71] NS Power's integrated resource planning process has consistently identified the reinforcement of the transmission interconnection between the Nova Scotia and New Brunswick systems as the most cost-effective way of providing grid stability and supporting renewable energy generation being integrated into Nova Scotia's grid:

> Reinforcement of the transmission interconnection between Nova Scotia and New Brunswick was identified during the 2020 IRP work as a cost-effective solution to enhance grid stability in support of integration of increasing amounts of renewable generation. The requirement for the Reliability Intertie was a key finding of the 2020 IRP and its conceptualization and development was an action item in the associated 2020 IRP Action Plan.
>
> …
>
> In the Evergreen IRP processes that followed, and the resulting updated IRP Roadmap and Action Plan filed with the NSUARB in August 2023, a reinforced transmission connection between Nova Scotia and New Brunswick is consistently identified as a component of a cost-effective and reliable energy transition for Nova Scotia.
>
> [Exhibit W-1, p. 17]

[72] Thus, NS Power's modeling in its IRP processes has identified the Reliability Intertie as the most cost-effective way to phase out coal and integrate the required amount of renewable energy on the grid by 2030. As noted in the prior section of this decision, Synapse confirmed this modeling and the identification of the Reliability Intertie as the appropriate solution. The Board notes that Synapse has monitored NS Power's IRP processes for over 10 years and has completed the economic modelling to confirm NS Power's results. Further, the fact that the Reliability Intertie is the most cost-effective solution to the integration of enough renewable energy to meet the 2030 goals has generally been accepted by the intervenors in their submissions.

[73] WTI noted that an additional resiliency benefit of the Reliability Intertie was recently highlighted in the release of NERC's Interregional Transfer Capability Study (ITCS) Canadian Analysis on April 29, 2025. The report recommended "additional transfer capability of 500 MW between Nova Scotia and New Brunswick to strengthen energy adequacy and address resource deficiencies, in particular during extreme weather events".

Findings

[74] Based on the evidence, the Board concludes that the Project is needed to meet the important policies and legislative requirements. This has been confirmed consistently in IRP modeling as the most cost-effective solution since at least 2020, and even before. The modeling has been updated to include the provincial and federal policies and legislative requirements to be met by 2030. Ratepayers benefit by being assured that the Reliability Intertie is the most cost-effective way to comply with the legislative requirements and by enjoying the benefits of the environmental policy goals as expressed in the above legislation.

[75] Taking all the above into account, the Board finds that the Project is needed and it will benefit ratepayers.

7.3 Is the Project technically sound, including its design, governance, procurement and construction?

[76] This Project consists of two components. The first involves constructing approximately 95 kilometers of a 345 kV transmission line, along with associated facilities, from the Onslow substation to the NS-NB provincial border. This portion of the Project will be owned by WTI and operated by NS Power on WTI's behalf. The second component involves constructing approximately 65 kilometers of a 345 kV transmission line, and

associated facilities, from the NS-NB provincial border to NB Power's 4592 Salisbury Substation in New Brunswick. The New Brunswick portion of the Project will be funded by WTI and constructed, owned, and operated by NB Power. The application noted that this component of the Project will be governed by a Development Agreement.

[77] The Board has reviewed the project's technical aspects, including design, governance, procurement, execution and projected costs and will now discuss them.

7.3.1 Project Governance (including NB Governance and Oversight)

[78] The application noted that the capital cost for constructing the NB Assets (the Project's second component) will be covered by Nova Scotia ratepayers. The rationale for this is based on the component being an integral part of the overall Project and offering benefits to the NS Power system. Further, it does not address any current need for the NB Power system and is not part of the NB Power 10-Year Transmission Plan. However, following completion of that component of the Project, and as part of its routine system maintenance, NB Power will take on both operational and financial responsibility for the continued operation and upkeep of the NB Assets, in alignment with its legislated mandate in New Brunswick.

[79] The application also noted that if Phase 2 of the current Project, extending the transmission line from Salisbury to Point Lepreau, New Brunswick, is eventually developed, it could offer significant additional benefits to both NS Power and NB Power. It noted that any future development would require further evaluation and equitable cost sharing among the beneficiaries. The application further noted that NB Power will incur costs related to the upgrade work at its Memramcook and Salisbury substations, which are part of this Project. These incremental expenses will be covered by NB Power.

[80] The Development Agreement for the NB component of the Project facilitates the implementation of the New Brunswick *Electricity Act*, which stipulates that no person other than NB Power may construct new transmission facilities in New Brunswick, and that only NB Power or individuals with preexisting rights exempted by legislation may own or operate a transmission system in the province.

[81] The Development Agreement, included as Appendix E of the application, applies only to the construction of Phase 1, although the overall agreement contemplates both Phase 1 and Phase 2. The agreement also outlines joint project control mechanisms and grants NS Power governance rights over the expenses and execution of the NB Assets component of the Project, given that Nova Scotia will cover the costs of both project components. WTI stated that the Development Agreement will cover five key aspects of the Project: cost responsibility, project responsibilities, project management, adoption of NS Power cost controls and project commitment. These provisions aim to ensure that the NB Assets are built and operated in accordance with good utility practice, while controlling project costs and minimizing delay risks.

[82] WTI stated that, under the Development Agreement, the project management and control processes for the NB Assets will be consistent with those applied by NS Power to the NS Assets and other large projects. The project governance for the NB Assets will include a six-member Joint Management Committee, with equal representation from NS Power and NB Power. Decisions will be made based on consensus. The committee will include project directors from each utility. The NB Power Project Director will coordinate with the NS Power Project Director and seek agreement on all project-related approvals, any costs exceeding CAD $5,000, and proposed

changes. In the event of a disagreement between the directors, the Joint Management Committee will provide a resolution. If the committee cannot reach consensus, the matter will be referred to the respective CEOs for resolution. Should the CEOs also fail to reach consensus, the issue will be escalated to binding arbitration.

[83] WTI outlined further project controls defined in the Development Agreement, including the designation of the NS Power Project Director as the lead for procurement initiatives across both NS and NB Assets, including change management. NB Power and WTI are required to jointly establish procedures for administering NB Power contracts, particularly regarding claims and insurance matters, and to adopt a consistent project control methodology aligned with NS Power's practices in other large projects.

[84] WTI stated that the NS Assets and their subsequent operation will be the responsibility of NS Power. This responsibility will be governed by a Management Services Agreement, included as Appendix F of the application. WTI will rely on the project management methodologies and organizational structure employed by NS Power to execute the Project. WTI provided an explanation of the methodologies and structure to emphasize that these are well-tested tools to execute this Project.

[85] WTI highlighted the close collaboration undertaken between NS Power and NB Power over the past two years of project development, noting their shared commitment to a unified "one team for one project" approach. Despite being separate entities, both utilities have closely coordinated across key functions including safety, environment, project controls, and engineering to ensure consistent alignment throughout the Project in both provinces. In certain areas, NB Power has adopted NS Power's

procedures, such as those related to project controls. In other areas, the two utilities have intentionally developed joint processes and integrated teams. For example, the quality function will be overseen by an NS Power Quality Manager, who will work in partnership with NB Power inspectors responsible for the NB Assets.

[86] Midgard reviewed the governance model proposed by WTI and noted that NB Power faces limited project-related risks, primarily confined to post-construction phases. Midgard further noted that NB Power retains potential benefits from NB Asset ownership, while avoiding direct exposure to construction-related risks. Risk mitigation is achieved through governance oversight rather than financial liability. Midgard also highlighted that the NB Assets Development Agreement between NS Power and NB Power was incomplete. Midgard opined that while WTI offered general assurances regarding the adequacy of the agreement, the evidentiary record lacks specific provisions addressing enforceability. Furthermore, Midgard stated that there is no clear documentation outlining consequences or penalties for failing to meet project timelines or budgets, raising concerns about the governance framework's effectiveness in managing risks associated with delays or cost overruns.

[87] Midgard stated that it asked WTI about updates on the status and progress of key scope items, project approvals, and risk management measures under the existing Development Agreement for the NB Assets. Based on WTI's IR responses, Midgard emphasized that the unsigned Amended and Restated Development Agreement (ARDA) constitutes a material uncertainty that potentially imposes unidentified scope, cost, and schedule risks. Midgard believes that the finalized terms of the Development Agreement,

particularly regarding joint project controls, cost risk allocation, and governance, are critical to managing overall project risk.

[88] Midgard also identified several additional governance and execution risks that could potentially affect the Project. One key concern was overreliance on procedural frameworks such as oversight committees, consultation protocols, and regular reporting, which may prioritize process over actual performance. Additionally, Midgard noted that there is no documented mechanism for WTI to enforce critical elements like timelines, cost-sharing agreements, or technical standards across provincial boundaries, raising issues of interjurisdictional accountability and leverage. Another risk involves land control and execution readiness, as WTI has yet to secure all necessary land rights required to begin the Project, as outlined in the project schedules.

[89] WTI confirmed that the ARDA, provided as Attachment B to its Reply Evidence, has now been executed. WTI noted that if the Project on the NB side was built under the standard NB Open Access Transmission Tariff (OATT) framework, its liability for delays would be limited solely to instances of gross negligence or willful misconduct. In contrast, WTI stated that the ARDA establishes a comprehensive project controls framework with binding obligations, including dispute resolution procedures that culminate in binding arbitration and clearly defined liability provisions. WTI emphasized that under the ARDA, NB Power may be held liable for up to approximately $267,670,000 for breach of the ARDA obligations and faces unlimited liability for willful misconduct or gross negligence.

[90] WTI also stated that the finalized interface agreements with NB Power eliminate any uncertainty concerning project controls, cost risk allocation, and governance for the New Brunswick portion of the Project.

[91] In its submissions, the Consumer Advocate expressed concerns about potential Project delays arising from the portion of the Project overseen by NB Power. The Consumer Advocate submitted that the protections offered under WTI's contractual agreement with NB Power are relatively limited and do not seem to cover situations where NB Power fails to meet its obligations due to ordinary negligence or lack of diligence unless such failures rise to the level of "gross negligence" or "willful misconduct".

[92] In its submissions, the Small Business Advocate stated that even if the current Project does not directly benefit NB Power, eventual construction of Phase 2 could deliver incremental benefits to both Nova Scotia and New Brunswick. Since Nova Scotia ratepayers will have already funded Phase 1 (the Project which is currently before the Board for approval), and it enables Phase 2, the Small Business Advocate submitted that this should be factored into the cost allocation discussions for Phase 2. The Small Business Advocate also noted that by tracking and reporting the benefits to New Brunswick resulting from the Reliability Intertie, WTI and NS Power will be better positioned for future discussions, even if those do not result in revisiting the cost-sharing arrangements for the current phase.

