Demand Side Management

Final Collaborative Report

DSM Administrative Issues Analysis

Volume I of III

A Joint Report of NSPI, UARB Staff and Consultants

January 31, 2008

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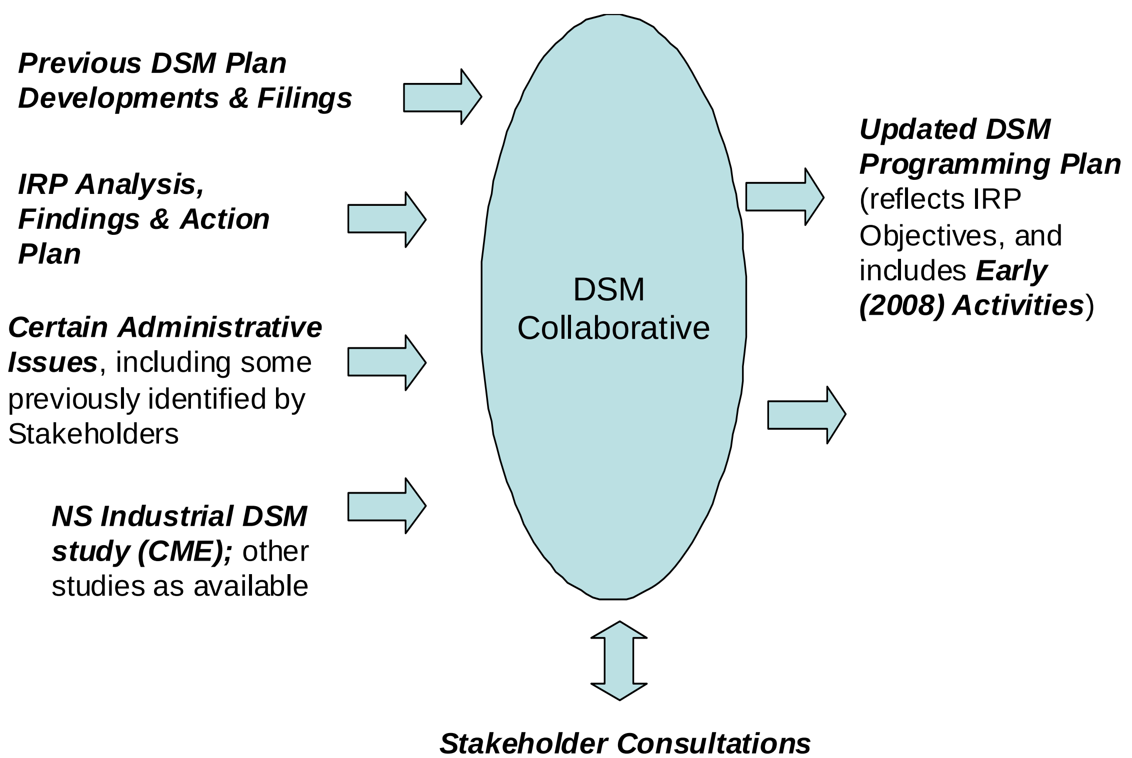
EXECUTIVE SUMMARY

This document is a key deliverable of the work of the Demand Side Management (DSM) Collaborative, under Terms of Reference approved by the UARB on October 4, 2007 (please refer to Volume II of this filing for the Terms of Reference). The other, and primary, deliverable of the Collaborative is an updated and enhanced DSM Programming Plan, which reflects the objectives and opportunities contained in the 2007 Integrated Resource Plan (IRP). The Programming Plan is Volume III of this filing.

The work of the Collaborative is summarized graphically in Figure 1.

Figure 1. DSM Collaborative



The key inputs to the process were the work which resulted from the previous DSM plan development processes, and the analysis completed as part of NSPI's 2007 IRP. In addition, the Board directed the Collaborative to consider certain administrative issues which had been raised by stakeholders in previous processes, as well as the results of studies which might become available during the period of the Collaborative's work, in particular a study of industrial DSM potential.

The DSM Collaborative framework and process were modeled after that which was used successfully to develop the IRP. NSPI and its consultants worked closely with Board staff and its consultants, and under the leadership of UARB consultant Dr. John Stutz. Stakeholders were engaged at key points in the process, and provided opportunities to make presentations, engage in face to face discussions, as well as provide written submissions.

The DSM Collaborative has completed its work, and fulfilled its mandate under the approved Terms of Reference. The DSM Programming Plan filed today with the Board is well designed and is aligned with the conclusions reached in the IRP. The Collaborative understands that this DSM plan will form a foundation for electric conservation and energy efficiency in Nova Scotia for the coming years. The Collaborative supports UARB approval of this plan, and of the related aspects of the IRP, as an outcome of the April DSM hearing.

In working to produce this plan, the Collaborative considered all the key inputs mentioned earlier, including feedback and suggestions received from stakeholders. Much of this feedback was within scope and given full consideration. In many key areas, stakeholder ideas were adopted and the plan modified accordingly. In other cases, after consideration, the ideas were not adopted. In all cases, the collaborative is appreciative of the time and efforts of stakeholders, and of their willingness to share their ideas and feedback.

As part of its terms of reference the Collaborative was asked to consider administrative issues related to:

- Nova Scotia Power's role in DSM
- Proposed level of DSM investment and cost recovery approach

- DSM programming
- Tracking and reporting of results

In the course of the Collaborative's work and as a result of the input of stakeholders, administrative issues associated with DSM programming were identified as:

- Stakeholder engagement
- Low Income programs
- Non-electric DSM
- Custom approaches to DSM

This report discusses the consideration given to administrative issues by the collaborative, and the conclusions reached.

With respect to ***NSPI's role in DSM***, a number of stakeholders expressed their view that NSPI should not be the administrator of the programs being developed. This question was raised with and answered by the UARB at the commencement of this process. The UARB determined that in the current regulatory environment, NSPI, as the utility that the Board regulates, will administer the DSM program that arises from the IRP. Subsequently, the Government of Nova Scotia announced a separate and parallel process to further consider this question. The Collaborative therefore considered this issue to be out of scope of the Terms of Reference.

Some stakeholders argued that the choice of programs selected for the early years should take into account the possibility that the administrator could change. Others argued that the programs should simply be delayed until the Province's process is complete.

The Collaborative does not agree with the suggestion to delay. The significant economic and environmental benefits associated with the preferred plan from the IRP depend on achieving the DSM targets outlined therein, and developing the plan to accomplish this is the key deliverable of the Collaborative under its Terms of Reference.

The Collaborative did consider in scope the question of whether early year programs should be modified because of the potential of a different administration model in future. The Collaborative concluded that the recommended programs could be efficiently transferred to a new administrator if required. Further, if there were to be some inefficiency introduced as a result of a future transition of administrative responsibility, the financial consequence would be much less significant than the savings to be gained from successful prompt implementation of the preferred plan from the IRP.

Regarding the ***level of DSM investment***, the Collaborative observed that most stakeholders supported levels up to 2 percent of revenues. Many expressed concerns about investment beyond that level. The Collaborative notes that the levels being proposed for UARB approval at this time (i.e., funding the programs from 2008 to 2010) are consistent with the 2 percent scenario in the IRP.

Several ***cost recovery*** issues were considered by the Collaborative. Stakeholders representing large industrial customers generally argued there was limited further opportunity for efficiency in the Industrial class, and therefore, program costs should be recovered from participating classes of customers, e.g. residential program costs recovered from residential customers. Other stakeholders supported the recovery of DSM program costs from all classes of customers.

The Collaborative agrees with the latter approach. The benefits that result from DSM programs for a particular class of customers accrue to all classes of customers, and therefore all customers should share in the cost. This is analogous to the recovery of the costs of new supply side requirements. NSPI’s current, Board approved, Cost of Service methodology is to be used to allocate costs to the various classes of customers.

A second category of cost recovery dealt with lost contributions to fixed costs as a direct result of DSM programs reducing sales. Lost Revenue Adjustment Mechanism (LRAM) and full de-coupling approaches were discussed, beginning early in the process. The LRAM is the appropriate option for the commencement of the DSM program. LRAMs are well established and understood, while de-coupling mechanisms were considered to be more complex and have less of an established track record.

Finally with respect to cost recovery, the Collaborative also received feedback from a number of stakeholders that there should be a mechanism of incentives and penalties applied to NSPI, based on its performance in meeting defined DSM targets. The Collaborative concluded that although such a mechanism might be appropriate in the future, it would not be appropriate at this stage of ramp-up of NSPI's DSM programming. The Collaborative recommends reviewing the benefits and risks of such a mechanism prior to the commencement of the post-2010 DSM Program.

