

Feedback and IESO Response

Topic	Stakeholder	Feedback	IESO Response
2018 DR Work Plan	City of Toronto	Would the IESO consider adding a priority item for comparing DR Auction to the proposed Incremental Capacity Auction (ICA) to highlight challenges for DR participation?	The High-Level Design (HLD) for the ICA is currently being developed with stakeholders, however, the IESO may utilize the DRWG for more in-depth discussion of certain ICA issues (from a DR perspective) in future meetings. Ensuring alignment with Market Renewal is one of the goals for the DRWG for 2018.
2018 DR Work Plan	City of Toronto	The City recommends that the DR Working Group act provide regular feedback and lessons learned to the Stakeholder Engagement for the Incremental Capacity Auction.	See comment above.
Priority Items	City of Toronto	<p>The City recommends that the Demand Response Working Group more effectively communicate the value and opportunity from DR resources including:</p> <p>Capacity Savings – The IESO can identify the financial savings from procuring DR capacity vs traditional generation in the 2016-2018 years.</p> <p>Utilization Savings – Assuming that the IESO activation of Contract Based Demand Response (CBDR) resources occurred when CBDR energy costs were lower than the next available resource, Ontario's electricity system realized a significant savings in hourly energy costs.</p> <p>New webpage – A new web resource could demonstrate the value of DR and enhance familiarity with the program.</p>	<p>The DR Auction has demonstrated the ability of an auction mechanism to secure DR capacity at lower cost than the previous contract regime. However, there are challenges in making comparisons at this stage between the cost of DR versus other potential incremental capacity suppliers. The ‘capacity product’ in the DR Auction may not be the same capacity product under an incremental traditional forward capacity market. Second, one of the major benefits of an auction mechanism is price discovery. Since the IESO has not run an auction for other capacity resources, it does not have an equivalent incremental capacity cost to compare against DR. However, with the development of the ICA, it will be more feasible to compare DR with capacity from other supply as each will compete for a position in a future auction to deliver a commonly-defined product (ie capacity).</p> <p>The IESO is interested in specific feedback on what updates and information should be part of the DR webpage. This will be discussed at a future DRWG meeting.</p>

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Improving Utilization of HDR Resources	City of Toronto	<p>From the Jan 30 IESO Response to Stakeholder Feedback:</p> <p>Stakeholder Question: Can the IESO provide further clarification on their response to the stakeholder feedback "Would the IESO consider introducing a maximum DR energy bid price eg \$200/MWh?"</p> <p>The IESO response: "Instituting a maximum energy bid price for HDR resources could lead to greater utilization in the energy market at the expense of overall market efficiency. The IESO is not in favour of forcing more expensive resources to be utilized if and when more cost-effective resources are available."</p> <p>Would an increase in economic HDR activations result in a cost or savings for the market?</p>	<p>A \$200/MWh bid price cap would imply that any time the price of electricity is greater than this amount, a load would rather be curtailed than consume. However, the IESO has heard that for many loads, they would rather consume at almost any price below the maximum market clearing price (\$2000/MWh). If this is true, it would be more efficient to economically dispatch other supply than to impose an artificial bid price cap that is not reflective of a load's opportunity cost of curtailment.</p>
2017 DR Auction Results	City of Toronto	<p>The City recommends that the DR Working Group formally forward the DR Auction results to the IESO's Incremental Capacity Auction Team. The lessons learned from the DR demand curve and reference pricing demonstrate how new flexible contracted capacity can be procured at an economic cost.</p>	<p>The IESO works to ensure a good coordination of issues and learning between developments in the DRWG and the ICA respectively. This will continue going forward.</p>
Utilization Payments	City of Toronto	<p>The City recommends that the IESO develop an evaluation matrix for analyzing and comparing findings against the framework goals of the Incremental Capacity Auction and the objectives from the Demand Response Working Group Terms of Reference.</p> <p>For example: How does the IESO value reducing consumer costs vs the "cost of greater activations → putting downward pressure on prices" (IESO Utilization Payment Discussion Paper Slide 12)</p>	<p>The discussion on the utilization payment item was in the context of the 2018 goals for the DRWG: namely to continue develop DR to compete with traditional supply and alignment with Market Renewal.</p>
Utilization Payments	City of Toronto	<p>The City recommends that the IESO consider the lessons learned from the CBDR program. As demonstrated in the period 2015-2017 resources were prepared to activate at \$200 MWh provided they received a \$200/ MWh payment, demonstrating that revenue is a stronger incentive for increased activation.</p> <p>For the purpose of this response we have identified a resource's economic dispatch value @ \$400 MWh (this is equivalent of the highly subscribed CBDR program \$200/MWh/Energy payment + \$200/MWh savings).</p>	<p>Based on stakeholder feedback, it appears \$400/MWh is not reflective of the value of lost load for many if not most types of load. As noted in a previous response, it may be more efficient to economically dispatch other supply if a curtailed load faces costs greater than avoided cost + utilization payment.</p>

