Case Study:
Review of Demand Side Management Framework for Natural Gas Distributors

PREPARED FOR THE ONTARIO ENERGY BOARD | MARCH 2010

Overview

The Ontario Energy Board (OEB) retained Concentric to critically review, compare and assess the Province's regulatory framework for natural gas Demand Side Management (DSM) programs against industry best practices to identify opportunities to enhance the OEB's approach to administering these programs.

Concentric provided the OEB with a comprehensive report on existing regulatory measures designed to promote energy efficiency and conservation and to reduce natural gas consumption covering Canada, the US, Great Britain and New Zealand. Our research indicated that Ontario's existing DSM framework compares favorably to the other jurisdictions reviewed. However, Concentric identified a number of opportunities through which the OEB can enhance the selection and assessment of DSM programs to address certain stakeholder concerns, and to meet industry best practices for administering DSM programs.

While the primary focus of our research was natural gas distribution, Concentric also reviewed DSM policies and frameworks implemented for electric providers to determine whether there are lessons to be learned from similar industries, or opportunities for synergies between DSM policies and frameworks for natural gas distributors and electric utilities. Our research focused on a host of issues that should be considered in the design of an effective regulatory scheme, including:

- *Measuring the Cost Effectiveness of DSM Programs*
- *Evaluating DSM Program Success*
- *Input Assumptions and Measurement*
- *Program Budgets & Utility Incentives*
- *Revenue Recovery*
- *Engaging with Stakeholders*
- *Programs Targeting Low-Income Customers*

Research Methodology

Concentric's research included both primary and secondary sources of information. We examined the DSM policies and programs in 20 different jurisdictions – five Canadian provinces, twelve U.S. states, and three countries outside North America. Our research included interviews with Board/Commission staff across jurisdictions, research into regulatory orders and rules, utility program filings and descriptions, and reviews of industry literature.

Recommendations

A consistent challenge throughout Concentric's assessment of Ontario's DSM regulatory structures was to compare programs across a varied set of public policy objectives. Concentric resolved this dilemma by evaluating how best to meet the public interest through three primary approaches to regulation: Traditional, Progressive, and Aggressive. Recognizing that there is a continuum of approaches regulators might use to achieve the public interest, Concentric developed a matrix of recommendations to demonstrate the relative advantages of a variety of public policy approaches and specific DSM program features. The matrix is provided on the following page.

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Concentric's final report and recommendations to the OEB is available on our Publications webpage: www.ceadvisors.com/publications/reports.html

Click here to view it on the OEB website.

Possible Regulatory Approaches to DSM

Regulatory Approach	Traditional	Progressive	Aggressive
Primary Objective	Energy Savings	Energy Savings Manage Demand Growth	Energy Savings Manage Demand Growth Carbon Reduction
Cost Effectiveness Test	Ratepayer Impact Utility Cost	TRC	Societal Modified TRC
Avoided Costs	Commodity	Commodity/Capacity	Commodity/Capacity/ Externalities/Carbon reduction
Input Assumptions	Utility costs	Utility costs Participant costs	Utility costs, participant costs Externalities
Adjustment Factors	Free ridership Persistence Attribution	Plus free drivership, Spillover and Proportional attribution	Secondary concern (tradeoff theory)
DSM Program Design	Prescriptive	Flexible	Proportional reduction
DSM Budget	Fixed $ Amount	% of Revenues	Objective/target Driven
DSM Metrics/Targets (Measuring Success)	Energy Saved/DSM $	Short term and long term energy savings	Long term energy savings Market Transformation DSM Penetration Carbon Reduction
Financial Incentive (Utilities)	Limited	Tied to Energy Savings	Tied to Societal Goals/Climate
Compensating for Lost Revenue	Minimal	LRAM	Revenue Decoupling
Conservation Impact Evaluation	Utility report, prudence review	Independent review and verification	Evaluate whether DSM results achieve program objectives
Filing and Reporting	Progress Report / Evaluation Report	Audited Program Results	Broad Evaluation Measures
Stakeholder Input	Limited/Informal	Formal/Advisory	Proactive Consultation Direct Involvement
Integration of Gas/Electric	Limited/None	Encouraged	Mandated