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**NSUARB-E-ENSC-R-10:**

# An Application by Efficiency Nova Scotia Corporation for Approval of its Electricity Demand Side Management Plan for 2012

Submitted By:

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Submitted to:

Ms. Nancy McNeil

Regulatory Affairs Officer/Clerk

*Nova Scotia Utility and Review Board*

1601 Lower Water Street, 3rd Floor

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**Summary**

1. The Ecology Action Centre (EAC) supports the move towards a performance based approach at Efficiency NS and the efforts to provide more versatile energy efficiency programs for Low-Income rate-payers in the 2012 DSM plan. As well, EAC supports efforts to increase outreach education for Nova Scotian ratepayers to take advantage of Efficiency NS program offerings, in the 2012 plan. As well, EAC supports the use of the TRC at the program level.
2. DSM is the primary mechanism to reduce demand for electricity and increase abilities to meet aggressive renewable supply and emissions reductions goals in the province of Nova Scotia, while avoiding the constructed need for increased thermal generation.
3. In this light, EAC retains the perspective that the primary objective of DSM and energy and efficiency and conservation plans should be to provide useful programs in Nova Scotia that cost-effectively provide a degree of protection for Nova Scotian rate-payers in times of increasing electricity costs, while also 'greening' the electricity system over the longer term and creating 'green jobs' for Nova Scotians.
4. Let us not forget that rate increases are primarily being driven by NSPI's depreciation schedule, costs of capital and construction and, perhaps most applicable to DSM, the increasing fuel costs associated with importing coal from volatile international markets.
5. It is unfair for stakeholder's to characterize DSM as a primary driver of rate-increases. To view the marginal impacts of DSM costs on Nova Scotian electricity rates (less than 2% of proposed 9% residential increase for 2012) as prohibitive factor in aggressively ramping up DSM (as proposed in the 2009 IRP and supported by the EAC and Board consultants in this hearing) is not only short-sighted, it is not in the longer-term interests of protecting Nova Scotian electricity rate-payers while moving towards aggressively achieving environmental emissions and renewable goals and targets in line with provincial policies such as EGSPA.
6. It is important to recognize that bill impacts of rising electricity prices in Nova Scotia can be offset and cushioned by effective and aggressive DSM programs and services. As the number of program participants continues to increase, growing levels of Nova Scotians

can reap the benefits of efficiency and conservation programs and exert greater control over rising rates.

7. While the application of energy savings from outside DSM program activities (either from cumulative savings, codes and standards or stakeholder's own efficiency volitions) does assists in moving the DSM ball forward, the last-minute inclusion of 80GW/h of unforeseen savings in the 2012 DSM Plan from ELI potentially sets a low-bar and poor precedent for the future design DSM plans and programs at Efficiency Nova Scotia.
8. In the absence of clarity regarding the framework required to differentiate unforeseen savings and savings from outside Efficiency NS own programs, the future ambition of DSM in Nova Scotia runs the risk of being watered down, so to speak, by the ambiguity of what is allowed to count towards goals and targets, and what is required from the rate-payer funded program efforts at Efficiency NS to achieve the overall intent of DSM – to protect rate-payers, reduce emissions and contribute to the positive transformation of the electricity system in this province.
9. The evidence presented by EAC consultant Glenn Reed suggests that further opportunities exist for improvement to the 2012 DSM Plan, in terms of lighting and improvements to residential programs, and the EAC recommends that the Board support these recommendations in the approval of the 2012 plan. The EAC also recommends that Board consider the implications of approving the 2012 plan as tabled by Efficiency NS, given the extenuating circumstances with respect to unresolved issues of proper evaluation and frameworks for the inclusion of savings from outside Efficiency NS program activities, as well as the great need to provide rate-payer protection through efficiency and conservation programs, as Nova Scotia Power rates continue to rise due to economically & environmental unsustainable coal fuel supplies and lack of competition.
10. In this submission EAC will address the following issue areas using the testimony and evidence presented before the Board in this proceeding:
    a. 2012 DSM Budget and Proposed Energy Savings from Programs & Activities
    b. Rate Impacts
    c. The Inclusion of Reasonable Information in Board Regulatory Processes
    d. Cost Recovery for Participation

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**Efficiency NS: Issues with the 2012 DSM Budget and Proposed Energy Savings from Programs and Activities**

1. **The energy savings from the 2012 DSM programs at Efficiency NS is proposed to be less than 2011 due to unforeseen savings from ELI. As January 7, 2011 the proposed DSM budget was 56.1 million to meet the IRP energy savings target of 205 GW/h. This budget was altered due to the unforeseen savings provided by ELI creating an opportunity for lowered program savings.**

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   **MR. VOGEL**: And at that point [January 7], did you believe that this budget estimate was realistic for 2012?

