

IN THE MATTER OF the *Ontario Energy Board Act, 1998*,
S.O. 1998, c. 15 (Sched. B);

AND IN THE MATTER OF a proceeding pursuant to
a Directive from the Minister of Energy under sub-section 27.1
of the *Ontario Energy Board Act, 1998*
to consult with stakeholders on options for the delivery of demand-side management and
demand response activities in the electricity sector

**SUBMISSION OF HYDRO ONE INC. UTILITIES REGARDING
THE ONTARIO ENERGY BOARD STAFF REPORT
ON DEMAND-SIDE MANAGEMENT AND DEMAND RESPONSE**

FEBRUARY 9, 2004

HYDRO ONE'S SUBMISSION ON THE BOARD STAFF'S REPORT TO THE BOARD ON DEMAND MANAGEMENT AND DEMAND RESPONSE OPTIONS

In order to reliably, affordably and responsibly ensure an adequate supply of electricity to meet Ontario's needs, significant contributions must be made by DSM and DR.

Hydro One submits that utilities' relationships with their customers provide critical delivery routes which can be most quickly and cost-effectively leveraged to this purpose. This is in contrast with the model proposed by Board staff, which relies on the creation of a new central agency and marginalizes the role of electricity transmitters and distributors in the delivery of DSM and DR programs. We submit that the latter approach will not achieve the most efficient, effective and timely results and is inconsistent with the direction announced by the Provincial government.

The Ministry of Energy clearly envisions a significant DSM role for LDCs, and ties their future remuneration to such activity. Its Backgrounder to the Ontario Energy Board Amendment Act¹ states: "*As of March 1, 2005, LDCs will be allowed to achieve their full commercial return. This increase will be conditional on LDCs reinvesting the equivalent of one year of these monies in conservation and demand management initiatives. This represents an investment in new conservation initiatives of approximately \$225 million – one of the largest investments in conservation of its kind in Ontario.*"

The Electricity Conservation and Supply Task Force ("ECSTF") also recommended a central role for utilities: "*The current regulatory structure which requires that LDCs and transmitters act as "wires companies" ..., does not allow for the provision of conservation programs. This is instead included with retailing electricity and other services assigned to their retail affiliate companies or the private sector. The Task Force believes that action should be taken to help LDCs overcome these barriers. Local distribution companies are favourably positioned to provide conservation programs. They are close to their customers, understand their local market conditions and may be able to better target certain programs. Goodwill exists and utilities are generally considered to enjoy strong customer trust, loyalty and brand recognition.*"

The ECSTF also makes it clear that utilities should be compensated for DSM costs and for resultant lost revenues: "*Local distribution companies and transmitters should be compensated under appropriate regulatory oversight whenever they invest directly in demand side management, or work with private sector companies to facilitate it. They should also be compensated for revenue loss resulting from conservation.*"

¹ Backgrounder, Ontario Energy Board Amendment Act (Electricity Pricing), 2003 Highlights of the Changes, Ministry of Energy.

To this end, utilities must be (a) allowed to recover the costs of DSM and DR initiatives and (b) protected from the erosion that DSM and DR would otherwise cause to their revenue. Without these components, DSM and DR will threaten both the financial viability of the utilities and the service levels that can be provided to customers. Initiatives undertaken by the utilities should include the reduction of losses within their own systems, as well as customer focussed DSM and DR programs.

A shared savings mechanism, whereby the utility shares in the savings its activities generate, will ensure that the utility is incented to maximize the savings achieved for the money expended. The utility will be motivated to select the programs with the greatest benefits and to use the best delivery channels to deliver those programs at the cheapest cost. In many instances, this will not be the utility itself, but instead will be private sector partners, such as retailers, energy service companies, etc. A central agency approach would have no such performance incentive.

A utility-administered DSM and DR framework will also address the regional variations across the Province. Off-Grid remote communities in the far north, for example, face distinctive barriers to conservation. Hydro One's Remote Communities business, therefore, proposes to develop and implement conservation initiatives in consultation with its communities.

Hydro One recognizes that there are significant potential economies of scale in the design, development and delivery of mass-market (residential and small commercial) DSM programs where the profile of customers is similar. Hydro One and several of the Province's other largest electricity LDCs have already held preliminary discussions on mechanisms whereby they can cooperate to maximize benefits and minimize costs. These utilities require a clear mandate before they can proceed further.