[93] In its submissions, the Industrial Group agreed with WTI that revisiting the construction cost responsibilities already established with NB Power in the Development Agreement would be impractical. However, it noted that any unforeseen benefits to NB Power arising from Phase 1 should be evaluated and documented to inform future cost-

sharing arrangements that remain unresolved. While acknowledging the Board's limited jurisdiction over current cost-sharing mechanisms with NB Power, the Industrial Group supported the recommendation of Mr. Bower, the Small Business Advocate's consultant, for ongoing reporting, particularly regarding benefits to NB Power. The Industrial Group stated that this reporting will be especially relevant should a Phase 2 application proceed, where cost-sharing may again be necessary. Such insights could help shape future contractual agreements with NB Power.

[94] In its Reply Submissions, WTI clarified that the Project is not intended to meet New Brunswick's system requirements. Instead, it is being developed to facilitate Nova Scotia's transition to renewable energy. As such, all the benefits of the Project, including those derived from the NB Assets, will benefit Nova Scotia. Therefore, WTI will be responsible for the capital costs associated with the Project, including those related to the NB Assets.

[95] WTI's Reply Submissions also acknowledged potential limitations in its ability to report on future system benefits for New Brunswick stemming from this Project. Nonetheless, it agreed that any future regional initiative, including a possible Phase 2, should involve an assessment of the benefits to each province. This includes evaluating the impact of new infrastructure operating within a broader regional system that incorporates this Project, considering the role of existing infrastructure, and determining appropriate cost-sharing arrangements for future facilities.

[96] WTI also expressed agreement with the recommendations of the Industrial Group, the Consumer Advocate, and Mr. Fagan of Synapse that future IRP modeling should include updated inputs and consider broader regional opportunities enabled by

this Project. However, WTI emphasized that implementing these changes will fall under the responsibility of the newly established NSIESO, with support from NS Power.

Findings

[97] The Board has reviewed the evidence and concerns presented by the intervenors and Midgard regarding project governance for both the NS and NB Assets. Overall, the intervenors are supportive of the Project, recognizing its role in advancing Nova Scotia's transition to renewable energy. The Board notes that the now-executed ARDA contains provisions intended to hold NB Power accountable for its share of the project execution. The Board also agrees with WTI and the Industrial Group that it should not revisit the existing construction cost-sharing agreement with NB Power as outlined in the ARDA. This Project was presented by WTI as an infrastructure project which included both NS and NB Assets. The Project is being constructed for the benefit of the Nova Scotia power grid and its customers. New Brunswick does not need the added infrastructure and would not build it absent this proposed application. Given that there are governance and construction-related controls in place under the ARDA, the Board notes that WTI has taken measures to document the governance of the Project, subject to prudently executing the Project.

[98] The Board accepts the intervenors' recommendations and WTI's proposal to incorporate updated inputs and broader regional opportunities into future IRP modeling. These issues should be considered by NS Power and the NSIESO to track any regional benefits enabled by this Project, particularly in the context of Phase 2.

7.3.2 Project Design and Execution

[99] The application stated that historical assessments of the existing NS-NB Tie Line, along with studies conducted by multiple third-party consultants in areas such as

climate, geomorphology, and geotechnical conditions were considered in developing the Project's design. These assessments and studies formed the basis for the development of a Design Basis Memorandum (DBM), which encompasses all aspects of the transmission line design. The DBM covers historical data, recent findings, applicable technical standards, current power system requirements and constraints, as well as climate and environmental conditions.

[100] WTI stated that the DBM incorporates high-reliability designs and is aligned with the requirements of CSA Standard C22.3 No. 60826. It utilizes a 150-year return period for assessing ice and wind loads across all sections of the transmission line, except for the Petitcodiac River crossing, which uses a 500-year return period to minimize repair needs caused by excessive ice or wind. The return period indicates the probability that the design load will be exceeded during the structure's lifetime. A longer return period corresponds to a lower probability of exceedance.

[101] Transmission lines will be routed through their designated right-of-way corridors. The application stated that the new transmission lines will generally be constructed adjacent to the existing NS-NB Tie Line and identified a few locations where the line will run parallel but not adjacent to the existing line.

[102] The application further noted that a second 345 kV intertie has long been considered a strategic investment by NS Power. Between 2010 and 2014, NS Power acquired approximately 85% of the required Nova Scotian easements for the intertie transmission line as part of Capital Item 29009, designated for the right-of-way purchase in northern Nova Scotia. Moreover, following the incorporation of the intertie project into

the 2020 IRP, NS Power resumed acquisition efforts, and nearly all the land rights for the Nova Scotia portion of the right-of-way have now been secured.

[103] The application also stated that land acquisition for rights-of-way in New Brunswick began in early 2025. Construction will commence in Onslow and proceed toward the NS-NB provincial border, allowing the land acquisition process in NB to continue before construction reaches that portion of the Project.

[104] NS Power conducted a construction access study to determine the number of access points required and their potential locations. The study aimed to promote sequential and continuous construction where feasible, while ensuring compliance with all applicable environmental constraints related to protected wetlands, conservation areas, and regions subject to seasonal activity restrictions.

[105] A total of 396 tower structures will be constructed for the Project: 240 as part of the NS Assets and 156 for the NB Assets. The transmission line will feature self-supporting dead-end towers and Guyed-V suspension towers, engineered to withstand the Project's meteorological loads, including wind and ice. In addition, the Petitcodiac River crossing will require two specialized suspension towers and two specialized dead-end towers to complete the span. The Guyed-V towers are taller and heavier than those on the existing NS-NB 345 kV transmission line, designed to meet modern standards, improve constructability, provide climate resiliency, and accommodate increased loading and conductor sag.

[106] The tower designs account for adequate clearances related to wind farms, access roads, and any future construction activities. The towers will be constructed using

a combination of grillage foundations and micropiles, depending on the geotechnical conditions at each tower location, along with rock and soil anchors for the guy wires.

[107] The application described the scope of required substation expansions, modifications, and line relocations as part of this Project for both NS and NB Assets. For NS Assets, it will include upgrades to the Onslow substation, and for NB Assets, it will include upgrades to the Memramcook and Salisbury substations.

[108] The Project is expected to take approximately three years to complete, with commissioning scheduled for the fourth quarter of 2028. To validate confidence in the proposed timeline, a Monte Carlo scheduling risk analysis was conducted. This analysis evaluated each major contract and material-related activity individually, assigning a range of expected duration accuracy based on the schedule submitted by the Requests for Proposal (RFP) proponent. It also accounted for risks related to land acquisition, potential legal disputes, supply chain disruptions, environmental factors, system outages, and extreme weather events. The Monte Carlo simulations produced a schedule duration confidence curve, which helps estimate the expected project timeline while incorporating potential risk impacts.

[109] Midgard considers the Project to be technically sound and informed by comprehensive design, permitting, environmental, and stakeholder engagement records aligned with regulatory and utility standards.

[110] Midgard stated that the evidentiary record includes extensive technical documentation covering both the NS and NB segments of the Project. Midgard noted that the design adheres to NS Power’s established engineering standards, integrates industry

best practices, and incorporates lessons learned from the Maritime Link project to improve quality assurance and constructability.

Findings

[111] The Board has reviewed the technical documentation submitted by WTI and accepts the evidence filed by Midgard, confirming that the Project is technically sound and that all aspects of executing a transmission line of this complexity and scale have been thoroughly considered.

7.3.3 Project Procurement

[112] The application noted that WTI has received responses to RFPs for most major project procurement initiatives involving long lead items, including materials and contracts related to transmission line construction. The procurement program defined eight distinct scopes of component supply and two distinct scopes of services.

[113] The component supply scopes were established to align with the specialized product offerings of leading manufacturers, ensuring access to high-quality, fit-for-purpose components. This approach enables NS Power to perform quality control checks and verify that the performance requirements outlined in the procurement specifications are fully met. The component supply procurement includes: tower and foundations, conductors, anchors, insulators, optical ground wire, shield wire and guy wire, vibration damping and transmission line hardware. The component supply scope also includes packaging and shipment/delivery, Delivered Duty Paid (DDP), to designated sites in Nova Scotia and New Brunswick. The scope of services component includes right-of-way clearing and transmission line construction.

[114] The application stated that, under the Management Services Agreement and the Development Agreement, a multi-disciplinary team from NS Power working in

close collaboration with NB Power's procurement team will oversee the overall procurement process and manage the contract administration process for the entire Project. The procurement process includes developing a contracting strategy, issuing expressions of interest, releasing RFPs, informing negotiations, and awarding contracts.

[115] While NS Power will administer the contracts, WTI will maintain independent agreements with suppliers for the goods and services required for the NS Assets. NB Power will manage its own separate contracts for its portion of the Project. Although contracts may be awarded to common suppliers, jurisdictional and logistical factors necessitate distinct agreements.

[116] Midgard conducted an assessment of the component supply and service scopes, noting that the procurement initiatives provide meaningful insight into the proposed structure and strategy for contracting key procurement areas. However, the review also noted that while these initiatives have started, they do not yet represent finalized contracts. Consequently, Midgard stated that uncertainties persist regarding liquidated damages, pricing, scope, delivery timelines, and contractor performance, posing potential risks to both the project schedule and cost management. However, Midgard noted this risk may be unavoidable, as it is arguably unreasonable to expect executed contracts prior to project approval by the Board.

[117] Midgard's review acknowledged WTI's deployment of experienced project management professionals from the Maritime Link project to help mitigate execution risks. This is particularly critical given the scale and complexity of building an interprovincial transmission line, which demands effective coordination across multiple contractors and seamless integration of new assets with existing infrastructure.

[118] In its Reply Evidence, WTI stated that risks associated with equipment supply and construction contracts, along with appropriate mitigation measures, have been incorporated into its risk register for the current stage of the Project's development. It noted that as the contracting of its RFP work packages progresses, it will implement risk mitigation strategies similar to those successfully applied in the Maritime Link project.

Findings

[119] The Board finds that the procurement strategies employed by WTI, which rely on NS Power's expertise and experience, represent a reasonable approach, particularly in light of NS Power's recent experience executing the Maritime Link. The Board acknowledges the risks associated with not having finalized contracts related to project cost and schedule. However, it finds that WTI's Reply Evidence indicates careful consideration of these risks and the development of mitigation strategies as the Project progresses. Furthermore, WTI will regularly review project controls and contingency plans to assess their potential impact on the Project's cost estimates and schedule. At this stage of the Project, the Board is satisfied with WTI's procurement-related evidence.

7.4 Are the forecast project costs of $684.7 million reasonable and appropriate?

[120] In its application, WTI indicated that the total forecasted capital cost of the Project is $684.7 million, inclusive of contingency and Allowance for Funds Used During Construction (AFUDC). Of this amount, $404.0 million is allocated to the NS Assets, while $280.7 million is allocated to the NB Assets. It was noted that the costs were estimated using the average values from RFP proponents who were not disqualified for technical reasons and included normalized values for currency exchange, commodity and shipping indices.