The Collaborative recognizes the value of ***stakeholder engagement*** in DSM planning and administration. The Collaborative recommends effective engagement that allows for timely decision making and ultimately timely execution of programs and achievement of reductions in electricity usage. The Collaborative has concluded that the most effective model for this purpose is the Steering Committee/Advisory Committee model.

Low Income Programs have broad stakeholder support and have been included in the proposed DSM Programming Plan. Examples of changes which reflect input from stakeholders in this and earlier processes include: no required customer contributions, inclusion in early action, and an increased investment level.

There were three areas relating to ***non-electric DSM*** which were considered by the Collaborative: non-electric benefits from electric focused DSM (e.g. a high efficiency washing machine also conserves water), synergies between non-electric and electric focused programs (e.g. upgrading all opportunities as part of one visit to a building versus separate visits), and fuel switching (e.g. encouraging customers to switch from electric heat to another fuel source).

In terms of non-electric benefits, some stakeholders suggested that these be tracked as part of the DSM programming, and quantified and used in the calculation of the Total

Resource Cost (TRC) test. The Collaborative supports the collection of data where practical. The existence of these non-electric benefits will also be taken into account in the TRC in that they will improve the value proposition and therefore the take-up rates of the electric programs. The Collaborative does not agree that the dollar value of non-electric benefits be included in the TRC, as this would not be aligned with the primary goal of achieving the electric savings objectives set out in the IRP. For example, an oil based initiative could have a higher TRC but deliver less electricity reduction.

With respect to synergies with non-electric programs, the plan does support the pursuit of partnerships with other non-electric program providers. However, fuel switching is not specifically part of the DSM plan proposed for 2008-2010. Where the substitute fuel has zero emissions, there would be no question that it could be considered for promotion within the plan (e.g. promotion of clothes lines versus electric clothes dryers). Where the substitute fuel is fossil based, the Collaborative believes more work is required, as the best choice may ultimately depend on the nature of future electricity supply in Nova Scotia. This is an important issue that requires future consideration. The Collaborative does agree with the suggestion of the EAC that because of the uncertainty with future supply, heating systems which could be easily switched (e.g. hydronic or forced-air) would be preferable in new home construction. This suggestion has been incorporated into the plan.

The revised DSM plan includes significant ***custom programs*** for commercial, industrial and municipal customers. This was included in part to address feedback from stakeholders that these customers have complex and unique characteristics and electricity savings opportunities. As well, these types of programs have been implemented successfully in other jurisdictions.

Several stakeholders suggested that self-administration should be an option in the DSM plan. The Collaborative concluded that the custom options provided can be more effective in delivering electrical benefits than those offered by self-administration. Self administration could be considered again in future years once experience with custom programs has been gained.

The revised DSM plan provides for robust evaluation, monitoring and verification processes for each program proposed. The Collaborative believes this in large part addresses the concerns of stakeholders with ***tracking and reporting of results.*** Feedback from stakeholders on the proposed EM&V process was generally neutral to positive.

In the case of the administrative issues considered, the Collaborative acknowledges that a complete consensus was not possible in most cases. Having said that, there is a good deal of support, if not full support, in some very key areas, including support for DSM in general, increasing the level of investment to up to 2 percent of revenues, and the inclusion of Low Income programming.

In making its decisions with respect to these issues, the Collaborative was at all times cognizant of the learning from the recent IRP analysis which concluded that an increase in DSM investment was economically sound, and also that a limited window existed (likely two years) before a decision would need to be made with respect to a large-scale generation capacity addition.

The Collaborative is confident that the approach taken to the administrative issues, and most importantly the DSM programming plan developed, will result in the successful achievement of the DSM objectives outlined in the IRP Action Plan.

1.0 INTRODUCTION

The Nova Scotia Utility and Review Board (UARB) approved the Terms of Reference for the Demand Side Management (DSM) Collaborative on October 4, 2007. In fulfillment of the Terms of Reference, the Preliminary DSM Administrative Issues Analysis was circulated to stakeholders on October 15, 2007.

A stakeholder session to discuss DSM was held on November 1, 2007. At this session, Ecology Action Centre (EAC) and NewPage-Bowater (NPB)[1] led discussion on a number of DSM-related topics.

Following the November 1, 2007 meeting, stakeholders provided written feedback on these issues. Comments were received from the Affordable Energy Coalition (AEC), Avon et.al (Avon), the Nova Scotia Division of the Canadian Manufacturers and Exporters (CME), Conserve Nova Scotia and the Nova Scotia Department of Environment (NSDOE), the Ecology Action Centre (EAC), Halifax Regional Municipality (HRM), the Municipal Electric Utilities Nova Scotia Co-operative (MEUNSC) and NPB.

Based on stakeholder feedback and the continued work of the Collaborative, an update to the administrative issues analysis was issued December 11, 2007. Comments on this draft were received from the AEC, EAC, CME, the Consumer Advocate (CA), HRM, Avon and NPB.

In addition to these written comments, administrative issues were discussed at the stakeholder session held January 11, 2008. These discussions were prompted by a letter (Appendix A) received by Dr. Stutz on January 10, 2008 in which a number of DSM stakeholders expressed concern with NSPI's role as administrator of the DSM program.

[1] NewPage-Bowater is the collective name for the Bowater Mersey Paper Company Limited and NewPage Port Hawkesbury Limited, formerly known as StoraEnso-Bowater (SEB).

In this letter the eleven signatories provided:

> Having reviewed the documents in light of our previously provided input, we believe more strongly than ever that the issue of who should administer DSM in Nova Scotia and accountability for that administrator must be dealt with up front. The Province of Nova Scotia through the Minister of Energy has announced that it will engage in consultations regarding different administration and accountability models for DSM. We believe the issues of administration and accountability must be resolved prior to further consideration of the two documents distributed on December 11.

In preparing this Final Report, the Collaborative has been mindful of the Province's intention to undertake a review of matters which could affect DSM administration. We are cognizant that changes in this regard could affect specific issues related to DSM administration. Regardless of the outcome of the administration question, the Collaborative recommends that the DSM Programming Plan be adopted by the Board as the appropriate plan to meet the preferred path indicated in the IRP results.

Throughout this process the views of stakeholders have been discussed among the Collaborative. As appropriate, stakeholder comments have been addressed through revisions to the DSM Programming Plan and/or included in this report. Where stakeholder comments anticipate a change in the regulatory regime, the Collaborative acknowledges the parallel review to be undertaken by the Province.

Copies of all stakeholder comments and presentations related to this process are provided in Volume II of the Collaborative Report.

1.1 Background

In 2005, NSPI prepared a plan to increase its level of investment in DSM programs by $5 million annually. This plan was included as part of NSPI's General Rate Application for 2006.

In its Decision, issued March 10, 2006, the UARB stated:

> The Board has reviewed the DSM Plan submitted by NSPI and commends its effort in preparing the Plan, including conducting deliberative polling, forming a stakeholders committee and seeking customer input at the Company's customer forum. All intervenors and consultants generally agree the DSM is important and that it ought to be pursued.[2]

The Board directed NSPI to retain an external DSM consultant to assist NSPI in refining its DSM Plan. The selection of NSPI's consultant and the preparation of the Terms of Reference for the consultant's work was overseen and approved by the Board. NSPI awarded the DSM contract for consulting services to Summit Blue in June 2006. Following stakeholder engagement on DSM over the summer of 2006, a revised DSM Plan was filed with the UARB in September 2006.

Subsequently, the Board directed that DSM would be included in NSPI's IRP analysis. Synapse Energy Economics Inc. (Synapse) and Dr. John Stutz were engaged to assist the UARB in this collaborative undertaking, which was concluded in July 2007. The IRP identified the next step for DSM as:

> NSPI will initiate the development of a comprehensive DSM program, aimed at realizing the potential indicated in the IRP analysis. The ramp-up proposed in the IRP analysis can serve as a benchmark for the plan. The program is expected to include reporting mechanisms to track expenditures and assess changes in electricity demand and energy across the various customer segments to capture the effect of significant 'ramp up'.[3]

In Appendix 3, Volume 1 of the IRP Final Report, the Board's consultants recommended:

> …To move work along on DSM we suggest continuation of the process which has served us well in developing the IRP-collaboration and consultation under the general direction of Dr. Stutz.

