

Non Emitting Resources Subcommittee

February 2018: Response to Stakeholder Feedback

Following the February 16th Non Emitting Resources Subcommittee (NERSC) stakeholder meeting, the IESO invited stakeholders to provide comments and feedback to help advance efforts of the group.

The IESO received feedback from:

Canadian Wind Energy Association (CanWEA)

Distributed Energy Resources Advisory Committee (DER AC)

EnerNOC

Ron Tolmie

Mississippi River Power Corp.

Power Advisory

TransCanada

This feedback has been posted on the IESO stakeholder webpage for this engagement.

Note on Feedback Summary

The IESO appreciates the feedback received from stakeholders. This stakeholder feedback, along with the comments provided at the stakeholder engagement sessions, is important to the collaborative approach the IESO has committed to. All feedback received has been noted and will be considered as the work of the NERSC moves forward. Below, the IESO has provided a summary table which outlines responses in respect of specific feedback or questions for which an IESO response was required at this time.

Stakeholder comments and IESO responses

Focus Area	Company	Feedback	IESO Response
Participation	TransCanada	<p>The range of potential technical capabilities for storage technologies is extremely broad and we would ask the IESO to consider providing additional guidance on the technical requirements of the Ontario system. Some capabilities come at the expense of others and with additional costs and thus it would be very helpful to understand what is important to the IESO and where the appropriate trade-offs are between technical capabilities and costs.</p>	<p>The IESO is moving towards an unbundled market where system needs are clearly defined and prices clearly reflect the value of electricity products by time and location. The price signals provided across these markets will enable suppliers to develop business models on where and how they wish to operate.</p> <p>As part of the process of moving towards an unbundled market the IESO recognizes the need to make relevant information available to stakeholders on a timely basis and will work with stakeholders to ensure IESO planning processes and data publications are suitable for the new market design.</p>
Participation	TransCanada	<p>While we appreciate the interest in minimizing the modeling effort by taking a higher level indicative view (i.e., not a granular minute by minute/ node by node modelling exercise), we note that a large value driver for utility scale storage is through reducing price volatility. Volatility will not be picked up without granular modelling. As an alternative, we would recommend the IESO consider an assessment of the potential to reduce volatility by looking at granular data for specific time period and compare energy prices with and</p>	<p>The primary objective of the modelling exercise is to create a shared vision of the revenue streams available, range of potential market outcomes, and reliability impacts in Ontario's future market. The IESO will work with the NERSC to further develop a modelling approach at the next NERSC meeting.</p>

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		without utility scale storage on the system. This data could then be extrapolated over the planning horizon to approximate the long term value of reduced volatility.	
Participation	TransCanada	Based on the current and planned future Ontario electricity market, there are insufficient revenues available to provide the net revenue requirement to support development of a large utility storage facility. The combination of energy, OR and capacity revenues will not be sufficient on their own to underpin a project. Further, the current practice of running RFPs for ancillary services in isolation as per the recent Regulation RFP does not allow the full potential for all of the capabilities of utility scale storage to be realized simultaneously.	Market Renewal aims to send accurate price signals on the value of products needed to run the Ontario system reliably and cost effectively. An important part of the NERSC work is to hear from stakeholder on the barriers, risks and potential missing revenues that limit the ability of a resource to participate where they are economic to do so. The potential for a regulation market that is co-optimized alongside energy and operating reserve is a good example of an enhancement that could lead to greater efficiency and asset utilization, and one that the IESO would be interested in exploring with stakeholders at a future date.
Participation	Ron Tolmie	There has been no mention of exergy storage, which has the potential to completely displace generation using both fossil fuels and nuclear energy at a much lower cost. (exergy storage uses stored heat for which the exergy is boosted, for example by using an electric means of raising the temperature). Can the IESO comment on this?	The NERSC and the IESO's non-emitting resource RFI are interested in gathering information on the range of services various technology types can provide to the grid, and the barriers that may limit or prevent these resources from doing so. Market Renewal aims to put in place a technology neutral foundation that enables all resource types that are capable of providing needed system services the

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			<p>opportunity to compete to do so. The IESO welcomes feedback on any challenges that may unnecessarily limit competition in our current or future market designs.</p>
General	Mississippi River Power Corp	<p>Our primary concern with Market Renewal is the future market for our output. Is there a possibility that we will be able to sign another guaranteed contract? If not, as a non-market participant, what might the rate structure look like for us? Will there be a market for environmental attributes to make up for potential price per KW reductions?</p>	<p>The IESO expects that, in most cases, resources coming off contract will have the opportunity to compete to earn revenue in the IESO Administered Markets. These resources may compete to earn capacity payments, energy, operating reserve, and ancillary service revenues. However, the IESO recognizes that there may be barriers that prevent these resources from fully participating in the market. For example, there are questions regarding the participation of distributed resources in the IESO Administered Markets that require continued exploration. These issues have been raised by stakeholders at NERSC and other forums and the IESO will continue to work with stakeholders to address them.</p> <p>Through modelling in the second phase of its scope of work, the NERSC aims to promote understanding of the revenue streams available to non-emitting resources in the renewed market. Through the cap and trade program, the cost of carbon emissions is currently being reflected in Ontario's energy price. The NERSC will explore a range of commercial mechanisms</p>

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			that could be introduced to further incentivize the participation of non-emitting resources, provided there is clear policy direction to do so.
General	Mississippi River Power Corp	Will our existing contract be changed? If so, what changes will be made and how will they affect us?	There is an expectation that certain Market Renewal changes will impact contracts and therefore specific amendments may be required. An initial contracts implications webinar was held on October 31, 2017 and follow-up discussions are taking place with subsets of contracted counterparties. As the market design progresses, the IESO will continuously work with our contract counterparties to understand contract implications, and eventually address the changes through contract amendments.

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