

CONFIDENTIAL (Attachment only)

Request IR-1:

The following IRs are in reference to the Year 4 2024/25 Evaluation Report: Time Varying Pricing Pilot Program.

The Board's decision in matter M11823 directed Nova Scotia Power (NS Power) to provide an analysis of the corresponding system margin forecasts and Critical Peak Pricing (CPP) events in the Year 4 report. In Appendix A attachment VII, NS Power provided Table 77: Dates and Times of Low Forecast System Margin and Whether a Critical Peak Event was Scheduled during the 2024/25, which identified when the system margin forecast was less than 50 MW with the date, hour and if a CPP event was scheduled. Please revise the table to include a column with the forecast system margin values.

Response IR-1:

Please refer to Partially Confidential Attachment 1.

Period of Low Forecast System Margin		Forecast Day Ahead System Margin	During Scheduled Critical Peak Event
Date	Hour Start	MW	Yes / Canceled / No
2024-12-04	17:00		Yes
2024-12-04	18:00		
2024-12-04	19:00		
2024-12-04	20:00		
2024-12-15	17:00		Yes
2024-12-15	18:00		
2024-12-15	19:00		
2024-12-15	20:00		
2024-12-20	7:00		Yes
2024-12-20	8:00		
2024-12-20	9:00		
2024-12-20	10:00		
2024-12-22	17:00		Yes
2024-12-22	18:00		
2024-12-22	19:00		
2024-12-22	20:00		
2024-12-23	7:00		Yes
2024-12-23	8:00		
2024-12-23	9:00		
2024-12-23	10:00		
2024-12-23	17:00		Yes
2024-12-23	18:00		
2024-12-23	19:00		
2024-12-23	20:00		
2025-01-21	17:00		Yes
2025-01-21	18:00		
2025-01-21	19:00		
2025-01-21	20:00		
2025-01-22	7:00		Yes
2025-01-22	8:00		
2025-01-22	9:00		
2025-01-22	10:00		

Period of Low Forecast System Margin		Forecast Day Ahead System Margin	During Scheduled Critical Peak Event
Date	Hour Start	MW	Yes / Canceled / No
2025-02-02	17:00		Yes
2025-02-02	18:00		
2025-02-02	19:00		
2025-02-02	20:00		
2025-02-05	17:00		Yes
2025-02-05	18:00		
2025-02-05	19:00		
2025-02-05	20:00		
2025-02-06	7:00		Yes
2025-02-06	8:00		
2025-02-06	9:00		
2025-02-06	10:00		
2025-03-04	7:00		Yes
2025-03-04	8:00		
2025-03-04	9:00		
2025-03-04	10:00		
2025-03-10	7:00		Yes
2025-03-10	8:00		
2025-03-10	9:00		
2025-03-10	10:00		
2025-03-11	7:00		Yes
2025-03-11	8:00		
2025-03-11	9:00		
2025-03-11	10:00		
2024-12-10	17:00		Cancelled Event
2024-12-10	18:00		
2024-12-10	19:00		
2024-12-10	20:00		

Period of Low Forecast System Margin		Forecast Day Ahead System Margin	During Scheduled Critical Peak Event
Date	Hour Start	MW	Yes / Canceled / No
2025-02-12	7:00		Cancelled Event
2025-02-12	8:00		
2025-02-12	9:00		
2025-02-12	10:00		Cancelled Event
2025-02-12	17:00		
2025-02-12	18:00		
2025-02-12	19:00		No
2025-02-12	20:00		
2024-11-02	16:00		
2024-11-02	17:00		No
2024-11-02	18:00		
2024-11-02	19:00		
2024-11-02	20:00		No
2024-11-02	21:00		
2024-11-03	16:00		
2024-11-03	17:00		No
2024-11-03	18:00		
2024-11-03	19:00		
2024-11-03	20:00		No
2024-11-04	7:00		
2024-11-04	8:00		No
2024-11-04	9:00		
2024-11-04	15:00		
2024-11-04	16:00		No
2024-11-04	17:00		
2024-11-04	18:00		
2024-11-04	19:00		No
2024-11-04	20:00		
2024-11-04	21:00		
2024-11-04	22:00		No
2024-11-24	17:00		
2024-11-24	18:00		
2024-11-26	7:00		No
2024-12-16	7:00		No
2024-12-23	16:00		No
2024-12-23	21:00		No
2024-12-23	22:00		