[121] WTI provided a detailed breakdown of the Project's capital costs, which were categorized into internal labour, non-labour project expenses, materials, contracts, consulting, legal services, strategic and procurement support, land acquisition, freight, contingency, and AFUDC. Among these, the cost of all contracts represents the largest portion, accounting for 58% ($396.9 million) of the total projected cost. Materials comprise approximately 14% ($96.8 million), internal labour and consulting about 10% ($67.4 million), contingency around 10% ($70.5 million), and AFUDC 4.69% ($32.1 million). The contract costs include transmission line construction, substation equipment installation and project management for both NB and NS Assets.

[122] WTI also reported receiving $22.5 million in total funding from NRCan, with $11.4 million allocated to the NS Assets and $11.1 million to the NB Assets. Additionally, NB Power contributed $6.1 million toward the NB Assets. These contributions reduced the overall Project cost from $713 million to $684.7 million.

[123] WTI stated that a contingency of $70.5 million for the Project has been determined in accordance with NS Power’s Non-Binding Contingency Guidelines. To determine the project contingency, thousands of Monte Carlo simulations were conducted using identified project risks and the baseline cost uncertainty. These inputs were collaboratively developed by team members from NS Power and NB Power. The statistical analysis generated a cost P75 confidence curve, which guided the calculation of the appropriate contingency budget for the Project.

[124] A P75 confidence curve represents the distribution of possible outcomes, indicating a 75% probability or level of confidence that the total actual project cost, including risks and uncertainties, will be less than or equal to the forecasted project cost

plus contingency. As noted above, the contingency for this Project represents approximately 10% of the total estimated cost. WTI indicated that this contingency aligns with the Non-Binding Contingency Guidelines and the associated project accuracy range for a Class 2 cost estimate, minus 15% to plus 20%, as defined by the Association for the Advancement of Cost Engineering (AACE).

[125] WTI reported that a joint project team from NS Power and NB Power conducted project risk and constructability workshops, resulting in a project cost and schedule risk assessment. This assessment involved reviewing the Project's cost estimates and timeline, identifying potential risks, and determining appropriate contingency measures. The results of this assessment were used to validate the required levels of cost and schedule contingency for the Project. Both tactical and strategic risks were considered, using probabilistic curves (P10–P90) generated through Monte Carlo simulations. This approach enabled evaluation of the total Project cost estimate, including base costs and contingency, at a P75 confidence level, and assessed the likelihood of completing the Project on schedule. Additionally, WTI noted that these risk assessments underwent independent review. Experts in project management and large-scale transmission projects conducted interviews with project personnel as part of an independent project review process.

[126] Midgard analyzed the cost categories underlying the total forecasted capital cost and provided the following comments, along with the associated risks:

- Labour Costs: No unusual or unsupported estimates were identified.
- Administrative Overhead (AO) Costs: Public disclosures lacked detail regarding the total expected AO and the allocation methods for shared costs. Midgard

recommended monitoring accruals and actual AO expenditures throughout project execution.

- Material Costs: Transparency was deemed strong, supported by WTI's detailed and itemized material cost disclosures. However, risks and uncertainties were noted due to currency and commodity market fluctuations, particularly for imported materials and those sensitive to steel, copper, or aluminum prices.
- Contract Costs: No cost outliers were identified. However, Midgard recommended monitoring actual expenditures against contract scopes throughout execution. Additionally, it noted that despite a robust procurement process, uncertainties persist about the scope and cost of right of way clearing and foundation construction due to pending land acquisition and potential permitting delays, particularly in New Brunswick.
- Consulting Costs: These appeared reasonable given the described scope and complexity. However, risks remain due to potential scope changes, such as expanded permitting requirements or unforeseen technical studies. Ongoing monitoring of consulting expenditures was recommended.

[127] Midgard noted that WTI's contingency development methodology is generally consistent with accepted industry practices, including AACE principles and the application of expected value analysis through Monte Carlo simulation. Midgard conducted an independent Monte Carlo simulation to validate WTI's results, utilizing native Excel functions rather than the third-party Excel add-in employed by WTI. Midgard's analysis followed a statistically comparable methodology, leveraging Beta-distributed random variables derived from three-point estimates (P10, P50, P90). These

estimates were provided directly by WTI. A simulation of 10,000 trials was conducted for the random input variables within the project cost and risk models. This process provided key statistical outputs, including the expected (mean) value, standard deviation, and confidence levels based on percentiles (e.g., P50 and P75).

[128] Midgard's contingency analysis noted that the consistency between Midgard's and WTI's simulations supports the conclusion that contingency provisions are appropriate and reflect a coherent risk posture, assuming that the cost inputs used to construct both models are valid.

[129] In its Reply Submissions, WTI addressed the risks identified by Midgard that could potentially affect the overall project cost. Regarding the specific risk related to material costs, WTI noted that NS Power has adopted strategic procurement measures to mitigate tariff-related risks. These measures include avoiding sourcing from sanctioned countries and actively seeking alternative suppliers where tariff risks can be reasonably anticipated and managed. Additionally, WTI emphasized that the Project's total tariff exposure is currently limited to $3 million, representing less than 1% of the estimated overall project cost.

[130] With respect to risks associated with pending land acquisition and potential permitting delays particularly in New Brunswick, WTI stated that over 90% of the transmission line route in Nova Scotia is already accessible. WTI is currently finalizing agreements to secure Nova Scotia Crown land required for the construction and operation of the Project by the second quarter of 2026. Access trails and land are expected to be available by the fourth quarter of 2026 to support the planned start of right of way clearing. WTI further stated that land certainty for the New Brunswick segment of the Project will

not be required until the third quarter of 2026. In the meantime, NB Power's land acquisition efforts are progressing well, with 53% of the necessary offers to secure land rights already extended to landowners, and 27% of those offers accepted to date. The Project schedule includes mechanisms to monitor key milestones and incorporates mitigation and recovery strategies. Additionally, expropriation processes are available as a last resort in both Nova Scotia and New Brunswick to ensure complete acquisition of the right of way, thereby guaranteeing clear and unrestricted access to the required land.

Findings

[131] The Board has reviewed the cost composition of the total estimated project capital cost of $684.7 million, as well as all related evidence and submissions filed in this proceeding. Based on its review, the Board finds that WTI has followed an industry wide accepted approach in estimating the overall cost for the Project. The Board is satisfied that WTI's cost estimate is supported by a detailed and transparent procurement process and considers the proposed project costs to be reasonable given the scope and complexity of the work.

[132] Furthermore, while the Board recognizes the risks highlighted by Midgard, primarily concerning materials and contracts, it finds that WTI has implemented measures intended to mitigate these risks. WTI will be required to prudently and appropriately manage these risks.

7.5 Should the Project be approved?

[133] WTI submitted that the capital expenditure for the Project is justified under NS Power's Capital Expenditure Justification Criteria (CEJC), which identifies three questions that should be considered in assessing a capital project:

Why do this Project?

Why do this Project now?
Why do this Project this way?

[134] Among other benefits, WTI said that the availability of the CIB equity funding has materially lowered the financing cost of the Project, and the construction of the Reliability Intertie will play a key role in achieving the provincial targets of 80% renewable electricity and the phasing out of coal by 2030. In WTI's submission, these benefits support the Board's approval of the Project.

Findings

[135] Based on the evidence and the Board's findings earlier in this decision, the Board finds that the Project is justified under the three branches of the test under the CEJC.

[136] There are clear reasons why WTI should proceed with this Project; that it should proceed with the Project now, and that it should be done in the manner that has been presented in the application.

[137] As canvassed earlier in this decision, the Project is needed to achieve significant provincial and federal policy and legislative requirements, including the requirement under the *Renewable Electricity Regulations* that at least 80% of the electricity NS Power supplies to its customers be renewable electricity by 2030; the requirement to meet CO_2 emission caps under both federal regulations and Nova Scotia's Output-Based Pricing System, which mirrors the federal carbon price and is to reach $170/tonne by 2030; complying with GHG emission caps for electricity for various time periods through 2030 under the Nova Scotia *Greenhouse Gas Emissions Regulations*; and the goal of phasing out coal-fired electricity generation by 2030 set out in the Nova Scotia *Environmental Goals and Climate Change Reduction Act*.

[138] NS Power's integrated resource planning process has consistently identified the reinforcement of the transmission interconnection between the Nova Scotia and New Brunswick systems as the most cost-effective way of providing grid stability and supporting renewable energy generation being integrated into Nova Scotia's grid to meet the legislated environmental requirements by 2030. This was confirmed in the 2020 IRP and the Evergreen IRP processes that followed.

[139] As noted earlier in this decision, the Board has concluded that the Project is needed to meet the legislated requirements. Accordingly, the Board finds that this justifies proceeding with the Project. The completion of the Project will also provide ratepayers with the environmental benefits of the public policy goals expressed in provincial and federal legislation.

[140] The next question is why do the Project now? Again, as noted above, NS Power's IRP modeling has confirmed that the Project is needed to meet the legislative requirements by 2030. Nova Scotia's 2030 Clean Power Plan also identified the Reliability Intertie as an integral component of the energy transition timeline to 2030. WTI stated that the Project is expected to take about three years to complete, with commissioning scheduled for the fourth quarter of 2028. Considering the size of the Project, this timeline does not leave much flexibility for NS Power to complete the Project so that it will be operational by 2029. In these circumstances, the Board is satisfied that the Project should proceed now.

[141] Finally, why do the Project this way? The Project is a "prescribed project" under the *Prescribed Projects Regulations*, which were enacted under Section 21B of the *PU Act*. The *Regulations* permit WTI to have an ownership structure that allows the

Canada Infrastructure Bank and WMA to participate in the Project, resulting in a proposed blended ROE of 4.28% for the Project, which is lower than otherwise would be the case if NS Power built the Project on its own. The application stated that these financing arrangements will yield a net present value cost savings to Nova Scotia electricity customers of approximately $200 million. This represents significant savings for ratepayers.

[142] The Board appreciates that Midgard has raised some concerns about whether the evidence supports the proposition that the Project is necessary or is the most cost-effective way of proceeding to integrate the renewable energy sources required to achieve legislated goals and targets. This issue was addressed in detail earlier in this decision. The Board finds, on a preponderance of the evidence provided by WTI, Synapse and Daymark, that the Project is necessary to achieve legislated targets and goals and was supported by the economic modeling.

