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Request IR-19:

Please describe the removal date of the mobile transformer used for the L-5031 project.

(a) Please describe the status of the project at the time the mobile transformer was removed, including but not limited to:

(i) The number of structures replaced; and

(ii) The number of structures that remain.

(b) Please describe in detail the progress of the project since the removal of the mobile transformer.

(i) Please include project milestones and timelines.

Response IR-19:

(a) The removal of the mobile transformer was required with little advance notice during construction of the section between L5031#001 and L5031#038. To restore the line to service, the project construction team expedited the installation and securing of the new poles and conductors to the extent reasonably practicable, while maintaining all applicable safety requirements. These efforts enabled the safe re-energization and return to service of Line L5031. The project was in the construction phase when the mobile substation was removed:

(i) 18 new structures were completed.

(ii) 51 structures are outstanding to be completed.

(b) Since the removal of the mobile substation, there has been no further work performed on L5031. Only work on the bypass connections has progressed. The designs are complete and construction has started. The construction is currently scheduled to commence in mid-October 2026 and is expected to be completed by early December 2026.

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Request IR-20:

With regards to the response to IR-13f), Board staff finds the response lacking the detail requested. As such, please describe the status of each of NS Power’s three mobile transformers from January 2025 to the present, indicating whether the transformer remains as a standby unit or utilized for emergency response, and including the following for each unit:

- (a) The installation dates and removal dates;**
- (b) The locations;**
- (c) The reason for dispatching the unit;**
- (d) The transformer number;**
- (e) The transformer rating and voltage level; and**
- (f) The number of customers affected by the emergency event.**

Response IR-20:

Please refer to Attachment 1, which provides installation and removal dates. Gaps in date data represent that the mobile was available during that time.

NS Power’s fleet of mobile substations are managed fluidly based upon compatibility, ongoing condition and maintenance requirements, and overall substation fleet risk. As such, which mobile is considered the “standby” mobile can change from day-to-day depending on a wide variety of factors such as location, inspection findings, mandatory fleet inspection activities, and maintenance.

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1 As outlined in IR-21, NS Power's top priority in making mobile dispatch decisions is to be
2 prepared for an unexpected contingency. As such, mobile dispatch decisions must also consider
3 any recall time requirements before deployment. NS Power is careful and hesitant to deploy a
4 mobile for a project since it could cause delays elsewhere for unplanned events. Also to note,
5 recalling a mobile from an ongoing maintenance or construction activity to address an unplanned
6 outage elsewhere on the system can add weeks or months of delay to the execution of the project.
7 Consequently, NS Power must make careful decisions about mobile commitments when known
8 risks, whether they come to fruition or not, have the potential to exceed NS Power's mobile fleet
9 availability. Restoration in the event of an unplanned outage can become much more challenging
10 in a scenario where NS Power has no available mobile transformers with which to respond.

Mobile	Year	Installation Date	Removal Date	Location	Reason for Mobile	Transformer Number	Transformer Rating	Voltage Level	Number of Customers Affected
5P	2025	January	February	L-5031	Transmission Project				
5P	2025	March	April	Spring Weight Restrictions					
5P	2025	May	June	Yarmouth	Required Maintenance	88W-T51/52	Combined 40MVA	69kV	6336
5P	2025	June	July	Mobile Repairs					
5P	2025	August	October	Whycocomagh	Emergency Repair	67C-T64	25MVA	138kV	3559
5P	2025	November	November	Sydney	Emergency Repair	4S-T53	22.4MVA	69kV	3438
5P	2026	March	April	Spring Weight Restrictions					
6P	2025	January	March	Glace Bay	Emergency Repair	81S-T2	28MVA	69kV	5042
6P	2025	March	April	Glace Bay	Road Repair to Transport Mobile				
6P	2025	July	August	Whycocomagh	Emergency Repair	67C-T64	25MVA	69kV	3559
6P	2025	August	September	Mobile Repairs					
6P	2025	October	November	Guysborough	Transformer Maintenance	57C-T1	12.5MVA		2892
6P	2026	January	Present	Bridgewater	Emergency Replacement	73W-T1	14MVA	69kV	6597
9P	2025	December, 2024	March	Mount Uniacke	Support Winter Load	131H/143H	46MVA	138kV	3700
9P	2025	March	April	Spring Weight Restrictions					
9P	2025	May	June	Antigonish area	Breaker Replacement	4C-T63	25MVA	138kV	7226
9P	2025	June	June	Hammonds Plains	Transformer Maintenance	137H-T61	42MVA	138kV	10817
9P	2025	July	July	Kearney Lake	Mobile Bushing Replacement				
9P	2025	July	August	Kearney Lake	Transmission Line Relocation				
9P	2026	November, 2025	July	Stellarton	Mobile Repair - Long Lead Parts				
9P	2026	August	Present	St. Margaret's Bay	Transformer Replacement	92H-T61	12.5MVA	138kV	4959