   **MR. CRANDLEMIRE**: The budget we were focusing on was the 205 gigawatt hours.

   **MR. VOGEL**: Okay. And to achieve that as of January 7th , $56.1 million was a reasonable estimate?

   **MR. CRANDLEMIRE**: Yes, it was, although on January 7th there was still more homework to be done. But it was our best estimate at that time.

2. **To date, there has been no established process for Efficiency NS to determine what level of energy savings should be targeted from its own program activities, versus savings from outside program activities. Therefore the issues presented in the 2012 DSM plan leave a degree of regulatory discretion for the Board to determine how and what is appropriate in applying energy savings from outside of Efficiency NS program activities to IRP targets.**

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   **MR.VOGEL**: …what measures has Efficiency Nova Scotia pursued with regards to these recommendations about seeking clarity on the types of savings that should be considered with respect to meeting the IRP goals?

   **MR. CRANDLEMIRE**: Dunsky's recommendation was to petition the UARB within the framework of the 2012 plan, so it's exactly the way it's being done as was recommended.

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**MR. OUTHOUSE**: The -- just to be clear though, they way you intend to proceed on a go-forward basis starting in 2012 is that savings which you can measure and verify from the codes and standards will be treated as savings for purposes of achieving targets, dating's targets, when you're doing your calculation of what is cost to DSM -- the DSM program to achieve a certain kilowatt savings, they will not be included?

**MR. DUNSKY**: I think it really depends on what you want to look at, and they can be included or not included.

p. 220-221

**MR. VOGEL**: …do you have any comments or opinions with regards to whether this [unforeseen ELI savings] may have compromised the level of ambition for the 2012 plan with regards to energy savings from Efficiency Nova Scotia programs and activities?

**MR.WOOLF**: I will say that, clearly, just by looking at the numbers, including those savings, allowed the corporation to have lower savings than otherwise and still meet the total overall IRP goals.

**MR.VOGEL**: And on a go-forward basis, what consequences would you see as a result of these changes arising from the unforeseen savings from the extra-large industrial class?

**MR. WOOLF**: I recommend that the corporation take a better look at the savings they can achieve within all programs as well as the savings they can achieve with these outside sources such as those from ELI so that this whole issue is much more clear in all future filings and we all have a better understanding of how aggressive the programs are of the corporation and how realistic the estimates are of the savings from ELI.

3. **Efficiency NS targets less than 143.6 GW/h of energy savings from 2012 program activities, which has resulted in a decrease of DSM program budgets when compared to 2011. Over-achievement on DSM in 2012 from Efficiency NS program activities would allow for a greater degree of flexibility in DSM programming, on a go-forward basis. It would also allow greater stability to DSM contractors.**

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**MR. OUTHOUSE**: The program is actually producing I think -- the program is targeting or producing 143.6 megawatt hours -- or gigawatt hour savings. Correct?

**MR. CRANDLEMIRE**: Actually, it's somewhat less than the 143.6 ---

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**MR. WOOLF**: Well, I want to make it clear that I have that the savings goals are consistent with the 2009 IRP, and that for a 2012, those goals seem to be appropriate. However, as Mr. Whalen points out, these actual budgets are less than what they were in 2011, suggesting that maybe even scaling back and that an alternative approach would be to maintain or increase the budget and that would be consistent with the more long term ramp ups in making it a bit easier to get to 2013 goals. And again, that's my bit of perspective here is the long-term goals achieved in 2012, 2013 and beyond.

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**MR. WOOLF**: Yes. The point being, that it appears as though by maintaining or slightly increasing the budgets in 2011 they'll be able to achieve just that much more cost effective energy efficiency and be that much closer to achieving their 1 goals in 2013 and 2014.

**MR. DHILLON**: So you're in support as long as it's cost effective to go beyond the cumulative targets?

**MR. WOOLF:** Yes, my statement is under the presumption that the efficiency programs they're operating are cost -- as they appear to be very cost effective. And so to maintain

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the budgets in 2011 or increase them by 10 percent you would also be – they would also be implementing very cost effective programs.