[143] Much of Midgard's focus was on synchronous condensers and inertia. Midgard suggested there were potential paths to achieve the required renewable energy penetration without the Reliability Intertie. The Board appreciates this sober second look. That said, Midgard did not actually provide a costed alternative approach. Synapse has been reviewing the IRP, Evergreen IRP, and Evergreen IRP updates for many years. While Synapse commented on the synchronous condenser assumptions in WTI's application, Mr. Fagan supported the proposition that the Project was a necessary cost-effective component of the decarbonization plan under the Evergreen IRP. Given the short timeline to achieve decarbonization policies and legislative requirements by 2030,

the Board has placed considerable weight on this opinion and agrees with it, also taking account of other benefits provided by the Reliability Intertie.

[144] The Board is satisfied that doing the Project in this manner under the *Prescribed Projects Regulations* provides significant benefit to Nova Scotia ratepayers. Further, the involvement of the WMA, owned by Nova Scotia's 13 Mi'kmaq First Nations, advances economic reconciliation with the province's Indigenous peoples.

[145] As noted in various sections earlier in this decision, based on WTI's evidence and that of Board Counsel consultants, the Board has found that WTI has considered various aspects of the Project and adopted measures intended to mitigate execution and cost risks. Notwithstanding these measures, the Board notes that WTI and NS Power will have to prudently complete the Project's execution and control costs. The measures adopted by WTI and NS Power to accomplish this include:

- the Project is technically sound and all aspects of executing a transmission line of this complexity and scale have been thoroughly considered, including its governance arrangements with NB Power respecting the NB Assets;
- the procurement strategies employed by WTI, which rely on NS Power's expertise and experience, represent a reasonable approach, particularly considering NS Power's recent experience executing the Maritime Link;
- WTI has followed an industry wide accepted approach in estimating the overall cost for the Project and WTI's cost estimate is supported by a detailed and transparent procurement process. The submitted project cost is reasonable given the scope and complexity of the work; and

- WTI has implemented measures intended to mitigate risks at this stage of the Project.

[146] Finally, as noted later in this decision, the Board finds that completion of the Project will support the objectives outlined in s. 6(2) of the *Energy and Regulatory Boards Act*. The integration of increasing amounts of renewable generation facilitated by this Project will help achieve the climate-related targets in the legislation and help foster competition and innovation in Nova Scotia's energy sector; support the development of a competitive electricity market; and add reliability to the grid, among other benefits.

[147] Based on all of the above, the Board approves the Project under s. 35 of the *PU Act*, subject to the filing of WTI's application for approval of final project costs, and the directives outlined in this decision. The costs of the Project are approved for inclusion in the opening rate base.

7.6 Should the NB Assets be approved as a regulatory asset?

[148] WTI proposes to record its investment in the NB Assets as a regulatory asset to be included in its opening rate base. It explained the reasoning for this request:

> In the case of the NB Assets, which WTI will fund but not own, as contemplated by the *Prescribed Projects Regulations* definition of the Project, an alternative means of recognizing and recording the value of WTI's investment in these assets is required.
>
> WTI proposes to record its investment in the NB Assets as a "regulatory asset" to be included in WTI's opening rate base. This treatment recognizes that the economic benefit of WTI's investment in the NB Assets will accrue to Nova Scotia customers over the life of the Project, a circumstance supporting the recovery of and on the associated investment over time.
>
> [Exhibit W-1, p. 88]

[149] Regulatory assets are recognized where a cost has been incurred by a utility that represents a future economic benefit. The deferral of the cost allows the utility to recover these costs in rates over future years, to match the recovery with the benefit received by customers.

Findings

[150] The Board is satisfied that the economic benefits of the NB Assets will accrue to NS customers over future years. Further, they are an integral part of the Reliability Intertie. The assets are specifically referenced as being part of the Project under the *Prescribed Projects Regulations* and are needed to give full effect to the Reliability Intertie. The *Regulations* also contemplate including the NB Assets as a regulatory asset. The Board therefore approves the use of a regulatory asset for the portion of the assets located in New Brunswick, and its inclusion in rate base.

7.7 Should the proposed capital structure and return on equity be approved?

[151] The ownership structure of the Project was facilitated by the *Prescribed Project*s *Regulations*. It includes NS Power, along with the CIB and WMA. The commercial arrangements with the CIB provided significant benefits to the equity financing of the Project. WTI's return on equity is proposed to be calculated as a weighted blend for the respective equity contributions of NS Power, the CIB and WMA, resulting in an overall blended ROE proposed to be 4.28%, based on NS Power's currently approved ROE.

[152] WTI proposes that the Project's capital structure be 60% equity and 40% debt. WTI recognizes that this is "the inverse" of NS Power's approved capital structure (which is 40% equity and 60% debt), and notes that this structure accommodates an extended term of very low-cost equity. The 1.15% cost of CIB equity is lower than the rate of debt that would be paid on this additional equity if it was instead funded by debt, i.e., the CIB-funded equity is a lower cost financing option than debt. WTI submitted that the proposed debt to equity ratio was justified given NS Power's overall responsibility for development, execution, and operation of the Project, but that the financing of the Project

was facilitated by the “special purpose” ownership arrangement under the *Prescribed Projects Regulations*. It submitted that in this context the financial markets would not consider NS Power’s return “as presenting any greater or lesser degree of business risk than that of NS Power’s overall utility business”. It noted that this was consistent with what was approved for NSPML for the Maritime Link project, which also involved a “single purpose” entity created by statute supported by favourable unique federal financing arrangements. It was further noted that WTI’s capital structure would revert to NS Power’s traditional capital structure of 60% debt/40% equity if the Class C and Class D units with reduced ROE are redeemed after 30 years, and the canceled units replaced with debt.

[153] However, WTI notes that the CIB’s investment will result in an overall lower cost of equity for WTI compared to the conventional regulated capital structure in effect for NS Power. According to WTI, the proposed structure represents “a net present value saving for Nova Scotia customers of approximately $200 million, relative to conventional project financing”.

[154] The capital structure will vary during construction. The application outlines that during construction WTI will initially draw on the lowest-cost sources of available financing, starting with the CIB equity funding as the lowest cost funding source, then with WMA equity funding, followed by debt, then by NS Power’s equity contribution. The CIB and NS Power have agreed that there will be a rebalancing of capital accounts following the Project’s commercial in-service date, such that of the contemplated 60% equity, the approximate relative holdings will be NS Power (33%), the CIB (57%) and WMA (10%). WTI will borrow the 40% debt portion of its capital structure directly from debt markets.

[155] In addition to the proposed capital structure, WTI requests approval of its return on equity based on a weighted blend by proportion of the equity contributed by the respective parties, as follows:

(a) the return on NS Power's equity contribution to WTI (Class A units) equal to the regulated return set by the Board from time to time in determination of NS Power's revenue requirement;

(b) the return on the CIB's equity contribution to WTI (Class B units) equal, for the first 30 years of operation of the Project, to 1.15%. Thereafter, the return will change to NS Power's then Board-approved ROE;

(c) the return on the CIB's equity contribution to WTI (Class C units) equal, for the first 30 years of operation of the Project, to 1.15%. Thereafter, the CIB may redeem its Class C units and WTI will issue new market debt to replace the funds to redeem the units. The return on any remaining Class C units will change to the rate of interest on WTI's third party debt; and

(d) the variable return stipulated by WMA on WMA's equity contribution to the Project (Class D units), forecast at 6.63% for the first 30 years. Thereafter, these units are to be redeemed and new debt will be issued and financed at market debt rates.

[156] WTI indicated that its request for the revenue requirement associated with WTI's cost of capital will be made at the time it applies for approval of an annual assessment against NS Power under s. 21B(4) of the *PU Act*.

[157] WTI also explained the change to the CIB's ROE after the first 30 years. After 30 years, the CIB has the right to sell its Class B units first to WMA, and second to

NS Power. If neither acquire these units the CIB may sell them to an outside third party. While the CIB is accepting a significantly reduced ROE of 1.15% for the first 30 years, which was the outcome of commercial negotiations among the parties to the Project, the increased ROE to the Board-approved NS Power ROE after 30 years is required so that the CIB can recover its investment if it wishes to sell its Class B units after the first 30 years. This increase after 30 years was included in the economic modeling for the Project to determine the savings for ratepayers. The CIB's Class C units are not subject to this same ROE increase. After 30 years, the return on the CIB's Class C units will change to the rate of interest equal to market debt, as described above.

[158] The WMA ROE on its Class D units is proposed to be at its underlying financing costs plus 350 basis points, subject to a ±25 basis point risk adjustment tied to WTI's actual earned ROE. This was also the result of commercial negotiations among the parties and is consistent with what occurred in the financing of the Battery Energy Storage System (BESS) project recently approved by the Board. One-ninth of WMA's initial investment will be returned every five years starting from the commercial in-service date of the Reliability Intertie, funded by depreciation of WTI's rate base. On the 30th anniversary of the commercial in-service date, it is intended that the remainder of WMA's investment will be returned and new debt will be issued to replace the WMA capital.

[159] However, WTI noted that if NS Power suffers a future credit downgrade that remains "uncured" after a set date for the downgrade to be corrected, the CIB's ROE 1.15% rate will not apply. In such circumstances, on its Class B units the CIB will earn a return equal to NS Power's Board-approved return, and a return equal to the market debt rate on its Class C units.

