

Demand Response Working Group (DRWG)

Meeting Notes - March 1, 2018

Meeting Notes

Date held: March 1, 2018	Time held: 10am to 3pm	Location held: Four Points Toronto Airport
Company Name	Invited/Attended	Attendance Status (A)ttended; (R)egrets; (S)ubstitute
Alectra	Carr, Daniel	A
AMP Energy	Luukkonen, Paul	A
City of Toronto	Koff, Chaim	A
City of Toronto	Poto, Angelo	R
Compass Energy Consulting	MacDougall, Jim	R
EnerNOC, Inc.	Griffiths, Sarah	A
Great Circle Solar Management Corp.	Wharton, Karen	A
Honeywell Smart Grid Solution	Donovan, Dan	A
Hydro One	Katsuras, George	A
Stem/Nest Labs	Amaral, Utilia	A
NRG Curtailment Solutions, Inc.	Vukovic, Jennifer	R
Powerful Solutions	Inman, Peter	A
Rodan Energy Solutions	Goddard, Rick	A
Rodan Energy Solutions	Quassem, Farhad	A
Tantalus	Tiwari, Sudhir	R
Voltus, Inc.	Strawczynski, Zygmunt	A
Registered to participate via teleconferencing		
City of Toronto	Cheng, Jessie	TC
Cpower Energy Management	Houihan, Mike	TC
Customized Energy Solutions	Withrow, David	TC
Ecobee	Houle, Jonathan	TC
Energy Hub	Kier, Laura	TC
EnerNOC, Inc.	Chibani, Yanis	TC
Hamilton Utilities Corporation	Crown, Mike	TC
Ministry of Energy	Tomlinson, Patrick	TC
NRG Curtailment Solutions, Inc.	Popova, Julia	TC
OhmConnect	Kooiman, Brian	TC
Resolute Forest Products	Degelman, Cara	TC
Toronto Hydro-Electric Services Ltd.	Marzoughi, Rei	TC
IESO	King, Ryan	A
IESO	Kwok, Jason	A
IESO	Trickey, Candice	A
IESO	Agrawal, Vipul	A
IESO	Butterfield, Adam	A

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IESO	Cowx, Christina	A
IESO	Fitzgerald, Dale	A
IESO	Grbavac, Jason	A
IESO	Matsugu, Darren	A
IESO	Zaworksi, Richard	A
Scribe: Name of scribe Please report any corrections, additions or deletions e-mail to scribe.		

All meeting material is available on the IESO web site at: www.ieso.ca/drwg

Item 1 – 2018 DR Work Plan

Ryan King provided the members of the DRWG with a review of the proposed work plan items including those items submitted as feedback since the last DRWG meeting in January. The goal of the presentation was to finalize the 2018 DRWG work plan, however, feedback and discussion on each item was encouraged. A proposed 2018 DRWG work plan was presented and stakeholders were asked to provide any feedback on that work plan by March 16.

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

With regards to slide 11 on the priority item Varying DR Capacity Obligations, a member asked for clarification on what is meant by the IESO when noting this would require a “change to the DR auction”.

This priority item proposal speaks to changing the capacity obligation (the number of MWs) from a fixed value for a six-month period to enabling different capacity obligation values on a month-to-month basis. This would be a significant change to many design elements of the DR Auction. The auction selects the most-competitive offers for six-month seasonal commitment periods, moving away from this design would require modifications to many associated elements such as auction frequency, registration and settlement tools.

Members of the DRWG agreed that there should be further discussion on the priority item Dispatchable Loads in Aggregated Resources.

The IESO committed to have a more in depth technical discussion on this item at an upcoming DRWG meeting.

A stakeholder asked how feedback provided at the DRWG on other IESO engagements, such as the ICA, will be passed on to those respective engagements.

The DRWG should not replace any other IESO engagements and feedback on other engagements should still be provided in their respective forums. However, the DRWG can be utilized as a forum to facilitate discussion on how ICA design decisions might impact DR. These discussions can help support transition from the DR Auction to the ICA.

A member asked how issues or concerns from the DRWG on the ICA can get added onto the ICA agenda.

The ICA is currently working through each of the design elements and has made some preliminary decisions on less contentious items. Stakeholders should continue to provide their feedback directly to that forum. Moving closer to the summer engagements the ICA will begin to discuss more resource-specific design issues (including for DR); participation in those sessions is encouraged.

A stakeholder commented that many of the mechanisms in the ICA, such as the hours of availability, standby notice, etc., are different than the ones currently in place for DR. The stakeholder wondered to what extent have past programs, such as CBDR, DR3 and the DRA, played into the design of the ICA.

The design of the ICA is still in the process of being developed with stakeholders. However, it is in the collective interest (both IESO and DRWG) to ensure that DR is able to effectively participate in the ICA. This is one of the reasons why a focus for 2018 will be on enhancing the value of DR resources in the short term because doing so will help transition DR to compete with other supply types under an ICA.