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Utilization Payments	City of Toronto	The City recommends that the IESO support the premise that DR resources are providing a functionally and economically equivalent resource.	Through working with the DRWG, the IESO has defined ones of its DR goals as developing DR to ensure it can compete with traditional supply.
Utilization Payments	City of Toronto	Can the IESO provide insight and clarification on how generators provide the hourly energy pricing? Are generator resources expected to bid at exactly the cost of operation without any profit?	Unless specified otherwise by the Market Rules (such as floor prices for certain variable generation), generators may offer into any of the IESO-administered markets provided the offers are within maximum and minimum Market Clearing Price (MCP). That being said, the Market Rules and the market clearing price mechanism in particular assume that generators will offer at marginal cost (accounting for opportunity costs).
Utilization Payments	City of Toronto	The City requests further clarification on the argument, "Putting downward pressure on prices /Harm to Other Suppliers -- Against Payments may lead to greater activations →putting downward pressure on prices →negatively impacting other suppliers".	This is one of the arguments presented in the Discussion Paper. Under this argument, if utilization payments to load result in much lower market clearing prices from increased activations, this would negatively impact the commercial positions of other suppliers. The Paper goes on to note however that this is less applicable to Ontario given the contracted and regulated structure of most generation.
Utilization Payments	Ohm Connect	We wish to provide a clarification to a statement made in the Navigant Paper regarding the Demand Response Auction Mechanism (DRAM) in California. Section 5.2.2 of the Paper states that "[b]idding in the DRAM is done by the utilities rather than customers themselves." However, as Appendix A.3 more accurately states, it is the Offerors (i.e. the DRPs) that "must bid directly into the CAISO energy market and any resulting revenues or liabilities [are] allocated solely to the [DRP]." OhmConnect has participated in the DRAM since its inception in 2016, and has been able to maintain frequent resource dispatches under this design, which incentivizes DRPs with both capacity and energy payments.	Thank you for the clarification.

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2018 DR Work Plan	Ohm Connect	<p>We encourage the IESO to continue consideration of allowing DRAPs to submit varying DR capacity obligations in the DR auction. Findings from the DRWG could prove instructive to the design of the Incremental Capacity Auction. Perhaps as a starting point the IESO could determine whether system capacity needs tend to vary on a month-by-month basis, or if they are instead more uniform seasonally.</p>	<p>As outlined at the March DRWG, the IESO considers the ICA stakeholder engagement a more appropriate forum for this discussion.</p>
Priority Items	Powerful Solutions	<p>The IESO should proactively consider "Smart" EV Charging as a Demand Response - Demand Management initiative. "Smart EV Charging" is where the Electric Vehicle Charging is controlled remotely, and charging load controlled in a manner that meets Customer requirements for full battery charge. Under "Smart Charging" the software system monitors the level of battery charge, Customer requirements, and remotely controls EV charging to locally meet LDC constraints, and when aggregated over a broader system serves as a Dispatchable Load to the IESO.</p> <p>From a conceptual perspective, this approach accesses Customer Owned Energy Storage (EV Battery) and when aggregated becomes a Dispatchable Load that could utilize low cost energy in the off-peak periods. Furthermore, because this Dispatchable Load can be controlled on a minute-to-minute basis, Coordinated Control of this resource by the IESO will provide Frequency Regulation, Operating Reserve (10/30 minute), and Demand Management to efficiently meet IESO Operating Requirements.</p> <p>It is expected that the number of Electric Vehicles will increase dramatically in the next few years. Individual Chargers vary from 5 kW to 17 kW charging rate which is many times more than the typical residential load of 1.5 to 3 kW. This situation represents both a risk and an opportunity for Customers, LDC's, the Grid and IESO, and will require close coordination and integration for all parties to benefit. A proactive approach is essential for success.</p>	<p>As discussed at the March DRWG, the stakeholder was encouraged to participate in the IESO's Request for Information (RFI) which sought to gather information on the technical characteristics of existing resources and potential projects, as well to gain a better understanding of the barriers facing different resource types from participating in the IESO's administered markets.</p>