Period of Low Forecast System Margin		Forecast Day Ahead System Margin	During Scheduled Critical Peak Event
Date	Hour Start	MW	Yes / Canceled / No
2024-12-24	7:00		No
2024-12-24	8:00		
2024-12-24	9:00		
2024-12-24	17:00		No
2024-12-24	18:00		
2025-01-13	16:00		No
2025-01-13	17:00		
2025-01-13	18:00		
2025-01-14	17:00		No
2025-01-17	6:00		No
2025-01-17	7:00		
2025-01-17	8:00		
2025-01-17	9:00		
2025-01-17	10:00		No
2025-01-17	16:00		
2025-01-17	17:00		
2025-01-17	18:00		No
2025-01-18	6:00		
2025-01-18	7:00		
2025-01-18	8:00		
2025-01-18	9:00		No
2025-01-21	16:00		
2025-01-21	21:00		
2025-01-23	7:00		No
2025-01-29	7:00		No
2025-01-29	8:00		
2025-01-29	9:00		
2025-01-29	16:00		No
2025-01-29	17:00		
2025-01-29	18:00		
2025-01-29	19:00		
2025-01-29	20:00		

Period of Low Forecast System Margin		Forecast Day Ahead System Margin	During Scheduled Critical Peak Event
Date	Hour Start	MW	Yes / Canceled / No
2025-02-06	5:00		No
2025-02-06	6:00		
2025-02-08	18:00		No
2025-02-09	5:00		No
2025-02-10	7:00		No
2025-02-11	7:00		No
2025-02-11	8:00		
2025-02-12	21:00		No
2025-02-13	7:00		No
2025-02-13	8:00		
2025-02-13	9:00		
2025-02-22	18:00		No
2025-02-22	19:00		
2025-02-22	20:00		
2025-03-11	6:00		No

NON-CONFIDENTIAL

Request IR-2:

The following IRs are in reference to the Year 4 2024/25 Evaluation Report: Time Varying Pricing Pilot Program.

In response to Board IR-6 in the Year 3 Report in matter M11823, NS Power was asked if it will revise the control group matching approach to improve the match for de-electrified participants, to which NS Power responded that it will consider a revised approach if a viable method can be found.

(a) Has NS Power identified or considered any revised approaches since it filed the Year 3 Report?

Response IR-2:

(a) Yes, NS Power identified and implemented revised approaches to control group selection methodology in Year Four, including specific changes to improve the quality of control group selection which in turn improves matching of heating type participants. The control group selection process modifications are summarized in Table 66.¹ Additionally, a key change was made to the heating classification methodology primarily affecting de-electrified heating class:

Instead of using AMI data from all 24 hours, data for heating classification is restricted to only overnight hours (i.e. 10 PM – 5 AM). This method will ensure that a customer who reduced their space heating load during peak hours, while maintaining electric space heating during off-peak hours will continue to be classified as electrically heated. This distinction is critical in capturing the effect of the TVP price signal on those who have modified their use of space heating due to the price signal.²

¹ TVP Year Four (2024/25) Report, Appendix A, page 114.

² TVP Year Four (2024/25) Report, Appendix A, Attachment IV, page 135.

NON-CONFIDENTIAL

Request IR-3:

The following IRs are in reference to the Year 4 2024/25 Evaluation Report: Time Varying Pricing Pilot Program.

Please quantify by rate class who left the TVP pilot and those who switched from CPP to TOU and vice versa.

Response IR-3:

Please refer to the table below.

