Ontario Energy Board
Commission de l'énergie de l'Ontario

BOARD STAFF DISCUSSION PAPER

DRAFT DEMAND SIDE MANAGEMENT GUIDELINES FOR NATURAL GAS DISTRIBUTORS

EB-2008-0346

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1.0 Overview and Background

Over the past years, the Board has articulated policies and regulatory requirements in relation to natural gas distributor ("distributor") demand side management ("DSM") activities. The Board established the original regulatory framework for distributor sponsored DSM programs in its EBO 169-III Report of the Board dated July 23, 1993. Union Gas Limited ("Union") and Enbridge Gas Distribution Inc. ("EGD") filed DSM plans in accordance with the directives of the Board in the EBO 169-III Report until 2006.

In 2006, the Board conducted a hearing on generic issues related to distributor DSM activities (EB-2006-0021). The Board's August 25, 2006 decision in the generic proceeding dealt with a large number of issues relating to DSM.

In a separate decision dated October 18, 2006, the Board approved the input assumptions based on which Union and EDG filed their three-year DSM plans. DSM plans for each of Union and EDG were subsequently approved by the Board, and will expire in 2009.

In October 2008, the Board initiated a consultation process (EB-2008-0346) on the development of draft DSM guidelines ("Guidelines") for distributors. The first step in this consultation process was meetings with natural gas distributors and interested stakeholders representing ratepayer and environmental interests. The meetings took place on November 24 and 26, 2008. They were led by Board staff and provided an opportunity for the exchange of preliminary views on the issues forming part of this consultation.

2.0 Purpose

The purpose of this Staff Discussion Paper is to briefly summarize and discuss the major issues raised by stakeholders during the consultation meetings, and identify the major areas in the Guidelines where proposed changes have been introduced to the DSM framework.

3.0 DSM Framework

Some representatives of ratepayer interests believe that the current DSM framework has failed and it should be replaced with a fundamentally different framework, which will require rethinking how DSM is measured, what shareholder financial incentives are provided, and the role of the gas distribution companies in program development, delivery and evaluation. They have argued that the current DSM framework is using an "artificial construct" that relies heavily on input assumptions to calculate results and incentives for distributors.

According to one of the ratepayers' representatives, the current DSM framework seems to have the following disadvantages:

- requires an enormous amount of time, effort and money on the calculation of, and debating of numbers;
- is quite complex and the complexity promotes game playing on the part of the utility and stakeholders;
- engenders distrust and animosity between utilities and stakeholders; and
- makes ratepayers cynical about DSM activities.

Representatives of environmental interests as well as the distributors were supportive of the existing DSM framework.

The same ratepayer representative proposed an approach where DSM activities would be evaluated based on “top down” empirical evidence related to reduction in normalized average gas consumption per customer class or specific end-uses.

Staff believes there may be merit in investigating further this approach. However, such an investigation would require a significant investment of Board and stakeholder resources. It is also staff’s view that before such an exercise is undertaken preliminary work should be done to review the experience of other jurisdictions in using this approach.

Staff proposes that it begin the preliminary work of investigating the potential use of “normalized reduction in average usage” for assessing the impact of DSM programs. Once this work is completed, it would be shared with stakeholders in order for staff to develop a recommendation on whether to incorporate this approach into the DSM framework and, if so, how that might be done.

As a practical matter, it is unlikely that a change in the DSM framework could be in place in time for the gas distributors to file plans in the spring of 2009 and have them approved to come into effect in 2010.

As a result, it is staff’s view that the most efficient way is to proceed with improving the existing framework by making changes as proposed in the draft DSM Guidelines. Changes that have been proposed relative to the existing framework have been identified for stakeholder comment. The proposed changes together with the stakeholder comments on the draft Guidelines will be presented to the Board for its consideration.

4.0 Draft DSM Guidelines

The draft Guidelines consolidate existing policies and regulatory requirements and reflect, with few exceptions, direction given by the Board in previous DSM–related decisions and orders. In addition, an attempt has been made, where appropriate, to incorporate for symmetry elements of the Conservation and Demand Management (CDM) Guidelines developed by the Board in 2008 for electricity distributors.

The Guidelines are attached as Appendix A to this report.

The major areas addressed in the Guidelines where changes or additions have been made to the current DSM framework are discussed in this report.

Changes are proposed in the following:

- Development of inputs and assumptions
- Adjustment factors in the Total Resource Cost test for assessing DSM programs:
    - Spillover effects
    - Persistence of savings
- Development of DSM budgets and targets
    - Low-income customer programs
- Incentive payment mechanisms
- Program evaluation and audit
- Annual reporting guidelines
- Filing guidelines

Accounting treatment and reporting of DSM costs remains consistent with existing Reporting and Record Keeping Requirements for gas utilities.

