

**Demand Side Management and Demand Response in the Ontario Energy Sector
RP 2003 - 0144**

The OEB Staff Report on Demand Side Management and Demand Response provides useful guidance on organizing DSM and DR activities in Ontario. OFA endorses the report's directions and offers a few minor suggestions to augment the report.

Central Agency Model

OFA endorses the view that DSM and DR be directed by a central agency in Ontario. OFA further suggests that the central DSM/DR agency should be organized and structured much as Canada's research granting agencies are as the public wants to see that a 'conservation' agency is not itself wasteful. Reasons for OFA supporting a central agency approach to DSM/DR include:

- needed flexibility, an agency modeled after a research review and granting agency can accommodate proposals of almost any kind
- cost effectiveness, use of peer reviews and central organization introduces excellence in decision making at low cost, without a need for 'lost revenue' or other payments to LDC's
- self improving, expertise will attract still more expertise
- accountability, the agency will be accountable to government, peer reviewers, applicants and consumers thus introducing strong forces to maintain effectiveness and credibility.

A central agency modeled on a research granting agency can have funding sub-groups or panels for areas of specialized knowledge. This simplifies internal structure and links it to client groups. Sub-groups or panels might include :

- transmission and distribution
- industry groups such as mining, forestry, manufacturing, agriculture
- residential/multi-residential
- commercial and service sectors
- research
- consumer education
- demand response enabling

Each of these panels would have support staff to organize applications and provide reviews. As in a research grant agency, decision panels would consist of volunteers from industry, government, academia and informed citizens.

As with research granting agencies funds can be allocated between groups based on their expected 'pay off'. This encourages competition within and between groups.

A research granting model is open to all potential participants. Any public, private or not-for-profit group or individual could apply to a panel with their ideas and receive consideration.

The suggested method of funding the central agency is sensible. Consumers would be aware of the charge and the accountability mechanisms would provide them with information on what they were getting in return. The only refinement OFA suggests in the DSM charge mechanism is to apply it at a slightly higher rate and only to those kwh in excess of 750 kwh per month. The charge itself would then become a further incentive for conservation.

Natural Gas DSM and The Central Agency

OFA agrees that the central agency should not assume responsibility for natural gas DSM for the first three years. At that time, any change for natural gas DSM from the utilities to central agency should be with the agreement of the utilities. A mandatory move in responsibility should only be considered if the OEB wishes to remove itself from DSM natural gas rate setting responsibilities.

Standard Supply Pricing, Interval Meters and DSM

OFA endorses time differentiated, seasonally adjusted prices for standard supply customers and suggests that standard supply prices can be further improved by having

- different prices for classes of customers according to their use of off peak power
- a summer premium price for residential and commercial customers who use amounts of power over a set threshold in a summer month (central air conditioning premium)

Conservation Education

OFA differs slightly with the view in the report that consumer education should be coordinated between the OEB, IMO and the Central Agency. OFA feels the central agency should assume responsibility for conservation education programs directed at end use consumers. The IMO would maintain its education programs for IMO participants. The OEB would continue its education efforts with respect to consumer rights and entitlements.

Market Issues Affecting Conservation and New Supply

OFA believes energy crises will continue recurring until market issues are resolved. It has often been said that the human health and social disintegration of famines are more the result of market failures than actual shortage of food. So too, OFA feels Ontario's energy 'crises' are as much a result of problems with market structure and rules, as with shortages of power. Accordingly OFA reminds readers that Ontario's commodity markets for food work exceptionally well and repeats its views that Ontario's electricity commodity market must adapt the patterns of successful commodity markets rather than the failed power markets it is modeled after. OFA believes markets must do the following things and makes the following suggestions with respect to useful market changes:

- 1 Markets must attract and retain customers. This is the fundamental test.
- 2 Markets need physical supply provided on a cost aware basis
- 3 Markets need consumers who know the prices they face and respond accordingly
- 4 Markets need technically and financially competent intermediaries to expedite transactions and ensure payment and
- 5 Markets need regulatory overview for compliance, fair play and dispute settlement.

1 *Markets must work for customers.* Rules must favour consumers. The wholesale price setting rule must be changed so generators are paid what they bid, not the highest price taken.

2 *Market must have cost aware suppliers* A get what you bid price rule combined with a requirement that each generator bid separately would make generators cost aware.

3 *Markets need price aware, price responsive consumers* Unpredictable prices force customers to limit risk exposure and respond in a risk market not an energy market. OFA suggests the following approach to having prices that are known in advance and which recover full market revenue. Ontario should have firm three tier prices (low, average and summer premium) that are pre-announced month by month or season by season, with a social base rate for the first 750 kwh. The tiers would apply to how much off peak power each user class used. Customers would know their price. If total revenues were out, prices could be adjusted 30 days later. This approach eliminates any need for a \$ 2 billion expenditure on new meters for every home that could be used instead for conservation and new supply.

