

Demand Response Working Group (DRWG) Meeting Notes

Date held: July 15, 2016	Time held: 10:00 am – 12:30 pm	Location held: Crowne Plaza, Toronto Airport
Company Name	Attendee	Attendance Status (A)ttended; (R) Registered; (S)ubstitute; (TC) Teleconference; (P) Presenter
Registered to attend in person were:		
City of Toronto	Cheng, Jessie	A
City of Toronto	Poto, Angelo	A
Customized Energy Solutions	Tinkler, Mark	R
Ecobee	Ogbue, Nkechi	A
Elster Solutions (now part of Honeywell)	Roberston, Jack	A
Energy Hub	Diamond, Erika	A
Energy Hub	Kier, Laura	R
EnerNOC, Inc.	Griffiths, Sarah	A
Gerdau Long Steel North America	Forsyth, Dave	A
Hamilton Utilities Corporation	Crown, Mike	A
Nest Labs	Amaral, Utilia	A
NRStor Inc.	Osborne, Geoff	R
Opower	Lopez, Alex	A
PowerStream Inc.	Carr, Daniel	A
Rodan Energy Solutions	Goddard, Rick	A
Rodan Energy Solutions	Quassem, Farhad	A
Rodan Energy Solutions	Grod, Adrian	A
Rodan Energy Solutions	Patterson, Sarah	A
Toronto Hydro-Electric Services Limited	MacDonald, Justin	A
WeatherBug Home (Good Company Associates on behalf of)	King, Robert	A
Whitby Hydro Energy Services	Conte, Frank	A
Registered to participate via teleconferencing		
City of Toronto	Koff, Chaim	TC
Constant Power Inc.	Game, Jonathan	TC
Customized Energy Solutions	Chintapalli, Raj	TC
Energy Curtailment Specialists	Pani, Swati	TC
EnerNOC, Inc.	Barnes, Matt	TC
General Motors of Canada Company	Ali, Adel	TC
Ministry of Energy	Qureshi, Musab	TC
Resolute Forest Products	Degelman, Cara	TC
Tembec	Laflamme, Serge	TC

Meeting Chair: Gordon Drake, Supervisor, Market Development, IESO
Facilitator: Ryan King, Market Relations, IESO
Scribe: Pat Kamstra, Markets, IESO

Please report any corrections, additions or deletions to: engagement@ieso.ca

All meeting material is available on the IESO web site at:

<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Working-Groups/Demand-Response-Working-Group.aspx>

Item 1

Anna Lafoyiannis of the IESO presented a summary of alternative baseline methodologies for residential demand response (RDR), including previous stakeholder feedback, IESO evaluation criteria for selecting an alternative baseline that recognizes the weather sensitivity of RDR, and the methodologies applied in certain other jurisdictions. The IESO indicated that it had recently received information from stakeholders active in RDR but this information had not yet been incorporated into IESO materials. This information will be included in the feedback posted following this meeting. The IESO requested additional written feedback by July 29.

Member Questions and Comments, *with the IESO's response in italics:*

An attendee commented that the most important evaluation criteria from their perspective was accuracy of the baseline, noting that the current DR auction baseline methodology would result in a bias of 5-10% for RDR. This means that RDR activations would be under-reported by 5-10%, which could amount to all of their payment for responding, or more.

An attendee made the following points:

- **Baselines:** Southern California Edison has experienced scenarios where a 300% in-day (or previous day) adjustment would not have represented actual demand response. The control test (randomized control trials or RCT) approach used for peaksaver program evaluation is considered very accurate. ERCOT utilizes part of the aggregator's own population of contributors in RCT and this is considered better than using a "highest x of y days" methodology. Another option is using regression analysis to previous "like-days", going back one or two years to find like-days instead of using more current days preceding the event.
- **Program design:** Accuracy of baseline methodology is only half the picture for weather sensitive loads; the program design needs to allow bids that change depending on the time of day. If bid amounts are fixed for the day, aggregators will bid an amount that reflects the coolest part of the day which results in a missed opportunity. ERCOT allows aggregators to bid the average peak for the period on a given day, and they pay based on what is called upon. If a fixed amount must be bid for the day, a firm service level (FSL) baseline could be used, where the resource agrees not to go above a certain

maximum point and therefore does not contribute to peak demand. PJM uses FSL for their summer only capacity market.

The IESO will be considering a variety of alternatives for weather-sensitive baselines and thanks stakeholders for their feedback. We will consider these various alternatives based on the best practices within the industry and the degree to which they satisfy the evaluation criteria discussed in the presentation (slide 9).

Editor's Note: In response to the program design comment, hourly demand response bids are fixed on an hourly basis (not daily).

Item 2

Jason Kwok of the IESO presented an update and further detail for the DR capacity obligation transfer proposal. This included stakeholder feedback received on the proposal as well as changes that will be required for market rules, market manuals and reports.

Member Questions and Comments, with the IESO's response in italics:

An attendee asked whether the "type" of the capacity obligation being transferred was determined based on telemetry requirements or some other distinguishing characteristic. *The IESO said that "type" refers to physical (i.e. directly connected to the transmission system or with sufficient revenue metering installed) or virtual (i.e. aggregated load, or individual loads embedded within the distribution system). It was noted that aggregated loads, including residential DR consumers, would be considered virtual.*

An attendee noted that the minimum resource size of 1 MW per zone is a barrier for RDR because it takes time to build momentum and scale. Other jurisdictions allow lower minimums. *The IESO noted that the limitation is within the market rules to align with our real-time energy market systems and is not specific to demand response. These market systems do not allow energy market bids and offers to be less than 1MW. Reducing this threshold below 1 MW requires a broader conversation with stakeholders beyond the scope of this working group.*

An attendee asked if the availability of DR capacity obligation transfers during the commitment period would be included as an agenda item in the DRWG with respect to the December 2017 auction.

