A Recommended Response to the Minister's Directive on DSM/DR for the OEB

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Submitted pursuant to the Minister of Energy's Directive

RP-2003-0144

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Contents

1. OVERVIEW

In response to the Minister of Energy's request of the Ontario Energy Board ("OEB" or "Board") to provide recommendations on how to implement demand-side management ("DSM") and demand response ("DR") in the Ontario electricity sector, a consultation process was undertaken. This process has resulted in a staff report to the Board, which was issued for comment to interested stakeholders. This submission is Enbridge Gas Distribution's ("Enbridge's") response to that report.

Enbridge is proud to be a recognized leader in DSM. Since 1995, Enbridge has saved its customers over $700 million on their energy bills[1]. In our view, the fact that there is an established and successful DSM model in Ontario should serve as the first step in exploring how DSM could be extended to electricity local distribution companies (LDCs). Enbridge was invited to present a submission on DSM to the Board's consultation process.[2] In that initial submission, Enbridge identified goals for natural gas and electricity DSM, principles that should govern DSM, and made suggestions for implementing DSM for electric LDCs in Ontario.

The Board Staff report does not reference the submissions of those with significant experience in DSM. Instead, the Board Staff report recommends an alternate approach for electric LDCs – that of a central agency – and further, that the natural gas DSM programs should be transferred to this central agency in three years, despite their success. This is particularly surprising since it runs counter to Board rulings on DSM since 1993, and was not the subject of significant discussion at the Advisory Group table, or dealt with in the Advisory Group's report. In Enbridge's view, the arguments in the Board Staff report with respect to a change in the natural gas DSM framework are not compelling and are an inappropriate basis for the Board's recommendations to the Minister.

Enbridge suggests that the OEB should recommend to the Minister that a governance structure, similar to the one used by the gas utilities, be put in place for LDCs making them responsible for electricity DSM programs within their service areas.

Implementing a Utility Model for electric LDCs through a properly designed regulatory regime will result in substantial and more immediate benefits to the people and businesses of Ontario by reducing their energy bills, and thereby making them more competitive. It will also lead to reductions in air and other types of pollution, and the associated health benefits, while increasing the security of energy supply, and helping to meet the government's goal of eliminating coal-fired electricity generation.

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1 Total benefits are based on the wholesale cost of the avoided gas and the avoided costs of any associated electricity and water savings over the lifetime of the measures implemented.

2 Enbridge Gas Distribution. Principles and Frameworks for DSM in Ontario: A Policy Paper Submitted to the Ontario Energy Board pursuant to the Minister of Energy's Directive RP-2003-0144. November 17, 2003.

There are both near and long-term objectives for DSM/DR. Over the short-term and medium-term, DSM/DR can assist in addressing electricity supply constraints, in meeting the goal of eliminating coal-fired generation, and in reducing customers' energy bills, including those of the most vulnerable consumers. Over the longer term, DSM/DR can help to transform the market into one that is more efficient and effective at delivering energy services, while protecting human health, the environment and the economy.

In this paper Enbridge explores three key issues relevant to the Board's response to the Minister's directive:

- **The success of gas DSM over the last nine years**. The Board Staff report fails to recognize the success of DSM programs offered by the gas utilities over the last nine years, and the considerable investment that has been made, and continues to be made, to refine and improve the governance structure, and the benefits these DSM programs realize. This is further explored in Chapter 2.
- **Enbridge's framework should be preserved.** The Board Staff report does not properly draw on evidence from other jurisdictions. In particular, this evidence indicates that the governance framework needs to be appropriate for each utility it is designed for, and may be – but does not need to be – identical between gas and electricity, or even across individual utilities of the same type. Further, the research that has been done in other jurisdictions does not support the conclusion that a central agency is superior to utility-based frameworks. This choice must be made based on the details of the frameworks and the context in which the frameworks are applied. A review of the Enbridge framework indicates that the focus should be on enhancing, not dismantling the current framework. This is further discussed in Chapter 3.
- **The Utility Model can work for Ontario electric LDCs.** The Board Staff report does not acknowledge the suggestions and recommendations made by Enbridge and others for an effective Utility Model. Suggestions for initiating DSM in the electricity sector are provided in Chapter 4.

2. ENBRIDGE'S DSM FRAMEWORK WORKS

Gas utilities' DSM programs were established following a Board proceeding which led to the Board report, E.B.O 169-III in July 1993. The E.B.O. 169-III report provided direction and guidance to the natural gas utilities on the design, implementation, monitoring and evaluation of DSM programs. Consistent with that report, Enbridge (then Consumers Gas) established programs beginning in 1995 to assist its customers in reducing their energy bills by improving the efficiency of their use of energy.

2.1. Enbridge's DSM programs generate substantial customer savings

To the end of 2002, Enbridge's DSM programs have led to savings for customers valued at more than 700 million dollars[3]. Table 1 presents a summary of the achievements of Enbridge's DSM program. More than half of these savings were achieved in the three years from 2000 to 2002; like any major change initiative, considerable time was required to develop and mature programs, and it would be an unfortunate loss for our customers and Ontario if this momentum and experience were to be lost. The recommendation of Board Staff to dismantle the Enbridge DSM Utility Model suggests a lack of appreciation for these successes and investments.