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**MR. FOREMAN:** Mr. Crandlemire, in responding to the questions from Mr. Dhillon you were asked in relation to the scenarios put forward by Mr.Whalen and the increased $54 million budget, if you felt you could generally meet that target and I believe you indicated that, in general, that was possible. Could you also comment on the result that would have with respect to the further increased level of energy savings with respect to the IRP target?

**MR. CRANDLEMIRE**: Okay, yes, so in the first table we're basically achieving the same savings through programs as in 2011, 158 gigawatt hours and it shows a total of 268 gigawatt hours when we add in the 80 from extra large industrials, the 10 from codes and standards and the 19.5 carried over from previous years. In the second table, which is on the subsequent page, which is 10 percent above 2011 savings, so that would be 158.5 gigawatt hours plus 10 percent, the overall target in that situation is 284 gigawatt hours. So in both cases very significantly above the IRP which called for 205 gigawatt hours in 2011.

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**DR. PEACH**: …The one area that I do have some concern, and this may be somewhat outside of what I'm supposed to say so if you -- I'll be subject to direction here, is that I could wish that, as Mel Whalen has put in his testimony, that the efforts might be dropped back. On -- my experience with working with DSM over a number of years is that if there's any drop back with contractors, this causes a problem and I realize the budget's -- it may not mean that they're going to drop back with the new contract because I don't know what that effect is, but what I would expect is that if you have a program area and you start dropping back and then going back the next year and then dropping back, that it will drive the contractors crazy and interfere with jobs. So I would want -- I would wish that effort were solid and moving forward on effort. Perhaps - - perhaps --

counting all these outside DSM activities in one year is not the right way to do it. Maybe they ought to be apportioned over three cycles and -- because you're going to need it later. I don't see that you need it this year… For the overall good of the effort, there's got to be a balance so that the parties are brought along and are happy with the level of effort. But at the same time, I don't disagree and I support Mel Whalen's point that a cutback in level of effort is not a good idea, while at the same time understanding that at some point, the parties will want to say, "Okay, we did it. We got it going. It looks good. That's about enough for right now." So that would be my only major concern would be that I'd love to see you continue the same level of effort of in-house DSM as last year. That's probably it.

4. **Mel Whalen has presented evidence that it is both reasonable and recommendable to pursue a greater degree of ambitious energy savings in the 2012 DSM Plan from Efficiency NS program activities. Mr. Crandlemire has verified that this is possible and achievable. This position for maintaining or increasing 2011 energy savings is further supported by the evidence and testimony of Tim Woolf, Glenn Reed and Dr. Gill Peach.**

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**MR. WHELAN:** I believe I was asking that the energy -- there would be a plan to supply the 158 gigawatt hours.

**MR. FOREMAN:** That's right, the same level of energy savings as included in the 2011 plan.

**MR. WHELAN:** Yes, and I wasn't asking---

**MR. FOREMAN:** No, that's ---

**MR. WHELAN:** --- to match the budget.

**MR. FOREMAN:** Yes. Thank you for that correction; it matches the 2011 program energy savings.

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**MR. FOREMAN:** Okay. Your recommendation, though, to the Board is that one of these alternates be approved, correct?

**MR. WHALEN:** Yes.

**MR. FOERMAN:** And I believe your evidence is that it should be at least the level of the 2011 energy savings?

**MR. WHALEN:** Yes.

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**MR.WHALEN**: …you know, the discussion's been primarily around 2011 to 2013, and whether or not that's achievable. I think if 2012 were to stay at 2011, as I've said in my evidence, getting to 2013 is also, you know, within range with an effort that would be comparable to 2012 at 158.5 from programs. So when I look at 2012 and 2013, going beyond that in the IRP, it just seemed to me to be a mistake to -- I don't know if back-off is the right word - - but even to -- I guess I'll use Mr. Crandlemire's expression, to let your foot off the floor a little bit. And I'm not sure that, you know, that's exactly what the corporation's doing, but that's what it seemed to me; that you had the opportunity to be able to get the same level as 2012 and any of the plans seem to have the same economics; TRC of about two, PAC of about three. The corporation has not said that 158.5 is not achievable, so I don't see a good reason for not going to the 158.5.

