
BEFORE THE NOVA SCOTIA ENERGY BOARD

In the Matter of
The Public Utilities Act, R.S.N.S. 1989, c.380, as amended
- and -

An Application by Nova Scotia Power Incorporated for Approval of an Extra Large Industrial
Dispatchable Above-the-Line Tariff applicable to Port Hawkesbury Paper

(NSUARB M12661)

Evidence of Melissa Whited

On Behalf of Counsel to Nova Scotia Energy Board

May 8, 2026

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1 **I. INTRODUCTION**

2 **Q. Please state your name, title, and employer.**

3 A. My name is Melissa Whited. I am a Vice President at Synapse Energy Economics, Inc.
4 ("Synapse"), located at 485 Massachusetts Avenue, Cambridge, MA 02139, USA.

5 **Q. Please describe Synapse Energy Economics.**

6 A. Synapse is a research and consulting firm specializing in electricity and gas industry
7 regulation, planning, and analysis. Our work covers a range of issues, including economic
8 and technical assessments of demand-side and supply-side energy resources; energy
9 efficiency policies and programs; integrated resource planning; electricity market
10 modeling and assessment; renewable resource technologies and policies; and climate
11 change strategies. Synapse works for a wide range of clients, including attorney generals,
12 offices of consumer advocates, public utility commissions, environmental advocates, the
13 U.S. Environmental Protection Agency, U.S. Department of Energy, U.S. Department of
14 Justice, the Federal Trade Commission, and the National Association of Regulatory
15 Utility Commissioners. Synapse's staff includes over 35 professionals with extensive
16 experience in the electricity industry.

17 **Q. Please summarize your professional and educational experience.**

18 A. I have 15 years of experience in economic research and consulting. At Synapse, I have
19 worked extensively on issues related to utility regulatory models and rate design. I have
20 been an invited speaker in numerous industry conferences, including as a panelist for the

1 National Association of Regulatory Utility Commissioners (NARUC) Subcommittee on
2 Rate Design at the 2021 Winter Policy Summit and the 2018 Annual Meeting.

3 I have sponsored testimony before the Newfoundland and Labrador Board of
4 Commissioners of Public Utilities, the Massachusetts Department of Public Utilities, the
5 Illinois Commerce Commission, the New Hampshire Public Utilities Commission, the
6 Georgia Public Service Commission, the Rhode Island Public Utilities Commission, the
7 Maine Public Utilities Commission, the California Public Utilities Commission, the
8 Hawaii Public Utilities Commission, the Public Service Commission of Utah, the Public
9 Utility Commission of Texas, the Virginia State Corporation Commission, the Arizona
10 Corporation Commission, and the Federal Energy Regulatory Commission. I hold a
11 Master of Arts in Agricultural and Applied Economics and a Master of Science in
12 Environment and Resources, both from the University of Wisconsin-Madison. My
13 resume is attached as Appendix A.

14 **Q. Have you previously provided evidence before the Nova Scotia Energy Board?**

15 A. Yes. I provided evidence in Matter Nos. M11441, M09777, M10176, M10431, M10810,
16 M10832, M11626, and M12164.

17 **Q. On whose behalf are you providing evidence in this case?**

18 A. I am providing evidence on behalf of Counsel to the Nova Scotia Energy Board
19 (“Board”).

20 **Q. What is the purpose of this evidence?**

21 A. The purpose of this evidence is to address Nova Scotia Power’s (“NS Power” or “the
22 Company”) proposed Above-the-Line (ATL) Tariff applicable to Port Hawkesbury Paper

1 (PHP). The tariff is called the Extra Large Industrial Dispatchable (ELID) tariff. My
2 evidence addresses the Interruptible Rider and demand charge only. Silence on other
3 issues, proposals, or positions should not be interpreted as agreement.

4 **II. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS**

5 **Q. Please describe your conclusions and recommendations.**

6 A. NS Power's proposed tariff is generally reasonable and represents an appropriate
7 transition from a below-the-line to an above-the-line framework for service to PHP.
8 However, I recommend a few modifications to the proposed tariff to address PHP's
9 concerns regarding capacity costs and promote more equitable allocation of benefits. I
10 recommend that the Board approve the ELID tariff, subject to the targeted modifications
11 that I propose below.

12 PHP has raised concerns that the interruptible credit inadequately compensates the
13 mill for its interruptible load, particularly because the credit is substantially lower than
14 the avoided cost of generation capacity. While I understand PHP's concerns, I do not
15 agree with PHP's proposal to base its demand charge solely on its 8 MW firm load, as
16 this would understate its contribution to system costs, particularly transmission costs, and
17 would result in cost shifting to other customers. I therefore recommend that the Board
18 reject PHP's proposal to base the demand charge solely on 8 MW of firm load, as it
19 would allow a substantial portion of PHP's load to avoid responsibility for embedded
20 system costs.

