EfficiencyOne

M08604

IN THE MATTER OF *The Public Utilities Act*, R.S.N.S. 1989,

c. 380, as amended.

\- and -

IN THE MATTER OF an Application by EfficiencyOne for Approval of a Supply Agreement for Electricity Efficiency and Conservation Activities between EfficiencyOne and Nova Scotia Power Inc., the establishment of a final agreement between the parties, and approval of a 2019 Demand Side Management (DSM) Resource Plan

EFFICIENCYONE

REPLY SUBMISSIONS

FILED

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CONTENTS

1. INTRODUCTION

EfficiencyOne's 2019 Demand Side Management Plan (2019 DSM Plan) represents a continuation of the DSM activities carried out by EfficiencyOne for the period 2016-2018. Through the *Electricity Plan Implementation (2015) Act*, the 2016-2018 contractual term was extended to include 2019, requiring that the DSM investment for that year be an amount not greater than $34,050,000.00.

EfficiencyOne believes the 2019 DSM Plan to be in the best interest of Nova Scotia electricity ratepayers. EfficiencyOne would note that the Plan has received a high degree of support from the stakeholder participants. Of those participants that filed submissions on the Plan, a number directly endorsed approval, including Affordable Energy Coalition, Synapse Energy Economics and the Small Business Advocate.

EfficiencyOne would like to respond to points raised by three specific intervenors in closing submissions:

- Consumer Advocate – Demand Reduction Pilot;
- Affordable Energy Coalition - Affordable Multifamily Housing Pilot; and
- Synapse – Estimated Avoided Emissions.

2. DEMAND REDUCTION PILOTS

The Consumer Advocate referred to foregone savings in favour of the demand reduction pilots, suggesting reply submissions of EfficiencyOne and NS Power should demonstrate "reasonable justification" for this proposed investment.

EfficiencyOne submits there are four key factors which justify its proposed investment in a demand reduction pilot for 2019:

(a) Forecasted growth in peak demand over the next five years;
(b) Increases in annual avoided costs of capacity provide economic advantages;
(c) Reasonably low-cost investment with potential for greater savings in the long term; and
(d) Ensure preparedness to take advantage of AMI technology as it becomes available.

(a) Growth in Peak Demand

NS Power is experiencing a growth in peak demand. As Synapse's Alice Napoleon noted in her evidence, NS Power's Load Forecast Report shows that peak demand is expected to grow through 2024 and then decline slowly through 2025-2028[1].

EfficiencyOne maintains that anticipated growth in peak demand justifies DSM initiatives aimed at limiting this growth. In addition to helping address system peak demand, demand reduction also serves to address substation and feeder peaks, which may be growing, or declining, at different rates than the system peak. Initiatives to address demand peaks at the substation and feeder-level may include locational DSM initiatives.

Given the forecasted growth in peak demand it is important that EfficiencyOne understand the opportunities for demand reduction that might exist during this period of peak growth. This will ensure the benefit of such measures are realized during this period of peak demand growth and will enable EfficiencyOne to take full advantage of the opportunity to limit the growth.

[1] Evidence of Alice Napoleon filed June 13, 2018, Page 17, Lines 7 – 9.

(b) Increase in Avoided Costs of Capacity

Demand reduction is economically attractive due to the increase in annual avoided costs of capacity. The avoided costs currently used for cost-effectiveness testing were produced from the 2014 IRP model. The avoided costs of capacity were zero until 2019, at which point they increased to $418/kW.

(c) Low Cost Investment with Long Term Savings Potential

The proposed investment in demand reduction pilots represents 3% of the 2019 DSM budget. EfficiencyOne acknowledges this is projected to decrease energy and demand savings in 2019, however, submits this is a short term impact. The proposed investment is aimed at learning, designing and implementing the demand response pilot programs, which will generate long term positive impacts for electricity ratepayers.

EfficiencyOne anticipates that the information learned during the pilot phase would result in stronger future demand reduction savings than those realized by its current programs (given that they will be designed for demand reduction purposes, rather than energy reduction purposes) and will also generate ancillary energy savings.

(d) AMI Technology

The Board has now approved the introduction of Advanced Meter Infrastructure (AMI) technology in Nova Scotia. The installation of this technology will allow for a relatively sophisticated approach to demand reduction in the province and create more opportunities for NS Power and EfficiencyOne to encourage demand reduction. To optimize the benefits resulting from a wide range of programmatic options for demand reduction, EfficiencyOne must research and develop pilot programs now, so that more permanent programs are designed in the most cost-effective manner.