The IESO responded that transfer during the commitment period could be part of future DRWG discussions, noting that potential legal and market issues must be addressed before the IESO commits to this change.

An attendee asked if subsequent transfers of capacity between participants would be allowed after an initial transfer of capacity.

The IESO responded that subsequent transfer would be allowed as long as the capacity transfer leaves both the transferor and the transferee with a capacity obligation greater than 1 MW, or equal to 0 MW if a transferor transfers their entire capacity obligation. Neither the transferor nor the transferee can have a DR capacity obligation between 0 and 1 MW.

Item 3

Jason Kwok of the IESO presented an overview of the timelines for the upcoming December 2016 auction.

Member Questions and Comments, with the IESO's response in italics:

An attendee asked if an aggregator could participate in the DR auction prior to recruiting customers, using estimate of capacity that would be available.

The IESO responded that aggregators can offer into the auction based on an expectation of their capacity prior to recruiting customers if they wish. If, however, they are unable to meet their capacity obligation, they can be subject to non-performance charges and/or loss of deposit.

An attendee asked for clarification regarding the commitment periods and the time available to recruit customers between the auction and the commitment period.

The IESO responded that the December auction includes 2 commitment periods: the summer period beginning May 1 after the auction, and the winter period beginning November 1 after the auction. There is a 5-month forward period between the auction and the summer commitment period, and an 11-month forward period between the auction and the winter commitment period.

An attendee expressed concern regarding the timelines for addressing barriers (baseline methodology and other barriers) to including RDR in the December 2016 auction. Participants need to have information well in advance of the auction.

The IESO responded that the addition of an alternative baseline methodology for RDR would require revision of market manuals only, with no change to market rules. There is sufficient time to make the required market manual changes for baseline methodology.

Item 4A

Tom Chapman of the IESO provided information on the IESO's proposal to increase target capacity in the DR Auction in order to contribute to Ontario's reliability needs in a cost effective manner, provide a stable marketplace for DR to grow, and meet government policy objectives.

Member Questions and Comments, with the IESO's response in italics:

An attendee asked if the IESO was capping the amount of DR for 2017 at the target capacity of 393 MWs.

The IESO responded that we are not capping the target capacity. For example, in the December 2015 auction, the target capacity was 367 MWs; however, 392 MWs cleared the auction. The target capacity for the December 2016 auction is 393 MWs, and due to the nature of the sloped demand curve, the auction may clear greater or fewer MWs depending on the competitiveness of the offers. The target MW will increase by at least 7%, and consider the inclusion of capacity from expiring DR programs, every year until 2025, but the actual amount of DR capacity that clears the auction will depend on the competitiveness of the offers.

An attendee asked if shifting the demand curve to the right would impact the reference price, for example, adjusting for inflation.

The IESO indicated that we expect no change to the reference price or the shape of the demand curve. The price paid for DR will depend on competition in the market, not on the reference price. However, every 3 years the IESO will review elements of the demand curve, including the reference price, to ensure that it still reflects the cost of procuring new DR.

An attendee commended the IESO for opening up this discussion and commented that they look forward to competing with other resources in the DR auction. Further, the attendee appreciates seeing growth in the DR auction target capacity and asked whether the Ontario Power Outlook (OPO) will reflect this growth trajectory.

The IESO responded that the Long Term Energy Plan is a policy document and that the government will consider the role that Demand Response will play in meeting its policy objectives. The IESO will work closely with government to ensure alignment between IESO DR initiatives with government policy objectives.

An attendee asked how the growth trajectory for DR was modelled and if it considered residential DR potential.

The IESO indicated that the assumptions include Peaksaver program resources (capacity of 163 MW) with a transition plan for those resources when the program ends, noting that peaksaver resources do not currently meet the requirements of the DR auction (even with the addition of RDR-focused changes such as alternative baselines). The inclusion of other RDR resources is not specifically carved out but is part of the overall growth trajectory.

An attendee commented that it is not advisable to have all types of DR (residential, industrial, etc.) competing against each other (“in one bucket”) because they each have different attributes, and this could impact the success of the DR auction and causes changes to the target capacity.

The IESO responded that it intends to create a level playing field for all types of DR resources across the grid; however, we recognize that there are different attributes for different types of DR resources. There are year to year variances in the optimum target capacity depending on system needs and economic conditions; however, there would need to be a very significant change to warrant a change in the target capacity.

An attendee asked for confirmation that the Industrial Conservation Initiative or ICI (under which customers with a peak demand over 3 MW are charged the global adjustment based on

their percentage contribution to the top five peak demand hours each year) was considered a DR resource by the IESO, although it utilizes a different mechanism.

The IESO responded that ICI is considered a DR resource, consistent with the assumptions of the 2013 Long Term Energy Plan.

An attendee asked if the IESO, in establishing the target capacity, had taken into account the evolution of the Regulated Price Plan (RPP) being undertaken by the OEB, including time-of-use (TOU) incentives.

The IESO responded that it is aware of the TOU review and this could impact the DR MWs associated with TOU; however, the quantity is not significant as a percentage of the total DR capacity and thus will not materially impact the growth trajectory.

Item 4B

Barbara Ellard of the IESO initiated a discussion with stakeholders, through the DRWG, about the current commitment period; changes from contract-based procurement to market-based mechanisms; and key considerations when examining changes to the commitment period.

Member Questions and Comments, with the IESO's response in italics:

No comments were provided.

Wrap-Up and Next Steps

Ryan King of the IESO thanked all participants and requested that stakeholders submit any questions and feedback by June 22 for the DR capacity obligation transfer proposal, and by June 29 for all other items, to engagement@ieso.ca.