[2] NSPI 2006 Rate Case, UARB Decision NSUARB – NSPI – P-882 March 10, 2006, paragraph 467.
[3] NSPI Integrated Resource Plan (IRP) Report Volume 1, July 2007, Page 41.

The Collaborative notes that two years has passed since the UARB's 2006 Decision on the originally proposed DSM plan. In that time, the Company has further developed the DSM programming plan and its approach to DSM in conjunction with industry experts, has collaborated with Board staff and its consultants and has consulted with stakeholders. The IRP was developed and filed with the Board, and demonstrated that investment in electric DSM is an economic choice for the utility's customers, as well as delivering environmental benefits to Nova Scotia. The result is an enhanced and comprehensive plan in which the Board can have full confidence.

1.2 Scope of Administrative Issues Analysis

The Collaborative has been directed to consider previous DSM planning work by NSPI, the UARB, stakeholders, and their consultants. This document compiles input from stakeholders, NSPI's consultants, Summit Blue and the Prime Group and the Board's DSM consultants, Dr. Stutz and Synapse.

A number of sections in the December 11 report are either no longer required or are now covered in more detail in either the DSM Programming Plan or in NSPI's DSM Evidence and have therefore been removed from this final document. For instance, details on the Company's proposed cost recovery mechanism are illustrated and explained in NSPI's DSM Evidence. In order to avoid duplication, programming details reside in the DSM Programming Plan.

The scope of administrative issues as provided in the Board approved Terms of Reference consists of the following:

- Nova Scotia Power's role in DSM
- Proposed level of DSM investment and cost recovery approach
- DSM Programming
- Tracking and reporting of results

In the course of the Collaborative's work and as a result of the input of stakeholders, administrative issues associated with DSM programming were identified as:

- Stakeholder engagement
- Low Income programs
- Non-electric DSM
- Municipal and large customer considerations (Custom and other issues)

The following sections of this report provide comment on each of these key administrative issues.

2.0 DSM FRAMEWORK FOR SUCCESS

Prior to the December 11, 2007 draft of this report, stakeholders submitted comments sharing their perspectives on the requirements for successful implementation of DSM. All parties indicated support for DSM in general and several urged early action.

As discussed in the previous section, several parties to the DSM Proceeding suggest not advancing DSM until the administrative question is resolved by the Province. For the reasons discussed in the following sections of this report, the Collaborative continues to support an immediate ramp up in DSM investment, with program spending beginning in 2008, subject to UARB approval.

Parties also noted that it was important for NSPI's DSM efforts to co-ordinate with other DSM efforts, such as the work of federal, provincial and municipal governments, industry associations and other non government organizations. The Collaborative agrees. Where opportunities exist and are known, these are reflected in the Programming Plan. The DSM program can integrate with other programs and initiatives as opportunities arise.

Several parties indicated that the managing agency for DSM must be held accountable for results and that UARB oversight of DSM expenditures is warranted. Stakeholders noted that the DSM program must be flexible and be able to refocus and adjust programs as the need arises. The Collaborative agrees and proposes both a Steering Committee and a Stakeholder Advisory Council. Details are provided in Section 2.2.

2.1 NSPI Role in Administering DSM Programs

On October 29, 2007, the Nova Scotia Department of Energy and Conserve Nova Scotia announced a government-led stakeholder consultation process to examine alternatives for administration of DSM programming. This process is to begin in February, 2008.

This has emerged as a significant issue for several DSM stakeholders, who hold that NSPI is in a position of conflict and believe that proceeding with DSM implementation should not occur until this matter is resolved by the Province.

The Company has indicated its support for the results of the IRP and considers the interests of customers, stakeholders, and NSPI with respect to DSM to be clearly aligned. The administration issue may be resolved following the Province's consultative process. Representatives of the Province have indicated that in the interim, there is no need to delay DSM implementation and that should it be required, the transfer of administrative responsibilities to another entity can be accomplished.

The Collaborative is in agreement with this position. We are at an early stage of DSM implementation in Nova Scotia. DSM has been identified as a key contributor to the continued reliable and cost-effective supply of electricity to NSPI customers. A determination as to long-term administration of the DSM program can be resolved while action is taken to initiate a substantive DSM program.

Four overriding considerations favour moving forward while the administration question is considered:

1. It is necessary to support achievement of the economic and environmental benefits outlined in the preferred plan of the IRP;
2. Regardless of what entity administers the DSM program, the Collaborative believes that this entity will, and should, be accountable to the UARB. Such consistent oversight would facilitate an effective transition if required;
3. The financial consequence of a subsequent transition to a new administrator would be much less significant than the benefits to be gained from successful implementation of the preferred plan from the IRP; and
4. To date, an alternative administrative option has neither been developed nor suggested by stakeholders.

Risk associated with a change in program administration can be mitigated through the following:

- Implementation of DSM programs through partnerships with customers, industry associations, non-government and government agencies with complementary goals of energy efficiency and conservation[4];
- A focus on leveraging work being done by Natural Resources Canada and the Provincial Government;
- Outsource the delivery of DSM services on a competitive basis as appropriate; and
- Use of standard EM&V processes and documentation.

In summary, the risk of a change in DSM program administrator can be mitigated. It will be more difficult to mitigate the risk of further delays in DSM implementation. It is the Collaborative's strongly held view that uncertainty with respect to DSM administration does not warrant further delay in DSM implementation.

2.2 An Enhanced Stakeholder Engagement Process

Stakeholders have urged the DSM Collaborative to consider processes for enhanced stakeholder engagement in, and influence over, DSM programs and administration.

Conserve Nova Scotia, NSDOE and other stakeholders noted that there is a broad common interest in energy efficiency and conservation related to electricity, and considerable opportunities may be available through stakeholders working cooperatively. The Collaborative agrees and proposes the establishment of two bodies; a DSM Steering Committee and a DSM Advisory Council.

[4] The majority of the residential programs in the proposed 2008-2010 plan leverage existing programs delivered by other groups today

The purpose of the DSM Steering Committee is develop consensus between Board staff and NSPI with respect to DSM program plans, budgets, and strategies prior to filing of documents for UARB approval. The Steering Committee will consist of NSPI, UARB staff and consultants. This group will work together to prepare DSM program plans, budgets, and proposed performance indicators and incentives for submission to the UARB for approval. At least one NSPI Steering Committee member will attend Advisory Council meeting and liaise between the two bodies.

The DSM Advisory Council will be composed of up to 12 stakeholders who will represent stakeholder interests. The Advisory Council will advise NSPI and UARB staff on policies, high level design, implementation and evaluation strategies associated with NSPI's DSM programs and will provide recommendations to the Steering Committee for consideration. The Advisory Council will provide a forum for exchange of information and transparency with respect to electric DSM. As noted by Conserve NS and NSDOE, though the Council will work towards building agreement on as many issues as possible, unanimity is not required.

This structure is intended to provide effective and efficient management of the DSM program and enable direct and coordinated input of all stakeholders. It is anticipated the governance processes in support of both bodies will be refined as the DSM program moves forward. The Collaborative recommends that this structure be reviewed by the UARB prior to the implementation of the post-2010 DSM program.

This approach to stakeholder request for engagement was developed based on the recent experience in the Board's and Company's regulatory initiatives, namely the IRP and DSM processes. From the Collaborative's perspective, such a structure would successfully balance the engagement of a broad range of stakeholders with the equally important requirements to make decisions, develop plans and achieve results in a timely fashion. It is understood by the Collaborative that an efficient and effective structure is the objective of the UARB. Ultimately if any parties to this process object to the processes employed or the decisions of the Steering Committee or the Advisory Counsel once convened, recourse to the UARB remains as an option.

In the January 18, 2008 written comments, a number of stakeholders commented on the availability of information to the Advisory Council. This is a level of detail that will be determined once the Council and Committee are established. The Collaborative supports transparency in the work of the Council and Committee.

The Collaborative has reviewed stakeholder input and adopts a list similar to that proposed by EAC for membership on the Advisory Council:

1. A manufacturing association (e.g. Canadian Manufacturers and Exporters)
2. A small business association (e.g. Canadian Federation of Independent Business)
3. A consumer advocate
4. A low-income advocate (e.g. Affordable Energy Coalition)
5. An environmental organization knowledgeable in energy efficiency programs (Selected by the NS Environmental Network)
6. A municipal government association (e.g. Union of NS Municipalities)
7. Municipal Electric Utilities Co-operative of NS
8. The Department of Energy/Conserve Nova Scotia
9. The Department of Environment and Labour

A schedule for the proposed advisory council has been included in Appendix B.

