M12661

NOVA SCOTIA ENERGY BOARD

IN THE MATTER OF: **THE PUBLIC UTILITIES ACT**

- and -

IN THE MATTER OF: **AN APPLICATION** by **NOVA SCOTIA POWER INCORPORATED** for approval of an Extra Large Industrial Dispatchable Above-the-Line Tariff applicable to Port Hawkesbury Paper

INFORMATION REQUESTS

To: **Nova Scotia Power**
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From: Synapse Energy Economics, Inc.
Board Counsel Consultant

Responses Due: **Friday April 10, 2026**

Copies: 1 electronic copy (PDF searchable)

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Issued at Halifax, Nova Scotia, this 12th day of March 2026.

Crystal Henwood, Clerk of the Board

Request IR-1: Refer to NS Power's Application, p. 3, lines 8-10 regarding the expiration of the ELIADC tariff by the end of 2026 and an "alternative course of action" if Port Hawkesbury Paper LP (PHP) will not subscribe to the Extra Large Industrial Dispatchable (ELID) tariff.

a. Please explain if such an alternative course of action would need to be completed before January 1, 2027. If not, please explain why such an alternative course would not need to be completed before January 1, 2027.
b. Please confirm that PHP could take service on the Large Industrial (LI) tariff. If not confirmed, please explain why PHP could not take service on the LI tariff.
c. Could PHP elect to take service on another rate offered by NS Power, other than the LI tariff? If yes, please provide a list of all potential tariffs PHP could take service on. If not, please explain why not.
d. If PHP chooses not to take service under the ELID tariff, and an alternative tariff is developed, would such a tariff need to be a below-the-line tariff? Please explain.

Request IR-2: Regarding an "above-the-line" (ATL) versus "below-the-line" (BTL) tariff, generally:

a. Please explain the difference between an ATL and a BTL tariff in terms of how the associated costs are reflected in Nova Scotia Power's cost-of-service study.
b. Please explain how revenue received under an ATL tariff is treated in the cost-of-service study, and how that treatment differs from the treatment of revenue received under a BTL tariff.
c. Please explain the criteria, principles, or guidelines Nova Scotia Power considers when determining whether a tariff should be treated as ATL or BTL.
d. Please identify any precedents, Board decisions, regulatory policies, or internal guidelines that Nova Scotia Power relies upon when determining whether a tariff is treated as ATL or BTL.

Request IR-3: Regarding allocation of costs to PHP in NS Power's cost of service study:

a. Please provide NS Power's most recently filed cost of service study in Excel with working formulas.
b. Please provide the allocators associated with each cost category in NS Power's most recent cost of service study along with a brief description of each allocator.
c. Please provide the derivation of each allocator in NS Power's most recent cost of service study. Please include the data for each class's coincident peak demand, non-coincident peak demand, energy consumption, number of customers, and all other relevant data for determining allocation factors, as well as the calculation of the allocator itself.
d. Please describe what stakeholder input was received regarding allocation of costs to PHP in its latest cost of service study.
e. Please briefly describe what stakeholder feedback was received regarding allocation of costs to PHP and the large industrial class for NS Power's most recent cost of service study.
f. Did NS Power modify any cost allocation methods for the LI class or PHP in response to stakeholder feedback for its most recent cost of service study? Please explain.

Request IR-4: Refer to the Application, p. 8 regarding interruptible service and the Large Industrial Interruptible Rider (LIIR).

a. Please explain how the LIIR credit of $7.638 per kVA and $7.667 per kVA of interruptible service for 2026 and 2027, respectively were developed and provide the associated workpapers.
b. Please provide the workpapers calculating each rate element of the Large Industrial tariff.

c. Please explain why the LIIR credit is lower than that which would have been developed in accordance with the Company's established practice for pricing of the interruptible credit ($13.107 per kVA demand coincident with system peak).

