

2025 Load Forecast Report (NSEB M12349)
NSPI Responses to Solar Nova Scotia Information Requests

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Request IR-1:

Please provide the summer peak demand for the years 2024, 2030 and 2035 (both exclusive and inclusive of behind-the-meter solar generation).

Response IR-1:

Peak demands are shown in the table below:

Year	Winter Peak (MW)	Winter Peak without behind- the-meter generation (MW)	Summer Peak (MW)	Summer Peak without behind- the-meter generation (MW)
2024	2,088	2,089*	1,435	1,463*
2030	2,474	2,474	1,509	1,612
2035	2,672	2,672	1,488	1,765

*Solar impact estimated using the 2024 coincident peak factor for the month as found in Figure 68 times the 2024 nameplate capacity for solar net metering as found in the 2024 Net Metering Report¹ combined with the 2024 Commercial Net Metering Report.²

¹ M12165 – NS Power, 2024 Net Metering Report, Attachment 1, March 27, 2025.

² M12164 – NS Power, 2024 Commercial Net Metering Program Report, Attachment 1, March 27, 2025.

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1 **Request IR-2:**

2
3 **Please describe how “Time Variable Pricing (TVP) rates currently being piloted might start**
4 **to encourage battery installation either alone or in conjunction with solar panels” (s. 4.4.5,**
5 **line 10).**

6
7 **Response IR-2:**

8
9 Please refer to ESC IR-2.

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Request IR-3:

The 2025 Load Forecast Report anticipates 930 MW of behind-the-meter solar generation by 2035 (s. 4.4.4, pg. 42 of 94).

(a) Please state the proportion of this that is assumed to be residential, and non-residential.

(b) Please describe the incentives that are assumed to be available to residential and non-residential behind-the-meter solar (including program name, amount of incentive, etc) today, and whether any change to what is available today is assumed into the future.

(c) Does this renewable solar electricity output contribute to the Renewable Electricity Standard (RES)? If no, why not? If yes, what percentage of the RES in 2035 does it represent?

(d) Please describe the extent to which curtailment of this behind-the-solar solar fleet is assumed to occur.

Response IR-3:

(a) Approximately 74 percent is assumed to be residential and 26 percent non-residential.

(b) The assumptions for current incentives are outlined in the report on page 42. There are no specific assumptions regarding changes to incentives in the forecast period.

(c) Yes, renewable solar energy from behind-the-meter solar generation contributes to Renewable Electricity Standard compliance. An estimated RES percentage contribution

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1 from behind-the-meter solar for 2035 is 8.8 percent. The RES contribution was calculated
2 using the following formula:

$$\frac{\text{Behind-the-Meter Solar generation}}{(\text{Net System Requirement} - \text{Losses} + \text{Behind-the-Meter Solar generation})}$$

7 Behind-the-Meter Solar generation is found in Figure 30 (1,023 GWh in 2035)

8 Net System Requirement is found in Appendix A - Table A1 (11,365 GWh in 2035)

9 Losses are found in Appendix A - Table A1 (755 GWh in 2035)

11 (d) No curtailment of behind-the-meter solar is assumed to occur.

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Request IR-4:

Figures 31 and 32 present the average load per residential customer in summer and winter, with and without behind-the-meter solar. Does NS Power compare the peak contribution of residential customers based on other comparators (i.e., household income or size, postal code, etc)? If no, why not? If yes, please describe the analysis and results.

Response IR-4:

Yes, analysis has been completed for load effect of time-varying pricing (TVP) pilot through the evaluation measurement and verification (EM&V) process in 2022,¹ 2023,² and 2024³ annual reports. The TVP evaluation is sub-divided into two Tariffs: time-of-use (TOU) and critical peak pricing (CPP). The effect of TOU and CPP on load are evaluated for domestic, small general and general rate classes. Within the domestic rate class, the effect on load is evaluated for different space heating types (please refer to pages 11 and 12 of the 2024 evaluation report), regions and median household income (please refer to page 14 of the 2024 evaluation report). End-use intensities like EVs are also evaluated for their impact to peak, as described in section 4.4.3 of the Load Forecast Report.

Where possible, NS Power generally conducts load evaluations on Tariffs or end-use intensities that are expected to have a material impact on load and peak.

¹ M10703 – NS Power, TVP Pilot Program Interim Report, Appendix E, July 29, 2022.

² M11267 – NS Power, TVP Pilot Program Year Two Report, Appendix E, July 28, 2023.

³ M11823 – NS Power, TVP Pilot Program 2023/24 (Year Three) Evaluation Report, Appendix A, July 31, 2024.