With the development of the draft Guidelines, staff is responding to the requirement for distributors to develop the next generation DSM plans starting in 2010. At the same time, staff is mindful of the evolving nature of government conservation policies in both the electricity and natural gas sectors of Ontario. Staff anticipates that potential new government policies regarding conservation in both sectors could affect future DSM activities. As government policies on conservation evolve over time, the DSM Guidelines will be updated accordingly.

5.0 Major Issues Addressed in the Draft Guidelines

Stakeholder input was solicited through a series of three stakeholder meetings with representatives of distributors, ratepayers and environmental interests. Some stakeholders provided written comments following the consultation meetings.

The following summarizes some of stakeholder's key comments pertaining to specific areas addressed by the draft Guidelines. Major areas where staff has proposed changes to the existing DSM framework are also discussed.

5.1 Development of Inputs and Assumptions

The Board has retained the services of Navigant Consulting Inc. to produce a report updating the DSM technologies (measures) and input assumptions.

Navigant has started with the "base list" of the measures listed in the Ontario Energy Board's Decision and Procedural Order Number 6 from the generic proceeding EB-2006-0021. Navigant's analysis has also been informed by Union's and EGD's DSM measures (with accompanying substantiation sheets) submitted to the Board for their 2008 DSM programs. This new data will be augmented with information that has been gathered from other jurisdictions and other research. In addition, Navigant has met with both Union and EGD to review the DSM technology list and receive the most recent evaluation reports and other relevant studies that have been undertaken by the two distributors.

This new approach in the development of DSM technologies list and input assumptions is expected to reduce the debates between utilities and stakeholders regarding DSM technologies and typical savings. Navigant's report will be posted on the Board's website for stakeholder comment before it is finalized.

5.2 Adjustment Factors in the Total Resource Cost Test

Representatives of ratepayer interests cited several problems with the TRC savings, principally steming from the "bottom up" estimation of savings and use of the TRC savings for incentive payments, which drive "the ongoing battles over evaluation and audit of programs."

Representatives of environmental interests support the concept of a TRC test, but preferred savings to be tied more firmly to actual results (vs. forecasts and assumptions). They also support a negotiated approach that would drive payouts only for excellence in achieving targets and the development of new targets based on achievement of verified results, conservation potential and amount of DSM budget.

Continued use of the TRC test was supported, as appropriate, by both Union and EGD, albeit with some changes such as accounting for the spillover effects of some DSM programs. However, the representatives of ratepayers and environmental interests did not support adjustment of the TRC test for spillover effects of programs, as they were concerned about the reliability of the estimates.

In the Guidelines, the TRC test continues to be the required screening tool for proposed DSM measures and programs.

Staff accepts that spillover could occur when customers that do not actually participate in a program adopt an efficiency measure because they are influenced by the distributor's program-related information and marketing efforts. In this case, the TRC savings could be underestimated for some programs.

Although staff recognizes in principle the potential for spillover effect, due to the controversy around the calculation of spillover effects the Guidelines require the distributor to provide comprehensive and convincing empirical evidence, which clearly quantify the effect that the spillover of a specific program has had on program savings and the distributor's revenue.

The Guidelines further require that for the purposes of determining whether the distributor has met its TRC target, the input assumptions for the calculation of SSM not be locked-in from the year before, but to be based on the best available information from the evaluation of the programs. As a result, the need for free rider assumptions for the calculation of TRC net savings and SSM financial incentive based on prior year's assumptions has been eliminated.

Distributors are also required to address persistence of savings in their next generation DSM plans and evaluations of programs. The Guidelines also prescribe more stringent information requirements, prior to approval of DSM plans, and affirm the centrality rule.

5.3 Development of DSM Budgets and Targets

Ratepayer representatives suggested that the Board should set distributors' DSM budgets based on the programs proposed by distributors. Representatives of environmental interests, however, called for the Board to set aggressive DSM budgets, which could ramp up to 3% of total utility revenue over a three-year period. For example, EGD's DSM budget would increase from $24.3 million in 2009 to $93 million per year. For Union, the DSM budget would increase from $20.6 million in 2009 to about $58 million per year. Estimates are based on 2007 total utility revenue.

Union favours using 5% of distribution revenue as a benchmark for establishing DSM budgets. This would translate to a DSM budget of about $50 million for EGD and $34 million for Union. EGD finds the approaches above arbitrary, not reflective of market conditions or customer needs, and suggests budgets be developed by utilities and presented to the Board with proposed DSM plans.