4 *Markets need technically and financially competent intermediaries.* The market can have a default account funded by a levy on sales like that in stockyards. If a buyer fails, the fund pays. It is low cost, certain and available. OFA further suggests that liquidity can be introduced to the new capacity market by lending part of the default fund to new generators.

5 *Oversight* For transmission and distribution, the main oversight could be handled by PUC and transmission company boards, provided they consist of elected customer reps. Customer driven boards impose suitable prices and quality.

Lost Revenue Adjustments, Shared Savings Etc.

OFA strongly agrees that there should be no payment to LDC's for lost profit or lost revenue. Such payments are akin to paying ice cream makers and grocery stores for lost profits when customers go on diets. It is inappropriate and unneeded. Such revenue losses can and should be addressed by once off management measures that adjust to reduced earnings. Setting such payments is wasteful of OEB time and compensate LDC's for losses that are normal in other businesses.

A central agency approach will produce DSM savings without introducing conflicting service goals into LDC's or the need to compensate LDC's to do work that might undermine their revenues.

Concern for Wasteful Practices By LDC's Not Warranted

Page 22 of the report raises a concern that OFA believes to be hypothetical. The report suggests LDC's might focus on superficial concerns during a transition period to the central agency. There is no evidence from past behaviour to indicate that these concerns are anything but hypothetical. LDC's will behave responsibly in DSM activities using funds freed under Bill 4. However OFA feels that for the long term, LDC's are not well placed to offer province wide DSM and DR services.

Role of, and Organization for, Demand Response

OFA accepts the views expressed in the report with respect to Demand Response. OFA further suggests that there is a strong parallel in terms of the actions required with respect to DSM and DR. OFA believes three categories of actions are needed to expedite behavioural changes:

- market enabling changes for DR at the IMO
- education of potential participants
- technical changes of meters and equipment to allow participation

As the second and third of these kinds of changes are similar to changes needed for DSM, OFA suggests that DR enabling activities be managed by a sub-group or panel of the Central Agency.

Mass Deployment of Interval Meters Not Warranted

OFA agrees with the statement on page 33 – “There is no demonstrated economic justification for mass deployment of interval meters among existing residential customers based on load shifting.”

Interval meters would wrongly and needlessly force life style changes on families because of the fear of high power costs. The example of a power price conscious OFA member is cited. On the evening of Friday January 16, 2004 the cost of power was forecast to be \$ 2.00. This person cooked hamburgers for 45 minutes on a griddle that straddled two elements that drew 7 kw for a total of 5 kwh. At 4.3 cents the member paid 21.5 cents for power. With power at \$ 2.00 a kwh the OEFC debt increased by \$ 9.78 ½. Meat cost \$ 4.00 and buns, mustard etc. added \$ 2.75. A \$ 7.00 meal became a \$ 17.00 meal. If the member had had an interval meter they would have discovered at the end of the month that they could not afford this simple meal.

If families had interval meters and faced this price prospect just 50 times a year they would see an extra \$ 500 a year taken from disposable income of about \$ 30,000 that is already entirely spoken for. People would be forced to choose between dental appointments and cooking a roast. It is not a choice that has to be forced on Ontario. Seasonally adjusted prices with different rate classes can provide full revenue recovery with price certainty for consumers. Interval meters would be a needless, destructive and unwelcome intrusion on family life that would force people into risk markets and make conservation less certain not more certain.

Time of use meters and/or seasonally adjusted prices with consideration for customer classes make sense for residential, small business, institutional and farm customers. Price certainty is essential to these customers. Interval meters destroy that certainty and drive customers from the commodity market to a risk mitigation market in ways that may prove counter productive for Ontario's economy and environment. Accordingly OFA believes that interval meters should only be required of large market participants who are able to fully integrate their risk management and commodity management activities in ways that are positive for the economy and the environment.

Conclusion

OFA supports the views advanced in the OEB staff report on DSM and DR. OFA believes:

- a central agency similar to a research grant agency is a sound, cost effective approach to DSM and DR. It will treat customers, LDC's and generators fairly while improving energy efficiency.
- market reforms as outlined here will help provide proper treatment of market participants so there is a rational and customer friendly context for conservation and new supply efforts
- widespread use of interval meters would be destructive of market functioning and waste two billion dollars that could otherwise be used for new generation and conservation
- whatever form of organization is selected there should be no provision for lost revenue adjustment mechanisms, shared saving mechanisms or similar accounting devices. They lead to endless dispute and provide no additional improvement.
- natural gas DSM should not be transferred to the central agency against the will of the gas companies unless the OEB orders such a transfer in the public interest.

If the Board requests; OFA would be pleased to discuss its views with the Ontario Energy Board. In any event, OFA welcomes the opportunity to comment on the staff report and is thankful to have participated in the DSM/DR stakeholder advisory panel. We hope our work has helped. It has been a privilege.