

NOVA SCOTIA ENERGY BOARD

IN THE MATTER OF: THE PUBLIC UTILITIES ACT

- and -

**IN THE MATTER OF: AN APPLICATION by NOVA SCOTIA POWER INCORPORATED
(NS Power) for Approval of a Capital Item:**

CI C0053696 – ECC Wind Integration

NON-CONFIDENTIAL INFORMATION REQUESTS

To: **Lana Myatt**
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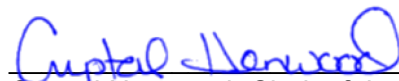
From: **Nova Scotia Energy Board**
Board Staff

Responses Due: **Friday, January 23, 2026**

Copies: 1 electronic copy (PDF searchable)

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Crystal Henwood, Clerk of the Board

Request IR-1:

In the Description, NS Power noted that two new software solutions are required to develop automation for tracking “independent power producer (IPP) generation, and validate and reconcile transactions for renewable generation producer compensation”, and for performing “wind curtailment prioritization, notification processes and dispatch activities, as well as enhancing reporting capabilities.”

a) Please explain the functions of the two new interrelated software solutions in plain language and the reason they are required.

b) Please describe NS Power’s current operational process without the software.

c) Please explain why the existing operation is not capable for proper dispatch and control, and processes and procedures.

d) Please explain any regulatory requirements and restrictions that may apply to the proposed automation system, such as those from FERC, NERC, NPCC, Revenue Canada, etc.

Request IR-2:

In the Description, NS Power noted that “... requires a more robust and automated system to ensure that planned and executed dispatch scenarios align with Power Purchase Agreement (PPA) terms and are reported on with accuracy and transparency.”

a) Please describe the PPA terms that necessitate the automated system.

b) Please indicate how many IPPs have these PPA terms, and their percentages in total wind IPPs.

Request IR-3:

For both software solutions, please provide the following project development details for each of them:

a) List the major phases.

b) Explain the estimated duration of each phase.

c) List key milestones and expected completion and in service dates.

d) Explain if both software will be developed by the same team or separately and why.

Request IR-4:

Please explain how the proposed automation system correlates to the Evergreen IRP and NS Power’s progress to the 2030 renewable electricity target.

Request IR-5:

In the Description, NS Power noted that “The solutions will be designed to integrate the anticipated new renewable generation projects in development and planned in Nova Scotia and be scalable to support the management of additional generation as needed.”

- a) Does NS Power expect the usage of this program to be only applicable to Wind integration, or could it be applied to other generation types, including solar, tidal, biomass, etc.
- b) If not, please explain why not.
- c) If yes, please explain how.

Request IR-6:

In the Description, NS Power noted that “The current manual operating, reporting, and transactional procedures for the management of legacy wind generation in Nova Scotia are sufficient for smaller capacities of generation with limited control features.”

- a) Please explain whether it is a mandatory requirement for all IPPs (legacy and new) to be integrated with the proposed automation system.
- b) If not, please explain why not.
- c) Please elaborate on options and requirements for the legacy IPPs to participate in the new system, including but not limited to system upgrades, contractual agreement changes.

Request IR-7:

In the Description, NS Power noted the following:

The anticipated growth in the renewable generation with enhanced control capabilities, however, requires a more robust and automated system to ensure that planned and executed dispatch scenarios align with Power Purchase Agreement (PPA) terms and are reported on with accuracy and transparency.

...

Legacy wind generators are not equipped with AGC capability and therefore can be curtailed only in pre-set increments under different compensation terms.

- a) Please provide a list of all independent power producers (IPPs) currently connected to the NS Power system and projected IPPs for the next five years. For each IPP please include:
 - The capacity of the IPP.
 - Connection feeder size, number, and location (Transmission / Distribution).
 - Automatic Generator Controls (AGC) requirement (Yes/No).

- For non-AGC IPPs, please explain the intention to upgrade and the expected timeline.
- If there is no upgrade intention, please explain the reason.
- b) Please provide the number and capacity of IPPs that will be connected to the proposed system by 2030.
- c) Please compare the number and capacity of AGC versus non-AGC IPPs and explain NS Power's process to manage the non-AGC IPPs, to ensure efficiency, accuracy and transparency.
- d) Please explain the requirements for IPPs to connect to AGC.
- e) Please provide a cost benefit analysis of the AGC system.

Request IR-8:

Please explain the AGC function in plain language and compare the current manual operation process with the new automated operation system, explaining how the new system enhances the following functions.

The solution will ensure System Operators have the tools needed to:

- manage wind generation in an equitable and transparent fashion,
- leverage new wind control capabilities for system stability, and
- automate the back-office solution needed for effective settlement and reconciliation activities.

Request IR-9:

Please explain why the proposed project was not submitted as part of CI C0032664 Energy Control Centre – Optimization Tools (M12591) application.

Request IR-10:

Has a Request for Proposals (RFP) been issued for the supply of the proposed system?

- a) If so, please provide a summary of the results.
- b) If not, when will an RFP be issued?
- c) Or please explain why an RFP is not required.

Request IR-11:

Please indicate whether NS Power or NSIESO will be the user of this new technology.