Request IR-5: Refer to the Application, p. 8 regarding interruptible service and the Large Industrial Interruptible Rider (LIIR).

a. Please provide the total load reduction capacity (MW) available to NS Power that could be curtailed under the LIIR for each of the past four years (2022-2025 inclusive).

b. Please provide the timing (date and hour) and load reduction (MW) of interruptions of LIIR customers in 2022, 2023, 2024, and 2025.

c. Please provide the timing (date and hour) and load reduction (MW) of interruptions of PHP in 2022, 2023, 2024, and 2025. Please provide in Excel.

d. Please provide the timing (date and hour) and load reductions (MW) of direct control actions of PHP in 2022, 2023, 2024, and 2025.

e. Please provide the timing (date and hour) and load reductions (MW) of any non-NS Power tariff related load shifting actions on the part of PHP, such as that described in the Direct Evidence of PHP, p. 12.

f. Please provide the date, time, and load (MW) of system monthly and annual peaks for NS Power for 2022, 2023, 2024, and 2025. Please provide in Excel.

g. Please explain whether, over the past four years (2022-2025), PHP load was ever curtailed (interrupted, direct controlled, or a gray area reduction) while LIIR customers were not interrupted? If so, how frequently did this occur?

h. Please explain how often frequently both PHP load was curtailed and LIIR customers were also interrupted over the past four years (2022-2025).

i. Please describe the circumstances required for PHP to be fully curtailed to its firm service level and LIIR customers are also curtailed.

j. What would be the maximum amount of LI curtailment if all LI customers were curtailed at once, and how would this be broken out across different individual customers?

Request IR-6: Refer to the Application, p. 3, regarding the ELID tariff being based on the Large Industrial tariff.

a. In Excel with working formulas and all billing determinants, please provide monthly calculations of PHP's bill in 2023 and 2024 if it had been enrolled on the LI tariff. Please provide this bill estimate using PHP's actual load for 2023 and 2024 (including any curtailments due to its enrollment on the ELIADC tariff).

b. Does NS Power expect that PHP's load would have been different if it had been enrolled in the LI tariff for 2023 and 2024?

   i. If yes, please qualitatively describe how NS Power expects PHP's load would have differed.

   ii. Please qualitatively describe how this such likely changes in load in response to the LI tariff structure would have impacted PHP's bills.

c. Does NS Power expect that PHP's load would have been different if it had been enrolled in the Large Industrial (Real Time Pricing) tariff for 2023 and 2024?

   i. If yes, please qualitatively describe how NS Power expects PHP's load would have differed.

   ii. Please qualitatively describe how this such likely changes in load in response to the Real Time Pricing tariff structure would have impacted PHP's bills.

d. Does NS Power expect that PHP's load would have been different if it had been enrolled in the Large Industrial Interruptible Rider for 2023 and 2024?

   i. If yes, please qualitatively describe how NS Power expects PHP's load would have differed had been enrolled in the Large Industrial Interruptible Rider for 2023 and 2024.

ii. Please qualitatively describe how this such likely changes in load in response to the LI tariff structure would have impacted PHP's bills had been enrolled in the Large Industrial Interruptible Rider for 2023 and 2024.

Request IR-7: Refer to the Application, p. 3, lines 13-15. Are there any differences between the "Dispatchable Rider" under the ELID tariff and the "Active Demand Control" under ELIADC Tariff? If so, please list and explain the differences including why the differences exist.

Request IR-8: Refer to the Application, p. 6 lines 9 - 17.

a. Please provide the derivation of PHP's firm load at 8MW for 3CP.

   i. Please confirm that PHP's firm load is 8 MW at the three coincident peaks because PHP requested 8 MW of firm load rather than any other external calculation. If not confirmed, please provide the derivation of 8 MW of firm load.

b. Please provide and explain the derivation of 65 MW of firm plus interruptible load. Please provide all calculations with all inputs and assumptions in Excel.

Request IR-9: Refer to the Application, p. 6, lines 15-19.

a. Please explain the rationale for using three coincident peaks (3CP) as the method of determining peak demand billing determinants. In your response, please also explain when this methodology was first adopted and approved by the Board.

b. Is the 3CP methodology used for all rate classes? Please explain, including whether this is the methodology for all industrial rate classes.

