



January 26, 2011

Ms. Kirsten Walli
Ontario Energy Board
PO Box 2319
27th Floor, 2300 Yonge Street
Toronto, Ontario M4P 1E4

**Re: Amendment to CDM Strategy
Board File No.: EB-2010-0215**

Dear Ms. Walli,

As requested by the Board, Chatham-Kent Hydro is submitting herein an amendment to its original Conservation and Demand Management (“CDM”) Strategy filed with the Board on November 1, 2010. The addendum provides proposed budgeted figures along with a description of the methodology used to arrive at those figures.

If you have any questions or concerns, please do not hesitate to contact Matthew Meloche at (519)352-6300 ext 290 or email matthewmeloche@ckenergy.com.

Yours truly,

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CC: Dave Kenney, President of Chatham-Kent Hydro Inc.
Dave Ferguson, Director of Regulatory Affairs and Risk Management
Matthew Meloche, Conservation and Distribution Engineer

Addendum to the Chatham-Kent Hydro Inc. Conservation and Demand Management Strategy

Background

This document responds to a request from the Ontario Energy Board (the “Board”) to supplement the filing by Chatham-Kent Hydro Inc. (“CKH”) of a strategy for meeting energy and demand reduction targets over the period from 2011 to 2014. The supplement provides a preliminary budget for the CKH programs. In addition to the budget itself, the methodology that was used is described and some of the constraints and limitations are identified.

On March 31, 2010, the Minister of Energy issued a directive to the Board instructing them to establish electricity conservation and demand management (“CDM”) targets to be met by licensed electricity distributors (“LDCs”) within the 2011 to 2014 time frame. The directive requires the Board to make meeting CDM targets part of each distributor's licence requirement, and specified some of those requirements.

The energy savings and demand reductions to be realized by the LDCs were to be achieved through province-wide programs being designed by the Ontario Power Authority (“OPA”), and – if necessary – these may be supplemented by additional programs offered by the LDCs with Board approval (Board Approved Programs or “BAPs”). BAPs may be offered by individual LDCs or groups of LDCs working together.

On June 22, 2010 the Board issued a *Notice of Proposal to Issue a New Code: Creation of the Conservation and Demand Management Code for Electricity Distributors* and invited comments from LDCs and other interested parties. At the same time, the Board released a methodology for allocating the provincial targets across LDCs that had been developed by the OPA.

On September 16, 2010 the OEB issued the final code entitled *Conservation and Demand Management Code for Electricity Distributors*.

Over the fall of 2010, the Board, the Electricity Distributors Association and the OPA hosted various information sessions. The OPA provided several tools for evaluating programs, including some of the programs the OPA plans to offer through LDCs, CKH participated in these sessions.

On November 1, 2010, CKH submitted its CDM strategy to the Board. Considerable work went into developing CKH's strategy, including carefully reviewing the requirements set out

in the Code, the information provided by the Board and the OPA in the information sessions, and considering the characteristics of its customers. This included a consideration of the market potential based on the experience with the pre-2011 OPA programs and third tranche CDM initiatives, as well as a consideration of the barriers that its customers face.

On November 12, 2010, the Board posted updated CDM targets for each LDC. Updates were minor and CKH's CDM targets went from 10 MW of summer 2014 peak demand and 41 GWh of energy savings to 9.67 MW and 37.28 GWh respectively.

At the time of filing (and still), the funding formula the OPA will have with the LDCs, including CKH was not available. At this time, the Tier 2 and Tier 3 programs were still at the initial design stage and budgets were not available. In accordance with the Code which states that budgets are to be provided *where available*¹, budgets were not included since these were unavailable. Given that the OPA asserted that its programs would cover 91% of the provincial energy target and 78% of the provincial 2014 demand reduction target, most of the budget is expected to be associated with OPA programs and there was not information available to CKH from the OPA about the budgets for its programs.

