



Blackburn Law

July 29, 2022

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: M10569 - Nova Scotia Power Inc. ("NSPI") - 2022 Load Forecast Report

On April 29, 2022, NS Power applied for approval of its 2022 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 2021 Load Forecast

The SBA is pleased to see many of the changes suggested in the 2021 Load Forecast matter ("M10109") incorporated into the Report, including changes to peak design temperature, inclusion of a warming trend to peak causing weather, and population weighted weather for the residential model.

Other additions, such as updates to the electric vehicle ("EV") forecast and space heating forecast, are helpful as well, however the SBA believes they require fine-tuning. The changes to the electrification forecast, in combination with other changes, drive the change in Net System Requirement and System Peak forecasts from downward trends to showing growth over the study period.

Nova Scotia Smart Grid Project:

The Smart Grid Nova Scotia ("SGNS") Project is proposed to have over 100 smart chargers installed to investigate and test the impact of charging and therefore EV impact on load and peak demand¹. However, it is unclear where exactly this data is incorporated into the forecast absent the scenario analysis of Vehicle-to-Grid and managed charging discussed

¹ Exhibit N-1, 2022 Load Forecast Report, Page 44

briefly on Page 48 (under Section 4.4) of the Report. In the October 27, 2021 decision letter in M10109, the Board directed to NSPI to report results from this project “as it relates to the impacts that these pilot projects have on load” in the following year’s forecast². The SBA does not believe the information provided in Section 4.4 to be sufficient to adhere to this directive, and finds that it remains unclear from the Report how much the SGNS Project has informed the Load Forecast results. The SBA recommends the Board further direct NSPI to clarify where and how the SGNS data is incorporated into the Load Forecast, particularly as it relates to EV load and peak contributions.

Electrification Forecast:

The SBA appreciates the efforts of NSPI and their consultant E3 to incorporate growth of beneficial electrification into the Report. However, the SBA is concerned about the manner in which it was implemented. Throughout the Report and confirmed in Responses to Information Requests, NSPI acknowledges that the electrification forecasts were designed such that Nova Scotia meets provincial and federal emissions targets. While the adoption rates of both EVs and electric heating presented by NSPI over the study period are smoothed to achieve these targets, they are not based on current or planned incentive structures available to Nova Scotians³. This is very important since we can see that electrification is expected to add at least 605 GWh of load and 267 MW of peak in 2030 of the Report⁴.

As such, while the SBA recognizes this is a scenario analysis in the Load Forecast, an important first step involves acknowledging the lack of knowledge within Nova Scotia as to what types of intervention into the consumer choices of energy consumption must take place to effectuate electrification. Future iterations of the Load Forecast need to be informed with an understanding of the responsibilities within Nova Scotia regarding facilitation of electrification and as-available real-world data for further refinement. The SBA recommends further explicit incorporation of historical data obtained through the SGNS Project, forecasted EV and electric heating adoption rates based upon currently available or planned incentives (including rate incentives and structures), and further evaluation of the bands of uncertainty around adoption rates.

While the SBA agrees that the potential for higher system requirements to serve customer load increased via electrification is appropriate to include in NSPI planning, there is little certainty in this area. As an illustration of the magnitude of the electrification activity that

² M10109, Document Number 84757, Decision Letter, Dated October 27, 2021, Page 6.

³ Exhibit N-5, Response to SBA IR-10.

⁴ Exhibit N-1, 2022 Load Forecast Report, Figures 23, 28 and 34.

might need to occur, the increase in energy consumption from only transportation electrification by year 10 of the forecast is nearly the same amount of savings in energy that the forecast proposes to achieve in the same year of its three-year DSM plan that is proposed to cost approximately \$150,000,000. The lack of a plan within Nova Scotia on how to accomplish this leaves a great deal of uncertainty as to when and if electrification loads will show up on the NSPI system.

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 further direction clarifying the role that the SGNS Project data plays in informing the Load Forecast, as well as the evaluation of the impact that current or planned incentive structures would have on EV and electric heat adoption rates to be used in the primary forecast. Using a smoothed adoption rate to achieve the provincial and federal emission targets is beneficial for benchmarking progress against those goals by the incentive structure, but mixing a forecast with a scenario analysis intervention leads to confusion, misinformation, and potentially leads to insufficient incentives to actually achieve the level of growth in beneficial electrification required.

All of which is respectfully submitted this 29th day of July, 2022.

Yours truly,



Melissa P. MacAdam

for

E.A. Nelson Blackburn, Q.C.

Small Business Advocate