21 I also disagree with PHP's alternate proposal to price the interruptible credit at
22 the full marginal cost of capacity, as this would overcompensate PHP by allocating to it

1 benefits that should be shared with other customers. Instead, I recommend that the Board
2 direct PHP and NS Power to negotiate an alternative credit value that would induce
3 PHP's participation, while ensuring that a portion of benefits is retained for other
4 customers.

5 **III. PROPOSED ELID TARIFF**

6 **Q. Please provide a brief overview of the reasons for NS Power's application.**

7 A. PHP, a pulp and paper manufacturing facility, is the largest individual electricity
8 customer on NS Power's system, representing up to 25% of the total system load.¹ Since
9 2020, PHP has taken service on a below-the-line tariff called the Extra Large Industrial
10 Active Demand Control (ELIADC) tariff. The ELIADC tariff is set to expire on
11 December 31, 2026.² In December of 2025, NS Power filed an application seeking
12 approval of a new above-the-line tariff, the Extra Large Industrial Dispatchable (ELID)
13 tariff for service to PHP to replace the ELIADC tariff.

14 **Q. What was the purpose of the ELIADC tariff?**

15 A. The ELIADC tariff states that the purpose is to ensure that PHP pays its incremental cost,
16 plus makes a contribution to embedded costs, while providing NS Power "with control of
17 PHP's load such that NS Power's overall system costs can be reduced and system
18 reliability can be improved for the benefit of all NS Power customers."³

¹ Direct Evidence of PHP, M12661, February 20, 2026 ("PHP Evidence"), p. 3.

² PHP Evidence, p. 4, line 26. Nova Scotia Power Application for Approval of an Above-the-Line Tariff Applicable to Port Hawkesbury Paper, M12661, December 29, 2025 ("NSPI Application"), p. 3.

³ NS Power. Schedule K Extra Large Industrial Active Demand Control Tariff, page 1. Available at:
https://www.nspower.ca/docs/default-source/regulatory/tariff-book-20250326.pdf?_gl=1*1m2ogz4*_gcl_au*MTM4MzAyOTkyOS4xNzc4MjU0ODA3

1 **Q. What is the difference between an above-the-line tariff and a below-the-line tariff?**

2 A. An above-the-line (ATL) tariff is primarily designed to recover embedded costs as
3 determined through a cost of service study after accounting for revenues from below-the-
4 line (BTL) tariffs.⁴ Below-the-line tariffs are designed to accomplish a specific objective,
5 such as to reduce peak load. BTL tariffs are generally recalculated annually using
6 formulas that may include embedded costs, marginal costs, and avoided costs.⁵

7 **Q. Please summarize the ELID tariff.**

8 A. At a basic level, the ELID Tariff is based on the Large Industrial Tariff and contains a
9 customer charge, demand charge, and energy charge.⁶ There are also two additional
10 riders, the Dispatchable Rider and the Interruptible Rider.⁷ NS Power states that the
11 Dispatchable Rider provides both a benefit to PHP as well as a “significant benefit to
12 other customers through PHP’s increased contribution to system costs as enabled by the
13 embedded cost-based energy and demand pricing and minimized risk to other ATL
14 customers due to PHP load flexibility.”⁸

15 **Q. What assumptions regarding PHP were used in NS Power’s 2026-2027 General Rate**
16 **Application (GRA)?**

17 A. NS Power’s 2026-2027 GRA was resolved through a settlement agreement⁹ that was

⁴ 2026-2027 GRA SR-01, Attachment 1b, p. 2, lines 21-24.

⁵ Response to Synapse IR-2(c), 2026-2027 GRA SR-01, Attachment 1b, p. 2, lines 16-19, and Decision NSUARB-NSPI-P-878 in M05002, 2003 Generic Rate Design Hearing, August 1, 2003, pp. 6-7.

⁶ NS Power ELID Application, p. 3 and Attachment 1 - ELID Tariff, pp. 1-2.

⁷ NS Power ELID Application, Attachment 1 - ELID Tariff pp. 5-8.

⁸ NS Power ELID Application, p. 10.

⁹ The Consumer Advocate, Small Business Advocate, Industrial Group, Nova Scotia Power, Port Hawkesbury Paper, and Municipal Electric Utilities agreed to the terms of a 2026-2027 GRA Settlement Agreement on August 29, 2025.