Request IR-10: Refer to the Application, p. 6, lines 9-19.

a. Please explain why the firm plus interruptible load, rather than firm load alone, should be used to set the three coincident peak demand billing determinant.

b. Is this treatment differen than the LI tariff or interruptible tariff? Please explain.

Request IR-11: Refer to the Application, p. 6, line 10 regarding firm load

a. Please explain any differences in how NS Power assesses and plans its generation, transmission, and distribution investments or procurements for firm load relative to interruptible load? In your response, please also explain whether NS Power assumes that 100% of interruptible load will be available when called, or whether some other value is used, and how that value was determined.

b. Please explain any differences in how NS Power assesses and plans its generation, transmission, and distribution investments or procurements for firm load relative to dispatchable load? In your response, please also explain whether NS Power assumes that 100% of dispatchable load will be available when called, or whether some other value is used, and how that value was determined.

c. Please describe how PHP's "firm" load has changed over time, and when such changes occurred. Please also indicate how PHP's current level of 8 MW of firm load compares to historical levels.

d. In your response, please provide the annual MW of "firm" load for PHP for each of the last 10 years. If this data is not available, please provide the data that most closely matches that requested.

e. In designing its production, distribution, or transmission capital projects, what assumptions regarding firm load for PHP has NS Power historically used, and how does this compare to PHP's request for 8 MW of firm load during the winter peak?

f. Please list any specific assets that were designed to accommodate more than 8 MW of firm load from PHP during the winter peak, as well as the PHP firm load amount that the asset was designed to serve.

g. What firm load from PHP was the Port Hawkesbury Biomass plant designed to accommodate?

Request IR-12: Refer to the Application, p. 8, lines 3 – 26.

a. Please explain why the priority interruptible service is modelled as an additional 10% credit. Please provide any numerical derivation of the value of 10% with supporting workpapers.

b. If the 10% credit is not derived from an assessment of its value to the system, please explain why NS Power believes the proposed 10% credit is reasonable.

c. Please provide the workpapers supporting the $500,000 cost of acquiring priority interruptible service.

Request IR-13: Refer to the Application, p. 8, footnote 5.

a. Please explain why the winter month system coincident demand matches the negotiated firm plus interruptible demand of 57 MW rather than just the firm demand of 8 MW.

b. Please provide NS Power's forecast for the avoided cost of the marginal resource at peak comparable to the Annual Levelized Avoided Peaker Cost of $160.44, for 2025, 2026, and 2027, in nominal dollars. If a specific cost estimate is not available, please estimate an escalation factor that could be applied to the $160.44/kW that would produce updated values for 2025, 2026, and 2027, in nominal dollars.

Request IR-14: Refer to the Application, p. 11, lines 9-10, and p. 8, lines 11-13.

The application states “In this regard, dispatch service is comparable to interruptible service available to LIIR customers.” On page 8 of the application “the proposed interruptible credit applicable to PHP is the same as proposed for the LIIR.”

a. Please clarify and explain the differences between the interruptible rider and the dispatchable rider. Please explain the operating circumstances in which the interruptible rider is insufficient and the dispatchable rider is necessary.
b. Please explain why the dispatchable rider is necessary given that the ELID tariff has the interruptible credit, which is comparable to the LIIR customers.
c. Could PHP potentially be credited under both the dispatchable rider and the interruptible credit in a way that double-counts the value of this resource? Please explain why or why not and provide a worked example.
d. Please explain if the interruptible rider could be adapted to meet the operational benefits dispatchable rider without having a separate dispatchable rider in place.
e. Please provide an illustrative example in Excel of a change in load due to the use of the dispatchable rider compared to a change in load due to the interruptible credit.

Request IR-15: Refer to the Application, p. 9, lines 20-24.

a. Please explain if PHP would be incented to reduce load due to priority interruptibility orders if the ELID tariff included the interruptible service credit and priority interruptible credit but did not include the dispatchable rider.
b. Please explain if priority interruption is contingent upon the existence of the dispatchable rider. I.e. can PHP be interrupted at a higher priority if the dispatchable rider does not exist?
c. Please further explain how specific instances of prior curtailment of PHP load in 2023, 2024, and 2025 was due to the equivalent of interruption and the interruption credit or instead the ADC, which is now the dispatchable rider.

