

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 47751 – ECC Dynamic Line Rating Implementation

NON-CONFIDENTIAL INFORMATION REQUESTS

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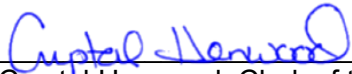
From: **Nova Scotia Energy Board**
Board Staff

Responses Due: **Tuesday, January 27, 2026**

Copies: 1 electronic copy (PDF searchable)

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Issued at Halifax, Nova Scotia, this 06 day of January, 2026.



Crystal Henwood, Clerk of the Board

Request IR-1:

- a) Please list the loading conditions and rated capacity of the proposed transmission lines, since 2019, and provide the connection diagrams to explain the connections of the proposed transmission systems and explain the function and rating of each listed equipment.
 - a. Include related equipment from substations.
 - b. Use plain language to explain the function of each equipment.
- b) Please explain the general criteria that may limit the load carrying capacity of the transmission systems, including but not limited to environmental conditions, conductor properties and conditions, equipment properties and conditions, structural properties and conditions, etc.
- c) Please estimate the load carrying capacity increase on the proposed transmission lines after installing the sensors and explain why the sensors on the transmission lines will help improve the load capacity, and the criteria in b) above will not be a limitation to obstruct the proposed load increase.

Request IR-2:

- a) Please explain if the NSIESO has been notified or involved in the proposed project.
- b) Please clarify the user of the Grid Enhancing Technology (GET) tool, NS Power, NSIESO, or both.
- c) Please explain any training requirements for system operators to operate the new tool and perform Dynamic Line Rating (DLR) operation.

Request IR-3:

In M09508, IR-24, attachment 1, the vendor noted that there are two methods to manage the data, locally (NS Power) or remotely (vendor), and mentioned two factors, financial and safety.

- a) If the accepted proposal operates under a similar method, please explain who would manage the data collection and analysis system: NS Power, NSIESO, or the vendor?
- b) Please explain how NS Power and NSIESO will share access to data.
- c) Please provide examples to explain how NS Power or NSIESO would apply the new GET system during daily operation.
- d) Please explain the benefits for rate payers.

1 **Request IR-4:**

2 In the Description, NS Power noted that “These conditions are continuously updated in NS
3 Power’s SCADA system, analyzed, and displayed in real time to the System Operators to enable
4 critical decision making in support of reliable transmission operations.”

5 a) Please explain how system operators would use the provided information to make critical
6 decisions, compared to operating without DLR systems.

7 b) Please explain how other teams, such as System Planning and Security, would use the data
8 to support their work, compared to working without the proposed system.

9 c) Please explain the overall benefits to the system reliability, cost savings, and regulatory
10 requirements.

11
12 **Request IR-5:**

13 “In March of 2024, NS Power conducted an RFP seeking a suitable vendor for this
14 implementation. Eight vendors responded and all responses were reviewed in detail. The final
15 decision and contract award was based on meeting the RFP key criteria and best suitability to NS
16 Power operations...”

17 a) Please provide a summary of the tender evaluation results that led to the selection of the
18 vendor.

19 b) Please provide detailed technical and functional reports for the accepted system.

20 c) Please explain the estimated maintenance frequency and costs for the system.

21 d) Please list other FERC regulated utilities who use a similar technology.

22
23 **Request IR-6:**

24 a) Please provide more details about NRCan funding, including all conditions. Has NS Power
25 received the funding already?

26 b) What would be the impact on the overall project if the Board refuses the application again?
27

28 **Request IR-7:**

29 In Why do this project now, NS Power noted that “Depending on the scope and timeline of FERC’s
30 adjustments and subsequent NERC compliance requirements, NS Power will likely be required
31 to implement new technology across its bulk electric system.”

32 a) Please explain if NS Power is currently subject to any directives from NERC or other
33 regulatory body to implement the DLR.

34 b) If so, please provide detailed information and deadlines.

- 1 c) If not, please explain why NS Power made this conclusion, and what is the estimated timeline
2 for possible enforcement?
- 3 d) For other utilities under NERC compliance, how many utilities have adopted the DLR system?
- 4 e) Please explain how the new DLR system meets the applicable requirements and explain
5 whether there are any formal standards or regulations from FERC, NERC, or other relevant
6 authorities.
- 7

8 **Request IR-8:**

- 9 a) Please explain NS Power's plan to expand the proposed DLR technology to more
10 transmission lines, and what the selection strategy is for selecting those lines.
- 11 b) Please explain the timeline of the proposed expansion of the DLR technology.
- 12 c) Does NS Power expect to get more federal fundings for future DLR projects?
- 13

14 **Request IR-9:**

15 In the description, NS Power noted that the proposed Grid Enhancing Technology (GET) tools will
16 improve "72-hour forecasting of ratings", and "support of reliable transmission operations". In
17 addition, it would be available for system planning, system security engineering and other teams
18 to support overall asset management strategies. Please elaborate on the above benefits and
19 explain the following:

- 20 a) NS Power's process to mitigate the extreme events with the GET in place compared to without
21 GET in place.
- 22 b) Explain the financial benefits with and without the GET.
- 23 c) Explain the reliability benefits with and without the GET during such events.
- 24 d) Explain if the GET system can reduce the unavailability of transmission lines during extreme
25 weather events. If so, please explain how, and if not, please explain why not.
- 26 e) Explain how the GET tools mitigate transmission congestion risks and enhance carbon
27 reduction.
- 28

29 **Request IR-10:**

30 In the Why do this project now, NS Power states "There is currently a project in progress
31 (C0061525 - Facility Ratings Project) to implement an Ambient Adjusted Rating (AAR) solution on
32 all Transmission lines. This combined approach to have AAR...". Transmission line ratings based
33 on AAR are considered more dynamic than static and seasonal ratings. Compared to static and
34 seasonal ratings, please:

- 1 a) Explain the capacity increase in MW due to AAR.
- 2 b) Explain the capacity increase in MW due to DLR.
- 3 c) Explain how AAR and DLR compliment each other, identify any potential conflicts, and clarify
- 4 whether NS Power plans to operate them in parallel.
- 5 d) Provide the rationale to maintain both systems.

6

7 **Request IR-11:**

8 In Matter M09508, NS Power's response to NSUARB IR-19, the utility provided a table listing

9 unplanned interruptions to transmission lines corridor caused by weather between 2015 and

10 November 2019.

- 11 a) Add data from December 2019 to date and provide an updated table.
- 12 b) Based on the table, please provide customer interruption records, the duration of each outage,
- 13 the number of customers affected and the identified cause of each interruption.
- 14 c) What percentage of the above interruptions are classified as momentary, and what percentage
- 15 are classified as sustained?
- 16 d) With the implementation of the DLR technology, please provide an estimated percentage
- 17 reduction in total interruptions.
- 18 e) How would the DLR system prevent the listed outages? What specific data from the DLR
- 19 system would help to avoid the trip? Please elaborate.
- 20 f) If not, please explain why not.
- 21 g) Explain the consequences of a trip on the grid.
- 22 h) What steps will be taken to restore the transmission line after the trip and the financial
- 23 implications?
- 24 i) What specific data from the DLR would help to avoid the trip? Please elaborate.

25

26 **Request IR-12:**

27 Please explain how the proposed GET tools and DLR correlate to the Evergreen IRP and NS

28 Power's progress to the 2030 renewable electricity target.

29

30 **Request IR-13:**

- 31 a) Please explain NS Power's regular line inspection practice and maintenance for the proposed
- 32 transmission lines.
- 33 b) Please explain how the DLR system would impact the line inspection practice and the regular
- 34 NS Power transmission line maintenance and any operation cost benefits.

- 1 c) Has the current transmission system faced load carrying bottleneck and had to rely on the
2 DLR to increase capacity? Please explain how the DLR can replace the need for a
3 transmission system upgrade? Please explain the impact on NS Power's transmission system
4 upgrade plan, include projects for new transmission lines, existing system upgrade or
5 replacement, etc.
- 6 d) Explain the DLR system benefits and impacts on NS Power's conventional operation and
7 provide quantified benefits including financial and reliability.
- 8 e) Please explain the potential real-time transmission capacity expansion with proposed DLR
9 technology and why it is critical to NS Power's system.
- 10 f) Please compare the benefits and disadvantages between the DLR and transmission system
11 upgrade.
- 12 g) Please clarify in plain language whether the proposed DLR could place transmission system
13 equipment under prolonged overload conditions.
- 14 h) If so, please explain whether this may reduce the equipment's expected lifespan.
- 15 i) If not, please provide the reasons why.

16
17 **Request IR-14:**

- 18 a) What work and associated costs on the transmission line would be required if a DLR system
19 is not installed.
- 20 b) Please explain whether any alternative options have been considered.
- 21 c) Please provide an Economic Analysis Model (EAM) for the "Do Nothing" option.

22
23 **Request IR-15:**

- 24 a) Please quantify the expected benefits associated with this project (i.e., decreased congestion,
25 improved reliability, and improved capacity) in terms of the expected NPV in cost savings and
26 describe how this cost savings will outweigh the project's estimated NPV of capital and
27 operating costs.
- 28 b) Please provide a time frame over which these cost savings will occur.

29
30 **Request IR-16:**

31 What is the expected useful life of each of the components of this project (hardware, software,
32 etc.)?
33
34

1
2 **Request IR-17:**

3 Does NS Power anticipate any increase in operating and maintenance expenses due to this
4 project? If so, please provide an estimate of these increases on an annual basis over the useful
5 life of the components of this project.
6

7 **Request IR-18:**

8 In the Capital Project Detailed Estimate, please explain the following:

- 9 a) The expense of Conference Attendance \$4,113.
10 b) The responsibility of Program Manager.
11 c) The responsibility of each role under the Consulting category.
12 d) Are there any continued software subscription fees for the application? And the estimated
13 cost for the overall life of the system.
14

15 **Request IR-19:**

- 16 a) Why did NS Power include the NB Import Line at this time rather than wait to evaluate the
17 results of the sensors on the CBX line?
18 b) Confirm the total number of sensors for this project and how many are ground-based sensors?
19

20 **Request IR-20:**

- 21 a) Provide a list of all metrics that the sensors will measure and explain each in plain language.