1 approved by the Board with modifications in March 2026.¹⁰ As outlined in the 2026-2027
2 GRA Settlement Agreement, NS Power’s cost of service study treated PHP as an ATL
3 customer with specific assumptions regarding PHP’s load characteristics. These
4 assumptions included firm load of 8 MW at the system 3 coincident peaks (3 CP), firm
5 plus interruptible load of 65 MW (based on historical load at 3 CP), and energy based on
6 PHP’s forecasts for the test years, net of forecasted energy to be provided by Goose
7 Harbour Lake Wind Farm. The settlement agreement also specified that the dollar value
8 of the Interruptible credit to be applicable to PHP’s interruptible load shall be equal to the
9 Large Industrial Interruptible credit plus an additional 10% priority credit, and that PHP
10 and NS Power would propose an Active Demand Control rider (referred to as the
11 “Dispatchable Rider” under the ELID tariff) to the Board.¹¹

12 Although the Settlement Agreement provides an outline for the ELID tariff
13 proposal, the agreement specifically states that settling parties can take any position
14 within this ELID tariff filing. Thus, while the terms of the Settlement Agreement were
15 approved by the Board, they are not requirements for the ELID tariff.

16 **Q. How will differences between the final, approved ELID tariff and the assumptions**
17 **included in the 2026-2027 GRA be addressed?**

18 A. The 2026-2027 GRA Settlement Agreement provides for a regulatory deferral account
19 that captures differences between the ELID tariff assumptions used for GRA and the
20 tariff ultimately approved by the Board. Any resulting revenue variances would be

¹⁰ The Settlement Agreement terms that specifically address PHP were approved without modification. Nova Scotia Energy Board, *Decision In the Matter of a General Rate Application by Nova Scotia Power Incorporated*, M12451, March 25, 2026.

¹¹ NS Power ELID Application, Attachment 4, page 11 of 21.

1 subject to future recovery from ATL customers, subject to Board approval. These
2 differences may include final approved tariff design, PHP's participation, or related cost
3 and load assumptions.¹²

4 **Q. What are the key components of the ELID tariff?**

5 A. The ELID tariff is based on NS Power's existing Large Industrial (LI) tariff, with an
6 Interruptible Rider and a Dispatchable Rider (corresponding to the Active Demand
7 Control element of the existing ELIADC Tariff). Key elements of the proposed ELID
8 tariff are as follows:¹³

- 9 • monthly customer charge of \$10,000;
- 10 • a demand charge equal to \$12.872/kVA per month in 2026 and \$14.310/kVA in
11 2027, multiplied by 65 MW of billing demand (administratively set);
- 12 • an energy charge of \$0.09977/kWh in 2026;
- 13 • riders including the fuel adjustment mechanism (FAM) Actual Adjustment and
14 Balance Adjustment, Demand Side Management Cost Recovery rider, and the
15 Storm Cost Recovery rider;
- 16 • an Interruptible Rider, providing a credit to the demand charge equal to
17 \$7.64/kVA-month in 2026 and \$7.67/kVA-month in 2027, plus a priority
18 interruptible credit of 10%, applied to the difference between PHP's firm
19 contracted demand (8 MW) and the billing demand (65 MW), and imposing
20 penalties if the customer does not curtail load as required; and

¹² NS Power ELID Application, page 14.

¹³ NS Power ELID Application, Attachment 1, page 1-8.

- a Dispatchable Rider that is calculated annually by comparing actual system costs under the customer's dispatched load to a modeled high load-factor baseline scenario, with the difference credited to PHP.

The remainder of my evidence focuses on the demand charge and the Interruptible Rider. The other components of the proposed tariff are addressed in the evidence of Board Counsel Consultant Bates White.

Q. How does the ELID tariff differ from the ELIADC tariff that it would replace?

A. There are several key differences between the two tariffs.

- The energy rate under the ELIADC tariff is based on a forecast of incremental cost to serve PHP load at an assumed baseline level, later adjusted through the minimum payment and Active Demand Control credit, plus an adder that contributes to fixed system costs. Under the ELID, the energy rate would be based on embedded costs and applied on a more conventional basis, subject to FAM adjustments.
- The ELIADC does not include a demand charge. The ELID would apply a demand charge based on a fixed billing determinant that functions as a fixed contribution to embedded generation and transmission capacity costs.
- The ELIADC does not include an explicit credit for PHP making a portion of its demand interruptible, but does include a penalty for failing to comply with a requirement to interrupt load. The ELID would provide a credit for PHP's interruptible capacity reflecting the portion of PHP's load that can be interrupted, as well as a penalty for failing to comply with the requirement to interrupt load.