3.0 DSM TARGETS AND LEVEL OF INVESTMENT

Targeted Plan

In NSPI's September 8, 2006 DSM filing, spending on DSM programs was contemplated to start at 0.7 percent of in-province electric revenues and ramp up to 2 percent by 2010. Year 1 spending was proposed at $6.5 million. Year 2 spending was projected to equal $10.6 million.

The subsequent IRP analysis, conducted in 2007, evaluated supply side and demand side options to meet Nova Scotia's future electricity needs. Included in this analysis were additional scenarios of DSM.

A key conclusion of the IRP was that increased investments in DSM formed part of the least cost plan to meet Nova Scotia's electricity needs, and that it was important to start these investments and gain experience quickly.

The recommended plan from the IRP included a ramping up of investments to achieve cumulative DSM savings of 872 GWh and 147 MW within five years. These results were based on an increase in DSM investment up to 5 percent of electric utility revenues. As shown in the table below, the proposed DSM programming plan is aligned with the five year targets outlined in the IRP.

Table 1-1 Projected Cumulative Annual MW Demand and GWh Energy Savings

Proposed DSM Plan		
Year	Cumulative Annual Demand Savings at Generator (MW)	Cumulative Annual Energy Savings at Generator (GWh)
2008	1.7	15.2
2009	8.8	66.0
2010	23.8	174.7
2011	50.8	327.8
2012	92.3	606.6
2013	147.8	978.4

2007 IRP		
Year	Cumulative Annual Demand Savings at Generator (MW)	Cumulative Annual Energy Savings at Generator (GWh)
2008	11.4	77.8
2009	29.6	202.4
2010	60.2	389.2
2011	100.8	622.8
2012	147.0	871.9

Delay in starting DSM was a sensitivity evaluated in the IRP, specifically whether the reference plan remained the preference if investment in DSM was delayed by two years. The conclusion of this work was that significant investment in DSM and Renewables would not be the least cost plan and that a delay of this length could result in a shift in focus. Fortunately, DSM investment has not yet been delayed by two years, targets can be achieved for 2013 (versus 2012 in IRP).

Level of Investment for the Early Years of DSM

The DSM Programming Plan includes details for 2008 to 2010. The targets of the proposed plan are to achieve cumulative annual energy and demand savings of 175 GWh and 24 MW respectively, through 2010.

Beyond 2010, the Plan provides high level information on potential investment and targets for three additional years. It is contemplated that DSM annual energy and demand savings could achieve cumulative savings of 978 GWh and 148 MW by 2013.

The overriding IRP theme with respect to DSM was that we need to act promptly in order to begin to understand the potential for demand side management in our Province. A key issue is how quickly DSM can be effectively and economically ramped up. The preferred plan level of DSM spending was strongly supported by Dr. John Stutz and Bruce Biewald of Synapse in their IRP statement concerning IRP development, results and recommendations[5]. It was also noted as a very aggressive savings target.

It is important to start ramping up DSM programs as soon as practical, but to do so in a manner that is most likely to be successful and sustainable. This includes starting with a portfolio of programs that is likely to be successful and to start with goals that are achievable. Experience will be gained in the early years of this program; DSM spending should meet a "no regrets standard".

The actual level of investment chosen is significant in that it relates to the amount of kWs and kWhs saved. Stakeholders have expressed some concern about the long term level of DSM spending. There appears to be consensus on the early spending amount (1-3 percent of electric revenues). If early DSM work indicates that the achievable DSM potential is less than anticipated, there will be a mid-course correction in the targeted plan if required. As Avon notes in its January 18 comments, "a DSM trial run", of sorts is appropriate. The Consumer Advocate has described this approach as a "phase 1 and phase 2" approach. The Collaborative agrees with these characterizations, and suggests that the Board should review the DSM program and related issues prior to the implementation of "phase 2" – the post-2010 DSM program. A 2010 UARB hearing to address this has been incorporated in the Proposed DSM Implementation Timeline presented in Appendix C.

In its January 18 comments, NPB has specifically noted that alternative sources of spending should be taken into account in determining the appropriate level of DSM investment to collect in rates. The Collaborative does not see the benefit of this suggestion. To the extent that electric DSM occurs independent of the proposed

[5] Appendix 3 Vol 1 IRP Report

program, this will be a benefit not anticipated in the recent IRP. Such DSM effects will become apparent over time in the Company's load forecast. The load forecast will be an input into the next IRP initiative at which time the preferred plan will be re-evaluated. A revised plan will emerge, which will result in a new set of DSM investment targets. This information will then be provided to the UARB and stakeholders and the Board's direction sought.

In its December 11, 2007 Draft Administrative Issues Analysis, the Collaborative accepted NPB's mark-up characterizing the early years of the DSM program[6].

> The level of spending contemplated in the 2006 DSM filing offers a reasonable range of suggested spending over the initial years of the DSM program. Since the Integrated Resource Plan advocates increased levels of DSM spending, it is proposed that the DSM spending level beyond year 2 should be evaluated after year 1 results are known, with a view to determining over time whether those spending levels established as the preferred plan in the IRP will achieve the anticipated savings in Nova Scotia.

The evidence suggests that the opportunity for investment or achievable savings as contemplated in the IRP is achievable and cost-effective. The early years of investment should be maximized to the extent that the savings can be achieved and the DSM program can be successful. The program should recognize that ramp up may take some time.

A strategy for more aggressive implementation of DSM may be a combination of resource acquisition (paying for savings immediately through incentive based programming) and market transformation (investing in long term partnerships, education, training, standards and regulations) that will realize both immediate economic and lasting savings.

[6] It should be noted that years 1 and 2 referenced 2009 and 2010.

Stakeholders have suggested that other funding sources and staff capacity, such as may be available at NRCan or Conserve Nova Scotia, should be considered when determining the appropriate DSM investment level to collect in rates. The Collaborative agrees that NSPI's program should leverage and avoid duplicating the work of other parties actively pursuing conservation and energy efficiency, such as the three levels of government, industry associations, and Non Governmental Organizations (NGOs). The Collaborative believes close co-ordination among the parties is essential. Partnerships will be a feature of future DSM programs and resources will be leveraged when appropriate. Where reduced DSM program costs result, the benefit will accrue to customers through the DSM Cost Recovery Mechanism.

4.0 THE DSM PROGRAMMING PLAN

In its November 15 written comments, the EAC requested that a draft DSM plan with estimates of budgets, savings goals and timelines for initial programming be put forward as soon as possible for review and discussion. This was accomplished in the December 11 Draft DSM Programming Plan, in which the Company's original September 8, 2006 DSM Plan was revised to incorporate the highlights identified in the October 15, 2007 Preliminary DSM Administrative Issues Analysis, the stakeholder feedback of November 15, 2007 and the context of the IRP results.

In the November 1 stakeholder session, the EAC articulated a series of criteria for initial programming in its presentation including, ease of ramp-up and providing opportunities for wide participation. The EAC proposed initial quick-start programs as ideas and guidelines, including:

1. Massive Compact Fluorescent Light Bulb (CFL) programs
2. Commercial Lighting – Upstream High Performance
3. Appliances – Clothes Washers and Refrigerators
4. Industrial & Municipal programs through custom programs or self-administration
5. Low-Income
6. Large Commercial – Direct Install

A number of these ideas have been reflected in the DSM Programming Report as follows:

- CFLs and appliances are targeted in the Efficient Products program.
- Industrial and municipal customers are addressed in the Commercial and Industrial (C&I) Custom program.
- A Low Income program will target the energy savings of this customer sector.

- The Small Business Direct Install Lighting program will target small business customers.

The proposed portfolio of DSM programs provides opportunities for wide participation for all customer classes and segments. Residential programs address efficient products and target existing and new houses, including low-income. C&I programs target efficient products, custom applications, small businesses and new construction. Customers who may not be specifically targeted in the DSM Plan, such as NSPI's Extra-Large Industrial customers, can consider participating in the Custom Partners Program.

MEUNSC prefers that its members come under the province wide DSM program. The Collaborative confirms that NSPI's industrial, commercial and residential DSM programs will include the customers of its municipal utility customers and agrees that there is no requirement for a separate program.