TVP Rate Class	Total Counts of Transition
Domestic TOU → CPP	31
Domestic CPP → TOU	12
Small General TOU → CPP	0
Small General CPP → TOU	0
General TOU → CPP	0
General CPP → TOU	0

With respect to TVP customers by rate class who left the TVP pilot, please refer to Table 6, column C of the Year Four Report (withdrew mid Phase 4 Winter November 1, 2024 to March 31, 2025).

In the course of responding to this request, NS Power identified a labeling error in Table 6, where “General CPP” and “General TOU” is misplaced in “TVP Tariff” column. The corrected labeling for Table 6 is provided below.

NON-CONFIDENTIAL

Table 6: Participation Summary and Retention Results

TVP Tariff	A Enrolled prior to beginning of Phase 4 Winter (October 31, 2024)	B Enrolled during Phase 4 Winter (November 1, 2024 to March 31, 2025)	C Withdrew mid Phase 4 Winter (November 1, 2024 to March 31, 2025)	D Remained enrolled at end of Phase 4 Winter (March 31, 2025)	$1 - \left(\frac{C}{A + B}\right)$ Percentage of Enrolled Participants Who Completed Phase 4
Domestic TOU	2,174	4,271	829	5,616	87%
Domestic CPP	885	2,023	266	2,642	91%
Small General TOU	36	5	4	37	90%
Small General CPP	3	16	2	17	89%
General TOU	19	0	1	18	95%
General CPP	6	32	2	36	95%
MURB TOU	10	0	0	10	100%

NON-CONFIDENTIAL

Request IR-4:

The following IRs are in reference to the Year 4 2024/25 Evaluation Report: Time Varying Pricing Pilot Program.

Did NS Power anticipate any energy savings during off-peak periods?

(a) If so, how much by rate class, and was it achieved?

Response IR-4:

(a) NS Power did not anticipate or establish specific energy savings targets for off-peak periods by rate class. A primary objective of the TVP program is to encourage customers to shift electricity consumption away from peak periods, rather than to achieve a set amount of energy savings off-peak. As customers adjust electricity use patterns, total energy consumption, including off-peak consumption, may increase, decrease, or remain unchanged depending on how individual customers respond to the price signals of the tariffs. Consistent with the Board-approved EM&V Plan, this impact, and the peak reduction relative to total energy reduction, has not been evaluated based on the scope of the TVP program evaluation.

NON-CONFIDENTIAL

Request IR-5:

The following IRs are in reference to the Year 4 2024/25 Evaluation Report: Time Varying Pricing Pilot Program.

(a) Please describe the heating scenario mix for domestic customers who are on a standard tariff.

(b) Please also describe the anticipated change in this mix over the next ten years and the anticipated effects of changes in the mix on the performance of the TOU and CPP rates.

Response IR-5:

(a) Consistent with the Board-approved EM&V Plan, heating source mix for standard tariff customers was not included within the scope of the Year Four evaluation. However, based on the 2026 Load Forecast Report,¹ it is estimated that approximately 63 percent of all residential customers used electricity as their primary heating source in 2025.

(b) The 10-Year Load Forecast Report forecasts an increase of primary electric heating for all residential customers from 63 percent to 81 percent by 2036. This change has not been evaluated with respect to potential performance of Time-of-Use (TOU) and Critical Peak Pricing (CPP) tariffs. However, as customers electrify their heating, the positive results from Steady Electric and Electrified customers demonstrate the value of residential TOU and CPP rates as electricity consumption becomes a larger portion of customers' energy budget, both in terms of peak reduction and customer savings.

¹ M12861, Exhibit N-1, NS Power, 2026 Load Forecast Report, May 15, 2026.

NON-CONFIDENTIAL

Request IR-6:

The following IRs are in reference to the Year 4 2024/25 Evaluation Report: Time Varying Pricing Pilot Program.

Appendix A, pdf page 37 presents Table 6: Participation Summary and Retention Results.