Table 1 Cost effectiveness results (1995-2002)[4]

Year	*Gas Saved (Mm^3)*	*Target savings (Mm^3)*	*Variance (gas savings versus target)*	*Total Benefits @ Zero value for emissions (M$)* [1]	*Total Costs (M$)*	*TRC Net Benefits (M$)@ Zero value for emissions (M$)*	*Benefit / Cost Ratio*
1995	3.9	12.8	-70%	N/A	N/A	4.7	N/A
1996	18.8	29	-35%	N/A	N/A	24	N/A
1997	18.6	47.3	-61%	N/A	N/A	23.8	N/A
1998	36.2	44.6	-19%	72.9	18.1	54.8	4.03
1999	52	31.2	67%	107.1	50	57.1	2.1
2000	58.9	42	40%	98.8	24.2	74.6	4.1
2001	82.4	67.9	21%	210.3	37.8	172.5	5.56
2002	92.4	92.5	0%	219.4	48.4	171.1	4.53

[3] Total benefits are based on the wholesale cost of the avoided gas and the avoided costs of any associated electricity and water savings over the lifetime of the measures implemented.

[4] Sources:

1995-1998: EBRO 497, Exhibit I, Tab 11, Schedule 3

1999 and 2000: Evaluation Report and Revised SSM Claim

2001 and 2002: Monitoring and Evaluation Report (unaudited)

In the sections below, we outline some of the specific features of the DSM governance framework for Enbridge's DSM initiatives, and the results of the DSM programs under these frameworks.[5]

2.2. Enbridge's DSM programs operate within a highly evolved governance framework

Enbridge's DSM programs are operated within a highly evolved governance framework that consists of a number of integrated components, including:

- Assessment of programs and portfolios against criteria to ensure that the programs and the overall portfolio are cost-effective and in the interests of consumers
- Board approved financial mechanisms
- Annual DSM budgets and energy savings targets
- Evaluation and audit procedures
- Structured input from stakeholders
- Regular review and approval of plans and results by the Board.

Assessment of programs and portfolios

The matter of selecting which programs should be included in the DSM portfolio is one that has received considerable attention in Ontario (and in other jurisdictions), and was a major issue addressed by the Board in E.B.O. 169-III. In the end, it was concluded that the appropriate measure was the Total Resource Cost (TRC) measure, which looks at the present value of all savings and expenditures associated with a particular program or project, and determines the net benefit (or cost) of the program. Both Enbridge and Union use the TRC in evaluating proposed programs to ensure that the program will indeed lead to net cost savings for their customers. The TRC test is essentially a benefit-cost analysis that considers all monetary factors.[6] Social benefits and costs, like the costs associated with air pollution, for example, are not included in the TRC.

In its E.B.O 169-III report, the Board considered some other tests of program suitability, including the societal cost test (SCT), which includes externalities outside the TRC, and

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[5] Union Gas operates under a similar framework and has also achieved significant energy savings, though not as large as Enbridge's. At least in part, this difference may be attributable to Enbridge's framework containing an incentive mechanism (SSM) that is not available to Union.

[6] The use of the TRC has been criticized by some in recent years. The Board in its August 2003 partial decision regarding Enbridge's 2003 rates case expressed some concerns that the use of the TRC, though an industry-accepted methodology, was less transparent and simple than would be ideal. However, these concerns have usually been associated with using the TRC in the calculation of the incentive mechanism, and no broadly accepted alternative has been identified to assist in program assessment at the planning phase. The TRC is the most widely used and accepted tool for assessing the cost-effectiveness of DSM programs in North America.

the Rate Impact Measure (RIM). Although not explicitly a part of its evaluation of proposed programs, Enbridge routinely calculates the value of these measures. As one would expect, the societal benefits of its DSM programs are substantially greater than those calculated using the TRC, and the impacts on rates, as measured by the RIM, are relatively small.

Board approved financial mechanisms

The Board has approved three financial mechanisms for Enbridge's DSM framework:

- the lost revenue adjustment mechanism (LRAM)
- the demand side management variance account (DSMVA) and
- the shared savings mechanism (SSM).

These mechanisms have been discussed and reviewed extensively since the introduction of DSM programs, and there still appear to be misunderstandings about these mechanisms.

The LRAM does two things. First, it sends a message to the utility that it should be financially indifferent to their customers reducing gas use through energy efficiency measures. Second, the LRAM corrects for the inability to precisely forecast the probable impact of planned DSM initiatives.

Enbridge currently operates under a cost of service (COS) regulatory regime. In simple terms, over time, distribution rates are set by summing all costs and dividing by the revenues generated from volume delivered. If volumes delivered go down as a result of DSM activities, all other things being equal, rates will go up so that costs may be recovered. The LRAM simply addresses the short-term changes in demand not captured by the volume forecast used when rates were set.[7] LRAM would be somewhat different under performance-based regulation (PBR), but can be dealt with effectively as a z-factor, as recommended in our submission *Principles and Frameworks for DSM in Ontario*[8]. Particularly in the case of PBR, the LRAM (or z-factor) addresses difficulties associated with forecasting DSM programs and their effectiveness that were unknown or unresolvable at the time rates were set.[9]

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7 It is possible that LRAM would be negative. This would result if the utility overestimated DSM effectiveness in its forecasts.

8 Enbridge Gas Distribution. Principles and Frameworks for DSM in Ontario: A Policy Paper Submitted to the Ontario Energy Board pursuant to the Minister of Energy's Directive RP-2003-0144. November 17, 2003.