On November 26, 2010, Chatham-Kent Hydro received a letter from the Board Secretary with the following direction from the Board:

The Board directs Chatham-Kent Hydro Inc. ("CKH") to file an addendum to its CDM Strategy that contains estimated, prospective budgets for planned OPA-Contracted Province-Wide CDM Programs and Board-Approved CDM Programs. Budgets associated with the OPA's low-income program do not need to be included. When developing the estimated, prospective budgets, CKH may use a methodology of its choice. For example, the approach used by Hydro One Networks Inc. or Toronto Hydro-Electric Systems Limited. Alternatively, CKH may choose to use information arising from the finalization of the OPA's funding formula. Regardless of the methodology used, the addendum must be filed no later than 21 days after the finalization of the OPA's funding formula.

At the time of writing, all LDCs except for four received this same direction. Toronto Hydro, Hydro One, Hydro One Brampton and Enersource had included estimated budgets in their strategies, based on a variety of methodologies.

Preliminary budget

To respond to this direction from the Board, Chatham-Kent Hydro has prepared an estimated, prospective budget for planned OPA-Contracted Province-Wide CDM Programs and Board-Approved CDM Programs. The estimated budget requirement by CKH to meet its target is \$11,115,000, of which \$8,115,000 is for OPA-Contracted Province-Wide CDM

¹ Section 2.1.1 b and Section 5.1 d

Programs and \$3,000,000 is for Board-Approved Programs. These amounts exclude any low-income OPA Program costs. Details are provided in Table A-1.

Table A-1. Breakdown of prospective budget for planned OPA-contracted and Board-approved CDM programs.

Program	Program total
OPA Industrial Program	\$1,193,000
OPA Business Program	\$5,284,000
OPA Consumer Program	\$1,638,000
OPA Low-income Program	NA
OPA Program subtotal	\$8,115,000
BAP subtotal	\$3,000,000
Portfolio total *	\$11,115,000

* Note that the prospective budget portfolio total above is not inclusive of any OPA Low-income Program costs. Further details regarding Low-income programs are pending from the OPA.

Methodology

The budget estimates in Table A-1 were developed using the following methodology:

1. Estimate the avoided costs associated with OPA-Contracted Province-Wide CDM Programs, using the Resource Tool provided by the OPA, and the estimated installation rate of measures, based on the advice provided by the OPA. Avoided costs are considered as the main benefit (if not the only benefit) that is considered in the Program Administrator Cost (“PAC”) test and the TRC test.
2. Estimate the size of the program budget that is reasonable to run the OPA programs and thus achieve the avoided energy costs. This estimate considers that the total program costs must be less than the total avoided costs if the program is to have any net PAC benefit.
3. For each of the three OPA programs (consumer, C/I and industrial), split the budget estimated in step 2 into the amount that should be allocated to the OPA and the amount that should be allocated to CKH. The split for each program is based on values reported by Hydro One Brampton in its strategy.
4. For Board-Approved programs, determine the budget using the required BAP energy and demand savings and “standard” unit costs for demand and for energy savings. These standard unit costs were based on the avoided costs and savings from OPA programs.
5. Adjust the values in step 2 above, based on a consideration of how the situation in CKH’s service territory might differ from provincial averages. This is done by considering the size of the budgets submitted by the four LDCs with confirmed

strategies, and by considering CKH staff's experience in delivering programs under existing and previous OPA programs and third-tranche CDM initiatives.

These 5 steps are elaborated upon below.

Step 1: Estimate Avoided Costs

The OPA has provided a Resource Tool that is essentially a large set of interlinked spreadsheets that show each of the measures it intends to use in its programs (and other measures), the estimated market penetration of each of these in the province through OPA programs, and technical information about each measure including its cost, lifetime, load profile, energy and demand savings, and default free ridership rates. The spreadsheets also include avoided costs over multiple years into the future for energy generation, generation capacity, transmission and distribution. From these data, it is possible to calculate the net energy savings or peak demand reductions, and the value of these savings and reductions. This value represents the upper limit on potential program costs and incentive costs if the programs are to pass the Program Administrator Cost (PAC) test, since program overhead costs plus incentive cost must be less than the avoided costs.

