NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF: **THE PUBLIC UTILITIES ACT**

-and-

IN THE MATTER OF: **AN APPLICATION by Efficiency Nova Scotia Corporation ("ENSC") for approval of 2012 Electricity Demand Side Management ("DSM") Plan for 2012**

NON-CONFIDENTIAL INFORMATION REQUESTS

To: Efficiency Nova Scotia Corporation
c/o Sean Foreman
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From: Ecology Action Centre

Responses Due: **March 29, 2011**

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Nancy McNeil, Regulatory Affairs Officer/Clerk

ELI customers completed efficiency projects in 2009 and 2010. The resulting energy and demand savings contribute to the IRP targets and are reported in this filing because they are incremental to customer-funded DSM and were not included in the 2009 IRP Update. The cumulative ELI energy and demand savings are estimated to be 80 GWh and 20 MW. These estimates are based on a preliminary investigation completed on behalf of ENSC by third-party specialists and, as such, are necessarily conservative. These projects will undergo evaluation in 2011. Variances between estimates and final verified results will be reported in the filing of the 2013 DSM Plan. (p.15)

IR 1: Please provide information with respect to the inclusion of electricity savings by the Extra Large Industrial class (ELI). When was ENSC notified of these unexpected ELI savings? Were there meetings between ENSC and ELI? Who was at the meetings? When were other stakeholders notified of these changes to the 2012 DSM plan?

IR 2: Please explain how ENSC would have planned to achieve 80GWh of energy savings in the absence of the unexpected savings from ELI.

IR 3: Please provide information, such as a verification report, with respect to the unexpected energy savings from the large industrial class. Please detail what preliminary investigation (and by whom) has projected this level of energy savings from ELI.

Based on the advice received, ENSC considers the proposed program savings targets and investment to be both challenging and achievable. The Plan is consistent with the Integrated Resource Plan (IRP) savings targets, as updated in 2009… The proposed 2012 DSM Plan meets the energy savings targets within the level of investment identified in the 2007 IRP and the 2009 IRP Update filed with the UARB. (p.4)

"The proposed investment for 2012 is $43.7 million. With the inclusion of electricity savings by others, ENSC has been able to exceed the IRP savings targets for 2012 while keeping the investment for electricity savings close to the 2011 level and below the IRP target program cost of $61 million… It is anticipated that continued work with stakeholders will allow ENSC the flexibility to make appropriate mid-course adjustments to the programming mix to achieve the total energy and demand savings targets." (p.13)

IR 4: Please provide information and clarification with regards to how ENSC will pursue mid-course adjustments to DSM and how this relates to ENSC interests in performance-based accountability and regulation.

IR 5: Please provide detailed reasons about how and why ENSC has chosen to pursue a different level of investment in the ENSC 2012 DSM Plan versus what was identified as reasonable in the 2007 IRP and the 2009 IRP Update (a difference of 17.3 million).

IR 6: Please provide information with regards to the level of energy savings achievable if the IRP budget for DSM were fully spent.

IR 7: Please provide the IRP load forecast with respect to DSM and the estimates for economic and achievable energy savings from the IRP.

ENSC DSM Plan 2012 states, "The 2010 expenditures include $1.55 million in startup costs for ENSC to set up the organization, transition responsibility and operations from NSPI and develop the 2012 DSM Plan. The startup budget approved by the UARB in June 2010 was $2.04 million, for expenditures in 2010 and 2011." (p.9)

IR 8: Does ENSC anticipate start-up costs or learning costs for the organization in 2012?

ENSC DSM Plan 2012 (p.14)

	2012 Investment ($ Million)	Lifetime Benefits ($ Million)	Incremental Annual Net Energy Savings @ Generator (GWh)	Incremental Annual Net Demand Savings @ Generator (MW)	Total Resource Cost Test (TRC)	Program Administrator Cost Test (PAC)
Overachievements from 2008-09 DSM Plans						
	n/a	n/a	19.5	6.1	n/a	n/a
Enabling Strategies						
Education & Outreach	2.0	n/a	n/a	n/a	n/a	n/a
Development and Research	1.5	n/a	n/a	n/a	n/a	n/a
Other Enabling Strategies	1.5	n/a	n/a	n/a	n/a	n/a
Residential DSM Programs						
Efficient Products	4.0	13.3	17.4	2.6	1.9	3.3
Existing Houses	9.7	24.3	14.1	4.2	1.9	2.5
New Houses	4.3	10.0	5.6	1.5	1.5	2.3
Home Energy Report	.9	1.3	13.0	3.0	1.5	1.5
Commercial & Industrial DSM Programs						
Prescriptive Rebate	4.5	22.5	21.5	4.2	2.7	5.0
Custom	9.2	47.6	37.9	5.4	2.1	5.1
Small Business Direct Install	6.0	16.7	14.7	2.3	2.1	2.8
Savings Outside ENSC DSM Programs						
Extra Large Industrial Projects			80.0	12.0		
Adoption of Codes and Standards			10.0	2.7		
TOTAL	43.7	135.7	233.6	44.0	1.9	3.1

IR 9: Please confirm that 4 million will be spent on enabling strategies. Please explain why enabling strategies are important to the future success of ENSC DSM programs in Nova Scotia.