With reference to the Small General and General customers:

- October 31, 2024: 42 TOU customers (36+6) and 21 CPP customers (3+19) for a total of 64 TVP commercial participants.**
- March 31, 2025: 73 TOU customers (37+36) and 35 CPP customers (17+18) for a total of 108 TVP commercial participants.**
- Enrolled during Phase 4 Winter (new enrollments): 37 TOU and 16 CPP.**

However, Appendix C pdf page 248 of the Year 4 Report, the enrollment as of January 9, 2025, 26 new commercial CPP customers and 0 new commercial TOU customers. Enrollment was 54 TOU commercial customers and 53 commercial CPP customers for a total of 107. Please explain the discrepancies between these reported numbers.

Response IR-6:

The figures in Appendix C (page 248) of the Year 4 Report reflect customer applications for TVP and do not necessarily correspond on a one-to-one basis with customer enrolments. Application counts are a metric used by marketing to assess the effectiveness of customer outreach and enrolment efforts.

Differences between application counts and enrolment counts can occur for a number of reasons. For example, a customer may submit applications for multiple accounts within a single application,

NON-CONFIDENTIAL

1 apply for both Critical Peak Pricing and Time-of-Use rates for the same account, withdraw their
2 application before enrolment is completed, or apply for a rate for which they are ultimately
3 determined to be ineligible. In such cases, NS Power works directly with the customer to address
4 the requests, but the resulting enrolment may differ from the original application count.

5
6 For the purposes of evaluating the TVP tariffs, the Company relies on the actual number of enrolled
7 customers, as reported in Tables 5 and 6 of Appendix A (page 37), is used rather than application
8 counts.

9
10 Finally, in the course of responding to this IR, NS Power also identified a labeling error in Table
11 6, which is addressed in response to NSEB IR-3.

NON-CONFIDENTIAL

Request IR-7:

The following IRs are in reference to the Year 4 2024/25 Evaluation Report: Time Varying Pricing Pilot Program.

Appendix A discusses how NS Power has improved communications with potential TVP pilot participants regarding Bill Savings using an estimation tool for inbound customer inquiries. Please discuss the communication improvements NS Power has made to with its existing TVP pilot customers about Bill Savings.

Response IR-7:

For improving communications for potential pilot participants in Year Four, marketing revised the content around each rate pilot option and its benefits in terms of describing how Time-of-Use (TOU) and Critical Peak Pricing (CPP) uniquely work, including their specific potential savings or unique perks. Part of that shifted the content seen on the landing pages and marketing materials, making steps towards moving more plain language and be more promotional in nature. This resulted in Time-of-Use's tag line as Summer Savings as in the warmer months (April-October) participants on this rate pilot would see their savings or perks during the warmer months, more content around this methodology was also developed to help educate how the program works. NS Power also implemented better application communications (emails to update on their application status).

Additionally, Customer Care Representatives were provided an internal tool for inbound inquires to help customers who were unsure which rate option would work best for them.

For improving communications for existing TVP participants, the marketing team worked on building out content and engagement opportunities in-season, to help participants be successful on their unique rate pilot, this included new energy saving tips, a time-of-use blog, and increasing in-season emails such as a mid-season check in for TOU participants featuring tips and Critical Peak

NON-CONFIDENTIAL

- 1 Event Prep email which again included tips to help customers prepare for the first event of the
- 2 season to achieve the best results.