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**MR.WHALEN**: …There's the whole question of, you know, if you can do that in 2011 why would you not keep that momentum if you can; the momentum with your contractors, with your suppliers, with all the partners who are working with you on DSM. It just seemed to me that if you can do that for 2011, which is the approved plan for 2011, maintaining that into 2012 would – made sense, particularly in the discussion of the IRP and trying to meet the longer term of the IRP.

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**MR. WHALEN:** I would agree with Mr. Woolf's recommendation that a revisit of the IRP is appropriate. But I don't think there needs to be any delay or any softening on the DSM while we do that, from a couple of perspectives. One is that the TRC on any of these plans is about two and the PAC is about three, so that is an indication that these are very attractive programs from an economic perspective. When we were looking at the IRP, the limit on the DSM in the IRP was set primarily by what people felt was achievable, not the economics. IRP -- the DSM in the IRP was the most attractive option and the -- was being selected for all that was being offered in the program. So I -- certainly revisiting the IRP, I believe, is appropriate. But I don't think we need to wait or do anything different. I think the IRP as we have it can certainly be a guide for us until we see something different.

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**MR.VOGEL**: …would you support this analysis [from Mel Whalen] that achieving a 2011 minimum energy savings target within the 2012 plan would make the future cumulative goals and targets more achievable?

**MR. CRANDLEMIRE**: It's generally true.

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**MR. DHILLON**: …So my question is this, that if the Board went with his recommendation -- and the budget I think is around $54 million or something like that, do you have any comments saying you can't meet the targets as 2011 or 2012 targets or 2001 with $54 million thereabouts; you think you can't or you can?

**MR. CRANDLEMIRE:** I think generally we could meet those targets with the budget and I say that because of the plan that was put forward to stakeholders on January 7th , the plan that's identified in Slide 51 was referred to earlier this morning... But certainly there's an indication in any of those scenarios that we could achieve savings, comparable to 2011 with programs for the high $50 million range.

**MR. DHILLON:** "High" means that's the ---

**MR. CRANDLEMIRE:** I think in Slide 51, it was $56 or 57 million.

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**THE CHAIR:** Okay. And then finally, in Mr. Reid's evidence he says: "There would appear to be significant residential lighting savings opportunities that are not being actively pursued by ENSC in their 2012 plan." You did comment on that briefly in your reply evidence but could you just comment on that statement? I could find it for you if you want.

**MR. FAULKNER:** We feel Mr. Reid makes a good observation. The LED lighting product market is evolving very rapidly. For instance, the list of – I think he quoted more than 100 lamps and over 1,100 fixtures. If we went back to last August there were none on that list so it is evolving quickly and we would certainly assess those opportunities before we put our 2012 program together. So I think it's a good recommendation and we would consider it as we move to 2012.

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**MR. REED**: My principal comment in terms of the DSM plan that's been proposed for 2012 is that I concur with the Board consultants that the spending levels should be increased to attain the program savings levels that were in place for 2011, and that should be at a minimum for 2012.There are two main reasons why I think that, you know, among others, that the savings – more savings should be pursued. One, I believe that the 2012 plan leaves savings on the table, and second, I believe that the plan as currently constructed has a fair amount of risk and uncertainty embedded in it. Risk and uncertainty is not a bad thing. In fact, Efficiency Nova Scotia should be congratulated for expanding its program offerings, particularly for the products and existing homes program beyond those that are typically pursued by similar programs. However, the reliance on fuel substitution measures in particular raises some questions as to the ability to attain the savings attributed to those measures. In the existing homes program, over 50 percent of the savings for that program are from hot water and space heating measures due to fuel substitution, including solar. And for the products program, over 25 percent of the savings come from fuel substitution programs. Again, these should be pursued as proposed, but I think that the corporation should look at additional opportunities that could be pursued effectively both as insurance in case these measures are not fully saturated as planned and also because there are opportunities that are not fully being pursued such as lighting, as was briefly discussed yesterday, consumer electronics and appliances. And I'd be happy to discuss those in more detail.

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**MR. REED:** I think the ability to move the market on CFLs is somewhat more under the control of the program administrator, than the ability to move the market on convincing consumers to spend $17,000 to do a fuel substitution.

