



EB-2010-0215
Conservation and Demand Management Code
Ontario Power Authority Comments

July 21, 2010

Background

The Ontario Power Authority (“OPA”) is responsible for ensuring a reliable, sustainable supply of electricity for Ontario. Its key areas of focus are leading and coordinating conservation efforts across the province, planning the power system for the long term, and ensuring development of needed generation resources.

Since its inception, the OPA has played a key role in designing and delivering conservation and demand management (“CDM”) programs. The OPA and Local Distribution Companies (“LDCs”) have successfully developed and delivered some of the most innovative conservation programs in North America, spanning across all customer segments, and have gained significant expertise from this experience. The OPA has also focused on long-term planning and adopting a market-transformation approach to ensure that conservation is sustainable, reliable and cost-effective.

On March 31, 2010, the Minister of Energy and Infrastructure (the “Minister”) issued a Directive to the Ontario Energy Board (the “Board”) requiring it to establish CDM targets to be met by distributors, and to include these as a condition of distributors’ licenses. In addition, that Directive to the Board requires the Board to issue a code that includes rules relating to the reporting requirements and performance incentives associated with CDM programs, as well as relating to the planning, design, approval, implementation and the evaluation, measurement and verification of Board-Approved CDM Programs.

On April 23, 2010, the Minister issued a corresponding Directive to the OPA, outlining the requirements for strategic coordination of CDM programs with distributors and the Board, noting that:

The OPA will play a key role in coordinating and facilitating the successful implementation of the new CDM opportunities provided to LDCs through the Green Energy and Green Economy Act, 2009.

Among the responsibilities assigned to the OPA under this Directive are the design, delivery and funding of OPA-Contracted Province-Wide CDM Programs, as well as the evaluation, measurement and verification (“EM&V”) of these programs. In addition to the activities contained in the OPA Directive, the OPA is responsible for developing cost effectiveness tests, the Measures and Assumptions List, and EM&V protocols underlying the development and measurement of Board-Approved CDM programs, as specified in the Minister’s Directive to the Board.

On June 22, 2010, the Board issued for comment its Notice of Proposal to Issue a New Code, relating to the Creation of the Conservation and Demand Management Code for Electricity Distributors (the “Code”). The purpose of the proposed Code is to set out the obligations and requirements with which licensed distributors must comply in relation to the CDM targets that will be set out in their licenses.

In accordance with the Minister's Directives, distributors will be required to deliver 1,330 MW of provincial peak demand savings persisting at the end of the four-year period commencing January 1, 2011, and a reduction of 6,000 GWh of electricity consumption over that same period. Achieving these targets will require significant coordination of activities among the Board, the OPA, and distributors. The OPA proposes the following comments with the objective of enhancing the consistency of data collection and reliability of verified savings for reporting against provincial target achievement and facilitating the successful implementation of all provincial ratepayer-funded CDM programs.

OPA Comments

The OPA and the Electricity Distributors' Association ("the EDA") have worked closely over the past 18 months to support the development of an implementation framework for the conservation elements of the *Green Energy and Green Economy Act, 2009*. This work included developing a set of overarching principles for conservation implementation, as follows:

1. Plan based: CDM efforts should support implementation of the Integrated Power System Plan.
2. Consistent/transparent/accessible: There should be consistent and transparent methodologies and processes across all LDCs for: planning & approvals, tracking, access to data, reporting and evaluation for both OPA-contracted or Board-approved initiatives.
3. Flexibility: LDCs should have flexibility in how conservation targets are met, provided all customers have access to conservation initiatives, including low-income households.
4. Multi-year planning & approvals: LDCs should have multi-year portfolio planning and budget approvals, with annual milestones, which align with the 2011-2014 CDM target period.
5. Coordination: LDCs should be encouraged to pursue opportunities for economies of scale in conservation delivery and evaluation through coordination with other electric and natural gas LDCs, OPA and others.
6. Cost-effectiveness: LDC conservation portfolios should be cost-effective from societal and program administrator perspectives and make best use of Ontario ratepayer funding (i.e. no double funding).
7. Program integration & consolidation: All parties involved in conservation should adopt a customer-focused approach including streamlined approvals, coordinated delivery services and comprehensive program offerings.