Request IR-16: Refer to the Application, p. 11, lines 1-5.

a. Please provide the calculations in Excel including all inputs of the $7 million and $11 million savings. If not available in Excel please provide an explanation of the derivation of these figures.

b. Please provide the calculations in Excel including all inputs regarding the statement that actual benefits would be approximately half that amount ($7 million and $11 million). If not available in Excel please provide an explanation of the derivation of these figures.

Request IR-17: Refer to the Application, p. 12 line 21 – p. 14, line 3 regarding treatment of energy production from the Goose Harbour Lake Wind Farm.

a. Please provide an illustrative or actual calculation in Excel that demonstrates how the energy production from the Goose Harbour Wind Farm reduces PHP's bill. This should show 1) PHP's bill absent Goose Harbour energy with all billing determinants and b) PHP's bill after this energy production is incorporated. Please provide an accompanying explanation or diagram that shows how this energy reduces the bill.

b. For each of the following terms within the proposed Tariff, please describe if the PHPW PPA changes the calculation of the value after it enters service. If it does change the calculation of a value after entering service, please provide a workbook example of the calculation of said value before and after the PHPW PPA is in service. This could also be accomplished by pointing to calculations provided from part (a).

    i. Demand Charge

        1. Monthly billed per kilovolt ampere (kVA) demand

        2. Demand employed in the costing and pricing of the tariff

    ii. Monthly minimum charge

    iii. Interruptible rider to the ELID Tariff

1. Billed interruptible demand
2. Contracted firm demand requirement
3. Total billing demand
4. Interruptible demand used for costing the tariff
5. Firm billing effective at that time for the consumption used in that billing period (within the Threshold Penalty)
6. Residual customer demand (within the Performance Penalty)

iv. Dispatchable Rider to the ELID Tariff

1. Customer load above the Customer's firm contracted load
2. Customer's actual dispatched load
3. The actual customer load used to determine the high load factor customer profile
4. Customer baseline

Request IR-18: Refer to the Application, p. 16, lines 24-26.

Please explain and provide the analysis or facts that led to the conclusion by NS Power that "With respect to the increase in firm service to 8 MW, NS Power has confirmed it has adequate firm supply to accommodate this request in 2026 forward."

Request IR-19: Refer to the Application generally.

a. Please provide the estimated net income in nominal dollars, return on equity in nominal dollars, and return on equity as a percentage, associated with PHP if the tariff were implemented as proposed.
b. Please provide the actual net income in nominal dollars, return on equity in nominal dollars, and return on equity as a percentage, associated with PHP for 2023 and 2024.

c. Please clarify how the return on equity associated with PHP compares to NS Power's return on equity as a whole and the return on equity of domestic and industrial customer classes.

Request IR-20: Refer to the Application, Attachment 1 ELID Tariff, p. 5, Interruptible Rider to the ELID Tariff. The proposed tariff states "The billed interruptible demand is defined as the difference between any contracted firm demand requirements and the total billing demand." Please confirm the following. If not confirmed, please provide corrections.

a. The total firm demand is 8 MW for each month.
b. The total billing demand is constant across all months, as set in this proceeding. NS Power is proposing that this be set at 65 MW.
c. If a and b are true, then the billed interruptible demand is constant at 57MW for all months.
d. If c is true, the credit would be $7.638/kVA * 57 MW every month.

Request IR-21: Refer to the Application, Attachment 1 ELID Tariff, p. 6, Threshold Penalty. The Threshold Penalty charge is "the appropriate firm billing effective at that time for the consumption used in that billing period."

a. Please provide a workbook showing the calculation of the threshold penalty charge. For the sake of calculation, please also compare bills for two months of service, one where an interruption request of 50 MW is adhered to and one where an interruption request of 50 MW is fully ignored. Please break the penalty into the threshold and performance penalty components.
b. How would the firm billing be determined for a single month? In this response, please respond to how the "addition" of incremental firm service is an annual or multi-annual commitment rather than a monthly commitment.