- 1 • The Active Demand Control component of the ELIADC compensates PHP for a
2 portion (25%) of the system benefits associated with modifications to PHP's load
3 relative to the baseline. The ELID would provide PHP with 100% of any
4 modeled system benefits associated with NS Power dispatch of PHP's load
5 relative to an assumed high load factor scenario.

6 **Q. Is the ELID tariff reasonable?**

7 A. Generally, yes.

8 **Q. Does PHP support NS Power's proposed ELID tariff?**

9 A. No. While PHP is interested in moving to an above-the-line tariff to reduce its exposure
10 to electricity price volatility, PHP opposes NS Power's proposed ELID tariff and is
11 unlikely to accept service under it if approved as-proposed.¹⁴

12 **Q. If PHP does not agree to take service under the ELID tariff, what is the alternative?**

13 A. PHP has proposed several modifications to NS Power's ELID tariff proposal. However, if
14 the Board approves the ELID proposal as proposed by NS Power, PHP is unlikely to take
15 service on the tariff. Instead, PHP and NS Power would likely seek an extension of the
16 ELIADC tariff for an additional term, as there is no above-the-line offering that would
17 serve as a default rate for PHP.¹⁵ Instead, PHP proposes to collaborate with NS Power to
18 develop a below-the-line tariff if the ELID tariff is approved as-proposed.¹⁶

¹⁴ PHP Evidence, p. 12, lines 10-13.

¹⁵ Response to NSEB IR-6.

¹⁶ PHP Evidence, p. 12, lines 10-13.

1 **Q. What are PHP's primary concerns regarding the ELID tariff as proposed by NS**
2 **Power?**

3 A. PHP states that it is concerned about the following components of the proposed tariff:

- 4 1) Interruptible load of 57 MW;
- 5 2) The value of the proposed Interruptible credit;
- 6 3) The use of a revenue-to-cost (RTC) ratio exceeding 1.0; and
- 7 4) The forecast energy requirements for PHP in 2026 and 2027.

8 **Q. Has PHP proposed any alternatives for each of these tariff components?**

9 A. Yes. The first two recommendations apply to PHP's interruptible load, which NS Power
10 proposes to set at 57 MW (equal to 65 MW of historical 3 CP demand less 8 MW of firm
11 demand). PHP recommends that all of its demand above 8 MW be treated as non-firm
12 demand.¹⁷ This would impact the allocation of capacity costs to PHP in the cost of
13 service study, where PHP's 3 CP demand was assumed to be 65 MW for the purpose of
14 cost allocation. If this recommendation were adopted, then there would be no need for an
15 interruptible credit, since PHP would not be charged for its non-firm demand (i.e.,
16 demand above 8 MW).

17 If the Board declines to adopt PHP's recommendation that all of its demand above
18 8 MW be treated as non-firm demand, then PHP requests that the Interruptible Credit
19 applicable to 57 MW of its demand be increased by more than 50 percent from

¹⁷ Evidence of Fitzhenry and Gorman ("BAI Evidence"), p. 2.

1 approximately \$8.40/kVA-month¹⁸ in 2026 to the estimated marginal cost of capacity of
2 \$13.107/kVA-month.

3 In addition, PHP recommends that its revenue-to-cost ratio be reduced from 1.04
4 to 1.0 in the allocation of costs among customer classes, and that the ELID tariff be
5 updated to incorporate revised 2026 and 2027 energy sales forecasts for PHP.¹⁹

6 PHP's proposed adjustments to the tariff are summarized in Table 1 below.²⁰ In
7 the following sections, I address PHP's proposed modifications to the demand charge and
8 interruptible credit.

9 **Table 1. Summary of PHP's proposed revisions to the ELID Tariff**

	Component	NS Power's proposed ELID Tariff	PHP's Proposed Adjustments
PHP's Core Proposal	Revenue-to-Cost Ratio	1.04	1.00
	Energy Sales Forecast	Forecast provided by PHP for GRA	Revised 2026 and 2027 energy sales forecasts
PHP's Preferred Option	Demand Charge	Based on historical coincident demand (65 MW)	8 MW (firm service)
	Interruptible Credit	Applied to the difference between historical coincident demand and firm demand (65 MW - 8 MW = 57 MW)	Unnecessary, with recovery of fuel and power supply via the non-fuel ELID energy charge
PHP's Secondary Option	Interruptible Credit	\$8.404/kVA in 2026, including 10% priority credit. ²¹	Marginal Cost of Capacity (\$13.107/kVA)

¹⁸ Calculated based on \$7.64/kVA plus a priority interruptible credit of \$0.764/kVA in 2026.

