



CEA Backgrounder

Energy Efficiency/DSM Performance Measurement and Reporting

Introduction

Energy Efficiency/Demand Side Management (DSM) regimes are being planned, initiated, reconstituted or bolstered across Canada to enhance economic competitiveness and development, reduce environmental impacts including greenhouse gas and other air emissions, improve affordability of Canadian homes and buildings, to address energy supply constraints and provide consumers with options for better managing their energy consumption and consequently their energy bills.

Background

The Demand Side Management Working Group (DSMWG) comprised of federal, provincial, and industry representatives, commissioned a report on effective frameworks for the deployment of Energy Efficiency programming and effective measurement and reporting of the results of these programs. This study was commissioned to provide a better understanding of good practice with respect to EE/DSM frameworks and the reporting and measurement of programs.

Approach

This project draws on the findings and lessons learned from other studies combined with primary research with utilities and regulators.

Report Observations

Performance measurement covers a range of activities aimed at providing a reasonably accurate estimate of the energy savings (and peak demand reductions) realized through EE/DSM programs. The energy savings realized are not only a key output of the EE/DSM activities, but are also a critical input to cost-effectiveness tests and the basis for estimating other benefits and impacts of the EE/DSM programs.

This report provided some context for EE/DSM programs in Canada. Many provinces are returning to a focus on programs after lapses of attention and funding. These revived programs will take some time to start up, and experience suggests that success cannot be rushed. Experience also suggests that program success is related to level of funding, to program maturity, and to the program choice.

There is a lack of structured assessments of EE/DSM programs. Currently the effectiveness of programs is assessed from different viewpoints – customer, utility and society. A structured assessment would lead to better understanding of the attributes of effective programs.

Recommendations

Utility ownership, operating and regulatory environments differ in each province within Canada. These differences mean that practices which work in one jurisdiction may not be optimal in another, making it hard to identify specific practices as “best practice”. However, the report recommends overall good practices with respect to an effective EE/DSM framework and program performance measurement and reporting.

1. **Establishment of EE/DSM Framework** – clearly define roles and responsibilities. for all entities involved.



2. **Program development** – Involve knowledgeable stakeholders, take into account local energy demand and end uses.
3. **Verification and Measurement of Results** – Implement an appropriate program measurement and verification system. Measure results using metrics that are comparable. Translate results into a common energy unit such as petajoules to facilitate measurement of total EE/DSM activity from all fuel types. Use results to adjust programs and expenditures.
4. **Reporting of Results** – Measure and report on a regular basis using readily understood measures.

Implications

Significant effort is underway in Canada to reduce energy demand through energy efficiency, conservation and demand side management. EE/DSM activities do provide measurable and persistent savings and these savings can be rigorously measured. Continuous improvement and greater efficiency gains are possible if structured assessments of programs are carried out and the results used to develop best practice scenarios. Effective reporting and communication of program results ensures that program expenditures are effective, encourages public participation and, assures government/government agencies, that EE/DSM program expenditures have accomplished their policy objectives.