Request IR-22: Refer to the Application, ELID Tariff Attachment 1, p. 6.

a. Please provide a list of penalty payments incurred by PHP in 2022, 2023, 2024 and 2025. Please provide the date and any explanation for the penalties.
    i. Please provide the calculation of a single penalty payment paid by PHP in an excel workbook. If none was paid, please provide an illustrative calculation.
    ii. For each penalty and in aggregate, please describe if the penalty payments paid by PHP would be categorized as similar to the proposed threshold penalties, performance penalties, or another category. If they would be another category of penalty, please describe how such a category would differ from the proposed Threshold and Performance penalties.

Request IR-23: Refer to the Application, Attachment 1 ELID Tariff, p. 7, Order of Interruptibility.

a. Please describe why the order of interruptibility is the order shown.
b. Please provide a list of dates where customers in all four tariffs were called to reduce load.
c. Please provide the total capacity of each tier (1 through 4) of the order of interruptibility during the winter peak. Please also provide the capacity by customer for each tier of the order of interruptibility, during the winter peak.
d. Within tier 2, ELID Tariff, please describe if the Dispatchable Rider to the ELID Tariff has a “higher” or “lower” order compared to the Interruptible Rider to the ELID Tariff.
    i. If so, could the Order of Interruptibility be broken into two components 2-A and 2-B with the riders ordered appropriately?
    ii. Can PHP be dispatched for load reduction prior to the first tier of interruptible load being interrupted, that being Generation Replacement and Load

Following Tariff. Please provide historical examples of PHP being dispatched prior to GR and LF Tariff if it occurred.

iii. Can PHP's load be split into a dispatchable portion and a interruptible portion? For example, if PHP is currently operating at 108 MW, can 40 MW of its load be dispatched for reduction while 60 MW of its load is simultaneously interrupted, such that the remaining load is PHP's firm load at 8 MW.

1. If so, please provide a historical example of such splitting.
2. If not, please explain how NS Power determines if load will be reduced as an interruption rather than as dispatch and vice versa.

e. Please describe what it means for load to be "held as Operating Reserve."

i. Does this allow NS Power to build less generation capacity? Please explain.

ii. Please describe historical examples of when PHP's load was or was not held as Operating Reserve, and why this selection was made. If no historical examples are available, please describe a situation where this may occur.

f. Please describe why the override of the order of interruption by LIIR tariff load is necessary.

g. In the condition where PHP's load is held as Operating Reserve and LIIR Tariff customer load is not held as Operating Reserve, would LIIR Tariff customers load be interrupted prior to generation replacement and load following tariff?

h. Please provide all workpapers deriving the value of the ELID priority interruptible credit, including all calculations and inputs.

i. Please provide any historical examples of a comparable priority interruptible credit, if such a credit existed previously. If such a credit previously existed, please provide workpapers deriving the value of the credit.

j. Are the Generation Replacement and Load Following Tariff and Shore Power Tariff compensated for their place in the order of interruptibility? If so, what is their

compensation for being higher in the order than the interruptible rider to the Large Industrial Tariff? Please provide workpapers in cases supporting such a value if it exists.

Request IR-24: Refer to the Application, Attachment 1 ELID Tariff, p. 8, Dispatchable Rider to the ELID Tariff.

a. Please explain the difference between dispatching load and interrupting load. Please discuss operating procedures, timing, and the order in which they would be called.
b. The rider includes the language: "all the Availability terms and conditions of the Interruptible Rider shall also apply to all Customer load *above* the Customer's firm contracted load. (emphasis added)."
    i. Does the Interruptible Rider apply to load above the customer's firm load?
        1. If so, what is unique about the dispatchable rider over and above the interruptible rider, in this regard?
c. The rider includes the language "The foundation for the process is the assumption that absent subscription to this Rider, the Customer is incented to operate at a high load factor."
    i. Does this high load factor include the interruptions caused by the interruptible rider but not the dispatchable rider?
d. Please describe, in detail and with excel workbooks, how NS Power calculates "actual system costs."
e. Please provide, in an excel workbook, the calculation of PHP's high load factor customer profile for 2023, 2024, and 2025.
f. Please explain if the high load factor customer profile would be entirely firm high load factor load or firm plus interruptible high load factor load. If both firm and interruptible load are included, please explain how much of the high load factor load is firm.

g. Please explain if PHP's load in November 2026 were reduced by 50 MW over 4 hours via interruption versus a reduction of 50 MW over 4 hours via dispatch, would PHP's bill be the same? Please support this answer with an Excel workbook.

