

NOVA SCOTIA ENERGY BOARD

IN THE MATTER OF: THE PUBLIC UTILITIES ACT

- and -

IN THE MATTER OF: AN APPLICATION by NOVA SCOTIA POWER INCORPORATED
to approve CI C0068719 - IT - Distributed Intelligence Apps -
\$3,165,790

INFORMATION REQUESTS

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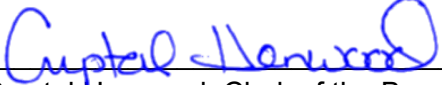
From: **Board Staff**
Nova Scotia Energy Board

Responses Due: **Wednesday, September 23, 2026**

Copies: 1 electronic copy (PDF searchable)

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Issued at Halifax, Nova Scotia, this 1st day of September, 2026.



Crystal Henwood, Clerk of the Board

Request IR-1:

- a) Please explain the need for the proposed Distributed Intelligence (DI) Apps Project, and what type of current system limitation the project is intended to address.
- b) Please explain how the project is expected to improve Nova Scotia Power's (NS Power) operations or customer service outcomes; and
- c) Please explain how this project is expected to improve existing operational, reliability, safety, planning, or customer-service issues.

Request IR-2:

Please provide all reports, studies, assessments, vendor materials, and industry references that NS Power relied on to support the need for the project.

Request IR-3:

Please describe why existing Advanced Metering Infrastructure (AMI) and related distribution automation systems cannot meet the same needs.

- a) Please explain whether the AMI metering system is required to implement the DI Apps.
- b) Please explain whether any other meter types or field equipment are required for the DI Apps.
 - i. If no new field hardware is required, please explain how the DI Apps will impact existing metering assets.
- c) Please describe the current functionality and capabilities of the AMI system.
- d) Please provide the number and percentage of AMI meters that are installed.
- e) Please explain the number and percentage of customers who have opted in, or opted out, for AMI meter functionality.
- f) Please explain whether opt-in and opt-out participation affects the meters to support the proposed DI Apps, and the potential effects of pilot project results, costs and customer benefits.
- g) Please explain whether customers opted out of AMI meter functionality would be included in the proposed DI Apps.
 - i. If yes, please explain why.

Request IR-4:

Please explain whether the combination of AMI devices and other distribution devices with communication functions, such as existing distribution breakers, existing distribution Potential

Transformers and Current Transformers, reclosers, sectionalizers, and other distribution control devices, can provide the same functionality without the DI Apps.

- a) If no, please explain why.

Request IR-5:

In "Description," NS Power noted that:

The DI Apps project will consist of deploying a cloud-based Itron DI App platform on existing meter and head-end infrastructure and piloting a set of apps across targeted groups of meters.

- a) Please explain who can access the installed apps and the data collected by these apps.
b) Please identify where these data will be stored.
c) Please explain whether any review of cybersecurity risk and privacy impact, has been completed for the project, and identify any potential risks and mitigation measures.

Request IR-6:

In "Description," NS Power noted that:

This project will install apps which are intended to support:

- grid model accuracy and connectivity validation,
- safety related signal detection, and
- distribution grid situational awareness.

- a) Please describe the technical function of the proposed DI Apps, and describe the data used by each app.
b) Please describe the existing distribution equipment required for implementing the DI Apps,
c) Please explain how the DI Apps will improve the grid criteria above.

Request IR-7:

Please explain how the DI Apps operate under NS Power's existing AMI environment, such as how information is transferred between meters, head-end systems, communications networks, and cloud platforms.

Request IR-8:

Please describe how the DI Apps will be deployed, including whether:

- a) the apps will be deployed in existing AMI meters;
b) the deployment can be completed remotely or require local meter access;
c) any customer interruptions; and

1 d) meter replacements.

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3 **Request IR-9:**

4 Please explain whether the DI Apps will replace, supplement, or modify existing meter hardware,
5 meter software, head-end systems, or other infrastructure.

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7 **Request IR-10:**

8 Please explain whether the existing AMI meters and associated communication system support
9 peer-to-peer meter communication.

10 a) If no, please explain how NS Power plans to enable such a function for the proposed DI
11 Apps. What protocols or network capabilities are required?

12 b) If yes, please describe how AMI meters communicate with each other and with NS Power's
13 head-end systems for the proposed DI apps.

14
15 **Request IR-11:**

16 Please explain whether the DI apps could affect meter functions, such as security, integrity,
17 performance, communications, accuracy, and firmware. Please provide the controls that prevent
18 the DI Apps from interfering with revenue-metering functions.

19 a) Please define the pilot project scope, including the number of meters, meter groups,
20 geographic areas, feeders, and customer segments.

21 b) Please explain how NS Power determined the deployment locations, customer segments,
22 and sample size.