[160] Dr. Cleary filed evidence on behalf of Board Counsel. In its IR responses, Wasoqonatl acknowledged to Dr. Cleary that it had similar business risk to NS Power and "all else equal, a rate regulated utility with an equity ratio of 60 percent whose revenue requirement is set on that basis would possess lower financial risk than a utility whose regulated equity ratio for rate making purposes was set at 40 percent". It also confirmed that if two companies had similar business risk, the company with lower financial risk would have "lower total risk". Based on these concessions, Dr. Cleary stated that it is not appropriate for NS Power to earn 9.0% on its equity investment in WTI and that, instead, it should be earning 6.0% on that investment because of the difference in the allowed equity ratio (ER) between the two regulated entities:

> The fact that the proposal provides for NS Power to earn its currently allowed ROE of 9%, which is based on an allowed ER of 40%, is therefore **inappropriate**, since WTI will have a 60% equity ratio. As a result, WTI will possess **much lower financial risk** than NS Power, while possessing the same level of business risk, and hence **lower total risk**. Therefore, it is not appropriate for NS Power to earn 9% on its equity investment in WTI, since the 9% allowed ROE is based on NS Power's current business risk profile, when combined with a 40% ER (not a 60% ER). Given the 60% ER for WTI, I demonstrate that NS Power should more appropriately be able to earn a **6% ROE** on the equity they contribute to WTI. In particular, my calculations show that earning a 6% ROE with a 60% ER is equivalent in terms of net income effects to earning a 9% ROE with a 40% ER (which is currently what NS Power is allowed). Importantly, my evidence further demonstrates that the WTI investment would not harm, and would more likely improve NS Power's total risk profile due to the lower financial risk associated with this investment. In short at a 9% ROE, NS Power would be earning too high a return for the risk associated with this funding, at the expense of customers whose benefits reaped from this project will be smaller as a result. [Emphasis in original]
>
> [Exhibit W-19, p. 3]

[161] In its Reply Evidence, Wasoqonatl challenged Dr. Cleary's recommendation that the return on equity be set at 6%. It filed the report of Cliff Inskip of Polar Star Advisory Services Inc., asserting that:

> …adjusting Dr. Cleary's model for calculation errors and failure to consider the characteristics of the various tranches of "equity" in WTI's proposed capital structure would result in even that model yielding an ROE to NS Power on its contributed equity of 9.0 percent. Mr. Inskip further considers the business risk of WTI relative to that of NS Power as a whole, and concludes that there are several reasons why a 9.0 percent return on NS Power's contributed equity is too low. Despite, in Mr. Inskip's opinion, a basis for doing so,

> NS Power is not requesting that the ROE on its equity contributed to WTI be set higher than its conventional, Energy Board approved ROE.
>
> Mr. Inskip has advised that in his career dealing with various regulated utilities in several provincial jurisdictions, he does not recall any case where equity investors have accepted a return as low as 6.0 percent per annum, which is what Dr. Cleary has recommended, equivalent to a premium of only 0.8 percent above the cost of debt assumed by Dr. Cleary.
>
> [Exhibit W-27, pp. 7-8]

[162] Mr. Inskip stated it is important to consider WTI's organizational structure in assessing NS Power's ROE. The limited partnership ownership structure in WTLP, which owns WTI, was canvassed earlier in this decision. The WTLP partnership units are divided into four different classes (Classes A, B, C and D), each having different characteristics. NS Power will own 33% of the equity in WTLP by holding Class A voting units. The CIB will hold 33% of the equity in WTLP through Class B voting units. This means that NS Power and the CIB will each own 50% of the voting units in WTLP. In addition, the CIB will own 24% of the equity in WTLP through the ownership of Class C non-voting units, while WMA will own the remaining 10% equity by holding Class D non-voting units.

[163] Following the Project's commercial in-service date, the limited partnership structure will effectively have an equity allocation of NS Power at 33%, the CIB at 57% and WMA at approximately 10%.

[164] Further, the characteristics of the partnership units differ in many respects among the four different classes, related to dividend rights, voting rights, distribution priority, liquidation priority, retraction rights, protection in the event of an uncured credit downgrade, and capital recovery rights. Mr. Inskip summarized the differences among the unit classes in the following table:

Table I					
NSP Intertie Project Equity Class Characteristics					
Description	Owner	Amount	ROE	Cumulative Dividend	Voting Rights
A Units	NSPI	20%	9.00% [1]	No	Yes
B Units	CIB	20%	1.15%	No	Yes
C Units	CIB	14%	1.15%	Yes	No
D Units	WMA	6%	6.63% [2]	Yes	No

Table I (Continued)					
NSP Intertie Equity Project Class Characteristics					
Description	Distribution Priority	Liquidation Priority	Retraction Right	Uncured Credit Downgrade Protection	Capital Recovery
A Units	Third [3]	Third	No	No	~67% over 30 yrs
B Units	Third [3]	Third	No	Yes (Class A ROE) [4]	~67% over 30 yrs
C Units	Second	Second	Yes, at Yr 30	Yes (debt rate)	~67% over 30 yrs
D Units	First	First	N/A	No	100% by yr 30

[1] Proposed

[2] Projected

[3] If there is insufficient net income, then Class A and B Units will not recover the specified ROE. For example, if there is only sufficient net income to recover 100% of ROE on Class C and D Units plus 75% of ROE on Class A and B Units, NSPI will lose 2.25% and CIB will lose 0.29%. NSPI suffers the most.

[4] Class B Units receive the same return as the Class A Units during any Uncured Credit Downgrade Period.

[Exhibit W-27, Attachment A, Table 1, p. 8]

[165] Mr. Inskip stated that assessing NS Power's ROE for its involvement in WTI should have involved comparing NS Power's risk position to those of the other parties holding partnership units, based on their respective positions as set out in the First Amended and Restated Limited Partnership Agreement. In his opinion, notwithstanding the Project's proposed capital structure of 60% equity and 40% debt, the Class C and Class D shares are more in the nature of "debt or debt like" so that, effectively, WTI's capital structure should be considered as being 40% equity and 60% debt, like that which applies to NS Power's other regulated activities. Thus, he concluded that in assessing the ROE for NS Power's equity contribution to WTI, it "should not be less than NSPI's

approved ROE of 9.0% based on a 40% equity thickness and assuming similar business risk". His reasoning for this conclusion was summarized as follows:

> A more direct way of determining the appropriate WTI Reference ROE for the Class A and Class B Units is the following:
>
> - The capital structure of WTLP is 40% debt, 20% Class C and D Units and 40% Class A and Class B Units.
> - Class A, Class B, Class C and Class D Units have different characteristics set out in detail in the Amended LP Agreement.
> - The Class C and Class D Units are fixed rate preferred cumulative hybrid capital that rank ahead of (and do not reduce the risk borne by) the 40% combined Class A and Class B Units for distributions and in liquidation.
> - Debt equal to 20% of a typical utility capital structure is replaced by debt like Class C and Class D Units in WTI.
> - In essence, the capital structure of WTI is 40% true equity (Class A and Class B Units) and 60% debt or debt like capital (debt plus Class C and Class D Units) that ranks ahead of the true equity (similar to a traditional utility).
> - Thus, from NSPI's perspective, as holder of Class A Units, the WTI Reference ROE should be the same as for a traditional 40% equity and 60% debt utility structure because the 40% true equity in WTI bears the same risks as the 40% equity in a traditional utility with a similar business risk.
>
> Therefore, without making any calculations, one can correctly conclude that the WTI Reference ROE should be 9.0% p.a., the same as the regulated rate for NSPI, all else equal. [Emphasis added]
>
> [Exhibit W-27, Attachment A, pp. 18-19]

[166] While he agreed with Dr. Cleary's observation that increasing the level of equity in the proponent, all else being equal, should result in a lower return on equity, Mr. Inskip said that Dr. Cleary's analysis had erroneously concluded that introducing the Class C and Class D units into the capital structure increased the amount of "true equity" in WTLP, and thus WTI. Mr. Inskip said that Dr. Cleary did not account for the different characteristics of the respective unit classes and, thus, failed to treat the Class C and Class D units like debt. He stated that the investment risk for NS Power was the same as in its other regulated activities and that its position within WTLP should relate directly to the Board-approved ROE for "a reference utility with a 60% debt / 40% equity capital structure".

[167] In addition to the above points about the different characteristics applying to the relative unit classes and its impact on the allocation of equity and debt, Mr. Inskip said that Dr. Cleary failed to make adjustments in his analysis that would impact the amount of net income allocated to the return on equity in his sample scenario, impacting his conclusions. Mr. Inskip noted that Dr. Cleary should have reduced the interest cost when reducing the effective debt level from 60% to 40% compared to the reference capital structure. He also said that Dr. Cleary's analysis failed to consider that WTI's tax rate is expected to be 0% in the early years of operation compared to NS Power's reference scenario. Mr. Inskip said these two adjustments would have increased the amount of net income to be attributed to the return on equity (compared to the lower amount calculated by Dr. Cleary's in his sample scenario). Mr. Inskip concluded that if Dr. Cleary had applied these assumptions correctly, the result would have been a conclusion that NS Power's proposed ROE for participating in the Project should be at least equal to the Board-approved ROE for its conventional regulated activities.

Findings

[168] Before embarking upon its analysis, the Board considers it important to place the ROE issue in proper context. The *Prescribed Projects Regulations* have facilitated an "ownership arrangement" that allows the Canada Infrastructure Bank and WMA to participate in the Project with NS Power. Based on this arrangement, WTI's proposed blended ROE would be 4.28% (in the absence of a credit downgrade), materially lower than otherwise would be the case if NS Power had proceeded with the Project alone, and yielding "a net present value saving for Nova Scotia customers of approximately $200 million relative to conventional project financing".

[169] The CIB's proposed ROE of 1.15% for the first 30 years of the Project is reasonable. The CIB's ability to participate in this Project at a materially lower ROE than is typical for such projects is no doubt a result of the policy objectives expressed in its enabling statute by the Government of Canada. The beneficiaries of the Bank's participation include NS Power and its ratepayers who will benefit from the above noted $200 million in NPV savings. The Board considers the WMA's ultimate return of 6.63% to be reasonable as well. As a comparison, NS Power's current weighted average cost of capital (WACC) is 6.65%, which accounts for both the return on equity and the cost of debt, based on a capital structure of 40% capital and 60% debt. Viewed in that context, WMA's proposed 6.63% ROE is reasonable. In any event, no party challenged the proposed ROEs for the CIB and WMA.

[170] Further, no party challenged the methodology used to calculate the weighted blended ROE based on the respective equity contributions of NS Power, the CIB and the WMA. The methodology accounts for both the relative equity proportions and the proposed ROE for each owner. The Board finds the methodology to be reasonable and approves the proposed ROEs for both the CIB and WMA.

[171] The Board notes, however, that the CIB's ROE can increase to NS Power's Board-approved ROE on its Class B units and a return equal to the market debt rate on its Class C units in the event of an uncured credit downgrade for NS Power in the first 30 years. This is a material risk. It is important for NS Power and its ratepayers to monitor and address any circumstances that could lead to such a downgrade. It is noted that this would result in WTI earning NS Power's approved ROE on 40% of the rate base and a rate tied to the market debt rate on 60% of the rate base, akin to what would have been

the case if NS Power had built and owned the Project on its own. However, if a credit downgrade occurs, the Board directs NS Power to file a notice with the Board describing the reasons for the downgrade and the related impact on the CIB's ROE and WTI's ROE. The Board will then review the cause of the downgrade for prudency to determine whether ratepayers or NS Power's shareholder are responsible for the related costs.

[172] The only remaining input to the methodology is what ROE should be applied for NS Power's equity contribution. The Board notes there was no analysis or report prepared about what ROE would be appropriate in the context of a new separate entity carrying out the Project. Instead, WTI proposed an ROE for NS Power's equity contribution equal to the regulated return set by the Board from time to time in determining NS Power's revenue requirement.

[173] The Board notes that WTI suggested in its Rebuttal Evidence that "there are several reasons why a 9.0 percent return on NS Power's contributed equity is too low". However, there was little evidence to substantiate the comment except for some discussion by Mr. Inskip about the application of credit metrics and WTI's risk profile in his analysis. Without a thorough assessment of why it is appropriate for NS Power's ROE on this Project to equal NS Power's Board-approved ROE for its other regulated activities, the Board did not give any weight to Mr. Inskip's assertion that the 9.0% ROE is too low. In any event, NS Power is not requesting that its ROE on this Project be set higher than its conventional Board-approved ROE.