NON-CONFIDENTIAL

1 **Request IR-8:**

2
3 **The following IRs are in reference to the Year 4 2024/25 Evaluation Report: Time Varying**
4 **Pricing Pilot Program.**

5
6 **NS Power’s Demand Charge Assessment on pdf page 502 states**

7
8 **“On average customers shifting load from peak to off-peak hours experience**
9 **demand increase with negligible increase in savings after shifting 6% or more**
10 **of peak consumption to off-peak periods. Although customers are not**
11 **financially penalized for shifting load beyond 6%, the increase in demand**
12 **charge offsets the savings in energy costs.”**

13
14 **And at pdf page 506**

15
16 **“In order to achieve load shifting levels above 6%, revisions to the demand**
17 **pricing structure should also be considered as a secondary improvement if not**
18 **otherwise mitigated by technology to optimize demand.”**

19
20 **Please discuss NS Power’s plans to model removing the demand charge.**

21
22 **Response IR-8:**

23
24 **NS Power does not currently plan to undertake additional modeling specific to the removal of the**
25 **demand charge. The Multi-unit Residential Building (MURB) Time-of-Use (TOU) Tariff, which**
26 **remains in the early stages of pilot, was implemented without a demand charge and will continue**
27 **to provide information regarding customer response to a rate structure that does not include**
28 **demand-based pricing. Any future consideration of potential changes to demand charge design for**
29 **TVP rates, including whether additional modelling is warranted, would be appropriately**
30 **considered through the Company’s ongoing pricing innovation process and stakeholder**
31 **engagement. Please also refer to the response in CA IR-18.**

NON-CONFIDENTIAL

Request IR-9:

The following IRs are in reference to the Year 4 2024/25 Evaluation Report: Time Varying Pricing Pilot Program.

In reference to Appendix C, TVP Tariff Marketing and Recruitment:

(a) Pdf page 246 presents a table Summary of Business Recruitment Key Contacts. The measures for Year 4 show an improvement in Click Rate, but a decrease in Total Average Time on Landing Pages. How do these results inform NS Power’s marketing strategies for 2026/27?

(b) Pdf page 246 details that NS Power targeted its marketing through two Chamber of Commerce Newsletters. Was this a productive strategy?

(i) Does NS Power intend to use a similar campaign with other Chambers of Commerce?

(c) Pdf page 248 presents SMB Recruitment with a table on commercial enrollment, targets, Year 4 new applications and Enrollment (as of January 9, 2025). Below the table is a bullet point stating “20% of Business Enrollment Targets were achieved.”

(i) What was the enrollment target for Year 4?

(ii) Is the 20% of target enrollment in reference to the Year 4 new applications?

(1) If so, what were the Year 4 targets for the Time of Use (TOU) and CPP rates?

(2) If not, what is the 20% of enrollment target in relation to?

NON-CONFIDENTIAL

1 **(d) Pdf page 250 reviews Year 4 - Challenges and Opportunities.**

2
3 **(i) Under the heading Opportunities, the first bullet describes conversations with**
4 **NS Power Commercial Advisors as the most effective recruitment tool. How**
5 **many commercial customers did these advisors recruit in Year 4?**

6
7 **(1) How many customers did the Commercial Advisors discuss the TVP**
8 **pilot with?**

9
10 **(ii) The second bullet describes longer lead times and recruitment periods to build**
11 **up interest. Please describe how NS Power is altering its recruitment strategies**
12 **as informed by this opportunity statement.**

13
14 Response IR-9:

15
16 (a) The combination of higher click rates suggests that NS Power's marketing efforts are
17 successfully attracting interested audiences. The decrease in average time spent on landing
18 pages presents two possible interpretations: (1) user experience enhancements may be
19 helping customers find the information they need more quickly and proceed directly to an
20 application or next step, or (2) visitors may not be finding the information they expected
21 and are leaving the page sooner.

22
23 Overall, results over the past four years indicate that email marketing is not the most
24 effective recruitment channel for this customer type. Performance trends suggest that
25 business customers are more effectively engaged through targeted, relationship-based
26 approaches, such as direct outreach and engagement with NS Power Commercial Advisors.
27 As a result, NS Power will continue to prioritize these high-touch recruitment strategies in
28 future recruitment.

NON-CONFIDENTIAL

1 (b) There is no evidence advertising and networking with Chambers of Commerce is
2 productive strategy, as limited to no metrics were generated.