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**MR.REED**: …Nova Scotia has a very high saturation, again, in the residential sector, of electric space heating and hot water, and I'm quite familiar with both Connecticut and Massachusetts and Vermont. None of those states have similar penetrations of electric space heater, hot water. It's a very different opportunity, and, you know, all those need to be considered.

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**MR. REED:** Sure. And can I – would it be -- could I actually just back up one step and just talk about LED lighting in the context of CFLs and the impending federal standards?

**MR. DHILLON:** M'hm.

**MR. REED:** Because I think it's important to view lighting, you know, in a broader context, given the fact that it's represented such a large percentage to date of Efficiency Nova Scotia's residential sector. There's been numerous references to the impending federal efficiency requirements, and I specifically did not say ban on incandescent lamps because it is not a ban on incandescent lamps, it is a ban on inefficient incandescent lamps. You can go now to Home Depot or Canadian Tire and you certainly will be able to – you know, next year and the year after, and buy bulbs that look like, perform like, and for all intents and purposes are incandescent lamps. They're just a different variation; they're halogen lamps. They minimally meet the federal standard. They are 20 to 30 percent more efficient than the inefficient lamps which will be banned but this still represents a very large savings increment between those improved incandescents and CFLs, you know, hence my recommendation that CFLs continue to be pursued, at least in the short term.LED lighting is an emerging technology that is literally having billions of dollars invested in it, both in North American and more so overseas. It is rapidly becoming commercialized. While my testimony is primarily on the residential sector, I will note that Efficiency Vermont last year had 30 percent of its commercial lighting savings coming from LED lighting applications. Residential lighting applications are lagging somewhat behind, but they are catching up and, as I noted in my opening comments, the energy star specification for LED lamps and fixtures, particularly for lamps, are fairly new. There are now over 100 qualified lamps for over 1,000 qualified residential fixtures. These products are expensive. Their prices continue to fall and their efficiency continues to improve. They will, in a few years, render CFLS obsolete from many, if not most, applications, and they represent a -- in most cases, a better product than CFLs and, as Efficiency Nova Scotia noted, they are open to pursuing opportunities to promote these products. But, again, in the very near term, given their expense and given the opportunity to still pursue savings for CFLs, I think any engagement in the residential lighting market needs to consider both technologies.

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**THE CHAIR:** Oh, I just want to follow up to make sure I understand what it is you're suggesting Efficiency Nova Scotia do with respect to lighting. You indicated that there were significant savings opportunities that weren't being pursued. They appeared to agree with you yesterday. And are those opportunities, the LEDs and the specialty CFLs, is that the core of your recommendation?

**MR. REED:** I think they agreed yesterday in regards just to LEDs, I didn't hear any discussion on CFLs in there, and as I said previously, I believe that in the very near term the opportunity for lighting is primarily from CFLs in the near term. I mean, this year and next I think, beyond 2012, it's difficult to project the trajectory of LED cost and commercial availability, but in terms of CFLs, you know, I'll note both in the Nexus Market Research recommendations and subsequent verification by Dr. Peach and industry consultants' own review of the ENS programs, you know, there were a number of statements made, including there's the opportunity for the 10 additional sockets per household to be filled with CFLs, that increased emphasis on specialties should be the direction of the program moving forward. And I'll also note from my own experience in Massachusetts and Rhode Island that there's been an increased focus on reaching what are referred to "hard-to-reach customer segments," those customers whose own use of CFLs lags behind those of the typical -- or average customer. It's possible that through targeted marketing directly to customers or through joint efforts with retailers that you can focus your efforts on increasing the saturation of CFLs in those customers' households. And even with a declining net-to-gross ration, spiral CFLs will still be highly cost-effective and continue to generate savings even if you need to reduce the gross savings as a result of the federal standards.

**THE CHAIR:** And you seem to be quite skeptical of the potential for the fuel substitution measures?

**MR. REED:** You know, I don't want to say skeptical because, again, I support Efficiency Nova Scotia's efforts to pursue those opportunities. In fact, I think they should be applauded and congratulated because what they have attempted to do is to diversify their portfolio and maybe, at some level, mitigate the long-term risk by not being reliant on a single technology as they may have been in the past where, in fact, a majority of their savings was from CFLs. I guess I would say they maybe went too far in the opposite direction by moving away from traditional product opportunities, like appliances, like lighting, and still no clear focus on consumer electronics and moving towards fuel substitution on the product side and then fuel substitution, you know, much more so on the existing home side. I think it should be pursued. I think the power that they're undertaking will certainly inform their efforts. I think though that having so much of the residential savings in the fuel substitution basket represents some level of risk but, no, I would not discourage them from doing it..

