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Delivered by E-mail

Doreen Friis
Regulatory Affairs Officer/Clerk
Nova Scotia Utility and Review Board
3rd Floor 1601 Lower Water Street
PO Box 1692 Unit "M"
Halifax NS B3J 3S3

Dear Ms. Friis:

Re: **Generation Planning and NSPI 2016 10-Year System Outlook Report (M07540)**

In its letter of February 9, 2017, the Board identified a number of concerns with NSPI's progress on several items identified in the IRP Action Plan. NSPI was directed to incorporate discussion of these issues into the Technical Conference regarding NSPI's future plans for its thermal generation resources and the performance of the Tuft's Cove Units.

This letter is filed in response to the Board's invitation to interested parties to submit comments.

NSPI has indicated that while its annual energy sales have trended down over the past 10 years, the system peak demand has trended upwards over the same period. This has resulted in a change in utilization of its previously base-loaded steam units:

...[I]ntegration of variable renewable resources on the NS Power system has imposed revised operating and flexibility demands on previously base-loaded steam units.¹

Tufts Cove and other low capacity factor steam units noted above are being retained to predominantly serve capacity requirements in accordance with the updated demand forecast. Despite their low capacity factors, these generating units are required to serve firm peak demand and maintain the system's planning reserve margin.² (emphasis added)

¹ NSPI 10-year System Outlook Report, p.18

² NSPI 10-year System Outlook Report, p. 25

In other words, some units will be kept running in order to provide capacity, including load following,³ rather than for the energy they can produce. In this respect, they are just like combustion turbines.

In response to the Board's request⁴ (IR-4) regarding future operation, NSPI provided data from the 2014 *Integrated Resource Plan* (IRP). This showed Lingan 1 operating at capacity factors of about 2.5% in 2021-2026 (about 220 hours per year) and Tufts Cove 1-3 at an average of 0.1% (less than 10 hours per year). The information provided for the April 13, 2017 Technical Conference was different: Lingan 1 was shown at 25% in 2021 and Tufts Cove 1-3 averaging 19% in 2021. 2022-2026 forecasts were not provided. NSPI should be directed to provide this information.

In evaluating the adequacy of its resources to meet the firm customer load and required reserve margin, NSPI stated that it anticipates that any excess capacity it may currently carry will be eroded by 2022.

Planning for the future always entails a degree of uncertainty. In large part, this current uncertainty is driven by a lack of clarity in relation to Federal Government actions and particularly, the announced carbon pricing benchmark (to be implemented in Nova Scotia through a cap and trade program) and a planned natural gas regulation. NSPI has therefore indicated that it is making decisions with a strategy of achieving the "utmost flexibility" in its planning.

NSPI outlined in the Technical Conference what appears to be a very detailed approach to fleet performance management that mitigates risks without capital investment for refurbishment or replacement. The Industrial Group supports a process to optimize investments in the thermal fleet while maintaining flexibility - at least until such time as there is more certainty regarding regulatory imperatives and any Federal-Provincial equivalency agreement.

The Industrial Group would note that there are related cost allocation issues. To the extent these legacy thermal units are being used for capacity purposes (and this is manifestly so, according to the evidence of NSPI), it is reasonable that they should be classified 100% to Demand (the same as the combustion turbines). The same consideration holds true when these units are retired. One cannot assume that simply because these were placed into service as base load units and classified as such that this cost allocation holds true forever and a day. This issue was raised by Mr. Drazen during the 2013 COS proceeding. NSPI indicated in its Reply at that time:

The RES will drive changes to the use of NS Power's generation portfolio. However it remains to be determined what these changes will be for individual units. Unit utilization will be discussed during the pending IRP and this should

³ NSPI's hourly load can easily jump or fall by 100-150 MW in an hour. Some generating plants must be operated below or above their economic merit order level in order for the system to accommodate these changes in load. This is called operating reserve.

⁴ NSPI October 19, 2016 responses to Board information requests,

inform future COS decisions. In the interim, no changes to the classification of the Ligan units should be undertaken ..⁵.

The Board agreed in its decision that it was premature to revise the classification. The IRP did not address cost allocation but rather the least cost plan.

At this time, there is considerably more clarity regarding the utilization of these units and the Industrial Group would urge a review of their cost classification.

Finally, with respect to the capacity contributions of ERIS-connected wind, the Industrial Group observes that these plants, on a probabilistic basis provide capacity at peak. While NSPI "plans to continue to study" the issue, it has not even assigned a minimum value for these plants. The Industrial Group recommends that NSPI be directed to report to the Board on a date certain regarding the capacity value and cost allocation of ERIS-connected wind.

Conclusion

The Industrial Group supports a process to optimize investments in the thermal fleet while maintaining flexibility. Too aggressive plant retirements risks capacity shortfalls. We recommend that in light of the low utilization levels, NSPI review the classification of the thermal plants, and provide a forecast of capacity factors for the period 2022-2026. Finally, the Industrial Group recommends that NSPI expedite its analysis of the capacity value and cost-allocation of ERIS-connected wind.

Thank you for the opportunity to submit these comments.

Respectfully,

A handwritten signature in blue ink, appearing to read "Nancy G. Rubin", with a stylized flourish at the end.

Nancy G. Rubin

NGR/lmc

⁵ Cost of Service Study P-892 (M05473), Ex. N-30 NSPI Reply Evidence, December 2, 2013, at p. 39.