Item 2 – Market Renewal Discussion: Energy Stream

Darren Matsugu presented an overview of the Market Renewal Program Energy Workstream to the members of the DRWG. The energy workstream will improve the dispatch, commitment and pricing of resources in the energy market. Darren mentioned a new participant type within the Day-Ahead Market (DAM), price responsive loads, may be of interest to DRWG members. There are opportunities for resources that could benefit from the more localized price signals as a result of this new market.

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

A member asked if the IESO is expecting loads to participate in the Day-Ahead Market (DAM) in the same way generators will be.

Participation in DAM by price responsive loads is voluntary. If a price responsive load wants to participate in order to have less exposure to the real-time market prices, the opportunity is there. The IESO believes there is benefit to resources from participating and that aspect of the design would benefit from stakeholder feedback.

A stakeholder asked what percentage of the load would be facing the locational marginal price (LMP).

Approximately 14%.

Item 3 – Non-Emitting Resource RFI

Adam Butterfield from the IESO provided the members of the DRWG an update on the Non-Emitting Resource Request for Information (NER RFI). While the RFI is not part of the Market

Renewal Project (MRP), phase one of the two RFI phases is aligned to support the work of the Non-Emitting Resource Sub-Committee (NERSC) of the Market Renewal Working Group (MRWG). The final Phase 1 RFI is planned to be posted as early as March 19 and a Technical Conference will be held at the Metro Toronto Convention Centre on April 5th. Registration for the event can be found <https://www.eventbrite.ca/e/nersc-technical-conference-tickets-43622227256?aff=es2> .

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

No comments were provided.

Item 4 – Utilization Payments

Ryan King provided the members of the DRWG with a review of the stakeholder feedback received and encouraged discussion on the merits of DR utilization payments. The IESO presented each feedback item and offered its own perspectives. The IESO is seeking compelling rationales from the DRWG on the merits of DR utilization payments in order to better evaluate this priority work plan item.

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

A stakeholder commented that they would be willing to share specific information on a confidential basis on how customers on the Regulated Price Plan would benefit from utilization payments.

The IESO is interested in evaluating the priority item on utilization payments appropriately and therefore would appreciate stakeholders sharing as much information as they are willing.

A stakeholder commented that they disagreed that utilization payments would not make a difference at the residential customer level.

The IESO wants to better evaluate the priority item and therefore needs detailed feedback from stakeholders to demonstrate why this might be the case.

A member commented that when utilization payments were previously in place, the payment was a large support for participation. They stated that the savings from curtailing is not as great as an incentive for activation compared to the revenue gained from a utilization payment.

The IESO requested more stakeholder feedback to better understand this statement.

A member asked if the IESO could provide clarification on the difference between a capacity payment and a utilization payment.

Participants that have cleared the Incremental Capacity Auction will receive a capacity payment for being available to be called upon for demand response. The utilization payment is in addition to the capacity payment and is only made when a DR resource is utilized.

The member then asked if an LDC would be eligible for a capacity payment if they were to run a program for smart thermostats.

If the LDC meets the requirements to participate in the auction then they would have the potential to receive a capacity payment. The capacity payment would only be received if the participant cleared the auction.

A stakeholder asked for clarification on how loads bid their opportunity costs.

Loads have the ability to submit bids for their energy reflective of their willingness to pay for electricity (and above which they would rather not consume i.e. curtail). For some loads, it is not uncommon for them to bid very near the maximum market clearing price if their opportunity cost of curtailment is very high. This however may not be the case for all resources.

A member made the comment that DR resources are different than other resources because of the requirement to be curtailed for 4 consecutive hours. Because this curtailment is based on pre-dispatch prices, the actual avoided cost savings for settlement purposes over the course of 4 hours may not result in the same amount of savings the participant initially thought. The implementation of utilization payments may change the behaviour of loads willing to participate in DR.

A stakeholder commented that the resources in the ICA will be a different product than the resources currently in the DRA. With that in mind, they are not looking to implement utilization payments for the DRA; however, they will be advocating strongly for utilization payments to be a part of the ICA.

With respect to the Negawatts and Megawatts example presented on slide 11, a stakeholder commented that the example pre-supposes a single market participant exposed to a single market price. Another stakeholder asked how many participants fit into that example and is this the exception rather than the rule?

The example is meant to illustrate that from a grid perspective, the two scenarios create the same net impact and thus should receive the same settlement treatment. The point being made in this example is that a utilization payment is in fact an unequal treatment because it provides an additional payment to a DR resource. The IESO encouraged participants to provide feedback on the examples.

A member commented that the IESO currently pays for negawatts through other energy efficiency incentives. Therefore, it is not out of the realm of the IESO's current operations to pay for the non-utilization of energy.