8. Results must be reliable and comparable: The framework should include sufficient protocols to enable annual public reporting of verified results and to ensure that the impacts of conservation efforts can be quantified with a high degree of confidence.
9. Cost Recovery: Remove disincentives for LDCs to participate in conservation activities. (i.e. LRAM claim for all ratepayer-funded conservation)

While the OPA is pleased to note that many of these principles appear to have already been reflected in the proposed Code, the OPA suggests that the Board consider whether these principles might be suitable for inclusion in section 1.1 'The Purpose of this Code'. This could be similar to the guiding principles that appear in the purpose section of the Affiliate Relationships Code.

Terms and Definitions

Given the OPA's role in program design, delivery, and EM&V as described above, the OPA sees a benefit in more closely aligning the language used in the Code with the terms and definitions used to develop OPA-Contracted Province-Wide CDM Programs and the OPA's EM&V documentation. The use of consistent terms will ensure that distributors have clarity in reporting requirements and the provision of information necessary to effectively evaluate, measure, and verify electricity and demand savings, and report on progress towards CDM target achievement. It will also ensure that the OPA is able to accurately forecast and track the impact of all ratepayer-funded conservation activities within the provincial Integrated Power System Plan. Specifically, the OPA proposes the following revised definitions:

"annual milestones" means the forecasted incremental, annual, and cumulative electricity savings (kWh) and incremental and annual peak demand savings that a distributor plans to achieve each year in order to meet its CDM Targets;

"Incremental electricity savings" means the electricity savings (kWh) that accrue in the same year that a conservation measure is implemented;

"Incremental peak demand savings" means the peak demand savings (kW) that accrue in the same year that a conservation measure is implemented;

"Annual electricity savings" means the total electricity savings (kWh) that accrue in a particular year, which consists of incremental electricity savings plus electricity savings in that year persisting from conservation resources implemented after 2010;

"Annual peak demand savings" means the total peak demand savings (kW) that accrue in a particular year, which consists of incremental peak demand savings plus peak demand savings in that year persisting from conservation resources implemented after 2010;

“Cumulative electricity savings” means the sum of annual electricity savings (kWh) that accrue during 2011-2014;

“Persistence” means the period of time that a given conservation measure continues to accrue electricity and peak demand savings, expressed in number of years;

“peak demand savings (kW)” means the reduction in system peak electricity demand as defined in the OPA’s EM&V protocol;

“Environmental Attributes” means any certificates, credits, reduction rights, allocated pollution rights, emission reduction allowances, or any other benefit that relate to or result from CDM programs.

Customer Types

In section 2.1.1 (c), the Code requires that CDM programs will be offered to all customer types (residential, commercial, institutional, industrial) in a distributor’s service area. The OPA notes for additional clarity that the OPA-Contracted Province-Wide CDM Program targeted at commercial and institutional customers also targets *multi-family and agricultural* subsectors.

On July 5, 2010, the Minister directed the OPA to design, implement, and fund an electricity CDM program for low-income residential consumers as part of its suite of OPA-Contracted Province-Wide CDM Programs. The Minister also issued a corresponding Directive to the Board on July 5, confirming that the Board should now resume work in relation to low-income energy customers. The OPA therefore recommends that the Board modify the Code to address matters related to Board-Approved CDM Programs targeted to low-income customers.

Data Requirements

Distributors should be required to provide projected budgets and projected results in preparing their CDM strategies, as this underlying data will be required for provincial tracking. The OPA recommends removing the phrase *where the information is available* from both section 2.1.1 (b) and (b)(v) of the Code, as well as in sections 5 and 6 of Appendix B, the CDM Strategy Template.