9 We are concerned that Board Staff appear to have a different understanding of what LRAM is and why it is used. They state (p.21): "*One concern for distributors is that DSM/DR activities sponsored by the Central Agency might be so successful that throughput is significantly eroded during a multi-year performance-based regulatory (PBR) term. The Board may need to consider rate relief in such cases. This does not mean LRAM or SSM, but an adjustment to forecasted throughput for recovery of revenue requirements.*" Such an adjustment would, in fact, be an LRAM and SSM is not relevant in this context.

Consequently, LRAM is *not* an incentive for doing DSM. It is an adjustment consistent with the overall regulatory regime under which Enbridge operates to ensure that rates are properly set.

Similarly, the Demand Side Management Variance Account (DSMVA) is *not* an incentive for doing DSM. Like the LRAM, it assists the utility in addressing uncertainty regarding the success or up-take of DSM programs. If the programs are more successful than could reasonably be anticipated, the DSMVA ensures that they need not be constrained by a lack of funds to deliver them. Although historically, the DSMVA allowed for the possibility of additional funds being required to meet targets, this provision has not been permitted in recent years; DSMVA may only be used once the target savings have been exceeded. DSMVA is for the benefit of the customer and for maintaining the integrity of the program.[10]

The approved financial incentive is the SSM which rewards Enbridge if it exceeds budgeted program performance in any given year. Budgets, targets and the SSM formula have been the subject of extensive negotiations with stakeholders. Ultimately the formula and targets require approval by the Board. Since establishing the SSM in 1999, Enbridge's performance has improved, which from our perspective indicates the value of this incentive mechanism in stimulating DSM program performance. This is shown in Table 1. As the table reveals, in years since the SSM was introduced, Enbridge has usually exceeded its targets.

The Board Staff report presents incomplete information on the magnitude and complexity of the SSM. Board Staff's comparison of incentive payments to DSM program spending does not provide a meaningful measure of the reasonableness of Enbridge's shareholder incentives. It would have been more useful to compare Enbridge's shareholder incentives to total customer savings realized (less than 3% from 1999 to 2002). From our perspective, the DSM regulatory framework, established collaboratively with the Board and our many stakeholders, has been effective in encouraging Enbridge to create customer benefits above and beyond its already aggressive DSM targets.

The purpose of a utility incentive is simply to put DSM on the same footing in the utility as other business activities. In evaluating the reasonableness of an incentive, one must look not just at the value of the incentive, but also what it 'buys' for the benefit of customers. It should also be noted that like any incentive mechanism, it needs to evolve as knowledge improves and circumstances changes. Enbridge believes on-going refinement to the incentive would be a more appropriate course of action than Board Staff's recommendation to do away with it altogether.

Annual DSM budgets and targets

Under the Enbridge DSM framework, DSM budgets and targets are set annually. For most of its DSM history, Enbridge's budgets and targets have been established through

[10] There are indications in the Board Staff report that this is not understood, as evidenced by the figure and associated discussion on pages 16-17.

an ADR process and the results approved by the Board. In part as a result of this process, we believe we have one of the most cost-effective DSM portfolios and some of the most aggressive DSM targets among gas utilities.

Enbridge organizes its DSM staff effectively to meet the annual targets. In recent years, we have integrated the DSM function into our Marketing department. The Board Staff report states: "*Utilities often integrate their DSM/DR programs into marketing strategies for building load and retaining customers. These competing goals subordinate the goal of conservation.*" Our experience runs counter to this claim. Enbridge's performance in meeting our DSM targets improved after integration into the Marketing department. Customer service is the overarching goal that encompasses both DSM and load building activities. Our staff help our customers to determine how best to utilize energy (in all forms) most efficiently. Having this function split (as it would be through a central agency) would require additional customer effort and may increase confusion in the marketplace. Our experience clearly shows that customers want their energy provider to be able to speak to them on multiple dimensions since fuel switching and energy efficiency decisions are complex customer decisions that are often interrelated.

Evaluation and audit procedures

Enbridge conducts an evaluation of its DSM programs, and there is an independent audit of the program, with results of the audit made available to the Board and any interested stakeholder. In fact, stakeholders participate in setting the scope of the audit, and have played a key role in the design and execution of the overall audit process.

This process ensures wise use of ratepayer funds, and further improvements to DSM programs in subsequent years.

Structured input from stakeholders

Enbridge draws upon the knowledge and expertise of stakeholders representing a wide variety of interests, and perspectives. Enbridge provides funding to these stakeholders for their assistance in identifying potential programs, and for their advice on improving all aspects of the DSM programs and framework.

Review and approval of plans and results by the Board

DSM plans and past results are factors in the rates approved by the Board. Proposed budgets and targets, and previous expenditures and results are presented in evidence for the Board's approval. Enbridge's DSM program was most recently the subject of review in the 2003 rate proceeding in RP2002-0133, which resulted in the Board approving the Company's DSM proposals for 2003.

The Board Staff report states that the regulatory oversight of incentive and administrative payments has been "*complex and controversial*". While there has been considerable discussion and debate regarding the SSM in the past, Enbridge and its stakeholders have worked (and continue to work) diligently to refine and streamline the shareholder incentive

mechanism and the various processes (such as the audit and evaluation protocol) underlying this mechanism.