EAC noted that a fuller portfolio of programs will need to be developed in a multi-year demand side resource plan. EAC also supported enabling a high degree of flexibility to encourage program innovation and rapid changes to programs and strategies in order to achieve results, provided the program administrator is held accountable for achieving results. The need for flexibility is echoed by Avon, who notes that flexible, comprehensive programs will be successful with industrial customers.

The DSM Collaborative supports the need for flexibility in achieving program results and expects that the proposed DSM Advisory Council will be integral in reviewing and proposing adjustments to DSM investment to achieve success.

4.1 Early Action

Included in NSPI's January 31, 2008 DSM Evidence is a request to move forward with three DSM programs in advance of the Board's April Hearing. These programs are:

- Small Business Direct Install Lighting
- C&I Custom
- Low Income

Details on each of these programs are provided in the DSM Programming Plan.

These programs have been selected for early advancement because:

- There is stakeholder support these programs for early action, and/or similar programs in other jurisdictions have had demonstrable success.
- The programs clearly have positive benefit-to-cost ratios, using the Total Resource Cost (TRC) test.
- Near term partnering opportunities exist and/or contracting is a possibility.

Stakeholder support for these programs is discussed in the following sections.

4.2 Custom Approaches

At the November 1, 2007, stakeholder session, HRM advocated for self-administration of DSM programs. The benefits cited by the municipality included the ability to leverage funding from federal sources. CME and EAC supported this option and noted that such a program could aid in quick and effective ramp up of DSM.

The Collaborative recognizes that certain stakeholders may be in the best position to identify and potentially implement DSM measures involving their own facilities. As a result, the Custom Partners component of the C&I Custom Program was developed.

Through this program component, eligible customers can propose DSM projects unique to their business. It will be made available to large commercial, municipal and industrial customers that have significant electricity DSM opportunities and some or all of the resources, capacity and expertise to identify and implement projects. The C&I Custom Program will target energy savings and reductions in peak electrical demand.

CME supports the early implementation of programs that have been proven effective elsewhere. The C&I Custom program proposed is modeled after similar successful programs offered by North American utilities, including BC Hydro.

CME indicated that it is unclear how programs for commercial and industrial customers will be properly tailored to meet their requirements and to realistically achieve DSM. The details of this program have been revised to provide additional clarity. Specifically, the delivery process proposed for the C&I Custom program was revised to reflect direct input from a number of NSPI's large industrial customers.

CME indicated that it is not clear to what extent their members will be able to participate, benefit and be required to pay[7]. A recently-published CME report[8] on industrial DSM potential outlined numerous opportunities to save electricity in CME member facilities, estimating the extent to which these customers will be able to participate in DSM programs. The study indicates that industrial customers will have opportunity to participate and benefit.

Section 11.2.1, page 71 of the referenced report stated "Project Financing is one of the major barriers impeding take up of cost-effective energy management measures." This barrier can be addressed by the proposed programs. Custom programs are proven in the industry as a way to allow customer to access more capital, define the energy saving measures and prescribe the level and type of utility assistance.

Representatives of large customers have advised of the complexity of industrial customer's energy efficiency needs and the importance of addressing these complexities

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[7] Issues of the treatment of DSM costs are discussed in Section 5.
[8] "Energy Management Potential & Best Practices Benchmarking in the Nova Scotia Industrial and Manufacturing Sector"; Canadian Manufacturers and Exporters, Nova Scotia Division; December, 2007; Available for download at http://www.cme-ec.ca/ns/template2_ns.asp?p=999.

in designing and implementing DSM programs. The DSM Collaborative agrees and this is one of the key reasons that a custom program is used in other jurisdictions and is included in the proposed programming plan. Further, the unique characteristics of industries can be reflected through:

- Representation by Industrials on the DSM Advisory Council
- Potential to participate in the C&I Custom Program
- By providing constructive input to the C&I New Construction and Prescriptive Rebate Program

4.3 Low-Income

Conserve Nova Scotia and NSDOE suggest that a steering committee or collaborative represent the interests of low-income households. The Collaborative agrees that the proposed Advisory Council should include low-income representation.

Conserve Nova Scotia, NSDOE, AEC, EAC, and Clean Nova Scotia have all indicated that the DSM program must include significant DSM measures for low-income households.

The primary goal of the Low Income Household Program is to acquire cost effective electrical energy savings within this customer group. The Collaborative recognizes that low-income customers can be particularly affected by rising energy costs. It also recognizes that, in order to capture the energy savings opportunities within this target area, programs should be tailored to overcome barriers that otherwise could prevent low-income customers from implementing cost effective DSM measures. Low-income DSM programs, like other programs, must meet the TRC test.

AEC discusses appropriate percentages of DSM program spending that could be assigned for investment with low-income customers. The DSM Programming Plan proposes a Low Income program.

Several stakeholders have urged for minimum spending targets for this program. The Collaborative is of the opinion that DSM programs should be based on the available DSM opportunities and their economies, not on minimum budget targets. Having consulted with partners (and consistent with the Collaborative viewpoint), the spending level has been increased for the Low Income program.

Stakeholders raised concerns about budget caps per household. Budget caps per household are not a feature of the proposed DSM programming plan.

The AEC discussed barriers to energy efficiency encountered by low-income customers. The proposed Low Income program will eliminate the first-cost barrier since the participants will not have to pay for the electrical efficiency measures.

Opportunities to deliver conservation programs to low-income customers may be supported by the existing network of organizations that work on the needs of these customers. The EAC indicated an interest in exploring the opportunity to build capacity for program delivery within non-profit organizations that are closely connected to low-income communities. This expertise and assistance is welcomed by NSPI. A multiple partnership approach to program design and delivery will also help to address barriers.

The AEC noted that Nova Scotian tenants are not provided with security of tenure until 5 years and that legislative changes are necessary to complement roll out of a low-income program for tenants. This issue is not in the scope of the Collaborative to pursue, but the advice of AEC about avoiding potential pit-falls of this challenge is welcome.

The EAC noted that significant amounts of low income Nova Scotians live in rental, multifamily and social housing accommodations and should also be included in program approaches. NSPI’s proposed Low Income program is contemplated to initially apply to owner-occupied homes. It is recognized that energy efficiency opportunities also exist in rental situations, and so it is contemplated that the DSM programming for this area could be included in the future, building on the success of initial low income programming and overcoming the additional barriers associated with rental situations.

4.4 Non-Electric DSM Initiatives and Effects

NSPI's investments in DSM are part of the least cost resource plan to meet the future electricity needs of NSPI's customers. The criterion used to make this determination is the TRC test, a benefit to cost ratio of total electricity program benefits to the total electricity program costs.

Savings from reduced costs of other fuels, such as home heating oil, or societal benefits such as job creation, are not considered in calculating the TRC test for electric DSM investments. The existence of non-electrical benefits to customers can be expected to increase the take-up of the electricity based program, and therefore indirectly be taken into account in the economic evaluation of program alternatives.

Capturing non-electric benefits may be difficult to do with any accuracy. The Collaborative is interested in stakeholder input as to how this could be accomplished in an appropriate and efficient manner.

There may be projects that are broader than electricity in scope of spending and/or effect. In this instance, the utility will seek partnerships to fund those components of the project which are not strictly electrical in scope. Again, projects such as these may have different take-up rates than those that are strictly electrical in scope and effect.

In its November 15 comments the EAC suggests that the utilization of electric resistance heat could be discouraged or even "banned" for new construction. The Collaborative agrees that while support of more efficient electric systems should be part of DSM programming (and is proposed), it does not favor a ban of resistance heating for new construction. While it may be possible to evaluate whether or not electrical space heating is in the short term interest of customers and society as a whole, it is difficult to know that for certain in the future, as the utility's resource options may change over the long term. For similar reasons, it is not clear whether permanent fuel switching (change of energy supply) should be funded by electric DSM programs. These are complex issues that will require further study. For this reason, the Collaborative recommends that focused analysis of these issues be conducted in the future. The EnerGuide for New Houses Program proposes to adopt the EAC's January 22 suggestion of promoting hydronic based systems.

4.5 Evaluation, Monitoring and Verification

Stakeholders have noted that it will be critical to ensure accountability for demand side resource investments and that proper savings verification will be very important to assure that promised savings are actually being delivered.

The DSM Collaborative is in full agreement. The Collaborative expects this will be a major focus of the UARB, the Steering Committee and the Advisory Committee as DSM programming moves forward. In addition, it is understood that such verification and monitoring will augment rather than reduce the UARB's oversight with respect to approving the recovery of DSM costs.