Mindful of the need to avoid increased impact on ratepayers and make effective use of incentive mechanisms, the Guidelines allow distributors to propose in their DSM plan separate budgets for resource acquisition (TRC Net Savings), market transformation and low-income programs (discussed in detail below). However, the proposed budgets must be justified based on results of DSM programs to date and market potential studies and be consistent with the most recent government policies on conservation. Distributors' proposed DSM budgets should be the subject of stakeholder review as part of a rate proceeding.

5.3.1 Resource Acquisition (TRC Net Savings) Target

Ratepayer representatives advocated for replacement of TRC net savings targets with targets for per capita consumption of natural gas specific to classes of customers or specified end uses (see also section 3.1 above). Representatives of environmental interests, on the other hand, supported the use of TRC net savings for setting targets with two qualifiers: first, that free ridership is calculated not on the basis of technology, but based on individual program evaluation results; and second, the TRC net savings are calculated based on the most recent available information from program evaluations.

Both Union and EGD did not support the existing “complex target setting” approach and proposed following the target setting payout protocol of 5% of total TRC net savings achieved applied in the electricity sector.

The Guidelines maintain use of TRC net savings targets to set goals for savings achieved by DSM activities. Distributors are expected to propose TRC savings targets based on the programs they plan to deliver.

5.3.2 Market Transformation Targets

Representatives of ratepayer interests identified market transformation as an “outdated” concept, mainly due to the many players with programs in the field of energy conservation that make it difficult, if not impossible to attribute causation. Representatives of environmental interests called for further clarity in terms of metrics measuring market transformation activities with more emphasis on lost opportunity markets rather than education and training activities.

Both distributors identified the need for expanded and program specific metrics for market transformation programs, including the use of the scorecard approach with quantitative and qualitative (e.g., educational and awareness) elements built in.

The Guidelines continue to include scope for individual market transformation programs, but only if defined by specific metrics and achievement of established targets. The Guidelines recognize that market transformation programs should be assessed on an individual basis, against metrics appropriate to each program, and require distributors to propose explicit metrics and corresponding targets and associated shareholder incentive payments for any proposed market transformation program. Market transformation programs and metrics will be subject to a rate proceeding and stakeholder input.

5.3.3 Low-income Customer Programs

Some of the ratepayer representatives requested the replacement of the TRC test with the Low-income Public Purpose Test[1] for the screening of the low-income programs, which is similar to the TRC test but also measures benefits such as reduction in costs of arrears management, late payments, etc. They also emphasized the unique nature of the low-income market in requiring significantly more resources, and for longer periods, than other segments of the market. They were also supportive of separate budgets and targets for low-income programs.

Views of representatives of environmental interests were consistent with those of ratepayer interests in their support for increased spending on DSM programs targeted to the low-income customers and the need for specially tailored budgets, incentives and program offerings.

Union and EDG were also supportive of having separate budgets and TRC targets for low-income programs in order to meet the special needs of low-income consumers and capture the value of some measures, which are not high in TRC net savings, but are potentially valuable measures for this segment of the market.

As part of a separate policy initiative (EB-2008-0150), the Board hosted a stakeholder conference from September 22 to 25, 2008. The purpose of the conference was to provide participants with the opportunity to present information to assist the Board in gaining a better understanding of the issues associated with low income consumers, and to assess the need for and nature of policies or measures to address those issues. Among the issues discussed, was the role of conservation and demand management initiatives targeted to low income customers.

[1] User Guide for the The Low-income Public Purpose Test (LIPPT), Updated for Version 2.0 May 25, 2001. Prepared for RRM Working Group Cost Effectiveness Committee by Skumatz Economic Research, Inc. and Megdal and Associates

Some of the common themes raised in this area include:

- Need for conservation and demand management programs to be equitably accessible province-wide and the important role of education in assisting low income consumers to reduce consumption
- Provision for financial incentives for some of the “deep” measures that have high capital costs and are prohibitive for low income consumers to invest in.
- Potential revisions to TRC screening to account for the high capital costs of the low income consumer proposals that could result in a negative total resource cost for most programs.
- How “low income” should be defined, and once defined, how to identify these consumers, in a manner consistent with privacy legislation.

The Guidelines provide for the development of expanded low-income programs with separate DSM budgets, metrics, targets and shareholder financial incentive payments. The low-income programs and the associated metrics and targets will be the subject of a rate proceeding allowing for stakeholder review.

5.4 Shared Savings Mechanism (SSM)

Representatives of ratepayers and environmental interests supported the use of best available information instead of forecasts and locked-in prior year assumptions in the calculation of SSM. In addition, they supported continuing the use of a nonlinear reward curve for the calculation of SSM relative to the TRC net savings. The representatives of environmental interests, however, suggested removing the cap on SSM incentives, and establishing a threshold level for the commencement of shareholder reward at 75% of the TRC target.