IR 10: Please confirm that the Home Energy Report (4.7% of the residential budget) is expected to deliver 26% of the GW/h savings and 26.5% of the MW savings in the residential sector programming.

IR 11: Please explain what baselines assumptions have been made to project this level of energy savings from the Home Energy Report, at the level of investment relative to the total residential budget.

IR 12: Please provide any further evidence with regards to the projected GWh savings estimates for the Home Energy Report (including examples from other jurisdictions).

IR 13: Please provide information with regards to the number of participants in the planned Home Energy Report pilot study.

IR 14: Many/most jurisdictions using OPower utilities are claiming a one year measure life. This yields large annual savings, but much smaller lifetime savings and net benefits. Has ENSC considered this factor in the formulation of the Home Energy Report pilot?

IR 15: Please explain how and why commercial & industrial programs are expected to achieve 32% greater GWh savings with 4% ($800,000) more budget than residential programs budget and savings projections.

IR 16: Please express on a sector basis, what percentage of sales the projected 2012 energy savings represent.

IR 17: Please provide any information with respect to ENSC protocols for dealing with cumulative over-achievement and/or unexpected savings from outside of ENSC and how this relates to annual DSM planning. Please also provide a comparison of under/over achievement of cumulative savings vs. planning for annual savings, specific to the 2012 annual savings projections.

IR 18: Should over achievement in a prior year reduce goals and investment in a current year. If so, why?

Changes to DSM Screening (p.17)

IR 19: Please further explain why changes to the DSM Screening to TRC and PAC are important to the programming evaluation procedures at ENSC and how this will translate to furthering DSM in Nova Scotia.

The overall purpose of electricity DSM programs in Nova Scotia is to help meet the province's long-term electricity needs through conservation and energy efficiency as a lower cost alternative to supply. More specifically, DSM spending is aimed at meeting the overall DSM savings set out in the IRP. The IRP has shown that DSM is the lowest cost option available to meet the province's future electricity needs while respecting provincial emissions targets and renewable energy requirements. (p.20)

IR 20: Please explain if more energy savings are achievable in ENSC programs for the residential and commercial & industrial sectors to assist with the overall purpose of DSM in Nova Scotia, with respect to the issue of unexpected savings from ELI and changes to any prior DSM plan for 2012.

IR 21: Please provide an estimate of the cost of procurement for additional energy savings from in ENSC programs for the residential and commercial & industrial sectors, with respect to the issue of unexpected savings from ELI and changes to any prior DSM plan for 2012.

IR 22: Please produce the entire presentation given to stakeholders on January 7, 2011 by Stu Slote from Navigant Consulting entitled 'ENSC 2012 DSM Plan: Programs Outline".

IR 23: Does ENSC consider the preliminary budget / energy savings projections on slide 51 of the above mentioned presentation to have been a realistic estimate of achievable energy savings for 2012 at the time? For each program? Why?

IR 24: In the event that the ELI savings were not available, would ENSC seek savings in other program areas? For each of the following: Efficient Products? Existing Houses? Low-Income Households? New Houses? Home Energy Report? C&I Perscriptive? C&I Custom? Small Business Direct Install? Would any savings over and above the filed plan be achievable in each of these programs in 2012, for each program? What level of savings would ENSC consider to be achievable, for each program?

IR 25: Please explain if ENSC views the IRP as a prescriptive document or as a reference point on which to base its DSM decisions regarding ENSC budgets and energy savings targets.

IR 26: Please produce from the IRP 2007, Appendix F.

Low-cost Programs: *Program costs will be minimized, where doing so does not hinder meeting overall IRP targets in both the short and long term.*

Long-term success: *In planning DSM initiatives, it is important to achieve specific savings targets and to build capacity for the long-term success of DSM efforts, including market transformation. (p.21)*

Efficiency Nova Scotia is focused on building capacity to enable Nova Scotia to become a leader in energy-efficiency services, innovation and know-how. (p.23)

IR 27: With respect to ENSC's guiding principles, please identify if and how the 2012 DSM Plan will 'not hinder meeting the overall IRP targets in the short and long term' and, as well, how it will 'achieve specific savings targets and build capacity for the long-term success of DSM efforts' in light of the unexpected energy savings from ELI and differences in the 2012 DSM budget from what was allocated in the IRP.

Renewable Heating: *ENSC will work with governments to support the development of a renewable heating strategy, tapping into the province's substantial renewable heating opportunities. (p.28)*

IR 28: Please describe how ENSC anticipates the development of a renewable heating strategy and how this relates to the transfer of solar hot water and solar air programs from Conserve NS.

IR 29: Please provide information with regards to how this strategy will be funded.