With regard to Board-Approved CDM Programs, section 3.1.4 (g)(i) requires distributors to appropriately justify the reason for varying from the OPA’s Measures and Assumptions List. The OPA suggests that this justification should also include all substantiating data and technical assumptions used by the distributor in developing its proposed program. The distributor’s proposed measure data may be used to inform a future update of the OPA’s Measures and Assumptions List for use in future program development, and would allow for data requirements that are consistent with OPA-Contracted Province-Wide CDM Programs.

The OPA is responsible for incorporating conservation resources into the provincial Integrated Power System Plan (IPSP), including aggregating total forecasted CDM resources and tracking actual net verified resources for all ratepayer-funded conservation activities in the province. To support these efforts, the OPA will verify the *net* incremental, annual, and cumulative electricity savings and *net* incremental and annual peak demand savings associated with OPA-Contracted Province-Wide CDM Programs. To facilitate systematic tracking, reporting, and evaluation of the impacts and effectiveness of CDM programs across all distributors, the OPA proposes that Board-Approved CDM Programs should be required to be verified in a consistent manner.

The OPA will require a significantly greater level of detail regarding distributors' Board-Approved CDM Programs (projections and results) than is currently proposed in the Code in order to sufficiently build these CDM resources into the IPSP with a high degree of confidence. It is important for the OPA to be able to adequately forecast and track the progress of CDM resources implemented during the CDM target period since these ratepayer-funded resources have persistence that will need to be measured against the longer term 6,300 MW peak demand savings target.

The OPA notes that systematic tracking, reporting and evaluation of the impacts and effectiveness of CDM programs across all distributors will be required to ensure that the OPA can accurately include all ratepayer-funded CDM resources in the IPSP. Consistent data collection and consolidation across all distributors using a central data repository is critical to this process. In accordance with data requirements for OPA-Contracted Province-Wide CDM Programs, the following data requirements should therefore be incorporated into section 2.2 of the Code and should be aligned with the data requirements specified in the OPA's Cost Effectiveness Test Guide and EM&V protocols:

Resource savings:

- Net incremental savings for peak demand, electricity, natural gas, water, propane and heating oil;
- Net annual savings for peak demand, electricity, natural gas, water, propane and heating oil; and,
- Net cumulative savings for electricity, natural gas, water, propane and heating oil;

Costs and benefits:

- Avoided supply costs (from both a Program Administrator Cost ("PAC") perspective and Total Resource Cost ("TRC") perspective);
- Incremental equipment costs;
- Incentive costs; and,
- Program costs;

Cost effectiveness tests and levelized delivery costs:

- PAC Test benefits, costs and net benefits expressed in dollars and as a ratio;
- TRC Test benefits, costs and net benefits expressed in dollars and as a ratio; and,
- Levelized delivery costs for energy (\$/MWh) and capacity (\$/MW-yr).

The following underlying data at the measure-level (or project-level if measure-level data cannot be obtained) should also be required:

- Measure or project name;
- Initiative name (if applicable);
- Program name;
- Subsector (if applicable);
- Number of program activity units;
- Net-to-gross ratio, including free-rider rate, installation rate and other adjustment factor (where applicable);
- Gross and net peak demand savings per year;
- Gross and net electricity savings per year;
- Net electricity savings allocated to each seasonal-time-of-use period;
- Gross and net natural gas, water, propane and heating oil savings per year;
- End-use savings profile;
- Coincident peak factor;
- Implementation year and persistence;
- Incremental equipment cost per unit, including base measure equipment cost, base measure operations and maintenance (O&M) cost, conservation measure equipment cost, conservation measure O&M cost;
- Incentive cost per unit; and,
- Program cost per unit (where applicable).