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Request IR-21:

Please describe how NS Power determines when to use a mobile transformer and the criteria or strategies used to prioritize locations when there is a shortage of available mobile transformers, as in the current case.

Response IR-21:

When mobile substation availability is constrained, NS Power prioritizes deployment based on system reliability risk, contingency requirements, geographic coverage, technical compatibility, and operational flexibility. The objective is to maximize overall system resilience while maintaining the ability to respond to unplanned substation failures.

In applying these principles, NS Power seeks to:

- Maintain at least one suitably rated mobile substation available for emergency response whenever practical.
- Position mobile substations to provide effective geographic coverage across both mainland Nova Scotia and Cape Breton, while considering transportation logistics, storage facilities, and expected response times.
- Locate units where their voltage class, capacity, and technical characteristics are compatible with the greatest number of substations and contingency scenarios.
- Adjust deployment strategies seasonally, particularly during winter periods when transformer loading and customer reliability risks are typically higher.
- Minimize long-term occupation of mobile transformers at a single site to preserve flexibility and enable redeployment should a higher-priority contingency arise.

As a result, deployment decisions are not based on any single asset or project, but rather on an assessment of overall system risk and the ability of the mobile fleet to support both planned work and emergent equipment failures.

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Request IR-22:

In response to IR-13f) (i), NS Power stated:

**The project is currently scheduled for completion in December 2026.
Approximately 6 to 8 weeks of construction work remain outstanding.**

(a) Please describe the status of the bypass structure installation.

(i) If the structures have been built, please provide the start date and completion date.

(ii) If the structures have not been built due to transmission line restrictions, please explain whether a mobile transformer has been available for use now or since Q1 2025.

(a) If yes, please explain why NS Power still requests the installation of bypass structures.

(b) If not, please explain why and whether other alternatives have been considered for other emergency events.

(b) Please explain why, in response to IR-5(d), NS Power quoted a mobile transformer rental cost of \$540,000 based on a three-month rental period, when the remaining work is expected to take approximately six to eight weeks to complete.

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1 Response IR-22:

2
3 (a)

4 (i) The bypass structure installation started in August 2026 and is expected to finish in
5 mid October 2026. An overnight customer outage is required to connect and
6 energize the bypass.

7
8 (ii) Please refer to part (a) (i). A mobile transformer has not been available for this work
9 since Q1 2025.

10
11 (b) The rental period for the mobile transformer has been estimated at three months.
12 Approximately one week is required for transportation, installation, and commissioning of
13 the mobile transformer at the site. Following completion of the work, an additional week
14 will be required to disconnect, remove, and transport the unit back to the rental provider.

15
16 A two-week contingency allowance has also been included to account for potential
17 weather-related delays and other unforeseen scheduling constraints. Based on these
18 considerations, a total rental duration of three months has been assumed.

19
20 Please note that mobile transformer rental units are not typically available within the
21 province and must be sourced from out-of-province suppliers, which further supports the
22 need for the proposed rental duration.

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Request IR-23:

Please explain why the project cannot be postponed until a mobile transformer is available.

Response IR-23:

A mobile transformer is not expected to be available in the foreseeable future, as all available units are already committed to ongoing and planned substation capital projects across the system. Please refer to IR-21, which further explains how NS Power prioritizes the use of the mobile units across the system.

Given the condition of the existing transmission line, NS Power considers it prudent to proceed with the replacement work in a timely manner to maintain system reliability and reduce the risk of service interruptions. Deferring the work until a mobile transformer becomes available would introduce unnecessary operational risk and is not considered a reasonable approach under the current circumstances.