[174] The Board infers that NS Power's proposed ROE was based on the premise that a Board-approved ROE for its existing public utility functions would equally apply to its activities on Wasoqonatl's Project. However, as noted above, there was no report

prepared for attributing an ROE to WTI as a stand-alone enterprise, or to NS Power as part of this Project, using traditional methods, such as a review of a Discounted Cash Flow (DCF) model, a Capital Asset Pricing model (CAPM) or an Alternative Risk Premium model. Rather, the application for NS Power's proposed ROE as a participant in the Project was based on assigning it an ROE equal to what the Board approved in NS Power's most recent general rate application. Subject to the Board's findings below about the evidence of Dr. Cleary and Mr. Inskip, the Board will address NS Power's appropriate rate of return for this Project based on its equivalency to its regulated return on its other regulated activities as an electric utility. There being no separate analysis of the DCF, CAPM or Alternative Risk Premium model, the Board considers the evidence before it to be the best evidence it has to canvass the issue.

[175] Having reviewed the evidence, the Board finds that Dr. Cleary was not able to address the commercial implications of the different attributes assigned to the various classes of partnership units held by the participants in the Project. In fairness to Dr. Cleary, WTI's initial application was lacking in this regard and was based simply on the assumption that NS Power's ROE for this Project should be equal to NS Power's conventional Board-approved ROE for its other regulated activities. In this respect, WTI did not specifically address the impact of the financing structure on the ROE analysis. It was only after Dr. Cleary presented his report about WTI's application that WTI provided support for its position on NS Power's ROE. Ultimately, WTI and NS Power have the burden of proving what the ROE should be.

[176] The Board is satisfied that an important factor in assessing NS Power's project-related ROE is the impact of the different characteristics of the four classes of

partnership units (i.e., Class A, B, C and D). As noted above, the characteristics of the respective partnership units differ among the four classes, including related to dividend rights, voting rights, distribution priority, liquidation priority, retraction rights, protection from an uncured credit downgrade, and capital recovery rights. The Board accepts Mr. Inskip's evidence that given the different characteristics of the Class C (CIB) and Class D (WMA) shares (i.e., notably, non-voting units, having fixed preferential and cumulative distributions, and ranking ahead in liquidation priority to Class A and B units), the Class C and D units can be considered to be "debt or debt like" in character.

[177] Thus, despite the Project's proposed capital structure of 60% equity and 40% debt, the Board finds it appropriate to consider WTI's capital structure to be, effectively, 40% equity and 60% debt, like that which applies to NS Power's other regulated activities. In that context, the Board is satisfied that it is appropriate to find that NS Power's ROE on its equity contribution to WTI "should not be less than NSPI's approved ROE of 9.0% based on a 40% equity thickness and assuming similar business risk".

[178] Further, while the basic premise of Dr. Cleary's analysis was justified, the Board accepts Mr. Inskip's evidence that he failed to take account of the different characteristics which apply to the relative partnership unit classes. As a result, he failed to treat the Class C and D units as being similar to "debt or debt like" in character, with its consequent impact on the appropriate relative risk attributed to Class A and B units. When combined with the adjustments that Dr. Cleary should have factored into his analysis to account for reduced interest cost when reducing the effective debt level from 60% to 40%, and for WTI's tax rate being 0% in the early years of operation, the resulting analysis

would have been consistent with NS Power's proposed ROE for the Project being equal to the Board-approved ROE for its conventional regulated activities.

[179] In its Reply Submissions, WTI stated that the CIB had advised that if NS Power's ROE "is reduced below that which it conventionally earns on regulated investments, the CIB will have to reassess its risk and it may well have to withdraw its 1.15 percent ROE equity commitment and even reconsider any equity commitment at all". WTI also stated that WMA asked that WTI convey to the Board "WMA's perspectives on the importance of the carefully balanced equity arrangements already negotiated. The financial circumstances of WMA do not allow it to take on the full project risks of 'common equity'". The Board considers such statements to likely be evidence rather than submissions, but the Board notes that it has considered the evidence in its totality, including the commercial arrangements supporting this application, such as the First Amended and Restated Limited Partnership Agreement. The Board is mindful that the financing of the Project entails complex commercial terms among the parties which has resulted, to the benefit of ratepayers, in a blended ROE of 4.28% for the Project. This factor has played an important role in the Board's approval of the application. As noted above, however, the Project's blended ROE is exposed to a material risk if NS Power suffers a credit downgrade which remains uncured. The Board noted above that it is important for NS Power and its ratepayers to monitor and address any circumstances that could lead to such a downgrade. Further, WTI is directed to immediately report any such credit downgrade to the Board, including the reasons for the downgrade, the timeline and proposed efforts to cure the downgrade, and the potential impacts on the CIB's ROE and WTI's ROE.

[180] Taking all of the above into account, the Board finds NS Power's proposed rate of return on equity to be reasonable. The Board approves NS Power's ROE on equity contributions to WTI at a rate equal to the Board-approved rate for NS Power set from time to time in determining NS Power's revenue requirement (i.e., currently 9.0%).

[181] Combined with the approved ROEs for the CIB of 1.15% and for WMA of 6.63%, NS Power's currently approved ROE results in a blended ROE of 4.28% for the Project. The Board also approves WTI's requested earnings band of ±25 basis points. The issue of potential over-earnings is addressed elsewhere in this decision.

[182] The Board also approves WTI's capital structure of 60% equity and 40% debt. The Board accepts WTI's evidence that this is reasonable and appropriate in the circumstances.

[183] Finally, the Board will canvass the presentation of NS Power's return from WTI's Project on NS Power's own regulated financial statements. In its response to NSEB IR-10, it was confirmed that since WTI will have a separate rate base and a separately calculated annual assessment, NS Power will exclude the impact of its investment in WTI in calculating its own rate base for the purposes of NS Power's regulated financial statements. Further, since WTI will have a separate ROE calculation, NS Power will exclude its share of WTI's net income in calculating its net income for the purposes of NS Power's regulated financial statements. The Board directs NS Power to reflect WTI's results on its regulated financial statements as noted in its response to NSEB IR-10.

7.8 Should the AFUDC be approved?

[184] AFUDC represents the financing costs the Utility is permitted to capitalize. This covers the return on equity and cost of debt accumulated during the design and construction phases of a project.

[185] WTI's construction period financing costs are forecast at $32.1 million. It stated that its actual construction period financing costs will be brought forward for approval in WTI's first annual assessment application. WTI proposes similar treatment to AFUDC that the Board approved for NSP Maritime Link Inc. (NSPML) (M07254). NSPML submitted that the use of actual costs to finance the Maritime Link project was appropriate given the unique federal loan guarantee financing program and its benefit to customers. In its application, WTI noted that customers will benefit from WTI's ability to draw on the lowest-cost financing first, which is at a cost below its weighted average cost of capital (WACC).

[186] No intervenors opposed WTI's proposed treatment.

Findings

[187] The Board approves WTI's proposal to apply actual construction period financing costs for AFUDC, like the Board approved for NSPML. The Reliability Intertie is expected to be placed in service in Q4 2028. As with any other capital project undertaken by a utility, the Board expects WTI to prudently manage the construction timetable, the project costs and other risks associated with the Project. The Board also approves the accounting policy to allow this treatment to occur, and the inclusion of AFUDC in WTI's opening rate base.

[188] Also, in similar fashion to the Board's approach in the *2013 Maritime Link* Decision, 2013 NSUARB 154 (M05419), the Board approves the accumulation of AFUDC up to and including December 31, 2028, or the in-service date of the Reliability Intertie, whichever is sooner. At that point, the Board will, applying the test of prudence, review how WTI has managed the construction schedule and risks within the scope of the

Project, including both phases in Nova Scotia and New Brunswick, and determine whether AFUDC will continue beyond that date.

7.9 Should WTI's depreciation methodology be approved?

[189] WTI proposes to depreciate the Reliability Intertie assets on a straight-line basis over 45 years. This is in accordance with NS Power's depreciation policy for transmission assets. WTI is proposing the 45-year depreciation period for both the assets in Nova Scotia as well as the regulatory asset for the portion of assets in New Brunswick.

[190] Midgard noted that WTI's proposed depreciation period is "notably shorter than peer averages." Midgard cautioned that this approach could lead to "premature cost recovery, undervaluation of the assets over their useful lives, and a mismatch between depreciation periods and actual service lives" which could impact long term affordability for ratepayers.

[191] The Consumer Advocate did not directly address the depreciation period but noted that it generally supported the recommended steps to mitigate risk exposure identified by Midgard. The Industrial Group recommended that WTI reassess its depreciation assumptions no later than its first assessment application.

[192] WTI stated that its depreciation rates factor in items other than estimated useful lives; items such as the estimated remaining average service life, remaining net book value, estimated net salvage, and region-specific weather.

[193] WTI noted that the 45-year depreciation period is embedded in the economic model upon which the agreement with the CIB is based. It further stated:

> A longer recovery period would adversely impact the timing of the recovery of CIB's capital. WTI's credit metrics would also be impacted, which in turn could impact its future financing costs.
>
> [Exhibit W-27, p. 39]

Findings

[194] The Board accepts WTI's submission that its agreement with the CIB is based on depreciating the assets over 45 years and approves WTI's proposed depreciation methodology.

7.10 Risk Management

[195] In its application, WTI highlights that the Decision Gate process adopted for the Project is the same as that used for the Maritime Link project, which was completed on time and within budget. This process places strong emphasis on risk management throughout the entire project lifecycle. By integrating reviews and risk assessments at each gating stage, potential risks and uncertainties can be identified early, enabling timely mitigation measures. In response to the NSEB IR-15, WTI provided a summary of the project risks identified to date, along with the corresponding risk registers and management strategies.

[196] Midgard evaluated WTI's submitted project risks to date, including the associated risk registers and mitigation strategies. It noted that, following WTI's mitigation efforts, no risks remain classified as critical. However, the risk registers and related documentation lack clear assignment of risk ownership and do not specify how mitigation measures are contractually enforced. Furthermore, the links between the risk registers and broader project controls, such as contingency planning, escalation protocols, and governance frameworks, are often unclear. Midgard said the documentation also provides limited detail on the processes for ongoing risk monitoring and reporting within project management.