¹⁹ BAI Evidence, p. 3.

²⁰ PHP Evidence, p. 8, lines 21-27 and BAI Evidence, p. 2 line 8 – p. 3 line 43.

²¹ ELID Tariff, p. 5.

1 **IV. DEMAND CHARGE AND INTERRUPTIBLE CREDIT**

2 **Q. Do you agree with PHP and its consultants that the demand charge should be based**
3 **on PHP's firm load level of 8 MW, with no interruptible credit?**

4 A. No. PHP's consultants, Mr. Fitzhenry and Mr. Gorman of Brubaker and Associates
5 (BAI), argue that NS Power's ability to curtail PHP's load above 8 MW allows it to avoid
6 the cost of adding additional production and transmission capacity that would otherwise
7 be needed to serve PHP's full 3 CP demand.²² Because of this, BAI asserts that PHP's
8 interruptible demand does not contribute to NS Power's generation and transmission
9 resource capacity costs.²³

10 However, this characterization is not consistent with how NS Power indicates that
11 transmission costs are incurred. In response to an interrogatory, NS Power states that
12 "[t]he interruptible credit is designed to reflect only the costs of avoided generation
13 capacity on NS Power's system. The costs of transmission on NS Power's system are
14 driven by the entire system load inclusive of the interruptible load. If costs were assigned
15 on the basis of the firm load alone this would result in inequitable apportionment of costs
16 to rate classes with the interruptible loads avoiding responsibility for the costs of
17 transmission and the cost of interruptible credit."²⁴

18 Given that transmission costs are driven by both interruptible and firm load, it
19 would not be appropriate to assign PHP a demand charge based solely on its 8 MW firm

²² BAI Evidence, p. 5.

²³ BAI Evidence, p. 21.

²⁴ NSPI (Synapse) IR-10 (a).

1 load. Doing so would allow a substantial portion of PHP's load to avoid responsibility for
2 transmission costs, shifting those costs to other customers.

3 In addition, NS Power also explains that the cost of the interruptible credit is
4 recovered from all rate classes, including those that provide interruptible service.²⁵ PHP's
5 proposal would allow it to largely avoid paying for the costs of interruptible service as
6 well.

7 **Q. If PHP's proposal to assess the demand charge on only 8 MW of its demand is not**
8 **adopted, it proposes that the interruptible credit be priced at NS Power's estimated**
9 **marginal cost of capacity of approximately \$13.107/kVA. Do you agree?**

10 A. No, for two reasons. First, compensating PHP at the full marginal cost of generation
11 capacity would overstate the value of its interruptible load from the perspective of other
12 customers. While PHP's interruptible load may allow NS Power to avoid procuring new
13 capacity, the relevant benefit to other customers is the avoided capacity cost net of the
14 contribution PHP would otherwise make to capacity cost recovery as a firm customer. If
15 PHP were compensated at the full marginal cost without accounting for this avoided
16 contribution, it would receive credit for costs that it would otherwise help pay, resulting
17 in an over-allocation of benefits to PHP and a corresponding shift of cost responsibility to
18 other customers. Accordingly, compensation to PHP should be capped at the avoided
19 capacity cost net of its expected revenue contribution under firm service.

20 Second, setting the interruptible credit equal to the full marginal cost would
21 allocate all of the benefits of avoided capacity to PHP, leaving other customers no better

²⁵ *Ibid.*

1 off than if an equivalent amount of generation capacity had been procured. While PHP
2 should receive a substantial portion of the value it provides, it is reasonable for other
3 customers to share in those benefits, particularly where they continue to bear
4 responsibility for recovering embedded system costs. In my view, the credit should be set
5 at a level that is sufficient to induce participation by PHP, while ensuring that a portion of
6 the avoided costs is retained for the benefit of other ATL customers.

7 **Q. Do you recommend a specific interruptible credit level?**

8 A. While I do not recommend a specific value, I acknowledge that this credit should likely
9 exceed the level in the current proposal (approximately \$8.40/kVA for 2026), given that
10 PHP is reluctant to take service on the ELID tariff at this price. At the same time, the
11 credit should not be so high as to eliminate PHP's responsibility to contribute to
12 transmission embedded costs and the cost of interruptible load. I recommend that NS
13 Power and PHP work to develop a revised interruptible credit proposal that would induce
14 PHP to take service on the ELID tariff while still contributing to embedded transmission
15 costs and the cost of obtaining interruptible load.

16
17 **Q. Does this conclude your evidence?**

18 A. Yes, it does.