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Submission to the Ontario Energy Board

APPRO comments on the Report of the Advisory Committee on Innovation

**Report of the Advisory Committee on Innovation to the OEB
Board File No.: EB-2018-0287**

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APPRO appreciates the opportunity to share its comments with the Board and with other stakeholders in this consultation on the management of innovation in the energy sector.

APPRO is the organization representing electricity generators in Ontario. Our members produce electricity from renewable and non-renewable sources and represent more than 95% of the electricity generated in Ontario. APPRO serves the business interests of its members and over the last 30 years has come to be known for its thought leadership and balanced contributions to regulatory and public policy discussions.

The specifics of the energy transition ahead cannot be defined precisely at this time, but a few critical principles on how to manage the transition process are becoming clear. APPRO and many others in the energy sector have studied the changes taking place and firmly believe that considerable benefits are available to ratepayers and the broader economy if the energy transition is managed proactively and effectively from a policy and regulatory perspective. Significant improvements in the physical productivity of energy processes can be harnessed, and the declining costs of technology should produce benefits throughout the system. Of course, as with any wide-ranging change process, there are dangers to be faced and prepared for.

As the Board and numerous stakeholders have acknowledged, two of the primary challenges will be:

- a) to ensure that opportunities to deploy new technology and business models are not impeded, and
- b) to ensure at the same time that costs are not unfairly shifted from one class of customers to another.

In addition, as part of the ongoing effort to achieve lowest cost solutions, significant attention will need to be devoted to optimizing the use of existing assets and managing the risk of stranded costs. Although it may appear unrelated to innovation, provincial and regulatory policy in this area is a critical component of the overall economic success of any initiative in innovation. The last section of this submission speaks to these long term cost management issues.

In summary, if the full set of risks and opportunities are recognized and managed, we believe there will be significant short term and long term benefits from the change ahead.

Overview

APPRO has three primary recommendations to share with the Board and stakeholders.

1. Establish systematic methods for assessing benefits.
2. Maintain clear distinctions between competitive businesses and monopoly wires companies.
3. Set terms for the ongoing operation of a best practices organization to ensure safety and reliability concerns are met while placing the least burden on the emerging market.

Recommendations

1. **Mandate a practical, easy-to-use approach for estimating benefits at the LDC level.** It is commendable that the Committee has once again recognized the importance of establishing appropriate methodologies for assessing the benefits of Distributed Energy Resources. This step is an appropriate focus of work for the Board, and highly important to the efficient development of new infrastructure.

The Advisory Committee on Innovation (ACI) Report confirms the importance of establishing a methodology for assessing benefits:

“Establish an empirical evaluation methodology for cost -benefit comparison so all proposals are evaluated on a fair and consistent basis.”

- *Recommendation 2B, Report of the Advisory Committee on Innovation*

It goes further:

“Establish a way to ensure DERs can be compensated for their services commensurate with their value while paying their appropriate share of system costs. The approach should recognize new revenue streams which may be aggregated and allow shared cost recovery.”

- *Recommendation 2C, Report of the Advisory Committee on Innovation*

2. **It is essential to maintain a clear distinction between competitive and regulated businesses in the electricity sector.** Investment in new competitive ventures would be

unnecessarily hindered if there were uncertainty about the potential for competition from regulated businesses.

Few things will unnecessarily hinder investment more than uncertainty about whether regulated businesses will be allowed to “compete” in a given market. It is therefore essential that a clear and enduring policy be articulated defining the business areas in which market players can have confidence their competitors will consist exclusively of other market participants without access to regulated rate bases.

With respect to separating the wires business from the competitive business, one exception could be made for when DERs are installed purely to meet and/or manage the LDC’s own internal load. However even these installations should be sourced competitively wherever possible. Standard LDC rates of return would apply unless the risk was born by an entity unrelated to the wires company.

3. **Initiate consultations with the aim of defining terms for the ongoing operation of a collaborative body focused on best practices for management of distributed resources**, to ensure safety and reliability concerns are met while placing the least burden on the emerging market.

It would focus on four major areas:

- a) Appropriate systems for management of DERs within an LDC
- b) Innovative approaches to connection and operation of DERs
- c) Alleviating unnecessary obstacles to distributed energy market activity
- d) Defining a reasonable set of service standards for LDCs to use when responding to connection applications from DERs.

One of the key over-riding objectives should be to ensure that energy technology options that are economic and benefit customers are readily accommodated by LDCs, and accessible for adoption by customers. To meet this objective, the regulatory framework, being focused on economic efficiency, should not be designed to confer special benefits on DERs that are not available to other forms of generation. At the same time, cost savings are likely available from alleviation of unnecessary regulation in certain cases where it is not required for safety or reliability.

With the benefit of advanced LDC control systems and analytical tools appropriate to each site, innovative connection and operation solutions will likely be appropriate in some cases. These may allow DERs to be installed with fewer instances of time-consuming impact assessments, unnecessarily costly installations, and/or restricted operation rules, while still meeting overall economic objectives, and maintaining the LDC’s ability to operate a safe and reliable distribution system.

It is timely to establish an industry wide technical standards group to serve as a centre of expertise and guidance, and to help ensure the necessary protections are in place for LDCs and customers, without excessively burdening new projects. This would serve as a form of protection against the potential for unnecessarily lengthy and costly studies, impact assessments, and complicated protection schemes.

There is considerable scope for innovation on the wires side of the business. A great deal of innovation and adaptation is required of LDCs just in figuring out how to manage and balance the myriad of new resources likely to be attached to their systems. The ACI recommendations are reasonably aligned:

“3B. Encourage cost-effective investment by utilities in monitoring and control capabilities to the extent that these enabling investments will help them efficiently manage a more dynamic distribution system.”