23 c) Please describe the pilot testing approach, including testing duration, milestones, data to
24 be collected, validation methods, performance measures, success criteria, and how NS
25 Power will determine whether each DI App performed as expected; and

26 d) Please explain how the pilot test results will be used to support the decision to proceed to
27 full deployment or cancellation of all apps or any specific app.

28
29 **Request IR-12:**

30 Please identify whether NS Power has consulted with other utilities where similar DI Apps have
31 been deployed about the results, benefits, and limitations.

32
33 **Request IR-13:**

34 In "Why do this project this way?," NS Power noted that:

At this stage, the following apps have been identified for potential testing based on the criteria above:

- Location Awareness: autonomously determines which phase, feeder and transformer meters are on using communication and data.
- Meter Bypass Detection: detects attempts to bypass the meter using high-resolution sampling of voltage and current data.
- Advanced Temperature Monitoring: uses high-resolution temperature readings and communication to detect meter socket problems before they create a safety hazard or interrupt service.
- EV Awareness: provides near-real-time disaggregation information for when an EV begins or stops charging.
- Advanced Transformer Load & Voltage Monitoring: provides near-real time monitoring of distribution transformer load and voltage statistics.
- Feeder Visibility: Leverages the results of the Advanced Transformer Load & Voltage Monitoring apps to provide operational insights at the feeder level.
- Advanced Outage Analytics: Leverages data from multiple apps and the Head End System to provide power outage indication and scope, as well as an associated confidence factor.
- Operations Optimizer - Revenue Assurance: Leverages data from the Meter Bypass Detection App to prioritize meters for investigation and support revenue assurance.

- a) Please describe the cost structure of each app, including how the app has been charged, per installation or per function.
- b) Please describe the existing operational or customer service issues each app is intended to address, and the benefit of using the proposed app.
- c) For each proposed DI App, please explain whether NS Power can achieve the same or similar function through existing alternatives or improved processes.
 - i. If no, please explain why.
 - ii. If yes, please explain why NS Power still needs the app.
- d) For each proposed DI app, please describe the incremental cost, expected incremental benefit, avoided cost, efficiency gain, or other customer service improvements associated with the app. Explain how NS Power determined that the proposed app is a better option compared with available alternatives.
- e) Please describe how NS Power will determine whether any app provides a future customer value to deploy at scale.
- f) For the Location Awareness app, please explain the current issue with the use of communication channels and data, and why it is important.
- g) For the Meter Bypass Detection app, please explain the current scale of meter bypass tampering or related revenue loss issues. Please explain NS Power's current strategies and how an app would improve the detection, but not the AMI system.
- h) For the Advanced Temperature Monitoring app, please describe the existing issues and historical frequency and impact of these events. Please explain how the app would reduce

the mentioned risks, and whether the combination of customer reporting and the existing AMI system could address the issue at a lower cost.

- i) For the EV Awareness app, please describe current issues caused by EV charging. Please explain how the app can monitor the process and resolve the issues.
- j) For the Advanced Transformer Load & Voltage Monitoring app, please explain where and how the app would be implemented. Please describe the existing issues with the associated transformer load and voltage. Please explain whether existing alternatives could address the issue at a lower cost.
- k) For the Feeder Visibility app, please describe the current feeder visibility issues and their impact. Please explain why existing feeder protection and monitoring systems are not sufficient, and how the app can provide a more adequate service.
- l) For the Advance Outage Analytics app, please explain the current outage-monitoring and response process, and explain the existing issues the app is intended to address. Please explain why the existing AMI system cannot be used to address the issue.
- m) For the Operations Optimizer app, please explain the existing issues and current investigation and evaluation process. Please explain how the app can improve the process.

Request IR-14:

Please explain why Itron was selected.

Was any request for proposal (RFP) process applied?

- a) If no, please explain why.
- b) If yes, please provide the complete procurement record for the project, including the RFP, a summary of all submitted proposals, the evaluation criteria for successful proposals. Please provide a copy of proposal from the successful bidder.

Request IR-15:

In the project cost estimate table on page 5:

- a) For Consulting Category:
 - i. Please describe the scope of work, responsibilities, deliverables, hourly rates or pricing basis, for Professional Services, Cyber Security Risk Assessment, and Project Management.
 - ii. Please explain why consulting work could not be completed by NS Power internal staff.
- b) For Software Category:

- 1 i. Please provide the detailed cost of the software licence charge and explain
2 whether the software licence charged per unit or whether it requires annual
3 subscriptions.
- 4 ii. Please provide the detailed cost of the Software Hosting/Setup charge.
- 5 c) For Capital Contributions:
- 6 i. What is the NRCan program name?
- 7 ii. Please describe the NRCan funding eligibility rules and restrictions on use of
8 funds.
- 9