Request IR-25: Refer to NS Power's Application, Appendix 4, Terms of Settlement, pages 10-12. For the Cost of Service and PHP Treatment GRA elements, please provide references to where each of the settlement terms are addressed in testimony or in the proposed tariff.

Request IR-26: Refer to NS Power's Application, Attachment 4, p. 12.

a. Please provide an illustrative workpaper of a deferral account described in PHP treatment Settlement Terms.
b. Please provide the anticipated ratemaking treatment of such account.
c. Please provide an estimate of the size of such account, and whether such an account would recover a comparable amount of revenue annually compared to PHP's actual revenues in 2023 and 2024.
d. Please describe if NS Power currently has a comparably structured deferral account for a different set of costs. If so, please provide a summary of said account.
e. If a deferral account is used, what tariff would PHP receive service under?

Request IR-27: Refer to the Direct Evidence of Port Hawkesbury Paper LP, p. 12, line 15 to page 13 line 9.

a. Please describe if NS Power agrees with the characterization of the event. If not, please provide any corrections.
b. Please describe why the 60 MW load reduction was not instituted as a real time dispatch nor a NSPSO call for interruption.

c. Please describe if the load reduction should have been instituted as a real time dispatch or NSPSCO call for interruption.

d. If it is the case that neither NS Power nor NSPSO followed the interruption protocol specified in the ELIADC tariff, why was PHP called upon for the load reduction rather than other entities?

e. Please describe what likely would have occurred had PHP not reduced its load by 60 MW as instructed.

f. Please describe if the ELIADC tariff was followed as written.

g. Please describe if there are any other events while PHP was on the ELIADC tariff which did not follow the interruption protocol. In each instance, please describe why the interruption protocol was not followed. In the case that the interruption protocol was not followed, please also clarify if the ADC was implemented.

h. Please provide evidence that the ADC and interruption protocol and interruption priority was followed for each interruption event while PHP was on the ELIADC tariff.

    i. If neither the ADC nor interruption protocol were followed, please explain why they were not followed.

        1. Further, if neither the ADC nor interruption protocol were followed, please describe what additional tariff language or other information would be required such that the ADC and interruption protocol would be followed.

Request IR-28: Refer to the Direct Evidence of Fitzhenry and Gorman, p. 15.

a. Was PHP interrupted or direct controlled during the peak periods of 1/11/2022, 2/15/2022, 12/13/2022, and 12/22/2023? If not, why not?

b. Please provide the date and time of interruptions and direct control actions for PHP for each of 2022, 2023, 2024, and 2025. Please provide an estimated reduction in capacity for each instance, or an average reduction in capacity.

i. For each of the interruptions and direct control actions, please describe if LIIR customers were also interrupted during these periods.

Request IR-29: Refer to the Direct Evidence of Fitzhenry and Gorman, p. 15.

a. Which costs are caused by the single annual peak compared to the three coincident peak?

b. Please respond to the extent that the following statement matches NS Power's view of cost causation:

i. If there were costs that could be avoided during 3CP peaks, then PHP would have had a request to reduce its load. Thus, absent the request to reduce its load, costs were not being caused during that peak hour by PHP.

c. What resource capacity and grid issues would have occurred had PHP not reduced its load in the 1/12/2023 and 2/4/2023 peaks? How much would PHP have been charged for not reducing its load?

d. Similarly, what resource capacity and grid benefits would have occurred had PHP had load reduced during the 1/11/2022, 2/15/2022, 1/12/2023,2/4/2023, and 12/22/2023 peaks.

Request IR-30: Refer to the Direct Evidence of Fitzhenry and Gorman, p. 19.

a. Please provide all confidential responses to Undertaking U-3 in NSEB M12451.

b. Please also provide the confidential version of the currently approved COSS. Please provide in Excel with working formulas.