

Residential DR Requirements

Demand Response Working Group
Meeting #7

January 31, 2017

Participant Authorization and Resource Registration

- Participants that clear the DR Auction must become authorized as Demand Response Market Participants (DRMP) to deliver DR into the energy market
- Residential DR will participate in the energy market by registering a new virtual hourly demand response (HDR) resource, separate from any virtual Commercial/Industrial/Institutional (C&I) HDR resource

Residential Resource - Registration

- Last day to start participant authorization process and resource registration process is:
 - February 1, 2017 for Summer Commitment Period
 - July 31, 2017 for the Winter Commitment Period
 - Late start can result in delayed participation
- Send email to market.registration@ieso.ca identifying that a virtual Residential HDR resource needs to be registered, along with the registered DRMP name, applicable zone and commitment period
- Market Registration will provide guidance on tasks that must be completed in Online IESO
- This will be fully automated in future

DR Auction Deposit and Prudential Support

- The DR Auction deposit will be released when:
 - the DRAP has been authorized as a DRMP;
 - sufficient prudential support has been posted; and
 - at least 1 resource is registered to meet each DRCO
- Further information is provided in the Prudential Support Market Manual 5.4, Section 1.3 and in the training document:
 - http://www.ieso.ca/Documents/settlements/se_PrudentialSupport.pdf
 - <http://www.ieso.ca/Documents/training/UnderstandingPrudentials.pdf>

Zonal DR Capacity Obligation

For DRMPs with both C&I and Residential Virtual Resources in a single zone

- With the entry of Residential HDR, a DRMP may have two virtual HDR resources meeting its virtual DR capacity obligation (DRCO) for a zone
- To avoid unintended impacts on non-performance charges:
 - ✓ By email to customer.relations@ieso.ca, DRMP may request that the IESO allocate part of their zonal DRCO to a second (new) virtual capacity obligation; this may be fully automated in future
 - ✓ Request deadline is 14 Business Days prior to start of the Commitment Period (e.g. April 7, 2017 for the Commitment Period starting May 1)
 - ✓ The DRMP will specify commitment period, zone, C&I resource ID, Residential resource ID, and quantity allocated to each resource (min 1 MW)
 - ✓ The sum of the quantities allocated must equal the zonal DRCO
 - ✓ Non-performance charges are assessed on a resource level based on the virtual capacity obligation allocated to each virtual resource

Contributor Management

- DRMPs must register contributors for aggregated virtual resources at least 14 business days before start of commitment period
 - April ~~12~~ 7, 2017 for the Summer Commitment Period
 - October 12, 2017 for the Winter Commitment Period
- Contributor management is an on-going monthly process
 - DRMPs with Residential resources must submit contributor information at least 14 business days before the 1st of every month
 1. Excel file: contributor address, host LDC, LDC account # and identification of new control group contributors
 2. Data: number of contributors in the control group, number of contributors in the treatment group, and DR capacity in MW for the treatment group
 - C&I resources submit information only when there is a change

Contributor Management

- A template and/or instructions for provision of Residential contributor information will be provided
- New control group contributors (at least 350) are chosen randomly i.e. using a process of selection in which each contributor has an equal probability of being chosen, by the DRMP each month
- If contributor information is not received by the IESO 14 business days prior to the start of a month, the Residential resource is not allowed to participate in the energy market (submit energy bids) that month, resulting in the Availability Charge

Measurement Data Submission

- Each Residential resource will be assigned two (2) virtual meter point IDs - one for the control group and one for the treatment group
- If there has been 1 or more DR activations during a month, DRMPs must submit a single data file for each virtual meter point ID for each activation date by the 6th business day before end of the following month (e.g. by June 23 for month of May 2017)
- The required data is aggregated interval measurement data for each hour, as follows:

```
DATE,TIME,CH1,CH2
2016/01/01,01:00,111.111,0
2016/01/01,02:00,111.112,0
.....
2016/01/01,23:00,111.113,0
2016/01/01,24:00,111.114,0
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Market Manuals and Reference Materials

- Market Manuals 1.2, 5.5 and 12 are being updated to specify all requirements for Residential DR, will be posted for DRMP review in late February
<http://www.ieso.ca/Pages/Participate/Change-Management/Change-Notification-Listing.aspx>
- Reference materials:
 - Market Manuals: <http://www.ieso.ca/Pages/Participate/Market-Rules-and-Manuals-Library.aspx>
 - DR Auction Training: <http://www.ieso.ca/Documents/training/DR-Auction-Workbook.pdf>
 - Timelines: [http://www.ieso.ca/Documents/DR-Auction/DR-Auction Timelines-2017 Final.pdf](http://www.ieso.ca/Documents/DR-Auction/DR-Auction%20Timelines-2017%20Final.pdf)
 - For further information, contact IESO Customer Relations at: customer.relations@ieso.ca