It has been appropriately suggested that detailed monitoring, evaluation and reporting plans be in place at program onset. Evaluation, Measurement, and Verification (EM&V) is an integral component of the proposed DSM Portfolio. A three part approach is proposed which includes:

- EM&V related activities
- Process and impact evaluation
- Annual savings verification

Stakeholders have urged that a proper, transparent and independent process for performance review and evaluation be established. It is proposed that the first component of the EM&V plan, annual savings verification of DSM programs, be carried out by an independent consultant, under the direction of UARB staff on the proposed DSM Steering Committee. The second component, process and results evaluation will be performed by an independent consultant. The third part of the EM&V program will be carried out by NSPI. The Steering Committee will be kept abreast of all activities and regular updates provided to the Advisory Council.

EAC requested that program costs be specified for the purpose of evaluation and review, as evaluation and research have tended to be under-funded in many jurisdictions. NSPI proposes four percent of program costs be assigned to this activity, which is consistent with defined amounts in a number of other jurisdictions.

It has been suggested that there should be regular review of DSM results, spending, and future plans. This could take place early in the year to review the results of the previous year's program results, and again at some point during the year. Course corrections should take place if and when warranted to achieve program success.

NPB notes that a formal plan is needed to consider the effect of DSM by other organizations. The Collaborative acknowledges that in all cases where NSPI is one of multiple partners investing in a DSM program, it will need to illustrate its assumptions related to the share of electric benefits attributable to its investment.

While the capture of non-electric benefits associated with electric DSM investment, such as fossil fuels and water usage, will not be a focus for electric DSM, the merits and feasibility of this activity could be evaluated for each program and pursued if reasonable.

NSPI proposes performance indicators as follows:

1. Net total electric resource benefits[9]
2. Minimum electric benefits
3. Energy savings
4. Winter peak demand savings

Avon supports separate review of industrial efforts and separate programs for industrial customers. It is envisioned that the primary sectors of residential, commercial and industrial will have defined programs which would be evaluated separately.

Others have suggested that geographic equity and small business sector indicators can be indications of the resource benefits accruing to these target groups. While this may be the case, the DSM Collaborative does not support separate identification of these groups in EM&V efforts. Specific market, sector or other performance indicators should only be developed after there is more information to support their development, such as market or baseline studies to better characterize and define a market or sector. Additionally, given the need to defer new generation, it is most important to focus on the key resource acquisition indicators of MWh and MW savings.

Conserve Nova Scotia and NSDOE suggest that the stakeholder collaborative contribute extensively to the establishment of performance indicators.

In its January 22 submission, EAC has suggested five more performance indicators than contained in the table above. The Collaborative prefers to focus on achieving fewer important targets well than on a variety of less-important targets. This is especially true in the first phase of the DSM portfolio in Nova Scotia. The Collaborative suggests that adding further targets could be considered in advance of the post-2010 program implementation.

[9] For the net total resource benefit performance indicator, NSPI will include the present worth of lifetime costs and benefits.

5.0 COST ALLOCATION

Stakeholders have indicated their preferences for allocation of DSM costs. The Collaborative appreciates the input of stakeholders on this matter. There were a variety of opinions regarding cost recovery with no apparent consensus.

The Collaborative continues to support the allocation of DSM costs across the entire rate base and recovery of DSM costs from all electric customer classes. However, considering stakeholder input, the Collaborative proposes an allocation methodology that recognizes that both demand and energy savings will result from DSM program investment. This methodology is somewhat more complex than a flat charge per kWh across all customer classes, but is consistent with NSPI's Cost of Service Study (COSS) Methodology.

From a cost of service perspective, the Collaborative proposes that DSM costs be functionalized as 100 percent generation. These DSM costs would be classified as demand or energy related based on the relationship of energy and demand-related "production plant in service" from the COSS submitted in NSPI's most recent general rate case.

For example, if two thirds of NSPI's "production plant in service" is classified as energy-related and one third is classified as demand-related, then two thirds of DSM costs would be allocated to rate classes on the basis of an energy allocator (each class' pro rata share of kWh requirement) and one third would be allocated to rate classes on the basis of a demand allocator (each class' pro rata share of a 3 Coincident Peak (kW) allocator). Once the costs are allocated to the rate classes using the appropriate demand and energy allocators, the allocated costs would be converted to a charge per kWh. This approach to allocating the costs and calculating rates recognizes that the DSM programs produce both demand and energy savings, while keeping the calculation and application of rates relatively simple.

While the Consumer Advocate and others support the allocation of DSM costs consistent with the cost of service methodology adopted by the Board, stakeholders representing industrial customers are opposed to this approach.

In its January 18 comments, Avon submitted that a hearing on the COS methodology is required. Such a recommendation is outside of the scope of the DSM process, and the Collaborative notes the Board's November 2006 Decision on this matter[10] in which it determined that such a review was not warranted at that time.

NPB requests that the Collaborative recommends that customers who can demonstrate independent early DSM action be afforded direct credit for these initiatives. Adopting anything other than a forward-looking DSM program would hinder the proposed plan. For example, consider the situation of a residential customer who has purchased a CFL, or a new home builder who invests in more efficient house design. Reimbursement for these expenses would be impractical and administratively burdensome. To reimburse a fewer number of large customers would be simpler, but doing so for one class and not another would be discriminatory. For these reasons, the Collaborative does not make this recommendation.

NPB suggests acknowledgement that large industrial entities are likely best situated to carry out their own energy efficiency initiatives and that the best way to encourage such endeavours is to provide direct incentives to such entities by way of monetary offsets to electricity costs where those businesses can demonstrate that processes are operating at or near peak efficiency and/or meet performance –based standards on energy efficiency.

The Collaborative believes that direct investments to influence customer behaviour are a more effective and proven method to acquire the DSM kW and kWh targeted in the IRP. Customers who operate at peak efficiency obviously receive financial benefit as they experience energy cost savings directly.

[10] NSPI Cost of Service Study, UARB Supplementary Decision, NSUARB – NSPI – P-883(2), Page 2.

NPB's comments suggest it believes that the cost of service concept means that those who get the benefit should pay for the benefit. The Collaborative supports allocation of DSM costs to all classes. This is how the Company, and the Board, have approached large customer interruptible rates. This demand management program benefits all customers, and non participating classes share the cost. The same should apply with DSM program investment.

NPB does not agree with this analogy and contends that DSM is a higher level of service for customers that obtain direct benefit from the DSM program, while interruptible rates are a lower level of service with obligations on the interruptible customers.

The Collaborative's view is that the customer's rationale for participating in the DSM program is irrelevant to the question of whether the costs should be shared. All customers will benefit if, by investing in DSM, the Company avoids more costly alternatives in the future.

6.0 DSM COST RECOVERY MECHANISM

Regulatory approaches can be designed that motivate utilities to implement programs that reduce sales and improve energy efficiency when it is cost effective to do so. Key components of a cost recovery mechanism that would provide the appropriate financial incentives for NSPI to actively pursue DSM programs include:

1. A mechanism to recover the cost of developing and implementing DSM programs;
2. A mechanism that would offset lost fixed cost recovery due to DSM related sales reductions, thus eliminating the throughput incentive; and
3. A true-up mechanism to ensure that the costs recovered by these components are neither over-collected nor under-collected.

6.1 Program Cost Recovery

In most regulatory jurisdictions, DSM program costs are expensed, which means that costs incurred for DSM and energy efficiency are placed into rates during the year that the expense is incurred and considered as part of a rate filing. Between rate filings, the utility would not recover the cost of any DSM or energy efficiency programs above the level of program costs included in the utility's base rates. Even if such costs are authorized by the regulator for DSM and energy efficiency programs, there can subsequently be a significant delay in recovering these costs. An essential component of successful DSM and energy efficiency programs is the recovery of costs on a timely basis.

There are alternatives for providing utilities with recovery of program costs in a timely fashion. The alternative that NSPI would like to pursue is a DSM cost recovery mechanism. A tariff rider for DSM would be used to allow for periodic rate adjustments to account for the difference between DSM costs that are included in base rates and actual DSM project costs in a given year, either up or down. This would allow NSPI the flexibility to take advantage of DSM opportunities as well as recover program costs in a timely fashion.

NSPI's IRP shows a ramp up in DSM programs as a significant resource for meeting customer energy needs. A program cost recovery mechanism would provide a way to recover the cost of implementing DSM and energy efficiency programs without the necessity of general rate cases. Such a cost recovery mechanism subject to UARB oversight would provide flexibility to pursue new programs as they are identified or to change program direction rapidly as cost effective program modifications were identified. This flexibility with regard to cost recovery would assist in taking full advantage of the DSM opportunities identified in the IRP.

