QUEST

**April 30, 2020**

Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, Suite 2700
Toronto, Ontario
M4P 1E4



To Board Secretary Walli,

**Re: Ontario CHP Consortium Submission to Responding to Distributed Energy Resources (DERs) (EB-2018-0288) & Utility Remuneration (EB-2018-0287)**

On behalf of QUEST and the Ontario CHP Consortium, thank you for the opportunity to provide written comments to these important proceedings regarding Distributed Energy Resources (DERs) and Utility Remuneration.

These brief comments are a summary of QUEST and the Ontario CHP Consortium's primary issues with these proceedings. These build on our previous submission to the Board concerning this proceeding last fall, as well as submissions on commercial & industrial rate design submitted in early 2019. For your reference we have included our October 2019 submission in this document following the current submission.

We understand the Board in this proceeding is trying to not address detailed rate design. However, in the context of DER remuneration, we believe it is appropriate for the Board to review renumeration structures as it applies to setting the framework for the connection of DER resources. Under the current structure, LDCs are financially disincentivized on the connection of DER as the technologies can reduce the invested capital and return to the LDC shareholders. Similarly, there are no controls or limits on the LDC connection costs that can be charged to customers. Lastly, there is also no

cost/benefit or rigorous rate setting process around the various charges that can be faced by DER owners (such as standby charges), other than the LDCs being as conservative as possible and enacting the maximum charges.

As described above, part of the key is in how the costs and benefits of DER integration will be determined. The recommendations put forward early in 2019 for Commercial and Industrial rate design were quick to identify additional costs of DERs and proposed introducing a provincial capacity reserve charge designed to protect utility revenues. It was not clear from these Board staff recommendations how these charges aligned with, and may have duplicated, other charges on DER customers, such as gross load billing. Furthermore, these additional costs are overstated in many situations, for example, by discounting the diversity of DER resources. Not all DER resources will be simultaneously unavailable for the purposes of reserving system capacity, and these are still typically a small percentage of coincident demand.

The recommendations put forward on commercial and industrial rate design also did not address any benefits of DERs. We applaud the Board's decision to include a cost and benefit analysis as part of this proceeding's scope, and our recommendation to the Board is to establish a robust, longer term, iterative, and "evergreen" process and framework for determining the benefits and costs of DER resources. The rationale for taking a longer term view is that the economics of DER technologies and grid supplied energy are changing, as are the business models, competitive tensions and control capabilities that allow for more effective integration of these DER technologies within existing energy distribution systems.

The Ontario CHP Consortium thanks the Board for considering our comments on the policy proceedings. We look forward to the opportunity for continued engagement in this proceeding.

Yours Sincerely,

Richard Laszlo
Senior Associate, CHP, QUEST
Ontario CHP Consortium Chair

Tonja Leach,
Executive Director, QUEST

**October 18, 2019**



Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, Suite 2700
Toronto, Ontario
M4P 1E4

To Board Secretary Walli,

**Re: Ontario CHP Consortium Submission to Responding to Distributed Energy Resources (DERs) (EB-2018-0288) & Utility Remuneration (EB-2018-0287)**

On behalf of QUEST and the Ontario CHP Consortium, thank you for the opportunity to provide written comments to these important proceedings regarding Distributed Energy Resources (DERs). These written comments build upon and re-emphasize principles that were submitted earlier this year in response to the Board Staff recommendations on commercial & industrial rate design.

Properly applied, DER technology, especially Combined Heat and Power, can support the grid, provide value to customers and reduce long term costs of delivering energy to all customers. Furthermore, DER and CHP can reduce GHG emissions by displacing the grid electricity produced from less efficient, thermal gas-fired central power plants.

Members of the Ontario CHP Consortium encourage the OEB to look to work done by the United States Department of Energy in developing a flexible grid concept[1] that provides benefits to customers and grid operators:

> *"A cost-effective, flexible CHP system that seamlessly connects to the grid and provides needed grid services would offer a win-win solution for manufacturers and grid operators. For manufacturers, revenue from grid services would provide an attractive return on their investment in CHP systems; for grid operators, partnering with industrial sites would provide*

[1] United States Department of Energy; Office of Energy Efficiency and Renewable Energy. Flexible Combined Heat and Power (CHP) Systems. https://www.energy.gov/sites/prod/files/2018/01/f47/Flexible%20CHP%20Comms_01.18.18_compliant.pdf

*cost-effective access to dispatchable generating capacity and other essential services, such as frequency regulation."*

Several discussion papers have been published detailing this concept: US DOE flexible CHP paper, US DOE's Study on Flexible CHP on the California Grid,[2] and Navigant studies on the use of Flexible CHP to enhance the grid,[3] and an ICF study on supporting the Grid with flexible CHP systems.[4]

The OEB staff recommendations earlier this year, although suggesting a willingness to work with DER resources, was complicated, costly for customers and in our opinion shifts too much theoretical costs to DER resources.

The proposal did not account for system benefits of DERs and only considered additional costs, which are overstated in many situations, for example, by discounting the diversity of DER resources. Not all DER resources will be simultaneously unavailable for the purposes of reserving system capacity, and these are still typically a small percentage of coincident demand.

Our submission to the Board was to conduct a more rigorous analysis of its proposal to introduce a provincial capacity reserve charge and consider avoiding any standby charge for smaller systems below a certain size, e.g. 250 kW installations. Introducing a capacity reserve charge would undermine the business case for DERs and run counter to many of the objectives put forward by the Board in terms of providing customer benefits, choice and promoting innovation that is in the best long-term interests of all customers.

The Board Staff recommendations put forward earlier this year came into focus at the recent DER proceedings, with many presentations highlighting the fact that our current regulatory model incentivizes utilities to make more capital investments, and install more DER remote monitoring and protection equipment, rather than being incentivised to connect DER resources and keep their involvement and costs down.

As a guiding principle, DER costs should be based on coincident peaks as this is a true reflection of their impact on the system and how most other aspects of utility charges are calculated.

Another principle that runs counter to facilitating customer benefits and options for DERs is the move to fixed distribution charges for customers under 10kW. This

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[2] United States Department of Energy. Modeling the Impact of Flexible CHP on California's Future Electric Grid.
[3] Navigant Research. The Future of CHP is More Flexible and Grid-Interactive. https://www.navigantresearch.com/news-and-views/the-future-of-chp-is-more-flexible-and-grid-interactive
[4] ICF. Supporting Grid Modernization with Flexible CHP Systems. https://www.icf.com/-/media/files/icf/white-paper/2017/icf-supporting-grid-mod-with-flexible-chp-feb-2018.pdf

presents a significant barrier for customers that would otherwise consider how they might use DERs to reduce their consumption and contribution to system peaks. If instead policies encourage RPP customers to adopt DERs, the volume the province needs to subsidize is reduced in direct proportion to the rate of DER adoption.

The Ontario CHP Consortium thanks the Board for considering our comments on the policy proceedings. We look forward to the opportunity to continued engagement in this proceeding.

Yours Sincerely,

Richard Laszlo
Senior Associate, CHP, QUEST
Ontario CHP Consortium Chair

Tonja Leach,
Executive Director, QUEST