



Cornerstone Hydro Electric Concepts Association Inc.

July 19, 2017

IESO Engagement

Re: Conservation Framework Midterm Review – Definition of Conservation

e-mail submission: engagement@ieso.ca

Attached please find comments with regards to the request for input as per the July 6th webinar with regards to the definition of conservation for the second half of the Conservation First Framework.

Question 1: Is the list of possible CDM technologies and services (outlined in this document) to be assessed for alignment against policy objectives in Ontario complete?

To prepare a response to this question a listing of the technologies and services as outlined in the document has been prepared. This is considered important to better track and identify the technologies that are being commented on. The listing allows the opportunity to add further technologies/services and to comment on same.

Technologies	Description as per the Power Point
Energy Efficiencies	
Resource Acquisition	Purchase of product and reduced electricity use by new more efficient processes – includes use of green energy
Market Transformation	Lasting change in markets (Standards)
Behavioural	Behaviour of end consumer
Performance Based Funding	Performance based incentive on energy saved
EE Pilots	Test new approaches and strategies
Voltage Reduction	In front of meter

Additional: Education	Conservation is focused on cost effectiveness which appears to have eliminated education. The ability to provide information in general terms that may or may not have a net savings in itself but may add to the overall acceptance of other conservation initiatives. This could be said to be “behavioural” however it is believed that the current behaviour programs are too narrow and do not promote a support or willingness to conserve rather for the sake of conservation. This is missing within the scope of the programming.
Demand Response	
Direct Load Control	Shift automatically upon signal
Demand Response Capacity	Customer shifts load based on signal
Time of Use Pricing	Modify behaviour based on pricing to consumer
Critical Peak Pricing	Higher prices to align with system peak
Distributed Energy	
Solar PV	Solar on customer premise
Solar PV and Storage	Customer nanogrid
Combined Heat and Power	Electricity generation and thermal load
Electric Vehicles	Shift and manage load
Microgrids	Combination of storage technology and generation resources).
Distributed Energy Pilots	
Addition: Storage	Storage in the various forms, including fly wheels and batteries etc. should be included. The ability to store excess generation, no matter how generated (solar or nuclear) in a distributed manner on the system should be considered as a technology.

What other technologies or services should be considered? Why?

Based on the three categories outlined in the Power Point it is suggested that “batteries and similar forms of storage” be added into the Distributed Energy Section. There may be some debate as to whether this is “conservation” however if distributed energy is part of the definition then both customer and utility owned storage and control should be included.

Within the Energy Efficiency Category it is believed that “Energy Efficiency Education” is missing. Conservation programs at the present time are focused on cost effectiveness which appears to have eliminated education. The ability to provide information in general terms that may or may not have a net savings in itself but may add to the overall acceptance of other conservation initiatives is challenging to incorporate at the present time. Education could be said to be “behavioural” however it is believed that the current behaviour programs are too narrow and do not promote a support or willingness to conserve just for the sake of conservation (conservation culture). This is missing within the scope of the programming.

Question 2: What technologies and services should be eligible under the definition of CDM in the second half of the framework in order to support the policy objectives of the Government of Ontario? Why?

As noted above “Education” should be considered for inclusion in the second half of the framework. Education on the benefits of conservation, the system impacts and the environmental benefits should be provided to various sectors to improve understanding, raise awareness and acceptance of the programs. Part of the education component could address the discipline which has been applied to conservation in the Ontario with the various parameters for measuring societal benefits of conservation.

Education would help inform decisions with regard to fuel sources, heating systems, new technologies and the total use of energy. This could reduce the incentives required for the acceptance of new systems thereby increasing overall efficiency of programs.

In the second half of the framework some clarity around demand management is required. The target for LDCs is energy and as such demand management does not seem to be a significant part of the focus although demand reduction is accounted for in the cost effectiveness tool. Assuming a continued role for demand management battery and alternate energy storage technology as applied to peak demand management should be considered within the second half of the framework.

With new electric loads, such as electric vehicle charging, load control should be considered. Assuming that demand management will continue to play a role in conservation/supply management then the ability to control new significant loads will be important. Incentives for “smart chargers” should be supported and incentives for non-smart chargers should be eliminated. The “smart charger” for EV’s should have a definition where they can be controlled at a distribution system level, by a third party or the utility to deploy at full capacity, reduced capacity or not at all if the charge of the vehicle is adequate for the projected operation. A “smart charger” is not a charging device with a timer that turns on after off peak rates apply. A true “smart charger” will reduce the requirement for the utility upgrade assets when the EV’s market penetration increases.

CHP has been in again and out again of conservation. If conservation is considered without climate change impacts, CHP’s would be included under conservation as the net use of energy (gas/electric) is reduced. Clarity on CHPs is required to better understand how these fit into both the conservation and climate change framework. The use of gas within a CHP project may have a net positive, even within the climate change framework, if evaluated properly. It is suggested that a mechanism to fully evaluate CHPs should be developed that will identify projects that perhaps are beneficial.

•Are there any technologies or services that are currently eligible that should not be eligible in the second half of the framework? Why?

No additional elements to add at this time.

3. What factors or parameters should be established/considered for any eligible technologies or services? (e.g. other available sources of funding, impact on peak demand, and etc.)

Some form of coordination with climate change initiatives is required within the conservation framework. Funds are being generated to combat climate change and as such an integration/coordination with conservation is required to ensure a consistent and organize message to the consumers within the province. Where a measure may be more “climate change” focused, for instance the installation of geothermal to replace gas, the incentive and the benefits should be accounted for under climate change not necessarily conservation. Further where a program is delivered under climate change it should build on a core of conservation and the conservation industry experience to ensure the ability to move the customer to a higher level of conservation and increased reduction of greenhouse gas. Cost effectiveness should be maintained as a parameter on any new technologies or processes.

External to IESO control transportation conservation needs to be addressed within the climate change portfolio. It is suggested, that within the climate change portfolio, that transportation impacts should be included, that measures be developed and that incentives beyond just sponsoring the purchase of electric vehicles be implemented.

We look forward to the continued progress of the mid-term review.

Regards,

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