**Rate Impacts**

1. **There is no formal process to properly assess the rate and bill impacts of DSM in Nova Scotia. However as the analysis provided by Mel Whalen and Tim Woolf suggests, and as the IRP identified, DSM is the most cost-effective electricity resource in Nova Scotia. The IRP also identified the reasonable level of DSM that could and should be pursued in order to achieve policy goals and targets.**

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**MR. VOGEL:** Sure. When you're considering interest and concerns of stakeholders with respect to rate impacts, is there currently a process to weigh costs and benefits in the design and administration of DSM here in Nova Scotia?

**MR. CRANDLEMIRE:** There isn't any formal process at this stage ---

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**MR. WOOLF:** It -- the first point I'd like to make is that rate impacts are something that are frequently used to constrain or hold back energy efficiency budgets, and yet it's very integral that they're looked at in much detail. And my point is that if anybody -- any stakeholder argues that they need to withhold -- hold back this budget have less than what rate impact -- it's important to make that decision in – with the full evidence before us.

And by the full evidence, I mean an analysis that looks at -- in as much detail as we can on what the rate impacts actually will be. And I elaborate a prime -- how to do that analysis in my testimony. The highlights are that the analysis should look at both the rates and bills. It should be done over a relatively long period of time to account for the savings that accrue over several years. And it should look at participants and non-participants, because that gives an indication of the people who 1 receive the direct benefit versus those who don't.

**THE CHAIR:** Is context important? In other words, other pressures on rates, for example, in Nova Scotia, and I'm sure it's happening elsewhere, the incumbent utility, Nova Scotia Power, is being called upon to build more expensive renewable generation. We're looking at feed-in tariffs, which are quite possibly higher than the cost of generation by Nova Scotia Power. These are other pressures that are all being put on ratepayers. Is that important to take into account in determining rate impacts?

**MR. WOOLF:** Absolutely. In fact, all the more reason why it's important to have an analysis that shows you exactly what the rate impacts will be. Because I think, and some instances where the impacts appear to be -- that they can be quite large, but once they look at them in a comprehensive way over the long term, they're not necessarily that large. But you need to have these rates in front of you where we can put it in the right context.

p.275-277

**MR. REED:** I think from a public perception and from a marketing perspective there is always a challenge regardless of the level of expenditures on energy efficiency to make the case that the monies are well spent. And to your comment, you know, as those monies or funds increase, the challenge becomes potentially more difficult. I think it would need to be a part of a broader discussion as to revisiting the IRP process and determining in fact, what is the, you know, optimal level of investment in energy efficiency. And the targets themselves may not necessarily represent the optimal level of investment in energy efficiency.

**MR. FOREMAN:** Right. So in your language it suggests a continuing of further discussion, it doesn't necessarily mean that at this point in time we should arbitrarily raise the energy savings budgets to meet those concerns. There are uncertainties on either side of the balance sheet here.

**MR. REED:** There are uncertainties on either side, but I guess, given the current un-pursued opportunities in the 2012 plan, and given the risk and uncertainty, at least in the residential sector, in reliance on program components that are still very much untested, I would say hedging ones bets with a longer term perspective of meeting or exceeding the cumulative IRP targets is where I would put my money.

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**MR.MACDUFF**: …Mr. Reed, would you agree that a key issue in each jurisdiction is resolving this conflict between wanting to procure all cost-effective energy efficiency and concern about the resulting immediate effect on rates?

**MR. REED:** I'm not certain I would say it's a key consideration, but it is often a consideration and again, I will note the Board's consultant Mr. Woolf's direction that it's not just a matter of rates, but it's a matter, ultimately, of bills so that discussions should always be considered more broadly as to the actual payments that are made and not the rate that is incurred.

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**MR. OUTHOUSE:** And in his evidence he drew a distinction between bill impacts and rate impacts. What's your opinion with respect to the validity of that distinction, and do you need to take both into account in evaluating DSM targets and budgets?

