

Memorandum

TO: STAKEHOLDER GROUP FOR NOVA SCOTIA POWER 2014 IRP
CC: TIM WOOD, NOVA SCOTIA POWER (NS POWER)
STEVE PRONKO, NOVA SCOTIA UTILITY AND REVIEW BOARD (BOARD OR UARB)
FROM: RICK HORNBY, BOARD CONSULTANT, FACILITATOR
DATE: OCTOBER 3, 2014
RE: COMMENTS RESPONDING TO NS POWER SEPTEMBER 30 DRAFT 2014 IRP REPORT

On September 30th, NS Power distributed its Draft IRP report to participants in this process. Although Board consultants provided comments to NS Power as it was developing that report, NS Power determined which of those comments to include and thus NS Power is the report's sole author.

This memo presents my comments responding to elements of the September 30 Draft IRP report on which the other Board consultants and I have views which differ from those NS Power has presented. These are comments which we provided to NS Power both verbally and in writing between September 12 and September 27, when it was developing the September 30 Draft IRP report.

At the outset I wish to emphasize that the collaboration between NS Power and Board consultants worked very well in general. The NS Power team was receptive to feedback that Board consultants provided on the Terms of Reference, key input assumptions, the analysis framework for screening, selecting and assessing resource plans and on analyzing model results. Where the other Board consultants and I differ from NS Power is primarily regarding certain of the conclusions drawn from the modeling results and regarding the content of the final IRP report required by the Board approved Terms of Reference (TOR). For that reason we do not support certain statements and sections of the September 30 draft IRP report. The sections are primarily in Chapter 5 regarding conclusions drawn from the Candidate Resource Plan modeling results and selection of a Preferred Resource Plan (PRP) and in Chapter 6 regarding certain of the Action Plan items.

Responsive Comments on Key Issues

Section 2.1 2014 Integrated Resource Plan Process (Content of Final Report). Section 4 of the TOR requires the report to the UARB to address 11 specific areas. In particular we believe the September 30 Draft IRP report does not satisfy TOR requirements 9 and 10 and 4.

- The draft report does not provide a specific Preferred Resource Plan (PRP). In particular it does not provide a PRP which reflects the economic level of DSM to be included based on the modeling results for the Candidate Resource Plans (CRPs). The other Board consultants and I believe that the TOR requires NS Power to provide a specific PRP based primarily, if not entirely, on one of the CRPs that it modeled during the IRP. In addition we believe the IRP is the correct forum in which to identify the economic level of DSM to include in the PRP. NS Power and Efficiency Nova Scotia will

have the opportunity to present their justification for the quantity of DSM they propose for the 2016 to 2018 time period in the separate proceeding the Board will conduct to consider their DSM application for that period.

- The draft report does not provide an avoided cost of DSM.
- The body of the draft report does not present or discuss the NS Power load forecast. The load forecast is presented in slides 77 to 94 of Appendix B to the draft report.

Section 2.4.1 DSM. Stakeholders, in their October 7 comments, will have the opportunity to comment on the characterization of their views on DSM presented in the September 30 draft IRP. My interpretation of the comments stakeholders filed on September 19 is that stakeholders recognize that the top performing CRPs have different levels of DSM, and that they have varying views on which of those CRPs NS Power should select as its PRP¹. In addition, I do not interpret the fact that stakeholders generally recognize that DSM has its own regulatory process outside of the IRP to mean that stakeholders support NS Power's position that (i) the IRP process is not the appropriate forum in which to identify an optimal or economic level of DSM from a planning perspective or (ii) NS Power does not need to select a specific PRP as an outcome of the IRP process.

Section 4.5 Plan Evaluation (Rate Effects). NS Power applied the rate effects criterion by using the NPV of partial revenue requirements during the 2015 to 2020 time period as its quantitative metric. This metric has two major problems. First, it does not provide any indication of the absolute magnitude of rate impact that each CRP would have on NS Power's actual rates. Second, the goal of the IRP is to "...develop a long-term resource plan for the utility" (Draft report, page 10, lines 3 to 5). As such, to the extent that "rate effects" are considered as one of the criterion for choosing a long-term resource plan, that criterion should be applied over the 25 year planning period rather than the first five years of the planning period. To do otherwise effectively truncates the analysis and does not fully represent the long-term implications.