3. AFFORDABLE MULTI FAMILY HOUSING PILOT

The Affordable Energy Coalition has requested a commitment from EfficiencyOne to continue the Affordable Multifamily Housing Pilot into 2019.

Supporting the success of the Affordable Multifamily Housing Pilot remains a top priority for EfficiencyOne. Since the pilot's development in 2016, EfficiencyOne has invested time and effort into designing and running this pilot, however, the results have not been as strong as hoped, with only a small portion of those who have had energy audits completed progressing to implement energy efficiency improvements. This difficulty in realizing project completions has persisted, despite efforts to extend additional support to participants, including incentives of up to 80% of project costs.

EfficiencyOne believes it will be more appropriate to make a determination about the continuation of the pilot after having more fully exhausted opportunities to remove the barriers participants are encountering. EfficiencyOne intends to fully assess the results of this Pilot at the end of 2018, at which time it will be in a position to make a decision as to whether the pilot (or some variation thereof) will continue into 2019. In the interim, EfficiencyOne will continue to work with the Affordable Energy Coalition and other stakeholders to improve the pilot's operation and, where appropriate, implement changes to improve its success.

4. ESTIMATED AVOIDED EMISSIONS

Alice Napoleon, of Synapse Energy Economics, noted in her evidence that the average emission intensity used by Econoler, EfficiencyOne's Evaluation Consultant, in its 2017 evaluation reports was 0.6531 kg of avoided CO_2e per kWh saved at the generator, and that the average emissions intensity used by EfficiencyOne for its calculation of lifetime savings resulting from the 2019 DSM Plan was 0.520 kg/kWh. This difference exists because the anticipated avoidance of 850,000 tonnes of CO_2e that will result from implementing the 2019 DSM Plan was modelled to occur over a timeframe during which the emissions intensity is expected to decline significantly (2019 to 2032, based on the weighted average measure life for the portfolio).

The 2019 intensity used by EfficiencyOne is the same as what Econoler used in its 2017 Evaluation Reports. To estimate future annual emissions intensities, EfficiencyOne used the emissions caps in the *Greenhouse Gas Regulations*, the forecasted Net System Requirement, and assumed that (a) NS Power will not exceed the cap in any year, and (b) the estimated emissions intensity will not increase from one year to the next.

Synapse recommended improving the accuracy of the avoided GHG estimates by better accounting for the timing of DSM savings. EfficiencyOne accepts this suggestion and will begin exploring means to refine its GHG estimates.

Finally, Synapse also recommended EfficiencyOne account for the value of avoiding CO_2e emissions in its DSM cost effectiveness analysis. Under a cap and trade system, NS Power will receive a compliance benefit for investing in DSM, which may take the form of either "avoided costs" (if NS Power would otherwise exceed its cap) or "additional revenue" (if NS Power is under its cap and can sell credits). Under either scenario, DSM would be providing an additional cost savings to ratepayers, and such savings should be included in future cost effectiveness testing. EfficiencyOne agrees to advance this proposal to the 2020 – 2022 DSM Plan Issues.

5. ANCILLARY ISSUES

EfficiencyOne acknowledges that the evidence and submissions include a number of suggestions which are directed to future DSM planning. These suggestions include developing an improved rate and bill impact analysis (RBIA), addressing transparency concerns with respect to EfficiencyOne's electronic Technical Reference Manual (eTRM), and improving methodologies in developing and evaluating DSM planning and programming. EfficiencyOne appreciates these matters being raised and commits to advancing these matters before the DSM Advisory Group in preparation of the 2020-2022 DSM Plan.

6. CONCLUSION

EfficiencyOne thanks the Board for the opportunity to respond to stakeholder concerns, and thanks all stakeholders for their contribution throughout this process. EfficiencyOne recognizes the issues and suggestions raised by intervenors as they relate to future DSM planning, and in particular with respect to the 2020-2022 DSM Plan; EfficiencyOne is committed to further stakeholder consultation through the DSM Advisory Group.

EfficiencyOne requests approval of the 2019 DSM Plan as filed.

All of which is respectfully submitted.