**MR. REED:** Well, I think, ultimately, bill impact should be given greater weight though as part of that consideration. As Mr. Woolf points out, there is an issue of equity. If you have few participants, and many non-participants, that's a very different situation than what I hope would be the ultimate goal of Efficiency Nova Scotia, where you would have a situation of many participants and few non-participants. So it's -- you know, there are multiple components, as Mr. Woolf points out, to consideration of bill impacts, but ultimately, I believe, it's bill impacts that should take precedence over rates.

**THE CHAIR:** It's harder to measure the bill impacts? Obviously.

**MR. REED:** Well, it's -- it's not necessarily -- it's difficult to project, or it's a challenge to project the bills impacts, because one has to make assumptions about ---

**MR. OUTHOUSE:** Usage.

**MR. REED:** --- participation rates and usage, but it can be done. And, in fact, you know, the IRP process itself, at some level has to make some assumptions about level of participation among customers, you know. And the potential study that Summit Blue did, similarly also made assumptions about 1 participation, so one could -- one could build on that information, you know, current planning activities, by Efficiency Nova Scotia and make both short-term assessments of bill impacts among participants and non-participants, as well as projections I've done that in Connecticut for -- in terms of near-term projections in the residential sector, constructing, you know, several different typical participation scenarios for a mix of program participation rates and assessing the rate -- excuse me; assessing the bill impacts but not the rate impacts on customers.

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**MR. MacDUFF:** In what order of magnitude of rate increase was that for 2012?
**MR. WHALEN:** Yes, I'd like to go to Table -- yes, this is the table, Table 1. So if you look at the ELI two-part RDP line and go right across to Column H and you'll see about 14 1.6 million is allocated to this class. And we don't need to look at Table 2, but if you look at Table 2 there's almost none of the 75 percent that's allocated. So this is about the total cost that's allocated to this class, the 1.6 million. This is based on 43.7 million. If you increase it to 53 million that scales up by about 25 percent, so 1.6 becomes about 2. So the increase cost is about 2. Now, if you go to 1 158 gigawatt hours and apply a marginal cost to that of about 80 cents --sorry, about $80 a megawatt hour and calculate what the fuel savings would be and allocate roughly 20 percent of that to the large customers, it gets allocated on the basis energy you get a fuel savings that's about 2.5 million. So it's -- break even, maybe even a little beneficial for the large guys. From my -- just back-of-the envelope calculations that I've just done.

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**THE CHAIR:** I just want to go back to what I sensed to be the sense of the room about customer concerns on bill impacts or rate impacts, whatever you want to call them. The system has some challenges, as you know; you've mentioned some of them… so I guess how do we take all that into account in assessing your recommendation with respect to increasing the DSM budget this year?

**MR. WHALEN:** I think the table will help answer to some extent. And there's certainly the question of the short term versus the longer term when you put energy efficiency into an IRP and it's being selected, or if you look at it on a PRC or a PAC point of view and you see, you know, very attractive programs; at some point those programs pay for themselves. Whether they do in the first year, of course, is a question. There's also the question of, as has been discussed earlier, if I'm a participant in a program, I'm offsetting some of that because I have reduced consumption. If I'm not a participant in any program then the effect on me is more severe.

**THE CHAIR:** I guess the question I'm struggling with, to use Mr. Crandlemire's analogy; can we have the pedal to the metal on DSM? Can we have the pedal to the metal on COMFIT? Can we have the pedal to the metal on renewables all at the same time and still have affordable electricity?

**MR. WHALEN:** It's a big challenge. It's very difficult and of course the bigger picture that drives all of that is the whole question of the environment and climate change and all those things which have been behind many of the initiatives such as the renewables and the hard caps on carbon and those kinds of things. So it gets into a bigger question of not only what are the electric rates, but how do we manage the environment and how do we sustain things and it's all a part of a bigger question and to some extent goes -- perhaps ties back into some other things that the corporation is putting significant focus on, and that's the whole public relations side of this and helping people understand what drives energy efficiency, what drives renewable standards, why are those hard caps and that, no question, is a big challenge.

p.388

**MR.OUTHOUSE**: My question is if, by legislation, the pedal is to the metal on RES and on hard caps, can you afford not to have the pedal to the metal on DSM?

**MR. WHALEN:** Certainly, the result of the IRP would say that the pedal to the metal on the energy efficiency is the best way to meet the requirements from a carbon and an RES perspective.