[197] Midgard identified several risks from WTI's risk registers that warrant further scrutiny based on their potential impact and the inadequacy of proposed mitigation

measures. The risks Midgard highlighted indicate several recurring concerns that include lack of enforceability and accountability; many mitigation measures are process-based rather than contractual obligations; insufficient transparency related to governance and risk management of the contingency fund and hedging policies; understated risk ratings; unenforceable guarantees for material availability that are not fully de-risked; and limited integration of risk mitigation within structured reporting, regulatory oversight, or milestone tracking frameworks. In addition, Midgard said WTI did not fully address how future tariff changes or trade policy volatility will be managed.

[198] In its submissions, WTI addressed the risks identified by Midgard. As outlined earlier in this decision, these risks are being mitigated through several measures, including the execution of the ARDA, careful assessment of procurement risks, and the implementation of appropriate mitigation strategies as the Project advances. Additional safeguards include an independent review of the Project's cost and schedule risks, strategic procurement actions to reduce tariff-related exposure, which is limited to approximately 1% of the Project's total costs, and notable progress in land acquisition on both sides of the NB-NS border. Furthermore, expropriation processes remain available as a last resort to ensure full acquisition and guarantee clear, unrestricted access to the necessary land.

[199] In its submissions, WTI stated that none of the other intervenors made submissions on Project risks and that it has provided a robust record of its approach to overall project risk management and control, including in respect of the NB Assets.

Findings

[200] As previously noted, the Board finds that WTI has implemented measures intended to mitigate risks at this stage of the Project. The Board encourages WTI to

regularly update its risk registers and plans, monitor project conditions, track identified and residual risks, assess the effectiveness of risk responses, and make necessary adjustments throughout the project lifecycle to ensure successful execution within the allocated cost and schedule.

7.11 Miscellaneous Issues

7.11.1 Affiliate Code of Conduct

[201] The Consumer Advocate takes the position that WTI should be treated as an affiliate of NS Power. If that is the case, adherence to NS Power's Affiliate Code of Conduct (ACOC) would be required. Also, the Consumer Advocate says that because of the degree of control NS Power will have, WTI's dealings with NS Power affiliates should be subject to the ACOC. While acknowledging that from a strict legal control test (known as *de jure* control) WTI would not be considered an affiliate, the Consumer Advocate says that because of the broad powers over project implementation given to NS Power, it will have actual or *de facto* control over WTI.

[202] NS Power says that the ACOC would only apply to WTI if the Board determines that WTI should be deemed to be an affiliate of NS Power. The Utility submits this would accomplish no purpose since WTI is a public utility subject to the same regulatory oversight as NS Power.

[203] The ACOC defines an affiliate as:

> An "affiliate" in accordance with subsections 2(2), 2(3), and 2(4) of the Nova Scotia *Companies Act* or any business entity deemed by the UARB to be an Affiliate of NS Power for purposes of the Code.

[204] Based on the *Companies Act* definitions, if NS Power controls more than 50% of the voting shares in WTI, allowing it to elect a majority of WTI's Board of Directors,

then WTI is an affiliate of NS Power under the ACOC. This portion of the test is essentially an expression of *de jure* control.

Findings

[205] When WTI was formed it was a wholly owned subsidiary of NS Power, and this was reported to the Board by letter dated February 25, 2025, as required by the terms of the ACOC. As detailed in this decision, the ownership structure of WTI has been modified. WTI's sole shareholder is WTLP, and NS Power and the CIB will each own 50% of the voting units of WTLP. NS Power and the CIB also own 50% each of the voting shares in WTLP's general partner, WTIGP which manages the affairs of WTLP, including appointing directors to WTI. The WTI and WTIGP articles of association do not provide for a casting vote in the event of a tie vote at a directors' meeting. Therefore, as previously discussed, neither NS Power nor the CIB have legal or *de jure* control of WTI. Therefore, WTI does not meet the technical *Companies Act* definition of an affiliate under the ACOC.

[206] However, most of the day-to-day operations of WTI will be delegated to NS Power. While the Board understands there are checks and balances in the various agreements, absent other considerations, it might be an appropriate circumstance where the Board should consider whether to deem WTI an affiliate of NS Power based on *de facto* control considerations.

[207] In its Reply Submissions, NS Power says that the "fundamental purpose" of the ACOC is "to allow the regulator to extend its jurisdiction to protect the public interest with respect to the interface between the regulated utility and its unregulated affiliates." NS Power says that because both WTI and NS Power are fully regulated entities, the Board already has the power to do comprehensive oversight over both entities. NS Power

submits that WTI's sole function is as a financing vehicle for the Project and to engage NS Power to execute the Project.

[208] The Board notes that even with two regulated utilities, there could be concerns about self-dealing and transferring costs between them. The Board further notes that NSPML was created for a special purpose as a regulated utility and was required to establish an affiliate code of conduct. The distinction is that NSPML and NS Power are both owned by Emera Inc., an unregulated entity, thus meeting the *de jure* control test, and there is the potential for utility services to be provided between the regulated and unregulated affiliates. Also, the ACOC expressly exempts NS Power from having to apply the code's pricing provisions to NSPML. In addition, NS Power indicates it will not be buying utility services from WTI, and WTI, as an investment vehicle, will not be providing any utility services

[209] In the Board's view, there is not a sufficient basis to deem WTI is an affiliate of NS Power based on the current record. The Board's oversight over both NS Power and WTI, along with its review of any expenses included in a request for an annual assessment by WTI, should provide sufficient information for the Board to determine the reasonableness of expenditures associated with the Reliability Intertie. Also, there is no apparent cause for concern, given the organizational structure, about any of the main issues the ACOC is meant to address, such as utility management, utility financing and fair dealing. However, the Board notes the Consumer Advocate did not have the opportunity to make submissions on the points raised in NS Power's Reply Submissions. The issue could be explored further once there is a more fulsome record confirming who is providing Reliability Tie goods and services to WTI and NS Power, and the specifics of

these expenses. That information should be available when WTI seeks approval from the Board for recovery of an assessment payable by NS Power. Obviously, NS Power, in its delegated day-to-day operations role, must adhere to the ACOC in any transactions with its affiliates. This was acknowledged by NS Power in response to NSEB IR-11(b).

7.11.2 Treatment of Overearnings

[210] As noted earlier in this decision, the Board has approved WTI's proposed ROE and capital structure. The approved ROE is to be determined as a weighted blend of the proportional equity contributions by the participants in this Project (i.e., NS Power, the CIB and WMA). The Board has also approved an earnings band of ±25 basis points on WTI's return. The approved capital structure is 60% equity and 40% debt.

[211] In its evidence, Midgard stated that WTI did not outline an "automatic provision for refunding or sharing surplus earnings with ratepayers" (p. 36). However, it acknowledged that the final allowed ROE and the treatment of any over- or under-earnings will be determined at the revenue requirement stage and remain at the discretion of the Board in future regulatory proceedings.

[212] In its Reply Evidence, WTI referred to Midgard's statement on this point. WTI noted that:

> …Similar to the Energy Board's approach to setting NS Power's ROE, WTI further proposes a reasonableness range of +/- 25 basis points, with earnings above the upper bound of this reasonableness range credited for return to customers in WTI's subsequent annual assessment following determination of its actual earned ROE.
>
> [Exhibit W-27, p. 22]

Findings

[213] As acknowledged by Midgard, the treatment of any over- or under-earnings will be determined at the revenue requirement stage and be at the discretion of the Board in future regulatory proceedings. The Board has also approved an earnings band of ±25

basis points. In its Reply Evidence, WTI has proposed that any over-earnings above this range be credited for return to customers in WTI's subsequent annual assessment following determination of its actual earned ROE.

[214] The Board notes that the issue raised by Midgard is not before it at this point and cannot be determined until WTI makes an application for an annual assessment to the Board. However, WTI has proposed a mechanism whereby excess earnings would be credited to ratepayers in future assessment proceedings. To the extent that Midgard was suggesting any different treatment, there is not enough evidence before the Board to make a definitive finding on the point, but the Board observes that the mechanism suggested by WTI does appear reasonable.

7.11.3 Reporting

[215] Daymark recommended that if the Board approves the Project, it should require regular reporting from WTI and NS Power on several points, including:

- Information on changes to the Project's design, construction status, schedule, and cost;
- Information about the portion of the Reliability Intertie to be constructed and owned by NB Power. Mr. Bower added that given the Board's lack of jurisdiction over NB Power, WTI and NS Power should identify any challenges with the development of those portions as early as possible to mitigate risks to the broader Project schedule and budget;
- Any issues caused by extreme weather during the construction phase; and
- Finally, WTI and NS Power should give regular updates after the Project is operational to report about line maintenance issues and expenses relating to the

NB Assets and also to identify any benefits accruing to NB Power resulting from the Project.

[216] Several intervenors repeated the need for WTI to report about the progress on the Project as well as any benefits that may accrue to NB Power.

[217] In its Reply Submissions, Wasoqonatl submitted that the reporting recommendations are already addressed in existing Board processes through which reporting will occur in the future, including:

- NS Power's Annual Capital Expenditure filings and the mandated *The Path to 2030* reporting included therein;
- an Authorization to Overspend application must be filed within six months of forecast costs exceeding approved costs if there is a material variance (as defined in NS Power's CEJC);
- a final project cost approval and the first annual assessment application by WTI to be filed in 2027-2028; and
- subsequent annual assessment applications to recover WTI's costs from NS Power ratepayers.

[218] Wasoqonatl stated that these existing processes already address most, if not all, of the details that Mr. Bower suggested should be reported and allow the Board and intervenors to ask for any further information that may be needed.

[219] The lack of a financial contribution by NB Power to the development and construction of the NB Assets (i.e., to the NB portion of the Reliability Intertie) was a concern raised by the intervenors. They reiterated Daymark's recommendation that WTI provide updates on the construction schedule and cost forecast while the NB portion of

the Project is being built and, after the Reliability Intertie is operational, to report about line maintenance issues and expenses related to the NB Assets. Further, to report about any benefits accruing to NB Power from the operation of the Project.

Findings

[220] The Board generally accepts Wasoqonatl's submission that the reporting recommendations made by the intervenors are already addressed in existing Board processes for NS Power, which the Board considers should apply to WTI. WTI stated that these regulatory processes already require reporting on issues that would relate to the Project (such as the annual ACE Plan filing) or will require evidence to be filed by WTI in a request for further Board approvals (e.g., an ATO, the final project cost approval, and the annual assessment applications to recover WTI's costs from NS Power ratepayers). The Board notes that when such filings do come before it, Wasoqonatl will be required to provide evidence that demonstrates the costs were reasonable and prudently incurred, and the construction of the Project was prudently executed. Any change in project design, construction status, schedule or cost will have to be explained and justified.

[221] Further, as noted earlier in this decision, the Board has concluded that the Project is technically sound and that all aspects of executing a transmission line of this complexity and scale have been thoroughly considered. WTI has adopted procurement strategies and implemented measures intended to mitigate risks at this stage of the Project. The Board has also found that WTI followed an industry-wide accepted approach in estimating the overall costs for the Project, which are reasonable given the scope and complexity of the work.