Union and EGD supported use of the existing SSM calculation with two major changes: They suggested removing the cap on SSM and calculating SSM as a linear function of TRC savings similar to the electricity sector.

The Guidelines propose calculation of SSM based on the best available information at the time of evaluation so that LRAM and SSM calculations will be consistent. This will remove the need for estimating and having locked-in free riders and technology savings assumptions from the year before. This should not expose distributors to undue risk as they now have several years of experience in developing and delivering programs, and establishing targets.

The reward structure will continue to be the non-linear function relative to TRC savings as decided in the DSM generic proceeding (EB-2006-0021). The targets should be proposed by the distributors using a starting point and a ratchet formula taking into account the results of the programs to date, the conservation potential studies and the available budget.

The Guidelines also provide for development of separate incentive payments for market transformation and low income customer programs. These changes are expected to contribute in the development of more robust DSM programs for market transformation and low income customer programs.

The proposed SSM target levels and the incentives for low-income and market transformation programs and the associated metrics will be the subject of a rate proceeding allowing for stakeholder review.

5.5 Program Evaluation and Audit

From the ratepayers' perspective, many of the problems with the evaluation and audit process can be traced back to the assumptions-driven TRC test. There was also doubt expressed as to the degree of independence available to auditors employed by the distributors. To address this issue, it was proposed that the Board should consider developing its own audit capability, or retaining third party experts to review the DSM data provided by distributors.

Citing conflict of interest concerns, and practice in other jurisdictions, representatives of environmental interests suggested that distributors should not be responsible for the appointment of a third party for the evaluation of programs and the setting of the scope and terms of engagement for DSM evaluation work. They called for the Board to select and hire a third party for evaluation and audit for both distributors. Under this model, the distributors would pay for the work and have input to the process. The Evaluation and Audit Committee (EAC) would continue to provide advice and maintain transparency.

Union and EGD value independent third party evaluation and want to maintain responsibility for verification of program results, costs, etc. They object to the negotiations involving the EAC once the third party review is complete.

The Guidelines leave the evaluation and the audit function of the DSM programs with the utilities. They specify, however, in detail the evaluation planning and activities that should be undertaken by distributors, including program specific evaluation guidelines, implementation of updated input assumptions and the role for an independent third party review and audit. There is also provision for stakeholder annual review of distributors' program evaluation results as part of a rate proceeding.

Transparency is maintained through the continued participation of the DSM Consultative, and the Evaluation and Audit Committee under new terms of reference to be developed by distributors in cooperation with the stakeholders. The role of distributors in undertaking evaluation and audits could be reviewed in the future, pending new government policies on conservation.

5.6 Accounting Treatment of DSM Costs

The Guidelines provide guidance on the accounting treatment of DSM costs that could be funded through rates or other sources. The provisions of this section have been adopted from the CDM Guidelines developed for electricity distributors.

5.7 Annual Reporting Guidelines

Reporting on the progress and success of DSM programs is critical to maintaining accountability and transparency. The Guidelines require that reports be filed annually in order to allow the Board and stakeholders the ability to monitor each utility's year-over-year progress in the implementation of their DSM plans. The Guidelines require the distributor to provide detailed information on what DSM activities the distributor is undertaking, how well the programs are performing, how much the programs are costing, and the distributor's planned future activities.

5.8 Filing Guidelines

This section of the Guidelines contains the Board's filing requirements for applications for program funding, lost revenue adjustment mechanism, shared savings and other incentive mechanisms.

The distributors are expected to follow these filing guidelines as a minimum. Distributors in all cases are responsible for ensuring that all relevant information is before the Board. In addition, the Board may make any order or give any direction concerning any matter raised in relation to any of the above applications.

6.0 Next Steps

The letter of October 31, 2008, indicated that following the posting of the draft Guidelines and the DSM Inputs and Assumptions Report, staff will hold a meeting with stakeholders to discuss the draft Guidelines and the consultant's report. Staff considers that the Staff Discussion Paper provides sufficient explanation of the changes that have been incorporated in the DSM Guidelines and there is no need for an additional stakeholders meeting. Staff is looking forward to written comments from stakeholders.

The consultant's report on DSM Technologies and Input Assumptions will also be issued for written comment.

Stakeholders' comments on the draft Guidelines and DSM Technologies and Input Assumptions will be reviewed and revisions will be made where required before the documents are submitted for approval to the Board.

Final Guidelines, and DSM technologies and input assumptions approved by the Board are expected to be issued in March. Distributors are expected to file their DSM plans in accordance with the Board's DSM Guidelines in the spring of 2009. The Board will determine the specific date for submission of DSM Plans.

The Board could subsequently examine the DSM Plans in the context of rate proceedings for each of the distributors.