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Request IR-24:

In response to IR-16, NS Power stated that a bypass structure at the L-5037 tap location is required regardless of whether a mobile transformer is used and that a design was developed in January 2025.

(a) Please describe the function and connection of the bypass structure at the L-5037 tap location if a mobile transformer is used for the project.

(b) Please include technical diagrams or GIS maps, if necessary.

(c) Please explain how NS Power serves customers at 85W if a mobile transformer is available for the project.

Response IR-24:

(a) The bypass at the line L-5037 tap location is required to maintain service to a key commercial customer throughout the construction period. The same requirement applies whether the work is completed using a mobile transformer unit or a bypass configuration. NS Power has no alternate means of supplying this customer while the work is being completed. The bypass design is provided in IR-12 Attachment 2, page 3 of 3.

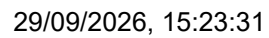
(b) Implementation of the bypass is necessary to facilitate the project construction sequence by allowing the work to be divided into two phases. This approach enables the project to proceed while maintaining continuous service to the affected customer and minimizing outage impacts during construction. Attachment 1 illustrates both the GIS-generated layout and a hand-drawn schematic of the two proposed configurations required to establish the necessary transmission line outages for completion of the structure replacement work.

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1 (c) If a mobile transformer were available, the customer at 85W would be supplied using the
2 same configuration described in part (b) above, enabling completion of the first phase of
3 construction, which includes the replacement of Structures 001A through 038. Under this
4 arrangement, the mobile transformer would provide temporary supply from the Robinsons
5 Corner location.

6
7 However, completion of the second phase of construction, which includes the replacement
8 of Structures 038 through 075, would require the first section of line L-5031 to be fully
9 completed and energized. At that stage, the customer fed by the 85W substation would be
10 supplied from the 87W substation, representing the normal system configuration for
11 serving line L-5031.

12
13 The bypass at L-5037 allows the two configurations for both scenarios.

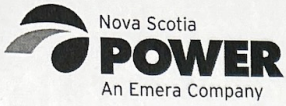


1:154,628

0 0.75 1.5 3 mi

0 1.5 3 6 km

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, NSPI GIS Team, April 2022



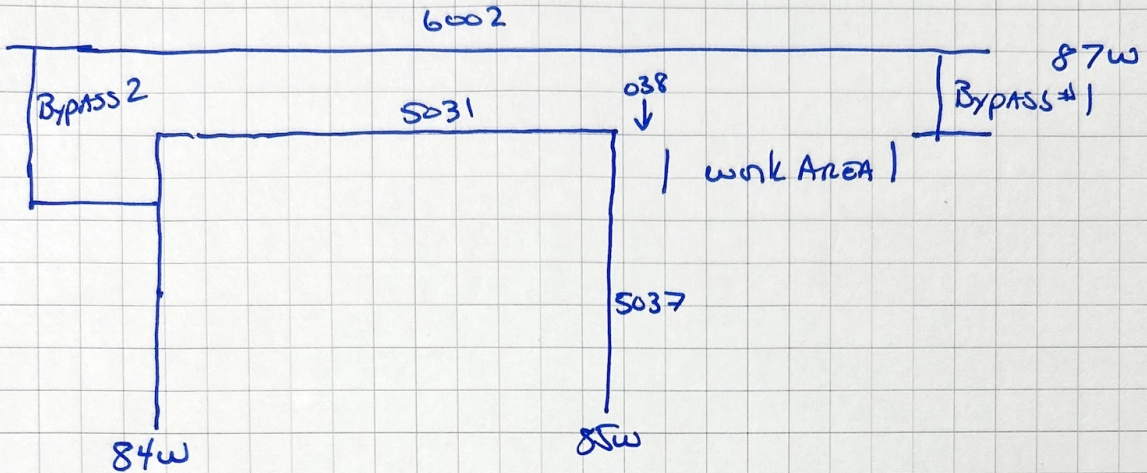
SYSTEM
SUBJECT
DESIGN

SHEET No.

CHECKED

DATE

For work on L5031 between 001A to 038.



For work on 5031 between 038 to 075.