The OPA notes that the following IPSP parameters are used to calculate cost effectiveness tests and levelized delivery costs for OPA-Contracted Province-Wide CDM Programs: the OPA's avoided supply cost table; discount rate and inflation rate; and, provincial average transmission and distribution system losses. The OPA suggests the same parameters be applied to the cost effectiveness tests and levelized delivery costs of Board-Approved CDM Programs undertaken by LDCs. These parameters are currently contained in the OPA's CDM Resource Planning Tool. The OPA notes that it plans to document these parameters in an updated version of the OPA Cost Effectiveness Test Guide and post the updated version on the OPA's website.

In addition to specifying these data requirements within the Code itself, LDCs should be required to input such data into an electronic template embedded within a central data repository. This would provide a standardized, consistent format to facilitate aggregation of data across LDCs to enhance the ability to track LDC progress against CDM targets. The OPA is amenable to supporting the development of that data template. The OPA is currently in the process of developing a central data repository for OPA-Contracted Province-Wide CDM Programs. The OPA also notes that the information indicated above is consistent with data required to develop projections in the OPA's CDM Resource Planning Tool.

The OPA proposes that the data requirements recommended above for section 2.2 should apply equally for section 3 and Appendix C.

Coordination and Duplication of Programs

The OPA supports the opportunity for collective LDC programs designed by groups of synergistic LDCs, as well as individual LDC programs. The OPA agrees that the requirement for LDCs to coordinate with the OPA prior to applying for these Board-Approved CDM Programs will assist in ensuring that there is no duplication with OPA-Contracted Province-Wide CDM Programs. The requirements specified in section 2.3 of the Code should provide clarity for all parties, to assist LDCs in designing Board-Approved CDM Programs. Further clarity may be achieved through the proposed modifications described below.

Section 2.3 describes the requirement for distributors to coordinate with the OPA prior to applying for Board approval of CDM programs. Distributors must review the existing OPA-Contracted Province-Wide CDM Programs and avoid duplication. The OPA suggests removing the reference to *existing* to prevent distributors from duplicating OPA-Contracted Province-Wide CDM Programs that have been developed by LDC-OPA design teams, but that have not yet been introduced into the market at the time of application. The OPA also anticipates the possibility of integrating, in collaboration with LDCs, successful aspects of Board-Approved CDM Programs into future iterations of OPA-Contracted Province-Wide CDM Programs where appropriate. The OPA suggests that this issue warrants additional clarity in the Code to ensure that aspects of Board-Approved CDM Programs can be integrated into OPA-Contracted CDM Programs, while also ensuring that the initiators of Board-Approved CDM Programs are not penalized.

The OPA also notes that the potential exists for distributors to seek Board approval for programs which duplicate other programs offered by the OPA, such as pilot programs offered through the Conservation Fund or the Technology Fund. It is proposed that section 2.3.2 should be expanded to include “*other OPA programs*”.

In demonstrating that a Board-Approved CDM Program is not duplicative of an OPA-Contracted Province-Wide CDM Program, distributors are required to be mindful of the list of criteria provided in section 2.3.3. Although this list is not proposed to be exhaustive, further clarity may be achieved by modifying section (d) to include *delivery approaches* in addition to marketing approaches. It is further suggested that a distributor should be required to demonstrate how its proposed program differs from OPA-Contracted Province-Wide CDM Programs.

Education and other enabling initiatives such as training will be a critical component of the OPA-Contracted Province-Wide CDM Programs. As such, the OPA proposes that the duplication considerations and criteria outlined in section 2.3.3. should also apply to Board-Approved Education Programs as discussed in section 4.3.