**The Inclusion of Reasonable Information in Board Regulatory Processes**

1. The EAC takes special note of the objection raised by the Chair at the closing of hearing with respect to Mr. Outhouse's question to Mel Whelan requesting a comparison of the January 7 DSM budget tabled at the stakeholder session to the Multeese IR4.

2. In his objection, the Chair advanced a position that this inclusion may interfere with "the futurability of stakeholders to have frank discussions and, then, all of a sudden, have them displayed in this room" (p.390).

3. The EAC is of the opinion that, in turn, this objection created an opportunity for all those stakeholders opposed to the prospective increase of DSM budgets to match 2011 energy savings to raise their concerns, thus leading Mr. Outhouse to revoke his question.

4. The EAC also takes note that the Chair excluded EAC from commenting on the matter in his canvassing of the stakeholders in the room.

5. The EAC acknowledges the Chair's concerns with regards to the inclusion of information from stakeholder sessions in Board hearings, however the EAC notes that if the Chair or any other Board member or stakeholder took issue with the EAC's inclusion of stakeholder information, there was ample opportunity for objections on the first day of the hearing, or in advance of the hearing.

6. As such the EAC is of the opinion that the inclusion of reasonable information (such as proposed DSM budgets that were subject to last minute changes due unforeseen savings from ELI) in Board regulatory processes is entirely legitimate and justifiable on the grounds that this was one of the major issues that was under consideration in this hearing,

particularly in light of the reduction to DSM program savings at Efficiency NS in its first DSM plan. The position of Mr. Outhouse supports the EAC position that past hearings have included technical conference information and that further clarity would be required on this policy matter as 'this would mark a departure from the past in that regard' (p.398).

**Cost Recovery for Participation**

1. It is submitted that the EAC acted responsibly and prudently as an intervener in these hearings. The interventions have been novel and brought a different perspective to the proceedings. As such, it is submitted that the EAC has behaved in a civil and responsible manner to incur only such costs as were necessary to complete the evidence before the Board concerning the issues in this application, including bringing forward expert witness Glenn Reed to testify to the issues.

2. It is submitted that the arguments submitted by the EAC have contributed to the "better understanding" of the issues affecting customers in this application for the approval of the 2012 DSM plan by the new administrator, Efficiency NS.

3. In allowing two applications for costs by non-profit bodies, the Board has held that:

> ***In this decision the Board has not adopted all of the arguments advanced by the interveners. Nonetheless, it considers that their intervention has been constructive and useful. They have participated in a responsible way and have contributed to a better understanding of the issues by the Board.***
>
> ***The Board is prepared to grant reasonable and prudent costs against a utility to non-profit, public interest interveners with limited financial resources who meet the standard set forth above. The Board encourages groups having substantially common interests to combine their efforts to reduce hearing time and aggregate costs. The Board will consider this factor when awarding costs. (See In the matter of a Filing by Nova Scotia Power Inc. relating to Demand-Side Management [1993]NSP 862-DEC, at pages 24-25)***

Therefore, based on the foregoing submission and precedent, it is respectfully submitted that the Board should allow the application by the Ecology Action Centre for costs in this application. These costs would include a reasonable sum for costs incurred in the EAC's participation in the UARB & DSM Review process to be provided by EAC upon the Board's decision.

This concludes the final submission on behalf of the Ecology Action Centre (Halifax).

Respectfully Submitted by:

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Ecology Action Centre

Halifax, N.S.

**Ecology Action Centre**

The Ecology Action Centre (EAC) has acted as a leading voice for Nova Scotia's environment for over 40 years. The EAC was voted #1 Activist Organization by readers of The Coast magazine for six years running. Since 1971, the EAC has been working to build a healthier, more sustainable Nova Scotia. Today EAC has over 1000 members, 250 volunteers and staff, and seven active teams and committees. The Ecology Action Centre works closely with social and natural scientists and makes strong use of science in communicating its message to the public. Our current areas of focus include Built Environment, Marine Issues, Coastal Issues, Wilderness, Food, Transportation and Energy Issues. The EAC is also an active member of the Affordable Energy Coalition which advocates for universal access to electricity; the eradication of fuel & energy poverty in Nova Scotia; and the representation of the interests of low-income Nova Scotians regarding energy issues. In this submission, the EAC relies on the direct evidence and testimony offered throughout the 2011 UARB DSM Plan review process. This includes oral and written evidence.