

March 24, 2014

By Electronic Delivery

#55246-SF

Ms. Doreen Friis
Regulatory Affairs Officer/Clerk
Nova Scotia Utility and Review Board
3rd Floor, Summit Place
1601 Lower Water Street
Halifax, Nova Scotia B3J 3P6

Dear Ms. Friis:

Re: [M05522] P-884.14 – 2014 Integrated Resource Plan (IRP)

Efficiency Nova Scotia Corporation (ENSC) has reviewed the proposed IRP Assumptions filed by Nova Scotia Power Inc. (NSPI) on March 14, 2014. We appreciate the opportunity to respond and provide these written comments for incorporation into the final IRP Assumptions to be completed by NSPI.

Treatment of DSM in the IRP

ENSC notes that NSPI's filed assumptions do not include details regarding how DSM will be treated in the IRP; the assumptions filed relate to the inputs to ENSC's DSM Potential Study.

While ENSC agrees it is important for NSPI and stakeholders to understand the inputs into the DSM Potential Study, ENSC asserts that it is critical that the DSM assumptions regarding the IRP be provided and that stakeholders be given enough time to review and comment on them in supplementary submissions.

ENSC has not seen NSPI's DSM-related assumptions. However, ENSC is concerned that DSM costs will not be treated by NSPI in a comparable manner to supply costs within the IRP.

In its comments on the IRP Terms of Reference, filed with the UARB on January 29, 2014, ENSC noted its agreement with NSPI's proposed Terms of Reference, based on the new description of the purpose and objective function of the IRP provided by NSPI.

1801 Hollis Street
Suite 2100, PO Box 1054,
Halifax, NS B3J 2X6

Tel 902.429.4111
Fax 902.429.8215
wickwireholm.com

#1301864

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ENSC was satisfied with the new description of the purpose and objective function of the IRP, as outlined on page 3 of 7 of the Terms of Reference, because previous reference to DSM Total Resource Cost had been deleted.

As emphasized, this change helps put both supply and demand-side options on an equal footing and is critical to ensure a fair and consistent treatment of supply and demand-side options within an Integrated Resource Planning exercise, which is primarily concerned with minimizing the cumulative present worth of the utility's annual revenue requirements over the planning period.

ENSC's submission also included a report by its expert DSM consultant, Dunskey Energy Consulting, providing a review of industry best-practice in support of this equal treatment of demand and supply options within the context of IRP development. ENSC's position of January 29, 2014, that inclusion of utility costs only is necessary to ensure a fair and consistent treatment of supply and demand-side options within the IRP, did not elicit any comment or objection from NSPI.

In subsequent discussions with NSPI, however, ENSC has been asked to provide customer costs for the four DSM scenarios included in the DSM Potential Study. ENSC confirms that it has provided these customer costs to NSPI for informational purposes only, with the clear statement that including customer costs on the demand side violates the objective function in the approved Terms of Reference, and if used will not result in a fair and consistent treatment of demand and supply-side options to determine the utility's "least cost" options for purposes of the IRP.

Other questions also exist. For example, ENSC does not have an indication as to how NSPI intends to "layer" the DSM options or incorporate demand response programs within the IRP. This lack of clarity illustrates the importance of NSPI filing its assumptions regarding the treatment of demand-side options within the IRP, with enough time for stakeholders to file supplementary submissions on them.

As with the Industrial Group's letter to NSPI dated March 21, 2014, ENSC submits that this will help to ensure that the IRP that emerges from this process is robust and reliable, and can be supported by ENSC and other stakeholders.

DSM Potential Study Assumptions

Specifically on ENSC's DSM Potential Study Report ("the Report"), ENSC maintains that the Report as filed provides an appropriate range of DSM potential for incorporation into the IRP.

NSPI's assumptions include a recommendation to change the Avoided Costs and electricity rate increases used in the Report. Throughout preparation of the Report, ENSC worked closely with Navigant to ensure the inputs and outputs were reasonable estimates of the achievable DSM potential in Nova Scotia. ENSC provided Navigant with the most recent Avoided Costs of DSM that had been vetted through a UARB

regulatory process, and the electricity rate increases were based on files given to ENSC by NSPI.

ENSC understands, however, that there may be a lack of awareness for Parties of the extent to which NSPI's recommendations impact the outputs of the DSM Potential Study. The following comments are designed to ensure that NSPI, the Board, its consultants, and stakeholders are aware of how the achievable potential filed by ENSC was developed.