2.3. Enbridge's DSM framework and programs should be preserved

There are significant disadvantages and few advantages to be realized from dismantling Enbridge's DSM programs and rolling them into a central agency that would also assume responsibility for electricity DSM. Doing so would be trading a program that works, that has a governance model that has been refined over nearly a decade, and a portfolio that is achieving substantial savings for a new organization that could be expected to require considerable time to reach the same level of maturity.

The Board Staff report suggests that these issues be addressed by having Enbridge hand-over its programs after a three-year phase-in period. This is not a simple process, since the programs consist of three key components, none of which would be readily transferable:

- intellectual property on program design, operating procedures, and practices
- staff resources
- customer relationships

A central, provincial agency would necessarily have a different geographic and departmental organization and operating procedures than those developed for a utility operating in a particular franchise area.

Although the central agency may choose to recruit Enbridge staff, it would be difficult to simply hand these members of our team over to the central agency. It would also be difficult to maintain current staff over the three-year phase-in period with such uncertainty.

Finally, the customer relationships are also not readily transferable, particularly because of the integration of DSM initiatives into our Marketing Department.

3. UTILITY-DRIVEN GAS DSM IS BEST FOR ONTARIO

DSM administrative models in other jurisdictions are chosen to suit the specific needs of the sectors and the regulated utilities within them. Within a given jurisdiction the DSM framework for natural gas and for electricity may be different. Jurisdictions have opted for diversity to address more effectively the needs of the specific sectors. Symmetry across electricity and natural gas is not a main driver in the choice of administrative model. The use of a central agency model for DSM is relatively new. The track record of a utility model in achieving DSM savings is successful and proven, while the record on a central agency model is too new to draw definitive conclusions.

In Ontario the natural gas Utility Model and Enbridge's DSM framework have been successful in achieving, aggressive cost-effective DSM. It simply does not make sense to shut down a model that is working and move instead to an unproven model.

3.1. DSM administrative models should be designed to meet the specific needs of the industry and its customers

In a survey conducted in 2003 jointly by IndEco Strategic Consulting Inc. and Navigant Consulting on DSM in North American gas utilities, the research revealed that the DSM administrative model was chosen to meet the unique needs of the particular jurisdiction, the sector and the individual utilities. Within the same jurisdiction the DSM administrative models for natural gas and electricity can be different. For example, in British Columbia, Terasen Gas, the largest natural gas utility in BC, has a DSM program for which it is accountable to the British Columbia Utilities Commission (BCUC). Aquila Networks Canada, a small electric BC utility, also is accountable for its DSM program to the BCUC. However, BC Hydro has a DSM program, but is not regulated by the BCUC. In the US there are similar situations. For example, in Vermont and Oregon[11] different administrative models exist for natural gas and electricity and for utilities within the same sector.

11 In Vermont, Vermont Gas has a utility administrative model – it is accountable for its DSM programs and delivers most of its DSM programs itself. However, the DSM programs of all but one of Vermont's electric utilities were consolidated and are now the responsibility of a non-profit central agency, Efficiency Vermont. The one exception to the consolidation is Burlington Electric, which has the same DSM programs as Efficiency Vermont, but the utility is accountable for these programs. In Oregon, for the two electric utilities, DSM is done by a non-profit organization, Energy Trust of Oregon (ETO). NW Natural, a natural gas utility, offers its DSM programs through the programs through the ETO, but Avista Utilities, also a natural gas utility, is accountable for and delivers its own DSM programs.

3.2. The success of the utility model is proven but it is early days for the central agency model

In the US, DSM started off in the mid-1980's with the utility administrative model. With electricity restructuring over the last five years, there has been experimentation with a variety of governance mechanisms – with various central and utility driven governance models, and combinations of both models.[12] While the Utility Model has a successful track record in achieving DSM savings, the Central Agency Model is relatively new and its success has not yet been proven.

Jurisdictions have adopted a central agency model for different reasons. In the case of Oregon and Vermont, both chose a central agency model for electricity DSM to overcome the conflict between the need to sell electricity to make a profit and the need to conserve electricity to achieve DSM objectives. State agencies were created because "*utility corporate culture and concerns about competition placed inescapable dampers on energy efficiency efforts. Eliminating the utilities' mixed financial motive was important in each of these two states*."[13] In the case of New Jersey, the jurisdiction chose a central agency model to achieve a higher level of regulatory scrutiny over the utilities.[14] Time will tell whether the success of these models in achieving their administrative and DSM objectives will be sustained.

In the US, two studies done in 2003, one by University of California Energy Institute and the other by The Regulatory Research Assistance Project, on the most appropriate governance models to be used for the electricity sector have concluded that there is no single model that has yet to emerge as the superior one.

> *"No single administrative structure for energy-efficiency programs has yet emerged in the US that is clearly superior to all of the other alternatives. And, in our view, this is not likely to happen soon for several reasons. First, policy environments differ significantly among the states. Second, the structure and regulation of the electric utility industry differ among the regions of the US."* [15]

The study by The Regulatory Assistance Project goes on to identify a set of factors to be used to compare the Utility Model with the Central Agency Model.

> *"Relevant factors to consider when comparing utility to independent administration are: responsiveness to PUC direction, regulatory performance, incentives that are properly constructed and implemented, staff competency, sustainability of the institution, and its budget resources, and link to system planning decisions."*[16]

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12 Blumstein, Carl, Goldman, Charles, Barbose, Galen. Who Should Administer Energy-Efficiency Programs? University of California Energy Institute. August 2003.