In summary, time is of the essence. DSM and DR must get under way as soon as possible. Ontario cannot afford the time, effort and expense required to attempt to duplicate, through a new central government agency, the local knowledge, trust and customer relationships that the utilities already enjoy. Utilities should be given the mandate, and be incented, to begin designing, developing and implementing DSM and DR programs immediately, the costs of such to be credited against the future DSM funding already announced by the Government.

Attached is an appendix providing more detailed comments on the Staff Report's individual recommendations.

APPENDIX A

HYDRO ONE'S RESPONSE TO OEB STAFF REPORT RECOMMENDATIONS

Hydro One feels that its comments on each recommendation outlined in the OEB Staff Report to the Board, will be useful to the Board in finalizing its recommendations to the Minister:

A hybrid framework using both market-based and public-policy approaches should deliver demand-side management (DSM) and demand response (DR) activities in Ontario's energy markets.

Hydro One agrees that both demand response (DR) and demand side management (DSM), utilizing both market mechanisms and public-policy approaches, should be pursued to help address the short term supply shortage in Ontario and engender the "Conservation Culture" that is desired for the long term.

A Central Agency should be responsible for delivery of DSM and DR activities in Ontario's energy sectors.

Ontario cannot afford the time, effort and expense required to attempt to duplicate, through a new central government agency, the local knowledge, trust and customer relationships that the utilities already enjoy. For example, customers of Hydro One Remotes do not receive energy from the province's transmission system and face very unique needs and challenges. Programs that would most benefit these customers would not transport elsewhere in the province and much of what would be valuable elsewhere would be ineffective there.

Utilities should be instructed to begin designing, developing and implementing DSM and DR programs immediately, the cost of such to be credited against the DSM funding already announced by the Government.

The OEB Staff Report contends that DSM program administration in other jurisdictions is not dominated by any single model and that the Central Agency, at 21%, is as prevalent as any other. However, Figure 1 of the Report shows that a full 52% of the DSM programs surveyed had the wires companies fulfilling the role of program administration (with 26% administered by stand-alone distributors and a further 26% by integrated utilities with both generation and wires functions).

The Ministry of Energy, the Independent Electricity Market Operator (IMO) and the Ontario Energy Board should work together to coordinate DSM and DR activities.

– The Ministry would be responsible for setting over-arching objectives for DSM and DR.

– Where necessary, the IMO would make changes in the Market Rules to implement DR, and the OEB would change regulatory instruments to facilitate DSM and DR activity. Both organizations would continue to carry out their legislated objectives.

Hydro One agrees with these recommendations, which must lay the groundwork to enable the utilities to immediately commence the design, development and delivery of DSM and DR in the Province.

Transmitters and distributors should be allowed to act as delivery agents of DSM/DR activities for least-cost planning and/or optimizing their distribution systems. This might include investing in DSM/DR-enabling technologies such as meters, controllers, communications, and/or gateway services. In doing so, distributors should comply with Central Agency protocols and compete equally with private sector players, without provision for DSM variance account, lost revenue adjustment mechanism, or shared savings mechanism.

Clearly, transmitters and distributors must continue to optimize their delivery systems on an ongoing basis. Such optimization requires specific investments, the costs of which should be reflected in customer rates. DSM/DR enabling technologies must compete on a cost-benefit basis with other DSM/DR initiatives for the limited funds available.

Energy delivery companies have revenues and returns that are regulated by the Ontario Energy Board. The Staff Report to the Board leaves the impression that, as long as DSM and DR programs are carried out by some entity other than the energy delivery companies, losses of these regulated revenues and returns need not be of concern. This assumption is incorrect. Effective DR and DSM programs should lead to significant load and revenue losses for the provinces' distribution and transmission utilities. Absent offsetting reductions in cost or increases in rates utilities will experience degradation in financial returns that will threaten their financial viability.

The Government recognizes that protection of the financial viability of LDCs is of vital concern. In the Backgrounder the Ministry of Energy states: "*Beginning March 1, 2004, local distribution companies (LDCs) will be allowed to recoup some of the costs that the previous government had put on hold, which has put a tremendous financial burden on the LDCs.*" Hydro One submits that regardless of the overall approach, utilities should be held harmless from the revenue loss that results from the DSM-DR programs.

Hydro One recognizes the weaknesses of the Lost Revenue Adjustment Mechanism currently employed in the gas sector and advocates, instead, a redesign of the electricity rate structure to better reflect the primarily fixed nature of its delivery costs. This could range from shifting some portion of the variable component of the bill to the fixed component, through to some form of revenue, rather than rate, regulation.