Step 2: Estimate the Size of the Program Budgets for the OPA Programs

CDM programs bring benefits not captured in the benefits that are part of the tests the OEB has adopted. These un-captured benefits may include environmental benefits, increased comfort or quality of the energy service, and LDC reputation, for example. However, the focus of the OEB's mandated tests is the financial benefits.

If the programs are to meet the PAC test, then the program overhead costs plus the incentive costs must be less than the avoided costs. The ratio of program and incentive costs to avoided costs is a measure of the PAC benefits of the program. As a starting point, program and incentive costs are assumed to be 60% of avoided costs. This number is revisited in step 5.

Step 3: Determine the Split between OPA and LDC Costs

For OPA programs, some of the total program costs will be borne by the OPA, and some by the LDC. This varies by program, but in its strategy report, Hydro One Brampton reports on this split by major program type or sector, as follows:

- Consumer programs: 60% LDC, 40% OPA
- Business programs: 80% LDC, 20% OPA
- Industrial programs: 80% LDC, 20% OPA.

In the absence of any better information, these estimates were adopted. Using the total program budgets estimated in step 2 and the above splits, the total LDC budget for each OPA program is calculated.

Step 4: Estimate Budget Requirements for Board-approved Programs

Sixty percent of the avoided costs of all OPA programs and the demand and energy reductions of all OPA programs were used to generate generic demand and energy unit costs (\$/MW and \$/kWh, respectively). These unit costs were considered to be indicative of the unit costs of a “standard” CDM program. The Board-Approved budget was based on the required BAP energy and demand savings as well as these calculated standard unit costs, giving equal weighting to the unit costs needed for demand and for energy reductions. A final scaling factor is included to account for the deeper measures required to achieve these savings in CKH’s service territory – further detail on the reasoning for this is provided below.

Step 5: Adjust Program Costs

Finally, the program benefit factor is adjusted based on judgement. For example, the implied benefit factor associated with the budgets estimated by Toronto Hydro, Hydro One, Hydro One Brampton and Enersource were calculated. These suggested a program benefit factor of between 43% (Enersource) and 55% (Toronto Hydro). Consideration was given to whether costs in CKH’s service area would be comparable, higher or lower than costs faced by these LDCs.

For example, CKH is a smaller utility than the others, its overhead costs are distributed over a smaller number of participants in the programs, and it is less urban. For these reasons, the program benefit factor was suitably adjusted. It was further adjusted through consideration of past experience of CKH with CDM. After considering all these factors, a program benefit factor of 60% was assumed for the Board Approved Programs. [NTD: Should we talk about CKH’s prior CDM successes resulting in additional costs to market deeper?]

Constraints and limitations

These budget estimates are believed to provide an indication of the scale of the resources required to meet the targets specified for Chatham-Kent Hydro. However, as is clear from the discussion above, they are based on financial constraints imposed (primarily the PAC test, though the TRC test must also be passed) and broad scale assessments of reasonable costs, not budgeting for the specific technologies and programs that will be implemented.

The budgets for the OPA-Contracted programs will be specified in the funding agreement to be signed between the OPA and CKH. The funding formula for that agreement has neither been provided to CKH in draft form, nor has the final funding formula been negotiated.

As the Board-Approved program designs become more specific as applications are prepared for approval, program specific budgets will be estimated, and will form part of the application for those programs.

Those final numbers may be higher or lower depending on such factors as:

- The specific technologies and measures to be implemented, and their benefits, and therefore the incentive levels that may be needed
- The details of the program designs, and the costs of delivering the programs
- The ability to meet 'typical' costs in the CKH's service area.
- According to the 2006 Census, CKH's service territory has an unusually low median income compared to the provincial average. As a result, costs related to the OPA Low Income Program may be significant compared to LDCs in other areas.

CKH expects to report on progress relative to budget in its annual reports, and to advise on what, if any, adjustments are required to ensure that the targets that have been set for it are met, as are customer demands for CDM.