13 Harrington, Cheryl, and Murray, Catherine. Who Should Deliver Ratepayer Funded Energy Efficiency?" The Regulatory Assistance Project. May 2003.

14 New Jersey's restructuring is still underway; the Central Agency Model is not fully in place.

15 Ibid.

16 Harrington, Cheryl, and Murray, Catherine. Who Should Deliver Ratepayer Funded Energy Efficiency?" The Regulatory Assistance Project. May 2003.

In reviewing these relevant factors, we conclude that the Enbridge DSM framework has all of these keys to success. Enbridge is responsive to the regulatory direction of the OEB; the DSM regulatory framework is working; the SSM is working and continues to be refined over time; Enbridge has a well trained and effective DSM staff; Enbridge is a long standing company in Ontario; and DSM is considered in our system planning decisions. Therefore, based on these factors, there is no reason to shift to a Central Agency Model; the Utility DSM Model is effective.

3.3. Gas and electric DSM playing field is not level today, with no adverse effects

The Board Staff report recommendation that: "*Implementation of DSM should be the same in gas as in electricity. Otherwise gas distributors could structure programs to their competitive advantage*." (p.17) is not borne out by the experience in other jurisdictions or in Ontario. With gas utilities providing gas DSM programs and electric LDCs providing essentially no DSM programs, Ontario's "DSM playing field" today is not level. There is no evidence that this situation has negatively impacted development over the years of either the gas or electricity markets. It is also important to recognize that many other jurisdictions have different DSM frameworks for their gas and electric utilities and there is no evidence from these jurisdictions that the existence of different frameworks provides a competitive advantage to one sector over the other.

3.4. Ontario's natural gas DSM framework builds on customer relationships and successfully overcomes mixed financial motives

The Regulatory Assistance Project report indicates that a major factor in choosing between the Utility Model and the Central Agency Model is how the trade-off is made between eliminating the mixed financial motives of the utility versus the importance of preserving the relationships between the utility and its customers. This incompatibility is most significant where the electric utility is both a generator and a distributor.

> *"The single strongest feature favouring utility implementation of energy efficiency is the utility has the relationship with the customer (usually a relationship of trust) and is knowledgeable about the customer's individual energy use. The greatest incompatibility is that utilities make their profits by selling electricity." (p.16)*

In Ontario the natural gas utilities have well-established relations with customers and channel partners to deliver DSM. There is a strong relationship of trust that has been nurtured among these parties. These relationships coupled with the excellent understanding of the local geography and specific market conditions of the franchise areas gives the natural gas utilities a strong foundation for continuing to be accountable for natural gas DSM in Ontario. Electric LDCs have similar relationships and an excellent understanding of their local market conditions. These characteristics also provide a strong foundation for the electric LDCs to become accountable for electric DSM in Ontario.

In Ontario, the problems associated with mixed financial motives have been dealt with through lost revenue adjustment mechanisms for both major natural gas utilities and through an incentive mechanism for Enbridge. For both utilities, these measures have been successful in overcoming corporate culture issues associated with the mixed financial motive to sell gas versus the need to reduce gas volumes to achieve DSM objectives. In fact, Enbridge has found that an integrated approach – including DSM with the sales function in dealing with customers – provides the best service to customers, yielding a more trusting relationship, because with this integration, the prime purpose becomes how to best meet the customers' energy needs. Enbridge will continue to propose improvements to its financial instruments for DSM to ensure that Enbridge continues to be highly motivated to achieve aggressive DSM.

It is clear from this analysis that in Ontario the trade-off should be made in favour of the Utility Model and of preserving the strong ties that the gas utilities have with their customers for DSM. Based on the success of the natural gas DSM framework in achieving aggressive DSM targets, it is clear that the advantages of the customer focused approach of the natural gas utilities greatly outweigh the disadvantages associated with gas utility interest in selling gas. The success of Ontario's natural gas DSM makes it evident that a central agency is not needed to ensure aggressive DSM.

3.5. Where there is a successful model the focus should be on enhancements

It is clear that once utilities have a successful model in place, the focus should be on introducing enhancements rather than changing the model. As the Regulatory Research Assistance Project report cautions:

> *"Once a utility has developed a staff and infrastructure to develop and deliver cost-effective efficiency programs there is reason to be cautious about taking steps to dismantle that infrastructure by assigning the duties elsewhere." (p. 17)*

Rather than dismantling the natural gas DSM framework, it would be more appropriate for the OEB to heed the advice of The Regulatory Assistance Project report and be cautious about dismantling a successful program. Instead, the process of continual improvement of the existing natural gas Utility Model that has been ongoing since the launch of the first natural gas DSM plans should be encouraged. This process will ensure that the incentives and controls that are in place continue to meet the Board's objective of achieving cost-effective and aggressive DSM.

There is no evidence that a revised model for natural gas DSM is required or would improve results. Over the years in rates case decisions, the OEB gave no indication that the Board had serious concerns with Enbridge's DSM framework to the point where Enbridge's overall DSM mandate was in jeopardy. In fact, in the 2003 rates case where there was extensive evidence and review of Enbridge's DSM framework, the Board accepted the DSM framework for 2003, approved a DSM budget and target, and Enbridge's research recommendations for further refinements. The Board approved Enbridge's DSM framework for 2004, which was essentially that approved for 2003.