[222] Finally, the Board notes that intervenors identified the complexity of the Project in requesting additional reporting by WTI, with some comparing the Reliability

Intertie project to the Maritime Link project. While there is no doubt that the Project introduces some complexity due to the size of the Project (spanning across two provinces) and elevated project costs, the Board considers it appropriate to place the Project in its proper context in any comparison with the Maritime Link. The latter project also involved the laying of submarine cables in a challenging marine environment, together with the installation of complex AC/DC conversion technology. Further, the Maritime Link project was associated with other very large components of an overall project, specifically, the Muskrat Falls Generating Station, the Labrador Island Link and other transmission-related portions. In the end, it was the delays related to these associated parts of the Maritime Link project that caused difficulties in the delivery of energy from Newfoundland and Labrador to Nova Scotia customers. The Board is mindful that the Maritime Link project itself was delivered on time and on budget. The Board is satisfied that the construction of a transmission line, including a major infrastructure project such as the present one, falls within the core functions of an integrated electric utility, such as NS Power, and for that matter, NB Power.

[223] Given the above points, the Board finds that additional reporting is not required by WTI. However, the Board directs NS Power's annual ACE Plan reporting to apply equally to WTI, which is to include the following:

- In addition to providing an update about the status of the Project in relation to *The Path to 2030* timeline, the update is to detail the status of the construction timeline in relation to the current forecast schedule, as well as an update on the actual construction costs compared to forecast;

- With respect to this annual update, WTI is to be a party to the filing along with NS Power, and be subject to IRs from intervenors and the Board, if any;
- Any reports filed by an independent engineer assigned to the Project due the Canada Infrastructure Bank's involvement will be filed with the Board as soon as they are available; and
- WTI is to confirm to the Board and the parties in this matter when all conditions have been satisfied to meet Decision Gate 3.

[224] Finally, the intervenors submitted that WTI should provide specific reporting related to the NB Assets. They said that WTI should provide updates on the status of the construction schedule and cost forecast while the NB portion is being built. Further, after the Project is in its operational phase, they wanted reports about line maintenance issues and expenses related to the NB Assets and to report about any benefits accruing to NB Power from the operation of the Project.

[225] The Board considers that the first part of Daymark's recommendation related to the construction of the NB Assets is generally addressed in the above Board finding about updates in the annual ACE Plan filings. The Board makes no further direction in that respect. The Board also finds that no additional reporting is required about operating and maintenance issues and expenses after the NB Assets are operational. It is noted that once the Project is operational, NB Power assumes responsibility for operating and maintaining its portion of the transmission line. Any canvassing of residual issues can be addressed in annual assessment applications, as they are now in NSPML cost assessment applications.

[226] Likewise, the Board is not convinced that further reporting is required about any benefits accruing to NB Power from the operation of the Project. While the intervenors generally accepted that cost sharing of the current Project could not be re-opened, they submitted that information on any benefits accruing to NB Power should be collected so it can be considered in assessing the allocation of costs between NS and NB ratepayers in the event a Phase 2 project is submitted. In the Board's view, such issues and the exchange of information should occur when a subsequent phase of the Reliability Intertie is brought before the Board. Such an application would have to be considered in the context of a broader regional system, considering the role of existing infrastructure, the dispatch of energy as evidenced in filings by NS Power and the NSIESO, and IRP activities conducted by the new NSIESO, including any joint dispatch initiatives.

7.11.4 New Factors under the Energy and Regulatory Boards Act

[227] On April 1, 2025, the *Energy and Regulatory Boards Act*, SNS 2024, c 2, Sch A (*ERB Act*) was proclaimed. It introduced new factors that the Board must consider in addition to the scope of the Board's authority under the *PU Act*. Section 6(2) of the *ERB Act* provides that, in considering capital applications, the Board must consider the following factors:

> **6 (2)** In approving or fixing rates, tolls, charges, tariffs, capital applications and all other matters over which the Energy Board has authority, the Board shall give appropriate consideration to the extent to which such rates, tolls, charges, tariffs, capital applications or other matters
>
> (a) support competition and innovation in the provision of energy resources in the Province;
>
> (b) support the development of a competitive electricity market;
>
> (c) ensure the provision of safe, secure, reliable and economical energy supply in the Province;
>
> (d) support sustainable development and sustainable prosperity; and

(e) support such other factors as prescribed by the regulations,

with the goal of approving rates, tolls, charges, tariffs, capital applications or other matters that are consistent with the purpose of this Act, the More Access to Energy Act and the regulations.

[228] The terms “sustainable development” and “sustainable prosperity” in s. 6(2)(d) are not defined in the *ERB Act*, but the terms are also used in the *More Access to Energy Act*, SNS 2024, c 2, Sch B, s 1. In the latter *Act*, “sustainable development” is defined as having the same meaning as in the *Environment Act* and “sustainable prosperity” as having the same meaning as in the *Environmental Goals and Climate Change Reduction Act*. These terms are used in a similar context in these statutes. While there is no express purpose clause in the *ERB Act*, s. 2 of the *More Access to Energy Act* states:

2 The purpose of this Act is to

(a) increase competition and innovation in the Province’s energy sector;

(b) ensure the provision of a safe, secure, reliable and economical energy supply in the Province;

(c) ensure a transparent, efficient and coordinated approach to Provincial energy-supply planning;

(d) provide for competitive procurement practices for new energy-system resources**;**

(e) support the sustainable development, sustainable prosperity, energy efficiency and greenhouse gas emissions reduction goals of the Province articulated in the Environmental Goals and Climate Change Reduction Act; and

(f) provide for a phased transition of the system operator from Nova Scotia Power Incorporated to an Independent Energy System Operator.

[229] Given that the terms “sustainable development” and “sustainable prosperity” are used in similar contexts in these statutes; that the Board’s review of capital applications under s. 6(2)(d) of the *ERB Act* is to consider these factors with the goal that their approval is consistent with, among other things, the *More Access to Energy Act*; and

the fact that the Reliability Intertie being reviewed in the present application will be part of the transmission system controlled by the Nova Scotia Independent Energy System Operator under the *More Access to Energy Act*, the Board assigns the same definitions to these two terms when applying them under the *ERB Act*.

[230] In its application, Wasoqonatl submitted that its capital application was consistent with the factors under s. 6(2)(d) of the *ERB Act*. Specifically, it stated that:

- The opportunity to export otherwise curtailed wind energy to regional customers to secure value for Nova Scotia customers;
- Enhanced opportunities to export excess offshore wind production that might become available in the future from pending development of Nova Scotia's offshore wind resource; and
- Enabling, as a first step, additional firm capacity and energy imports to Nova Scotia, in the near term (an immediate 100 MW amount) and the longer term (for several projects underway in the Atlantic region);

were all factors that support competition and innovation in the provision of energy resources in the province (*ERB Act*, s 6(2)(a)); the development of a competitive electricity market (*ERB Act*, s 6(2)(b)); the provision of reliable and economical energy supply in the province (*ERB Act*, s 6(2)(c)); and sustainable development and sustainable prosperity for Nova Scotia (*ERB Act*, s 6(2)(d)).

Findings

[231] This is the first major capital expenditure application in which the new factors under s. 6(2) of the *ERB Act* have been canvassed by the Board. WTI listed various anticipated results (which it described as "strategic considerations") from the

Project that are consistent with, or advance, these new factors. No other party filed evidence or submissions about the application of these new factors to the present application.

[232] The Board accepts WTI's evidence on this point. There is no question that the points raised by WTI are consistent with the new factors in the *ERB Act*. While WTI did not mention it explicitly in section 14.4 of its application, the overriding objective of the Project also advances these new factors. As noted at the very start of its application, the Reliability Intertie will play an important role in the energy transition taking place in this province. The Project "will support NS Power's ability to continue to reliably integrate, and maximize the value of, increasing amounts of renewable generation, supporting provincial and federal mandates for achievement of 80% renewable energy and the phase out of coal fired electricity generation by 2030" (at p. 7). The integration of increasing amounts of renewable generation facilitated by this Project will clearly help achieve these climate-related targets and help foster competition and innovation in Nova Scotia's energy sector; support the development of a competitive electricity market; and add reliability to the power grid, among other benefits.

[233] The Board finds that completion of the Project will support the objectives outlined in s. 6(2) of the *ERB Act*. This is also a further reason supporting approval of the application.

8.0 SUMMARY OF FINDINGS AND DIRECTIVES

[234] Having reviewed the evidence and the submissions, the Board approves the Project under s. 35 of the *PU Act*, subject to the reporting directives made in this decision. The Board's approvals include:

- The forecast project costs of $684.7 million, to be confirmed in a subsequent application to approve final project costs;
- The inclusion of the project costs in the opening rate base, including a regulatory asset for the NB Assets to be constructed and located in New Brunswick, and AFUDC;
- A depreciation methodology based on a straight-line basis over 45 years; and
- A return on equity for WTI calculated as a weighted blend for the respective equity contributions of NS Power, the CIB and WMA, resulting in a blended ROE of 4.28%. The ROE for the respective partners are 1.15% for the CIB, 6.63% for WMA and the Board-approved ROE for NS Power from time to time (i.e., currently 9.0%).

[235] The Board directs WTI and NS Power to file the following concurrently with NS Power's annual ACE Plan applications:

- In addition to providing an update about the status of the Project in relation to *The Path to 2030* timeline, the update is to detail the status of the construction timeline in relation to the current forecast schedule, as well as an update on the actual construction costs compared to forecast; and
- With respect to this annual update, WTI is to be a party to the filing along with NS Power and be subject to IRs from intervenors and the Board, if any.

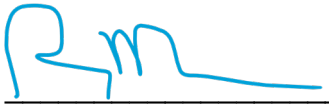
[236] The Board directs WTI and NS Power as follows:

- Any reports filed by an independent engineer assigned to the Project due the Canada Infrastructure Bank's involvement will be filed with the Board as soon as they are available;
- Any credit downgrade of NS Power is to be reported to the Board, including the reasons for the downgrade, the timeline and proposed efforts to cure the downgrade, and the potential impacts on the CIB's ROE and WTI's ROE; and
- WTI is to confirm to the Board and the parties in this matter when all conditions have been satisfied to meet Decision Gate 3.

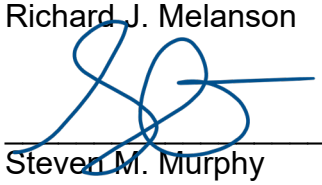
[237] An Order will issue accordingly.

DATED at Halifax, Nova Scotia, this 20th day of November 2025.

Roland A. Deveau



Richard J. Melanson



Steven M. Murphy