ENSC's initiatives on fuel substitution will be accompanied by an equally strong emphasis on the importance of sustainability in biomass harvesting and use. (p.32)

IR 30: Please explain what sustainability benchmarks ENSC is utilizing in its biomass pilot project.

IR 31: Please explain if and how ENSC's utilization of biomass in a pilot project relates to provincial government policy initiatives such as the Natural Resources Strategy and other planned utilization of biomass in the province (i.e. Renewable Electricity Plan).

ENSC is discussing a mandate for DSM programs for other fuel types with the Nova Scotia Department of Energy. At the time of filing, the timeline, form and oversight mechanism for this mandate had not been finalized. ENSC recognizes the importance of harmonizing DSM programs for electricity and other fuels as much as possible to minimize duplication and administrative costs, and expects this to be reflected in an eventual mandate. In 2011 and 2012, the oversight of energy efficiency and conservation for other fuels is expected to be through the terms and conditions of ENSC's contract with the provincial government. (p.30)

IR 31: Please provide an update with regards to the status of ENSC's negotiations with government with respect to managing other fuels as a part of its mandate.

IR 32: Please provide further details with regards to how this could affect the DSM 2012 plan, including allocation of resources for non-electric fuel substitution programs costs.

The creation of ENSC flows from the recommendations of a stakeholder consultation process facilitated by Dr. David Wheeler.17 The final report resulting from this process envisioned a performance-driven oversight mechanism, whereby ENSC would be responsible for delivering a specified amount of energy and demand savings for a specified investment within a defined performance period. Such a mechanism would eventually use a multi-year framework to increase flexibility and, conceivably, reduce the administrative burden of annual regulatory filings. This multi-year framework is similar to approaches used successfully in other jurisdictions, such as Vermont. (p.29)

IR 33: Please provide further details with regards to the process ENSC would pursue to initiate a performance based approach and a multi-year framework.

IR 34: Please provide further details with respect how performance based approaches and multi-year frameworks function in other jurisdictions, such as Vermont.

Existing Houses: For weatherization and insulation upgrade measures, the program targets electrically heated homes. Policies and procedures will be modified for 2012 to include *multi-family buildings and rental housing. (p.8 or 43)*

IR 35: Please indicate whether ENSC would consider extending weatherization services to all homeowners, if given a multi-fuels mandate.

New Houses: Each year, approximately 3,000 new houses are built in Nova Scotia, creating new demand for electricity. Many builders and consumers choose electric space heating in residential new construction; this market represents an important, time-sensitive opportunity to secure electrical energy savings. (p.13 of 43)

IR 36: Please indicate what strategic direction and timeline ENSC foresees in working with government to implement electric home heating codes and standards in new houses to cost-effectively reduce electricity demand and increase efficiency in new homes through codes and standards for electric home heating (4.4).

Custom C&I: Segments to be targeted in 2012 may include grocery stores, schools, large multi-family buildings, military and the high-tech industry, among others. (p.22 of 43)

IR 37: Please explain what incentive levels and % of incremental costs would be covered by incentives that Custom C&I (and Small Business Direct Install) would consider for grocery stores retrofits, including current examples. As well, please indicate the strategic direction and timeline ENSC foresees in working with government to cost-effectively reduce electricity demand and increase efficiency in grocery stores through codes and standards for refrigeration (4.4).

Development and Research: ENSC will focus on emerging energy-efficiency strategies and technologies. (p.33 of 43)

IR 38: Please provide information with regards to what ENSC deems to be 'emerging energy-efficiency strategies and technologies' based on existing knowledge.

IR 39: What process will ENSC utilize to identify and prioritize new strategies and technologies?

IR 40: What level of engagement will ENSC have with stakeholders with respect to development and research focus on strategies and technologies?

Codes and Standards: A number of opportunities are emerging in the residential and commercial sectors for ENSC to support and promote new energy codes and standards. (pg.34 of 43)

IR 41: Please explain how ENSC will identify and assess opportunities to work with government to develop and enforce new codes and standards in the residential and commercial/industrial sectors, and what opportunities (beside those already identified) ENSC foresees as potential areas of interest.

On May 19, 2010, a one-day session was organized to discuss the effects of free ridership and participant spillover with respect to DSM energy savings in Nova Scotia. The session was attended by NSPI, Navigant, consultants for the UARB and PDWG, the evaluation *consultant and experts from other jurisdictions. The outcome was an approach for evaluating free ridership and spillover. This approach was communicated to stakeholders through the PDWG, and at a stakeholder technical conference held on November 30, 2010. It provided direction to the independent evaluation firm for evaluating DSM results starting in 2010. ENSC intends to refine the evaluation of free ridership and spillover as programs evolve. (p.18)*

IR 42: Please provide any documents and information with respect to how ENSC is proposing protocols for handling free-ridership and spillover.

IR 43: How has ENSC considered the issues of free-ridership and spillover in developing their 2012 savings estimates?