A consideration of such a major change in direction of Enbridge's DSM framework requires a more comprehensive and thorough analysis as would take place in a formal Board proceeding. Instead the focus of the OEB, stakeholders and the natural gas utilities should be on continued refinements to the Utility Model through the already well-established consultative and regulatory mechanisms for natural gas DSM.

The Utility Model can also work well for Ontario's electric LDCs. With the proper mechanisms and guidelines in place to deal effectively with the mixed financial motives and the regulatory challenges of dealing with a large number of LDCs (see chapter 4), the full benefits of the customer focus of the electric LDCs can be obtained.

4. UTILITY-DRIVEN ELECTRIC DSM IS BEST FOR ONTARIO

Enbridge's DSM framework can serve as the foundation for an effective framework for electric LDCs. The Board should recommend a Utility Model in which electric LDCs would be accountable for DSM to the OEB. The Utility Model will realize significant savings sooner than a Central Agency Model, ensure effective regulatory oversight and structured stakeholder input, foster development of a diverse and robust energy services industry, and leverage the customer relationships and local market knowledge of Ontario's electric LDCs.

One of the most significant lessons learned from DSM experience in other markets is that, in order to be effective, the DSM framework must address and reflect the unique characteristics of the market it will operate within. While Enbridge's framework can serve as the foundation for an effective electric DSM framework, there are several refinements to Enbridge's framework that would help to ensure successful implementation of electric DSM and better reflect the unique characteristics of Ontario's electricity sector. These refinements are summarized below and expanded upon in the following sections.

- The electric DSM budget should be based on a fixed consumption charge, and this charge should be separate from and incremental to distribution rates. This approach eliminates the need for annual rate hearings to review the DSM budget and provides critical stability for DSM planning purposes.

- During an initial transition period, the twenty largest LDCs representing approximately 80% of Ontario's electricity customers should be accountable for DSM. Any smaller utilities with a keen interest in offering DSM programs should be allowed to participate during this initial transition period. The LDC sector will likely outsource significant elements of DSM design and delivery activity, leading to the development of a more diverse and robust energy services market than would be achieved through a central agency model.

- While participating LDCs should be free to develop unique programs in response to local market conditions, the Board and the Ministry of Energy should engage LDCs, the Electricity Distributors Association (EDA) and other stakeholders to identify a set of core, uniform programs for Board approval. The recommended set of core programs would be identified based on a consultative approach informed by research on other jurisdictions. These core programs would be included in the program offerings of all participating LDCs. This effort will foster co-ordination among LDCs, help to achieve economies of scale in DSM design and delivery, expedite the achievement of results and enhance development of the energy services market.

- To ensure complete market coverage, the Board and the Ministry of Energy should also engage LDCs, the EDA or both to develop a plan to provide DSM coverage

among smaller LDCs that do not choose to "opt-in" to the approach described above. The core programs are expected to serve as the foundation for this plan.

- The Board and Ministry of Energy should facilitate market transformation efforts. The core programs described above should incorporate market transformation elements. Notwithstanding the need for and value of market transformation in the longer term, achievement of significant savings in the near term should be a critical criterion in the design of electric DSM programs (and the DSM framework itself) given the government objective to phase out coal-fired generation. The Utility Model will achieve greater savings sooner than a Central Agency model.

- The government should undertake a post-performance review of the electricity framework, to determine what changes, if any, are required to enhance performance and to inform the approach for DSM for the smaller LDCs. The timing of this review should ensure that lessons learned from the twenty largest LDCs' DSM experiences are available before the remaining LDCs become involved in DSM. The review would also consider any structural changes in the electricity distribution sector that may have occurred in the transition period. If a decision is made to extend the DSM framework to smaller LDCs, the approach described above will allow these smaller LDCs to ramp up their delivery efforts more rapidly based on the experience of other LDCs and using the energy services market infrastructure that is expected to develop.

Enbridge would be pleased to support the electricity sector in the development and implementation process and share the experiences and lessons in DSM program design and delivery that we have learned over the past nine years. With the proper policy framework, it is our expectation that over time, gas and electric LDCs will be designing and delivering integrated DSM programs to meet the overall energy needs of their customers, rather than focusing on only gas or only electric DSM programs. This will lead to higher levels of customer satisfaction, greater conservation gains and more cost-effective program delivery.

4.1. Electric DSM budgets should be funded through a fixed consumption charge

We support the recommendation in the Board Staff report that the electric DSM budget should be based on and funded through a uniform fixed consumption charge (e.g. 0.2 cents/kWh). The actual volumetric charge to apply could be based on current practices in other jurisdictions and/or informed by DSM studies undertaken by electric LDCs as part of their program design activities. This approach would save considerable time and effort by the utilities, stakeholders and the OEB.

A simplification of this approach would be for the fixed consumption charge to be separate from and incremental to distribution rates.[17] In this way, existing LDC rates would remain unaffected. This will eliminate the need for annual rate hearings for each electric LDC to take account of the DSM budget and will provide budget stability for planning purposes.

LDCs should be allowed to recover the costs of developing their DSM plans and associated infrastructure from the initial DSM funding associated with their increase in rates to the full MBRR in 2005. The OEB could establish eligibility criteria and limits on the funding for such developmental activity, similar to the rules associated with recovery of market transition costs and other regulatory assets.