APPrO concurs with recommendations we understand are also being brought forward by other stakeholders. These include:

- Electricity resource planning should continue to be led by the IESO as it is in the best position to optimize existing assets and increase value for the customer. This includes assessing the impact and risks of potential stranding of assets.
- DERs should be able to maximize value not only to the distribution sector but also to the wholesale grid. Opportunities for economic DER participation in the IESO-administered market should be developed.
- Improving the extent and accessibility of system information continues to be important, to enable the development of optimal solutions for customers and the system.

In addition, it will be important to ensure coordination between the OEB’s responses to the Innovation Report, the IESO Innovation Roadmap, Market Renewal and provincial policy development. Without such co-ordination, here is a risk of cross-purposes and additional inefficiencies.

The risk of inaction or late action

APPrO understands that increasing numbers of customers are taking control of their electricity costs by permanently disconnecting some or all of their load from the LDC and self-generating. We are concerned that in many cases this will not be the best long-term solution for Ontario. At the same time, any broad-based measures to discourage self-generation would likely have equal or worse negative implications for the economy. It is therefore critical that public policy and regulatory policy come to grips on a timely basis with the likely emergence of a diversified and innovative market for DERs, making sure that the system neither impedes beneficial new investment, nor causes unmanageable levels of stranded costs.

The management of rate impacts on consumers must be proactive, considering both short and long term implications, and ensuring that costs are not unfairly shifted from one class of ratepayers to another.

Because it would be uneconomic and counterproductive to discourage or obstruct market-driven development of new capacity, it will be beneficial to prepare, on the same timeline as this process, a proactive public policy on how regulators are expected to manage the risk of future debt related to underutilized assets. Such policy should be consistent with principles of maintaining investor confidence and moving all parties towards the most economic long-term solutions, while facilitating innovation and minimizing cost-shifting.

Addendum

Summary of previous APPrO recommendations¹ to improve the assessment of generation-related benefits to the system.

“The Generator Co-ordination Group envisions a set of metrics that will assess the following network benefits (without limitation) on a consistent basis: loss reduction, avoided or deferred upstream costs, local reliability (including contributing to the kind of regional reliability reinforcements sought by Hydro One), ability to serve more load customers, voltage support, reactive power, VARs, improved power factor, other ancillary benefits, black start, storage, statistical probability of using lower cost local resources more frequently, and ability to respond to local needs and provincial policy directions.”

- *Submission from APPrO and other members of the Generator Co-ordination Group to the Ontario Energy Board on the Renewed Regulatory Framework for Electricity, May 4 2012, EB-2010-0377, EB-2010-0378, EB-2010-0379, EB-2011-0043 and EB-2011-0004.*

The following excerpts from the above submission provide further context and reasoning for the above recommendation:

14. The GCG (Generator Co-ordination Group) recommends that the Board adopt and mandate a broad cost/benefit approach for the assessment of new grid infrastructure investments. The new approach should be robust, clear and result in the assessment of not only long term costs, but also long term, sector-wide benefits in the determination of significant infrastructure investment decisions and the allocation of related costs. It should always consider generators as recipients of transmission and distribution services, who warrant customer service quality standards and measures. It should also be proactive in facilitating efficiencies through cooperation by requiring distributors and generation proponents to work cooperatively to minimize the costs of new connection, facilitate the efficient operation and connection of existing and new generation assets, and mandate a paced and measured approach to new distribution and transmission grid investments with a defined dispute resolution process.

...

it is difficult to design rules and regulations that can be universally applied to all electrical network planning processes. For this reason, it is particularly important for responsible parties in any of the concerned agencies to be able to access consistent and reliable data on which to base decisions. The area in which consistent data has been most lacking is in the assessment of upstream benefits of network investments.

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20. In order to ensure that distributors have high quality information on the value and benefits of a network investment under consideration, they will need access to a consistent set of

¹ From comments provided on behalf of the Generation Coordination Group (GCG) to the OEB in its RRFE proceeding, April 2012. The GCG was comprised of the following member organizations: the Association of Power Producers of Ontario (APPrO), the Biogas Association (formerly the Agri-Energy Producers Association of Ontario, (BGA)), the Canadian Wind Energy Association (CanWEA), the Canadian Solar Industries Association (CANSIA), the Canadian District Energy Association, which was further described in Appendix; and the Ontario Waterpower Association (OWA). http://www.ontarioenergyboard.ca/OEB/Documents/EB-2010-0377/APPPro_Comments_20120504.pdf

metrics that have been reviewed and tested in a regulatory context and which make use of common terminology. This will facilitate comparisons between distributors and improve transparency of planning processes at whatever level they occur (within the distributor, regionally or provincially).

21. The Generator Co-ordination Group envisions a set of metrics that will assess the following network benefits (without limitation) on a consistent basis: loss reduction, avoided or deferred upstream costs, local reliability (including contributing to the kind of regional reliability reinforcements sought by Hydro One), ability to serve more load customers, voltage support, reactive power, VARs, improved power factor, other ancillary benefits, black start, storage, statistical probability of using lower cost local resources more frequently, and ability to respond to local needs and provincial policy directions.

22. The Ontario Energy Board received useful evidence on a proposed SSCBM in the EB-2007-0630 proceeding: Development of a Standard Methodology for the Quantification of DG Benefits, July 31 2008. We strongly urge the Board to facilitate the detailed development of a broad SSCBM² for distribution and transmission infrastructure investments starting with the proposed approach outlined therein.

² System/Societal Cost-Benefit methodology (SSCBM)