Shared savings mechanisms, such as the one currently in place for Enbridge in the gas sector, are performance based mechanisms, designed to incent utilities to aggressively pursue cost effective DSM and DR activities. A shared savings mechanism is also required for the electricity utilities.

While undertaking a full suite of DSM programs may be difficult for some smaller utilities, these utilities can contract with other parties that have sufficient scale to adequately address their DSM requirements

The Board should put in place regulatory mechanisms to induce gas distributors, electricity transmitters and electricity distributors to reduce distribution system losses.

All energy delivery companies should endeavour to reduce delivery losses. Doing this effectively requires specific investments, the cost of which should be reflected in customer rates. Programs that are directed to achieving reductions in distribution system losses benefit customers through a reduction in their delivered cost of electricity, while also increasing the effectiveness of existing generating capacity. Hydro One feels that as such, programs to reduce distribution system losses should be recognized as desirable DSM initiatives and should "compete" on an equal basis with other DSM and DR programs for the limited funds available.

The recommended framework should replace the current gas framework within three years.

Hydro One recommends retaining the current delivery structure for DSM and DR in the gas sector, until such time as the delivery model adopted for the electricity sector is shown to be appropriate for adoption by them. The delivery structure recommended by Hydro One for the electricity sector is very similar to that already employed in the gas sector.

Electricity DSM and some retail DR initiatives should be funded by all electricity consumers through a transparent, non-bypassable consumption charge (kWh). Gas DSM initiatives should also be funded by a transparent consumption charge (m3).
– ***This charge would be levied on all consumers, including self generation in electricity.***
– ***The Central Agency should be responsible for setting the rate applied to electricity and gas consumption annually, subject to review by a regulatory body.***

A utility's DSM and DR programs should be funded by all of its customers, through its OEB regulated rates.

In consultation with stakeholders, the IMO should design and develop economic DR to be put in place for 3-5 years as a transitional measure.

We agree that, as a transitional measure, economic DR is likely to be a cheaper method of meeting the system peak for those few hours a year that supply is scarcest, thereby reducing the need to contract for expensive peaking and imported power. Rather than mandate the duration of this approach up-front, however, we recommend that the IMO review the level, structure and effectiveness of the economic DR program it develops on a regular basis, to determine an appropriate exit plan.

Further, the IMO should revise the Market Rules to facilitate load aggregation (e.g., statistical measurement, metering, and settlement requirements).

Hydro One agrees that facilitating load aggregation of this nature will allow customers that do not have an IMO approved meter to participate in DR.

No one player should be mandated to play the role of load aggregator.

Hydro One agrees that no one player should be designated the sole load aggregator. While wires companies will be natural aggregators for some applications, other market participants may be able to provide aggregation in areas where wires companies cannot. IMO incentives should be provided on an equal basis to all potential load aggregators.

The Board is currently working on interim and long-term Standard Supply Service (SSS) pricing strategies. These could include peak and off-peak time-differentiated SSS prices altered seasonally.

Residential customers typically do not have sufficient flexibility in the timing of their electricity use to justify the additional cost of an interval or time of use meter. The Energy Conservation and Supply Task Force has made recommendations, which if adopted would reduce the volatility of electricity commodity prices in Ontario and would also reduce the financial benefit of shifting electricity usage. Hydro One is not opposed to time-differentiated pricing but suggests that, until properly constructed pilot studies verify that the benefits justify the costs, it is premature to mandate large-scale deployment or retrofit of time of use or interval meters in Ontario.

Until May 1, 2006, time-differentiated and seasonally adjusted commodity prices could apply to designated consumers.

The business case for deployment of time of use or interval meters in some market segments other than residential may be more readily developed. Hydro One supports the use of time of use and interval meters in those instances where the gain justifies the cost.

The agencies involved in conservation in Ontario (the government, the Central Agency, the IMO, and the Board), should coordinate consumer education plans to ensure consistent messages and avoid duplication

The entities involved in conservation in Ontario (the Government, the IMO, the Board and the utilities) should coordinate consumer education plans to ensure consistent messages and avoid duplication.

To help consumers understand their energy choices and the consequences of those choices in the Ontario market, the Board should design, develop and/or deliver information to consumers related to energy conservation, energy efficiency, load management and cleaner sources of energy.

As noted in the previous recommendation, the entities involved in conservation in Ontario (the Government, the IMO, the Board and the utilities) should coordinate consumer education plans to ensure consistent messages and avoid duplication.