Blackburn Law

July 18, 2023

VIA EMAIL

Ms. Crystal Henwood
Regulatory Affairs Officer/Clerk
Nova Scotia Utility and Review Board
1601 Lower Water Street, 3rd Floor
Halifax NS B3J 3S3

Dear Ms. Henwood:

Re: M11108 - Nova Scotia Power Inc. ("NSPI") - 2023 Load Forecast Report

On April 29, 2023, NS Power filed its 2023 Load Forecast Report (the "Report"). The Small Business Advocate (SBA) has reviewed the Report and filed Information Requests in this matter and provides the following submissions.

Changes since the 2022 Load Forecast:

The SBA is pleased to see many of the changes suggested in the 2022 Load Forecast matter (M10569) incorporated into the Report, including load-weighted weather from multiple stations, updates to the peak design temperature, and the hybrid scenario for electrification of building heat, among others. The SBA is particularly pleased to see data incorporated from the January 2023 Smart Grid Nova Scotia Semi-Annual Report in this iteration of the Load Forecast[1].

Electrification:

While understanding that the Load Forecast continues to be an iterative process, and marginal updates have been introduced to the electrification forecast, the SBA repeats its concerns from the 2022 Load Forecast report that the methodology, while well intentioned, omits scenario analysis that represents important understandings of the energy need of Nova Scotia.

As in the 2022 Load Forecast, NS Power implements a methodology by which they forecast uptake of heating and transportation electrification to meet emission goals and sales

[1] N-1.2023 Load Forecast Report. NSUARB M11108. April 28, 2023. Pages 40-43.

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targets[2],[3]. Doing so is an important scenario to understand what a future perfectly matched with stated policy will look like, and what it would take for NS Power to support this load. Nevertheless, this represents only a portion of possible futures.

The SBA notes that the EV values used in the 2023 Load Forecast has risen sharply from the 2022 edition to comply with the federal government's ZEV sales target of 60% by 2030 and 100% by 2035. In terms of load, the 2023 forecast incorporates 827 GWh of EV load by 2032, whereas the 2022 edition only included 510 GWh by 2032[4]. Peak load has nearly doubled from a 2022 value of 89 MW in 2032 to a 2023 value of 173 MW in 2032[5].

NS Power notes that the 2022 Load Forecast demonstrated a reduction in overall sales from the Commercial classes, the 2023 Load Forecast demonstrates an overall increase in sales, "driven mainly by the allocation of EV consumption to the commercial class (formerly all in the residential class).[6]" NS Power further notes that there are "no specific assumption around incentives that might impact EV and heat pump uptake.[7]" Without studying the current levels of uptake around electrification and the causes, NS Power risks utilizing a forecast that only considers one possible scenario of many, and risks over-estimating the impact of electrification on load in the short and medium terms. Such an overshoot by the load forecast risks inadvertent impacts on justifying extra capital costs in an IRP or negatively impacting the rate classes whose trajectory changes the most under various adoption scenarios, such as the Commercial class customers, when it comes to allocating rate increases.

In the absence of a recommendation to incorporate current incentive levels and their impact on uptake, the SBA would recommend the incorporation of a "missed" policy target scenario (lower electrification scenario), to inform analyses that utilize the load forecasts performed in this Matter.

Additional Opportunities:

The SBA appreciates the opportunity to raise additional recommendations as part of the annual iteration of the load forecasting work. NS Power forecasts Other Industrial Sales utilizing customer surveys, which are crucial in customer classes with low number of customers but high usage per customer. NS Power identifies load increases or decreases in these surveys and has forecasted 95 GWh of new load by 2027. NS Power further

[2] N-1. 2023 Load Forecast Report. NSUARB M11108. April 28, 2023. Pages 32 and 97.
[3] N-6. NSPI Responses to Small Business Advocate Information Requests. RIR-8a. June 20, 2023.
[4] N-1. 2023 Load Forecast Report. NSUARB M11108. April 28, 2023. Appendix E, Page 7.
[5] Ibid. Appendix E, Page 7.
[6] Ibid, Appendix E. Page 16.
[7] Ibid. Page 97.

acknowledged in information requests that it has not performed any sensitivity or historical survey accuracy analysis[8]. The SBA would recommend that NS Power note the historical realization rate of past survey forecasted loads in all survey-based class forecasts.

The SBA also notes the incorporation of Renewable to Retail (RTR) loads into the 2023 Load Forecast, amounting to 116 GWh in sales flat through the period starting in 2024[9]. The SBA acknowledges the conservative approach, given that failure of an RTR to supply their customers falls on NS Power to provide those customers with their load. As such, the SBA recommends NS Power discuss the impact of the RTR loads and their impact on load forecasts utilized in rate cases or IRP matters in future Load Forecast Reports (should they differ from those presented in the Load Forecasting Matter for that year).

Conclusion:

The SBA appreciates the improvements and additions to the 2022 Load Forecast made by NSPI and acknowledges that load forecasting is a never-ending process of continual improvement and iteration. The SBA recommends the inclusion of a low-adoption electrification scenario to supplement the understanding of system needs in the absence of incentive-informed uptake scenarios. The SBA also recommends a review of historical load survey sales realization for survey-based class sales forecasts, and the identification of the impact of RTR loads on rate classes when utilized in rate case or IRP matters.

All of which is respectfully submitted this 18th day of July, 2023.

Yours truly,

Melissa P. MacAdam
for
E.A. Nelson Blackburn, K.C.
Small Business Advocate

[8] N-6. NSPI Responses to Small Business Advocate Information Requests. RIR-7. June 20, 2023.
[9] N-6. NSPI Responses to Small Business Advocate Information Requests. RIR-6. June 20, 2023.