3
4 (i) NS Power still plans to reach out to Nova Scotia's Chambers of Commerce for
5 future awareness advertising.

6
7 (c) (i-ii) In the course of responding to this request, the Company identified that the 20
8 percent target listed on page 248 of the Year Four Report is an error. The correct
9 percentage to target is 5 percent to total target achieved with General and Small
10 General rate classes.

11
12 (1) Time-of-Use (TOU) and Critical Peak Pricing (CPP) Year Four (2024/25)
13 Small-to-Medium Businesses (SMB) targets were a total of 2,000, with
14 enrolment of 500 for each of the TOU and CPP tariffs in each of General
15 and Small General rate classes.

16
17 (2) Please refer to the response in subpart (c)(i-ii).

18
19 (d) (i) Of the new SMB customers recruited in Year Four, all except four were enrolled
20 through NS Power Commercial Advisors.

21
22 (1) NS Power's Commercial Advisors estimate that they discussed the TVP rate
23 pilot options with approximately 50 customers during the recruitment
24 period in 2024.

25
26 (ii) In response to the opportunity identified, NS Power is adjusting its recruitment
27 approach to support longer customer decision-making timelines. Commercial
28 Advisors will engage in conversations about TVP rate options throughout the year,
29 rather than during a concentrated recruitment period. Advisors will use customer
30 energy data to demonstrate the potential value of participation and identify

NON-CONFIDENTIAL

1 customers that may benefit from the program. Once a customer expresses interest,
2 advisors will begin collecting application information for their buildings and
3 portfolios in advance. This proactive approach is intended to streamline the
4 enrollment process, provide additional support to customers, and improve
5 recruitment outcomes.

NON-CONFIDENTIAL

Request IR-10:

The following IRs are in reference to the Year 5 2024/25 Evaluation Report: Time Varying Pricing Pilot Program.

There are several references to the Multi Unit Residential Building (MURB) TOU participants' load increasing. Did NS Power examine the potential causes of the increase in load for these customers?

(a) How are these results influenced by the number of residents in MURB?

(b) Do the graphs on page 19 presenting the pre-treatment and post-treatment net load measure the same residents or occupied units or is it at an aggregate MURB level?

(i) If it is at an aggregate MURB level, could the results have been affected by an increase in the number of residents in a MURB?

(ii) Can this analysis be performed on an occupied residential unit basis?

Response IR-10:

The Company did not examine the specific causes of the increase in load observed for Multi-unit Residential Building (MURB) Time-of-Use (TOU) participants. The evaluation is based on available electricity consumption data. Occupancy and resident information for separately metered residential units is not available to the Company and, therefore, was not included in the evaluation.

(a) NS Power cannot quantify the extent to which the results are influenced by the number of residents in a MURB because resident count and occupancy data are not available.

(b) The MURB TOU evaluation, including the graphs on page 19, evaluates the electricity consumption recorded at the MURB house meter. Separately metered residential meters

NON-CONFIDENTIAL

1 are not included in the analysis. Accordingly, the evaluation reflects aggregated house
2 meter consumption and does not track the number of residents living in the MURB or
3 changes in occupancy over time.
4

5 (i) The MURB TOU Tariff applies to electricity consumption at the MURB house
6 meter and is available to multi-unit residential buildings that take service through a
7 house meter. The evaluation of this tariff is therefore designed to assess changes in
8 electricity consumption at the house-meter-level, consistent with the design and
9 eligibility requirements of the tariff.¹ Occupancy and resident information are not
10 required for administration or evaluation of the tariff and are not available to NS
11 Power. Accordingly, the Company cannot determine the extent to which changes
12 in occupancy, if any, may have influenced the observed results.
13

14 (ii) Performing the analysis on a per-occupied-unit basis would require unit-level
15 occupancy information for the pre-treatment and post-treatment periods. Such
16 information is not available to NS Power and falls outside the scope of the tariff
17 evaluation.

¹ Please refer to Availability Condition (a) of the MURB TOU Tariff.