There may be many direct and indirect incentives from various programs to encourage participation from various resource types but this does not provide a rationale for a market operator to incorporate utilization payments into market dispatch.

A stakeholder commented that the value of lost load (VOLL) may be higher for resources during a 4 hour dispatch duration, where the VOLL may not be as high if the duration is shorter, for example 1 or 2 hours. Another stakeholder countered saying that there are

participants that have a minimum dispatch time and therefore a shorter dispatch duration would not be applicable.

Item 5 – HDR Performance Testing

Candice Trickey provided the members of the DRWG with an outline of the IESO's plans for DR resource testing and ensured participant understanding of their obligations and consequences of non-performance. Since DR resources are not being used frequently, tests are necessary to ensure that they are a reliable resource. The IESO has the ability to test a resource up to twice a commitment period and will use both opportunities if the participant fails.

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

A member asked if the IESO will test a resource a second time if the resource failed the first test. *Yes, the IESO has the authority to test up to twice a commitment period. The aim is to test only once a period; however, if a resource doesn't pass a test then the IESO will use the opportunity to test again.* Another member commented that they disagree with tests that fail for reasons outside of the participant's control, such as aborted tests. *The IESO has the ability to test twice in a period and will use the second chance to test if it is necessary.*

Item 6 – Maximizing the Value of HDR Resources through Improved Utilization

Jason Kwok provided the members of the DRWG an update on adding HDR resources to the Emergency Operating State Control Actions (EOSCA) list and proposed changes to HDR scheduling protocols to maximize value. Adding HDR resources to the EOSCA list is currently on track for the Summer 2018 commitment period with Market Manual changes expected to be posted on March 15 for stakeholder review. Jason discussed how reducing the minimum dispatch duration and improving real-time availability of HDR resources will aid in improving scheduling flexibility and the utilization of HDR resources.

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

A member asked in other jurisdictions where the must-run period is longer than 4 hours, is this criteria for all DR resources or other participant types as well. They also asked how this will be taken into account for the ICA. *Through the design element "Visibility and Control", the ICA stakeholder engagement will be discussing minimum dispatch durations for all resource types.*

A member commented that with the change in the minimum dispatch duration, one-up-to-four hour block, and the uncertainty of not knowing whether the dispatch will be 1 hour or 4 hours is a concern. They suggested that a separate participant type be created for curtailments of only 1 to 2 hours.

The current requirement for HDR resources is to be able to remain down for 4 hours and therefore all current HDR resources should have this capability. The one-up-to-four hour block provides greater flexibility to the IESO but should not be a barrier to continued participation for existing capacity.

A stakeholder asked for the number of activations that would have occurred during the look-back period for the price-based trigger standby notice analysis.

There would have been two days with in-market activations for the Southwest, Toronto and East HDR resources over the look-back period.

The stakeholder then asked what the purpose of a standby notice is if no activation is to follow. *The purpose of the standby notice is to simply ensure that these resources are available in real-time to the system if they are needed. When capacity is being procured through the DRA or the ICA, the IESO needs to ensure that it has sufficient resources available to be called upon during all times. Currently, if an HDR resource is not placed on standby by 7 am of the dispatch day, it would no longer be available after 7 am for the IESO to utilize if the need emerges. Having DR resources more available in real-time increases the value of DR as a capacity resource.*

A member commented that with the standby notice being based only on 1 hour and the dispatch duration being one-up-to-four hours, the standby is not an equivalent test to what the requirement is.

The 4 hour requirement is a barrier to getting access to the real-time availability of the resource, which is why the IESO is proposing to trigger a standby based on one hour. This will increase the availability of HDR.

A stakeholder commented that the IESO is reducing the value of the standby notice by issuing standby notices that do not result in activations. There is a cost to the resource when they are issued a standby notice and the reliability of the resource might decrease when activations are not issued after a standby notice. A member also asked how the IESO is evaluating what a successful price-based trigger is.

Ideally, the IESO would want to transition away from standby notices and require DR resources to be available in real-time every single day. At previous DRWG meetings, the IESO has discussed eliminating the standby notice so that HDR resources are available to be utilized in real-time every day. Stakeholders advised that eliminating the standby notice right away would significantly reduce their participation. Based on this feedback, at the Jan 30 DRWG meeting, IESO advised that it would not be eliminating the standby notice in 2018. However, the IESO continues to be interested in maximizing value of HDR and based on historical analysis, \$100 price trigger is a good transitional step because it demonstrates strong correlation with availability at times of system peak as illustrated in the slides.

The IESO asked members of the DRWG to provide feedback on the two proposals the IESO presented to improve the utilization of HDR resources.

Next Steps

Members are asked to send any feedback from the March 1st meeting by March 16 to engagement@ieso.ca. The next DRWG meeting is an in-person session tentatively scheduled for May 3.

Note: The next in-person ICA meeting is scheduled for April 19.