6.2 Revenue from Lost Sales

As electricity usage is reduced, a utility loses fixed cost recovery on these lost sales. To offset this disincentive, a reconciliation procedure known as the lost revenue adjustment mechanism (LRAM) is often used.

An LRAM restores revenue to a utility that would have been applied to coverage of fixed costs but is lost due to sales reductions resulting from DSM programs. It allows a utility to recover the "lost" contributions to fixed costs associated with not selling additional units of energy as a result of the success of DSM programs in reducing electricity consumption. Thus, an LRAM removes a disincentive for utilities to actively pursue demand-side and energy efficiency alternatives. This disincentive is particularly strong when customer charges are kept artificially low and a significant portion of fixed costs and margin are recovered through a volumetric energy charge.

In an LRAM, the estimated reduction in customer usage measured in kWh for approved programs is multiplied by the non-variable revenue requirement (revenue requirement less fuel and variable operations and maintenance costs) per kWh for purposes of determining the lost revenue to be recovered.

In their November 15 comments, EAC and MEUNSC indicated that NSPI should explore decoupling revenue from electricity sales in order to eliminate the throughput incentive and keep NSPI whole. The LRAM that is proposed eliminates a disincentive for pursuing DSM programs and is consistent with the recommendations made by these stakeholders.

Some stakeholders have argued that selection of a DSM administrator other than NSPI would eliminate the requirement for an LRAM. The Collaborative does not accept this. Regardless of who administers the DSM program, utility fixed costs will need to be recovered. This can be achieved efficiently and fairly through implementation of an LRAM.

6.3 Incentives and Penalties

Through the program cost and lost revenue adjustment mechanisms for DSM, the utility recovers its costs and financial disincentives are mitigated. Stakeholders have urged that incentives to invest in DSM should be considered.

NSPI assures stakeholders that it is committed to working toward the preferred IRP plan as to do so is in the best interest of the Company, its stakeholders and its customers. The Collaborative believes that the requirement and benefit of financial incentives and/or penalty mechanisms can be more effectively assessed once experience with these programs is gained. It is expected this will be revisited once the Company's DSM programs have been more fully established.

6.4 True-Up Mechanism

In order to assure that the costs recovered through the components described above are neither under-collected nor over-collected, NSPI proposes inclusion of a true-up mechanism as a part of the DSM cost recovery mechanism. Each of the components in the DSM cost recovery mechanism will be calculated in September based on estimates of program costs and lost revenues for the next year and will go into effect on the following January 1 after approval by the UARB. A true-up for DSM costs in the previous year would also be calculated in September and will go into effect the following January after approval by the UARB. For example, in September 2010, the true-up for the calendar year 2009 will be calculated as well as rates to recover program costs and lost revenues for 2011. These rates will go into effect on January 1, 2011 after approval by the Board.

The true-up for program costs would be based on the actual program costs during the year compared to estimated program costs. The true-up for lost revenues would adjust for any difference between the estimated reduction in customer usage and the verified program results, in accordance with the EM&V procedures, discussed both in this document and the DSM Programming Plan. The discount rate and the assumptions in the IRP that were used to calculate the present value of future savings would be used for both estimating and true-up purposes.

All balances in the true-up mechanism will include the carrying charge at the Company's weighted cost of capital.

6.5 Proposed DSM Cost Recovery Mechanism

As previously noted the DSM cost recovery mechanism would operate on a forecast basis and have several components, namely program cost and lost revenues recovery and be based on the Board approved Cost of Service. A true-up mechanism would operate to balance these components from year to year.

In the December 11 Draft Administrative Issues Analysis, an illustrative DSM mechanism was described and provided in an appendix. The tables provided illustrated program cost and lost revenue recovery in a scenario where there would be one flat DSM charge applied to all rate classes.

Since that time, the details of the described mechanism have been further developed by the Company and class-specific DSM charges are now proposed. The illustrative calculations are more detailed than that contained in the December 11, 2007 draft. For further information, please refer to NSPI's DSM Evidence.

7.0 CONCLUSION

Based on its work over the past several months, the Collaborative concludes:

1. The DSM Program should move forward as soon as possible. Implementation should not be delayed while the Province considers the matter of DSM program administrator.
2. The Board should approve implementation of three of the ten 2008-2010 DSM programs in advance of the DSM Hearing.
3. DSM program management should be overseen by a Steering Committee and Advisory Council structure.
4. Implementation of a DSM Cost Recovery Mechanism is required, including DSM Cost Recovery, Lost Revenue Recovery and True-up Mechanism.
5. DSM cost recovery should be applied consistent with the Board's approved Cost of Service Study.

These conclusions are reflected in the foregoing and incorporated as appropriate within the DSM Evidence filed by NSPI and the DSM Programming Plan.

The IRP developed collaboratively and incorporating stakeholder input, calls for early DSM action and significant investment in conservation over the long term. The Collaborative has responded to the UARB approved DSM Terms of Reference by providing this assessment of administrative issues and an enhanced DSM program plan. It is an appropriate plan for prompt approval and implementation. A review of the initial program (2008-2010), including outstanding stakeholder concerns, will assist in the development and implementation of the post-2010 DSM program.

Further delay in DSM implementation should be avoided, for the benefit of customers, the utility and the province.

APPENDIX A

January 10, 2007 Letter from DSM stakeholders

January 9, 2008

Dr. John Stutz
Vice-President
Tellus Institute
11 Arlington Street
Boston, MA 02116-341

Dear Dr. Stutz:

Re: DSM Administrative Issues Analysis and
DSM Programming Plan 2008-2013 with details 2009-2010

We are writing in advance of the stakeholder meeting scheduled for January 11 to consider the Administrative Issues Analysis and Programming Plan filed with stakeholders on December 11, 2007. The signatories to this letter constitute the vast majority of parties who have been actively involved in Nova Scotia Power Inc. ("NSPI") proceedings over the past number of years and include representatives of the residential, industrial and municipal sectors as well as public interest environmental and low-income groups.

We are all supportive of a Nova Scotia DSM program that is properly structured, administered, costed and implemented. However, we believe what has been put forward does not rise to that level. Instead, the multitude of concerns stakeholders have identified in the Collaborative's approach will lead to a lengthy and heavily contested hearing process, rather than collaborative solutions.

Having reviewed the documents in light of our previously provided input, we believe more strongly than ever that the issue of who should administer DSM in Nova Scotia and accountability for that administrator must be dealt with up front. The Province of Nova Scotia through the Minister of Energy has announced that it will engage in consultations regarding different administration and accountability models for DSM. We believe the issues of administration and accountability must be resolved prior to further consideration of the two documents distributed on December 11.

Many of the particular issues that parties have with program specifics, NSPI's lost revenue recovery mechanism, the rejection of penalties and rewards based on performance, verification of DSM benefits, guaranteed recovery of all costs without the rigour of general rates cases, and the establishment of an advisory council will either disappear, or be dealt with differently, if the DSM programs are administered by a party that is rewarded based on performance and not in the conflict of interest position NSPI finds itself in. It is thus critically important to have the administration and accountability issues determined prior to parties spending large amounts of time and resources in preparing responses to the Collaborative or preparing for a hearing in April.

In general, we are disappointed with the approach taken in the documents. In particular, we note the following high-level concerns:

1) The lack of accountability of NSPI as the program administrator is very troubling, given the substantial magnitude of expenditures proposed. Accountability requires a detailed set of objectives for DSM savings, with financial consequences if these are not met. However, under the proposed plan there are no consequences if the hoped for DSM savings are not achieved. We note that, at this stage, the rejection of ensuring accountability for results is not due to a lack of awareness of stakeholder concern, but due to NSPI's inherent conflict of interest.

2) Although there is reference throughout the documents to points raised by many of the stakeholders, the Collaborative's documents have not reflected the approach to the key issues noted by these stakeholders to any great extent.

3) The proposed Stakeholder Advisory Council has a very limited mandate and no substantive decision making role or access to information.

4) Many of the issues arising are the result of what we perceive to be NSPI's inability to eliminate its inherent conflict of interest in the administration of DSM programs. This is an issue that MUST be addressed at the outset.

Each of the signatories to this letter has its own individual concerns with the documents. However at this stage we feel it is more important to deal with the question of administration and accountability before addressing the individual specific concerns. Many specific concerns of individual parties will either disappear, or will be dealt with differently, once the primary process issue of administration and accountability has been appropriately addressed.