As is highlighted in the DSM Potential Study, Navigant analyzed three types of DSM potential:

- **Technical:** The total amount of DSM potential in Nova Scotia (based on existing DSM measures) that may or may not be economic to administer.
- **Economic:** The total amount of DSM potential that passes a cost-effectiveness screening test (for the purposes of the study, the Total Resource Cost test was used).
- **Achievable:** The total amount of DSM that can be achieved in Nova Scotia over time.

It should be noted that while the amount of Achievable potential calculated in the DSM Potential study is a subset of the total Economic potential, the two are not directly linked.

Achievable potential is an amount of DSM that, given such constraints as the existing capacity of the administrator, the willingness and awareness of Nova Scotians to engage in DSM activities, the incentive levels provided, the amount of free-ridership that is measured, and other factors, can reasonably be expected to be obtained in Nova Scotia over the period.

The Achievable potential presented in the study has been calculated to include a calibration to these factors and prior years' DSM achievements. Achievable potential does not need to be economic, and not all economic potential is achievable. To be conservative, ENSC presented Achievable DSM that was determined to be economic; however, even if the economic potential was determined to be lower, the achievable potential, particularly in the near term, would not materially change.

ENSC could have presented a scenario for incorporation into the IRP that did not pass the TRC test. If the IRP analysis determined that that amount of DSM was lower cost than supply, then even non-economic DSM would minimize the revenue requirement to the utility.

This explanation is intended to demonstrate that whether or not specific inputs to the DSM Potential Study, including Avoided Costs and electricity rates, were changed,

the amount of achievable DSM in Nova Scotia, particularly in the short term, when the calibration is most relevant, would still be achievable.

ENSC, like other stakeholders and NSPI, wants to ensure the IRP contains appropriate assumptions and inputs. It is ENSC's position that the base, low, mid, and high scenarios of DSM achievable potential put forward in the DSM Potential Study are appropriate for incorporation into the IRP.

Supply Side Assumptions

Regarding assumptions on the supply side of the IRP, ENSC is concerned that several of the current assumptions may underestimate supply-side costs.

The assumptions in question are as follows:

Emissions Requirements

NSPI has included two sets of assumptions regarding the future emissions limits of CO₂, SO₂, NO_x and Hg throughout the IRP analysis period. At the March 7th IRP Technical Conference, the Nova Scotia Department of Environment expressed its concern that the low reduction scenarios presented for SO₂ and NO_x are unlikely. This would suggest that the current assumption set only includes one probable scenario, making it prudent for the IRP to include a third, more aggressive, scenario for these pollutants as well as for CO₂ to illustrate the relative costs of achieving such reductions.

Inclusion of Financing Costs for IRP Alternatives

ENSC requests clarification on whether or not the IRP will include the costs of financing associated with candidate IRP alternatives. ENSC also requests clarification on whether sensitivities in future borrowing rates will be explored.

Reserve Requirements

ENSC requests clarification on whether the IRP will include costs associated with increased spinning and planning reserve associated with new supply alternatives. Additionally ENSC requests clarification on whether the IRP will credit DSM activities (Demand Response and Energy Efficiency) commensurate with the associated reductions in reserve requirements.

Early Plant Retirement

In addition to a comparison with new generation, demand-side resources may be a less costly alternative when compared to existing supply. ENSC requests that the IRP Assumptions state that demand-side resources will be considered as an alternative to both existing and future supply-side resources as the IRP seeks to minimize the cumulative present worth of the annual revenue requirements over the planning

period. For existing thermal plants, the IRP should consider reduced operations and earlier retirement.

Demand Response

NSPI has suggested to stakeholders that demand response programs will be included for consideration within IRP scenario development. Such programs must receive equitable treatment in terms of utility costs and benefits when compared with supply-side options and Energy Efficiency. ENSC requests that NSPI share all relevant assumptions and supporting research for demand response alternatives included in this IRP.

Conclusion

We appreciate the opportunity to provide these formal written comments on the proposed IRP Assumptions filed by NSPI. We reiterate our position that it is critical that both supply and demand-side options are assessed on an equal footing throughout this IRP process.

We look forward to continuing to work closely with NSPI and all stakeholders throughout completion of the IRP process.

Yours very truly,

WICKWIRE HOLM



Sean Foreman
Direct Dial: 902.482.7020
sforeman@wickwireholm.com

SF:sw

Cc: ENSC
Nicole Godbout, NSPI
Bruce Outhouse, Q.C.
Participant List (P-884.14)