4.2. Limit DSM accountability to the twenty largest LDCs during the transition period

Just as the DSM frameworks are different between the gas and electricity sectors, several jurisdictions have established DSM frameworks that vary by utility within a given sector[18]. To reflect the diversity of Ontario's electric LDCs, we recommend that the twenty largest electric LDCs representing approximately 80% of Ontario's electricity customers should be held accountable for DSM during an initial transition period. Any smaller LDCs that wished to carry out DSM would be permitted, but not required, to do so.

Working with industry participants as appropriate, the government and Board would facilitate this process by:

- developing the appropriate financial instruments;
- determining the appropriate program screening measure (e.g., TRC);
- developing audit and evaluation protocols;
- setting complementary energy efficiency standards as appropriate;
- undertaking provincial branding & awareness building efforts; and
- co-ordinating with federal conservation initiatives.

Focussing on the twenty largest LDCs during the transition period will address many of the concerns raised in the Board Staff report regarding the number of electric LDCs in Ontario and accelerate the realization of savings from DSM.

We are confident that this approach will encourage the development of a diverse, robust energy services market responsive to local market needs and opportunities. During market opening, many new competitive businesses developed to help LDCs respond to

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[17] Although the fixed consumption charge would be determined separately from distribution rates, it should be included in the distribution line item on customer bills. This simplified billing approach is consistent with the recommendations of the "Review of Ontario Electricity Bills" report issued in March 2003.

[18] For example, Connecticut, Oregon, Washington and Massachusetts have different frameworks for utilities within either the gas or electric industry.

the myriad market and process requirements related to market opening. These businesses, some of which were affiliated with LDCs, realized economies of scale and helped to mitigate the overall cost of market opening. We expect a similar competitive market response by LDCs to the challenges of developing and delivering DSM. These competitive businesses would also play a vital role in spawning innovation and creativity in DSM program design and delivery. In contrast, a central agency would likely only outsource to a few large players and would not create the same depth and diversity in the energy services market as the Utility Model.

The Utility Model will also facilitate local system optimization by allowing transmitters and distributors to consider all network optimization alternatives (DSM, DR or new equipment) on an equal footing reflecting local conditions under a single, integrated framework with full regulatory oversight. The Board Staff report recommends (p. 19) that "*Transmitters and distributors should be allowed to act as delivery agents of DSM/DR activities for least cost planning and/or optimizing their distribution system.*" However, this recommendation does not appear to have been adequately assessed. DR can certainly help to defray the need for new network capacity and should be considered, but the benefits of DSM should not be overlooked. However, having transmitters and distributors as delivery agents of the central agency would not encourage due consideration by LDCs of DSM versus other options and has several other drawbacks. Firstly, network decisions are local in nature, yet the decision as to whether a transmitter or distributor would be a "delivery agent" would be made centrally. Secondly, as "delivery agent" it is unclear whether the transmitter or distributor would simply be offering one of the central agency's DSM programs with identical strategies and tactics, one of the central agency's DSM programs with more aggressive strategies and different tactics, or a unique program. If the program to be offered were not identical to the other central agency programs, how would the central agency assess and evaluate such a program? These complexities make it more difficult to achieve successful optimization of the distribution network at the local level by a central agency, than by the LDCs.

4.3. Engage industry to identify a group of core, uniform DSM programs

Although we expect that electric LDCs would naturally gravitate towards a platform of common programs, for greater certainty the Board and government should engage industry to identify a set of core, uniform programs for Board approval that must be included in the program offerings of all LDCs accountable for DSM. This approach is consistent with the ECS Task Force recommendation of co-ordinating conservation activities among LDCs. The core programs would ensure uniformity, mitigate any potential for confusion, particularly among chain accounts with locations across Ontario and further encourage the establishment of competitive businesses to deliver these programs. Because of the nature of DSM programs, the Board and Ministry of Energy must be mindful of the importance of flexibility and agility. Therefore, any framework must allow for the continued rapid evolution of DSM programs and resist unnecessary micromanagement and approvals which would reduce customer service and DSM cost-effectiveness.

A “Uniform Program Design” Steering Committee comprised of LDC representatives, stakeholders, Ministry of Energy staff and Board Staff could be established and given responsibility for:

1. Identifying the most promising candidate programs based on a review of electric DSM programs in other jurisdictions (there are typically four to six programs that account for a large component of DSM savings in most other jurisdictions).

2. Conducting research to determine the potential application of these programs from other jurisdictions in Ontario and identify possible refinements to the program designs (reflecting for example, that the uniform programs would be offered by more than one LDC).

3. Identifying other “new” program concepts that may be appropriate for Ontario that should be included on the candidate list and developing these concepts to a similar level of detail as the candidate programs from other jurisdictions.

4. Choosing the most suitable programs from among the list of candidate programs and finalizing the design of these programs.

We expect that, with an aggressive schedule and given clear direction from the government and Board, the Steering Committee could fulfil its responsibilities within six months. Throughout this period, the Steering Committee would maintain contact with the top twenty LDCs through various vehicles (e.g. workshops, seminars, publications, partnerships with industry associations, etc.).

We expect many LDCs would pursue the development of niche DSM programs to complement the uniform programs and address local market needs. The lessons learned through the experiences of the Steering Committee could then be applied by the LDCs in developing these local, niche programs for implementation in 2006 and beyond. The development of such programs would not lead to “customer confusion” as suggested in the Board Staff report. Different municipalities across Ontario have unique programs that differ in many aspects without “confusing” citizens or businesses.