Providing consistent customer access to CDM programs is another opportunity involving coordination with the OPA. The OPA proposes that customers who are interested in participating in OPA-Contracted Province-Wide CDM Programs and/or Board-Approved CDM

Programs will have the opportunity to access those programs either through an OPA-managed customer interface or through an LDC-managed customer interface. To enhance consistency and reduce customer confusion, the OPA proposes that the Code be amended to include provisions intended to ensure that customers have seamless access to Board-Approved CDM Programs and OPA-Contracted Province-Wide CDM Programs. To facilitate this goal, LDCs should be required to coordinate application and registration requirements for Board-Approved CDM Programs with the OPA and provide the OPA with sufficient information to allow the OPA to configure its customer interface in such a way that will permit customers to access all CDM programs offered in their area. Such provisions could also help facilitate data collection and tracking within a central data repository.

Board-Approved Educational CDM Programs

Section 4.3.2 describes the requirements for distributors seeking approval for Educational CDM Programs. It is suggested that the potential to systematically evaluate the impacts and effectiveness of these programs would be enhanced by expanding the requirements in 4.3.2 (a) to identify the customer type(s) *and the particular end use(s)* that will be targeted.

The OPA also notes that according to section 4.1.2, Board-Approved Educational CDM Programs are exempt from cost effectiveness requirements set out in section 4.1.1. The OPA suggests that the Code would benefit from further clarity on the difference between stand alone educational programs versus marketing initiatives which support the implementation of CDM programs. This clarity would help to avoid potential double funding of marketing initiatives, as well as to ensure that the full ratepayer costs of CDM programs are taken into account in cost effectiveness screening and CDM program approvals. The OPA also proposes that marketing initiatives that are developed to enhance awareness of, and ultimately increase participation in, a particular CDM program should not be classified as an Educational CDM Program. The OPA proposes that the following definition be added to the definitions list:

“Educational CDM Program” means a program designed to increase the general awareness of CDM benefits and opportunities for creating a culture of conservation, but is not related to the marketing of an OPA-contracted program. This definition would include initiatives designed to permeate the elementary and secondary school-based system, either targeting students or teachers, directly or indirectly through school boards or other related bodies.

Environmental Attributes

Section 5.6 of the Code states that a distributor shall not be the owner or beneficiary of any Environmental Attributes that are related to or result from Board-Approved CDM Programs. However, the section does not address who would be the owner or beneficiary of the environmental attributes. The OPA suggests that this language should be modified to state that the OPA should be the beneficiary and owner of any Environmental Attributes that are related to or result from CDM Programs, on the basis that those programs are funded by provincial

ratepayers. This would be consistent with the OPA's responsibility for holding environmental attributes that have resulted from OPA-contracted conservation and generation procurements on behalf of provincial ratepayers.

Attribution of Savings

It is proposed in section 7.1 of the Code that distributors will be eligible to claim 100% attribution of the benefits upon demonstration that the distributor's role was central to the CDM programs. While the attribution of savings is an integral part of the EM&V process, the OPA suggests that the establishment of centrality as defined in the Code will be an onerous, time-consuming, and costly process. More importantly, the use of centrality acts as a disincentive to partnerships among LDCs and between gas and electricity distributors, which could result in more inefficient delivery of programs. The centrality principle is also incompatible with OPA-Contracted Province-Wide CDM Programs, which have been designed in collaboration with LDCs. Distributors that deliver OPA-Contracted Province-Wide CDM Programs should be able to claim all associated peak demand and electricity savings in their service territory towards their CDM targets and performance incentive eligibility. Therefore, the OPA recommends removing the centrality requirement from section 7.1.

Performance incentives should be awarded to distributors solely on the basis of the achievement of net verified results in meeting their CDM targets.

Update of OPA Documentation

The OPA is responsible for developing and maintaining the Cost Effectiveness Test Guide, the Measures and Assumptions List, and EM&V protocols underlying the development and measurement of CDM programs. These documents are accessible on the OPA website. The OPA wishes to inform the Board that it is planning to update each of these documents in 2010 and plans to post updated versions on the OPA website once the updates have been completed. The OPA also anticipates that these documents may be subsequently updated from time to time.

The OPA appreciates the opportunity to provide its comments in this matter, and looks forward to participating further in this process.