- 1 a) Please explain whether NSIESO has been notified or involved in the proposed project and the
2 nature of its involvement.
- 3 b) If it is shared by both, please explain the method and the associated costs.
- 4 c) If NSIESO is the only user, please explain NS Power's plan to transfer the assets and indicate
5 any training requirements for NSIESO.
- 6 d) If NS Power is the only user, please explain why.
7

8 **Request IR-12:**

9 In Why do this project, NS Power noted the following:

10 Legacy wind generators are not equipped with AGC capability and therefore can be curtailed only in
11 pre-set increments under different compensation terms. The solution proposed within this Project will
12 provide System Operators with needed planning and data solutions to adhere to PPA terms, the
13 actual wind farm output, capacity and AGC service provision data in real-time, and automations for
14 back-office processing of these data sets to accommodate a higher volume of reconciliation and
15 settlement transactions.
16

- 17 a) Please explain any mandatory requirements for legacy wind generators to adopt AGC.
- 18 b) If adoption is not mandatory, please elaborate on the compensation terms that needs to be
19 developed for legacy wind generators and compare these terms to the PPA terms for the new
20 AGC generators.
21

22 **Request IR-13:**

23 In Why do this project, NS Power noted that "All wind generation (legacy or new) must be
24 dispatched efficiently and in a fair and equitable manner in line with the terms of each PPA. The
25 presence of AGC now enables dynamic and granular dispatch controls for new IPPs and
26 consequently allows wind generators to provide ancillary services for which compensation can be
27 defined within PPAs."

- 28 a) Please compare how NS Power maintains a "fair and equitable manner" when curtailing and
29 compensating both the legacy and the new IPPs.
- 30 b) If the proposed new automatic system performs a faster reaction than a manual operation,
31 please confirm any concerns on legacy wind generators may experience less curtailment
32 compared to the new generators, and explain why.
- 33 c) Please explain how NS Power manages non wind farm IPPs and whether additional
34 automation is planned.
35

1 **Request IR-14:**

2 Please compare the current manual operation process and the new AGC system on manage
3 energy dispatch and leverage available wind.

4 a) For the automated wind curtailment, please explain how the new system integrates with other
5 generation resources (non wind generators and non AGC wind generators) to receive
6 dynamic generation and consumption data to perform this function.

7 b) Please explain the compatibility of the automation system and indicate any additional
8 upgrades needed for the NS Power control system.

9 c) If additional upgrades are needed, please explain the estimated costs to upgrade the overall
10 system and why these upgrades were not included in the current application.

11
12 **Request IR-15:**

13 a) What is the expected lifecycle of the components of this project (hardware, software, etc.)?

14 b) Please explain the ongoing maintenance activities of the automation system and the expected
15 lifecycle.

16 c) Please indicate who would perform these tasks, whether they would be performed internally
17 by NS Power or by external consultants.

18 d) Please explain the operational costs for the proposed automation software, including but not
19 limited to maintenance and support costs, software hosting costs, licensing costs, third party
20 services, administration fees, etc.

21
22 **Request IR-16:**

23 a) Please provide a financial analysis to show whether this new system will improve the efficiency
24 of ECC operation and reduce overall operation costs.

25 b) If not, please explain why not.

26
27 **Request IR-17:**

28 a) Please provide details about the NRCan funding, including any conditions, and indicate
29 whether NS Power has already received the funding.

30 b) If NS Power has not yet received the funding, please provide the expected timeline.

31 c) What would be the impact on the overall project if the Board refuses the application?

Request IR-18:

- a) Please explain if there are contingency plans in place to mitigate the impact of the automation system becoming unavailable during operation.
- b) If yes, please describe how ECC would operate during the absence of the automation system.
- c) If contingency plans are not available, please provide an explanation.

Request IR-19:

Please describe the activities NS Power has explored to improve operations without the new system. Explain the reasons and limitations that prevented the utility from improving efficiency and transparency of operations.

- a) What work and associated costs would be required if the automation system is not installed, or alternative options considered?
- b) Please provide an Economic Analysis Model (EAM) for the “Do Nothing” option.

Request IR-20:

In the Contingency Statement, NS Power noted “Contingency for this project has been determined using a combination of internal subject matter expertise (Project Managers, Engineers and System Operators) experience gained from similar software development/implementation work, and in conjunction with the non-binding contingency guidelines.”

- a) Please list and explain any similar software development projects and provide the related NSEB/NSUARB matter numbers.

Request IR-21:

- a) Please provide the task scope, work breakdown, and responsibilities associated with the following categories from the project estimate table:

1. Software

- a. Wind Reconciliation & Settlement Solution
- b. Wind Curtailment Automation Solution

2. Consulting

- a. Senior Business Analyst
- b. Junior Business Analyst
- c. Lead Engineering Consultant
- d. Project Manager
- e. System Modelling SME

1 f. System Study SME

2 g. Facility Operating Guideline SME

3 h. System Asset Modelling Assessment

4 3. Administrative Overhead, is this an internal administrative role?

5 b) Please explain why consulting services are required and describe the selection process.

6
7 **Request IR-22:**

8 a) Please provide a cost benefit analysis for the proposed new system and explain the
9 operational cost savings.

10 b) Please quantify the expected benefits associated with this project (i.e., decreased congestion,
11 improved reliability, and improved capacity) in terms of the expected NPV in cost savings and
12 describe how this cost savings will outweigh the project's estimated NPV of capital and
13 operating costs.

14 c) Please provide a time frame over which these cost savings will occur.