Section 5.6 Evaluation of Alternative CRPs. The draft report states "There is also a significant difference in the NPVs, and therefore potentially the revenue requirements, of the various DSM profiles over the short, medium and long terms respectively." This statement is incorrect in two important respects. First, that statement and the text from page 52 line 19 through page 54 line 11 refers to "DSM profiles" when instead the text should refer to CRPs. Second, the level of difference which NS Power considers to be "significant" is not clear. In particular, the planning period NPVs of NS Power revenue requirements associated with ten of the 14 CRPs it modeled for the Reference World are within 5 percent of the CRP with the lowest NPV for that period, i.e., CRP2-17 FGD. (The revenue requirements to which I refer are labeled "utility costs" in the table on page 53. These are the costs NS power would recover from customers in rates. The table also presents NPV results labeled "TRC", which are the utility costs plus the costs paid by customers who participate in DSM programs). The top ten CRPs whose planning period revenue requirement NPVs are within approximately 5% are CRP2-17 FGD , CRP 2-1, CRP 5-1, CRP 4-1 FGD, CRP 4-1, CRP 3-1, CRP 31-1, CRP 7-1 , CRP 10-1, CRP 6-1).

¹ By top performing CRPs I mean the sub-set of CRPs with the lowest NPV of revenue requirements over the planning period under the Reference World out of the full set of 14 CRPs NS Power modeled for that World.

Section 5.7. Preferred Resource Plan. The draft report states “The top performing plans from a planning period NPV perspective have similar attributes – they utilize existing coal units to their maximum lifespans, there is no incremental variable generation added and new thermal generation, if any, is natural gas combustion turbines.” (Draft report page 57 line 19 to page 58 line 2. That statement fails to acknowledge that each of those top performing CRPs include as a resource either a Base level of DSM or a High level of DSM. (The levels of DSM included as a resource in each CRP are indicated in the table on page 53.) The draft report then implies that NS Power would have the ability to choose any of those CRPs regardless of the level of DSM it acquires during the Action Plan period. This is not correct; the supply resource quantities and timing in each CRP are based upon the specific level of DSM in that CRP. If NS Power acquires a level of DSM different from that assumed in a given CRP, the quantity and timing of the supply resource it will have to acquire will also very likely be different than those assumed in that CRP.

Section 5.7. Preferred Resource Plan. NS Power is not proposing a specific PRP drawn from one of the specific CRPs it modelled and evaluated. In our view the TOR requires NS Power to select an explicit PRP from, or closely based on, one of the specific CRPs it modeled and evaluated during the IRP process.

Section 6.3. Strategic Resource Plan Decision Paths. The draft report refers to potential triggers that could cause it to alter its planning path. However it does not explain how and when NS Power will recognize when those triggers have occurred or are projected to occur.

Statements Requiring Clarification

Several statements in the September 30 draft report should be clarified.

1. **Executive Summary.**

- Did NS Power model a World in which DSM did not achieve its potential? (Draft report, page 6, lines 4-5);
- Did NS Power quantify the absolute or percent level of increase in average customer costs, relative to existing customer costs, associated with the most economic CRPs? (Draft report, page 8, lines 16 to 21);
- Will the no regrets path forward, particularly for the “several years” after the Action Plan period, be affected by the level of DSM NS Power acquires during the Action Plan and subsequently? (Draft report, page 9, lines 4 to 5).

2. **Section 2.2.1. Candidate Resource Plan (CRP) Approach.** The draft report states “Major components of resource plans, such as level of DSM, steam unit retirements and wind generation additions, are pre-determined rather than optimized, so the optimal path forward may prove to be a combination of the most favorable aspects of the top performing Candidate Resource Plans.”. First, as the draft report states on page 63, lines 26 to 28, “...Strategist does not optimize plant retirement”. Second, during the IRP process NS Power was not prohibited from running Strategist in an attempt to let that model choose the optimal quantity of DSM spend year by year.

3. **Section 2.4.1. Role of a Preferred Resource Plan.** The draft report states that preparation of the 2007 and 2009 IRPS was driven by changes to emissions and renewable regulations, and implies that preparation of the 2014 IRP was not driven by such changes in its planning environment. This is not consistent with the Board letter to NS Power of January 29, 2013 which states “...significant changes have occurred subsequent to preparation of the 2009 IRP Update, which warranted development of a new IRP.” The Board letter identifies several of those changes, including the closure of two paper mills, greater clarity around emissions compliance plans, seasonal operation of the Lingan generating plant, introduction of a large biomass generation plant, higher renewable energy targets, additional large and small IPP facilities, multi-year DSM programs and the proposed Maritime Link project.

4. **Section 5.2. DSM.** The comparison between future possible levels of annual DSM spend and existing levels of DSM spend needs to be checked. The approved 2015 level is not \$35 million, instead the approved 2015 program spending is \$39 million plus there is an anticipated further \$3.4 million charitable donation from Emera or NSPI to be applied to the Low Income Homeowner program. This amounts to approximately \$42.4 million in 2015. Furthermore, the approved 2014 spending level is \$47.5 million which is very near the projected base level of \$50 million.