The Board Staff report incorrectly states (p.15): “*The report of the Advisory Group notes that the utility model may not adequately address central issues such as standards and market transformation initiatives.*” In fact, the report of the Advisory Group (p.58) recognizes that the Ministry of Energy is responsible for developing minimum energy efficiency standards for energy consuming appliances and equipment in the province of Ontario. (The federal government also plays a role through its Energuide, EnergyStar and Environmental Choice programs, for example.) These standards are developed based on government policy and market insights and we do not see how a central agency would improve this process.

Enbridge believes the OEB and the Ministry of Energy are the most appropriate entities to facilitate market transformation efforts; there is no need to establish a new agency to carry out this role. It is likely that the OEB and Ministry will require additional resources to fulfil

this important responsibility. It may be more appropriate for the OEB to take on most of this role, as it is funded by the energy industry.

Without such a commitment and immediate demand-side response the cost to phase-out the coal plants will increase. Accordingly, realizing significant savings in the short to medium term is a critical design consideration not only for the DSM programs, but also the DSM framework. We believe that a Utility Model focussed on the twenty largest LDCs will realize more savings sooner than the Central Agency Model. By the time a central agency is established and beginning to staff up, Ontario's LDCs could be offering DSM programs and realizing critical savings to facilitate the phase-out of coal-fired generation.

4.4. Engage industry to develop a plan to cover smaller LDCs

The OEB should engage the LDCs, the EDA, or both to develop a plan to provide DSM coverage among the smaller LDCs who choose not to "opt-in" to the transition approach described above. This plan should include a mechanism for fair and equitable treatment of any DSM funding available from these smaller LDCs. The plan would generate an implementation strategy and a schedule for the phasing in of DSM to the smaller utilities. We expect that the uniform programs, delivered by competitive energy services providers, would form the cornerstone of this plan.

4.5. Review implementation experience

The transitional approach outlined above allows the Board to refine and streamline the electric DSM regulatory framework over time. To this end, the government should undertake a post-performance review of the electricity framework, to determine what changes, if any, would improve the effectiveness of the electric DSM framework. If, following this review, the framework is expanded to cover smaller LDCs, these LDCs can learn from the experiences of larger LDCs and ramp up their delivery efforts more rapidly using the energy services market infrastructure that is expected to develop.

We also note that the Board recently launched a consultation to review further efficiencies in Ontario's electric LDC sector. Many industry experts expect further consolidation as one mechanism to realize greater efficiencies and believe that the DSM framework should anticipate such consolidation. The structure of Ontario's electric distribution sector may change markedly in the three to five years it would take to get DSM "up and running" in the electricity sector. Given this potential, undertaking the review after the larger LDCs have gained actual DSM experience would also help ensure that the long-term electricity DSM framework reflects any changes in the electricity distribution sector during the transition period.

5. CONCLUSIONS

In this document, we have explored the appropriate framework for gas and electricity DSM in Ontario. We have focused our discussion on three key areas:

1. Natural gas DSM in Ontario has been a success, resulting in substantial net dollar savings for Ontario gas customers, while also realizing public benefits such as reduced air pollution.

2. The Board Staff recommendation that Enbridge's DSM programs should be shut down over three years should be rejected. There is insufficient evidence to support such a recommendation. Furthermore, any consideration of such a shutdown would require a comprehensive and thorough exploration of the issues in a formal proceeding.

3. A Utility Model, like the Enbridge model, could work well for the electricity sector. Its application to the sector requires careful planning and design to ensure administrative ease and successful results. We have outlined a set of practical strategies for addressing some of the differences between the gas and electricity sector: most notably that there is a relatively large number of electric LDCs of varying size and a streamlined approach to DSM program design, delivery and regulatory oversight is required.

Enbridge submits that the Board make the following recommendations in its report to the Minister:

- That Ontario utilities, both gas and electric, should be required to aggressively pursue DSM opportunities in order to realize benefits to the economy, the environment and human health. This pursuit will assist in reaching policy goals such as building a competitive economy, phasing-out coal-fired electricity generation, and reducing greenhouse gas emissions.

- That the gas utilities' successes be recognized, and that the utilities be encouraged to continue to improve their DSM performance and the Utility Model framework within which DSM planning and regulation occurs. The natural gas utilities should continue to be accountable for generating results, and rewarded for achieving or exceeding those results. The regulatory environment should continue to ensure that the utilities are not penalized for encouraging their customers to reduce their energy use.

- That the electric LDCs should be accountable to the OEB for electric DSM, beginning with the twenty largest LDCs, which account for about 80% of the customers in the electricity market, and that these LDCs should be rewarded and not penalized for assisting their customers to reduce their energy use. The collection and administration of DSM funding would be carried out by the LDCs.

- That over the next few years, progress of the twenty large LDCs should be monitored, and plans should be developed that will allow the smaller LDCs to also

assume accountability for delivering DSM to their customers. Once the large utilities have several years experience in delivering DSM to their customers, an evaluation should be undertaken of how the DSM framework is working, and how it can be made more effective.

- That the OEB and the Ministry of Energy assist in the coordination of the preparation of the initial DSM plans of the large LDCs, drawing as appropriate from the experiences and expertise of the gas utilities and other stakeholders.

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