We cannot stress strongly enough the importance of this matter. The future role of DSM in the Nova Scotia electricity marketplace is a critical issue which must be dealt with appropriately. We simply cannot risk the spending of millions of dollars without greater accountability for the success of DSM programs. NSPI is ill suited in the current circumstances and climate to carry out these activities, and we are disappointed at the failure of the Collaborative's documents to truly address the legitimate and numerous concerns raised by each of us.

The signatories to this letter consider that the fundamental issue which must be the focus of discussion on Friday is the issue of accountability for the DSM program and who will administer it.

Yours truly,

Acadia Management Group Inc.

Affordable Energy Coalition

Avon Group

Canadian Manufacturers and Exporters

Consumer Advocate

Ecology Action Centre

Halifax Regional Municipality

Municipal Electric Utilities of Nova Scotia Cooperative

NewPage/Bowater Mersey

Sustainable Housing

Union of Nova Scotia Municipalities

cc: Bruce Outhouse
René Gallant
Alison Scott
Mark Rieksts

Yours truly,

Acadia Management Group Inc.	Affordable Energy Coalition
Avon Group	Canadian Manufacturers and Exporters
Consumer Advocate	Ecology Action Centre
Halifax Regional Municipality	Municipal Electric Utilities of Nova Scotia Cooperative
NewPage/Bowater Mersey	Sustainable Housing

cc: Bruce Outhouse
René Gallant
Alison Scott
Mark Rieksts

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Affordable Energy Coalition

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Halifax Regional Municipality

Municipal Electric Utilities of Nova Scotia Cooperative

NewPage/Bowater Mersey

Sustainable Housing

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NewPage/Bowater Mersey	Sustainable Housing

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NewPage/Bowater Mersey

Sustainable Housing

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Mark Rieksts

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Affordable Energy Coalition

Avon Group

Canadian Manufacturers and Exporters

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Peter J. Kelly

Halifax Regional Municipality

Municipal Electric Utilities of Nova Scotia Cooperative

NewPage/Bowater Mersey

Sustainable Housing

cc: Bruce Outhouse
René Gallant
Alison Scott
Mark Rieksts

Yours truly,

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Avon Group	Canadian Manufacturers and Exporters
Consumer Advocate	Ecology Action Centre
Halifax Regional Municipality	Municipal Electric Utilities of Nova Scotia Cooperative
NewPage/Bowater Mersey	Sustainable Housing

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Consumer Advocate

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Halifax Regional Municipality

Municipal Electric Utilities of Nova Scotia Cooperative

NewPage/Bowater Mersey

Sustainable Housing

cc: Bruce Outhouse
René Gallant
Alison Scott
Mark Rieksts

Yours truly,

Acadia Management Group Inc.	Affordable Energy Coalition
Avon Group	Canadian Manufacturers and Exporters
Consumer Advocate	Ecology Action Centre
Halifax Regional Municipality	Municipal Electric Utilities of Nova Scotia Cooperative
NewPage/Bowater Mersey	Tony Watters Sustainable Housing

cc: Bruce Outhouse
René Gallant
Alison Scott
Mark Rieksts

APPENDIX B

Recommended Steering Committee and Advisory Council Details

DSM Steering Committee

The Steering Committee process/role would be as follows:

- Composed of UARB board staff, UARB technical support consultants, NSPI staff and technical support consultants.
- Chaired by NSPI.
- Review on a regular basis NSPI's DSM programs progress, key milestones, and strategic directions.
- Liaise with the DSM Advisory Council and review recommendations.
- Review and comment on NSPI draft DSM filings.
- UARB staff will oversee NSPI's DSM Annual Savings Verification process and submit report to the UARB Commissioners.
- The Committee will work jointly to prepare and contract periodic independent evaluations.
- Meet/teleconference as needed.

DSM Advisory Council

The Advisory Council would have the following purpose/roles/objectives:

- To establish a collegial forum resulting in increased public confidence, across a broad spectrum of stakeholders, leading to greater transparency and partnership.
- Regular opportunity to advise and be updated on DSM planning, program design, implementation, and evaluation.
- Forum for input from stakeholders and opportunity for the general public to provide comment.
- The types of items that would be considered and commented on by the advisory group would be similar to the following:
    - Project proposals by Custom Partners

- Regular review of existing programs and incentives
- Review of proposals for upcoming initiatives
- Consideration of partnerships

Proposed Structure

- This group would have a formal structure and membership.
- Composed of up to 12 members approved by UARB.
- Chaired by a member nominated by the Steering Committee and approved by the UARB.
- Membership of 2 or 3 year staggered terms.
- Minutes of meetings would be taken.
- Meet 4-6 times per year or as decided by members, but no more frequently than once per month.
- Members who do not attend meetings for six months will be asked if they wish to continue membership; a year's non-attendance may be deemed withdrawal from the Council.

Proposed Process

- Members will be invited to suggest topics for meeting agendas. Agendas and background materials shall be made available to Council members a week in advance if possible.
- All Council members shall be provided an opportunity for comment.
- The advisory group would vote on various items and would issue either a consensus report or majority/minority reports to the steering committee. These reports would become part of the regulatory record if pertinent to a Board decision. Provide at least two rounds of discussion on non-consensus recommendation before a vote. Document carefully majority and minority opinions and justification.

- To assist Advisory Council members, up to $100K would be available from the DSM Program for advice and participation from consultants.
- The Advisory Group will recommend the process for public input and participation.

NSPI’s Role

- At least one NSPI member of the Steering Committee would liaise with the Advisory Council. This individual would act as a resource, communicate with the Steering Committee and perform other functions as necessary, but would not have a vote on the Advisory Council.
- Would fund the administration of the group and support the Chair person’s requirements.

APPENDIX C

Recommended DSM Implementation Timeline and Process

Monthly Calendar for DSM
2008

Month	Early DSM	Collaborative Timeline	Advisory Council	Steering Committee
Jan	Submit Application for Approval for Early DSM Program (DSM costs to be recovered in DSM mechanism or defer to recover in next GRA)	**Jan 31** **File DSM Collaborative Report**		
Feb	**Paper Hearing** Stakeholder IRs/Comments			
Mar	**Board Decision & Order** Begin Implementation of 2008 Program			
Apr		**DSM Hearing**		
May				
June		**Decision & Order**	**(June 20)** **1st Meeting** Terms of Reference Schedule/Logistics RFP Consultant-Approve RFP DSM Plan of Administration	Establish Steering Committee
July				
Aug				
Sept			**(Sept 20)** **2nd Meeting** DSM Plan of Administration Update on Early DSM RFP Consultant-Approve Selection	
Oct				**(Oct 15) Filing** **Plan of Administration** **and** **Annual Report for 2009** Includes: DSM Program details for 2009 DSM Mechanism for 2009
Nov			**(Nov 20)** **3rd Meeting** 2009 DSM Miscellaneous	
Dec				**(Dec 1)** Board Decision and Order

Monthly Calendar for DSM
2009

Month	Advisory Council	Steering Committee
Jan		
Feb	**1st Meeting** 2008 Results 2009 Plans	
Mar		
Apr		**(Apr 15) Filing** 2008 DSM Program Costs & Results
May	**2nd Meeting** 2009 Plans 2010 Plans	
June		
July		
Aug		
Sept	**3rd Meeting** 2009 Plans 2010 Plans	
Oct		**(Oct 15) Filing** **Annual Report for 2010** Includes: DSM Program details for 2010 DSM Mechanism for 2010
Nov	**4th Meeting** 2009 Plans 2010 Plans	
Dec		**(Dec 1)** Board Decision and Order

Monthly Calendar for DSM
2010

2010 Month	Advisory Council	Steering Committee
Jan		
Feb	**1st Meeting** 2009 Results 2010 Plans	
Mar		
Apr		**(Apr 15) Filing** 2009 DSM Program Costs, Results and DSM Mechanism Adjustments for 2009 **DSM Programming Plan post 2010** DSM Program details for 2011/12/13 DSM Mechanism for 2011-2013
May	**2nd Meeting** 2010 Plans	
June		**Hearing** 2009 Results & Mechanism Post 2010 Plan
July		
Aug		
Sept	**3rd Meeting** 2010 Plans	**(Sept 15)** Board Decision and Order
Oct		
Nov	**4th Meeting** 2010 Plans	
Dec		