

Market Manual Changes for Operations of Capacity Based Demand Response

Demand Response Public Session
September 12, 2014



- Overview
- Market Manuals for Capacity Based Demand Response Operations
 - Dispatch Data and Offers
 - Timing and Operation
 - Emergency Operating State Control Actions
- Questions

- Notification and activation of Capacity Based Demand Response (CBDR) will be consistent with the business rules for DR3
 - \$200/MWh price trigger for at least four consecutive hours
- Market Manuals will outline how CBDR resources:
 - are offered into the market tools,
 - submit non-performance events,
 - are notified and activated, and
 - are utilized under an emergency operating state

Market Manuals for DR Operations

Market Rule	Section	Concept	Applicable Market Manual
Chapter 7 (System Operations and Physical Markets)	17.4.2 17.4.3 17.4.4 17.4.5 17.4.6 17.4.7 17.4.8 17.4.9	DR Operation, including: <ul style="list-style-type: none"> • Offers in Market Tools • Standby Notification • Confirmation • Activation • Curtailment • Performance Exemptions • Planned and Forced Non-Performance Events 	MM 4.2 - Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets
		Demand Response as an Emergency Operating State Control Action	MM 7.4 – IESO Controlled Grid Operating Policies

- Market Manual 4.2 is titled “Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets”
- Purpose:
 - provides *market participants* with the information necessary for submitting *dispatch data* in the real-time *energy* and *operating reserve* markets.
 - describes the steps followed by the *IESO* for processing *dispatch data* and changes and its subsequent publication of the System Status Report and *pre-dispatch schedule* (and notification to scheduled *market participants*).
- Two new Sections to be added:
 - Subsection Under 1.3.4 - Offers for Capacity Based Demand Response
 - 1.3.8 Timing and Operation for Capacity Based Demand Response

MM 4.2 - Offers for Capacity Based Demand Response

- CBDR will operate using the seven DR3 resources:

IESO Resource Name	Designated Settlement Area(s)	Availability Window
DR3_TORONTO_EARLY	All	<u>Early Window</u> 12:00 p.m. to 6:00 p.m. E.P.T. throughout the year
DR3_OTTAWA_LATE	Ottawa	<u>Late Window</u> (October 1 to May 31): 4:00 p.m. to 9:00 p.m. E.P.T. <u>Late Window 2</u> (June 1 to September 30): 12:00 p.m. to 9:00 p.m. E.P.T
DR3_TORONTO_LATE	East, Essa, Toronto	
DR3_SOUTHWEST_LATE	Georgian Bay, South Central, South West, Bruce	
DR3_WEST_LATE	Long Point, West	
DR3_NIAGRA_LATE	Niagara	
DR3_NORTHEAST_LATE	North East, North West	

- The offer prices will be set to the active price trigger, which will be defined in the market manual
- The offer quantity associated with demand response resources will be based on the total monthly DR capacity of the aggregated projects in each region net any MW reductions due to non-performance events submitted to the IESO
- Planned and Forced Non-Performance Event submission requirements and timelines will be consistent with DR3 program, except approved by the IESO instead of OPA

- Offers will be entered into the market tools per CBDR resource for the first run of pre-dispatch in day-ahead HE 16
- Offers will be removed from the market tools for a DR resource after:
 - the standby notification window, if no notification is sent; or
 - the resource receives an activation; or
 - 3 hours prior to the start of an activation period.

- Operational timelines for CBDR will be consistent with the DR3 program for Standby Notifications, Confirmations and Activations
- The Performance Exemption conditions will be consistent with DR3 program
- The “Not Fully Available for Curtailment” conditions will be consistent with DR3 program

- Standby Notification
 - Day Ahead or Day at Hand
 - Fixed or Open
 - A Standby Notification will be sent to all of the Participants with Projects within the Designated Settlement Areas represented by a resource whose shadow price exceeds the price trigger established by the OPA for at least 4 consecutive hours during the Hours of Availability.
- Confirmation
 - Confirmation of Confirmed MW from DR Participants will be due by 18:00 EST for Day Ahead Standby Notifications, and 8:00 EST for Day at Hand Standby Notifications.
 - Participant is deemed to have Confirmed if no confirmation is received by the IESO

- **Activation**
 - In order to receive an Activation Notice, a DR Participant must have received a Standby Notification according to the timelines specified in the DR3 Program Rules in either the Day Ahead or Day at Hand timeframe.
 - An Activation Notice will be sent to all of the Participants with Projects within the Designated Settlement Areas represented by a resource whose shadow price exceeds the price trigger established by the OPA for at least 4 consecutive hours during the Hours of Availability.
 - If a DR resource is scheduled for more than 4 consecutive hours, then the best 4 hours, based on system need and determined by the IESO, will be chosen for Activation.

- **Curtailement**
 - Curtailement must meet obligations (as defined in M&V plan) or participant will be subject to applicable penalties
 - An activated demand reduction must not also be applied to any other demand reduction program or service
 - An activated demand reduction must be curtailed unless such activation would cause the loss of life or injury, cause equipment damage, or cause a violation of any applicable law.

- Market Manual 7.4 is titled “IESO-Controlled Grid Operating Policies”
- Purpose:
 - contains the *IESO* policies and standards for reliable operation of the *IESO-controlled grid*
 - Contains the Emergency Operating State Control Actions (EOSCA) list which reflects the hierarchy of control actions available to the IESO leading up to and during an “*emergency operating state*”
- Stand-by notification and activation steps will be added to the EOSCA list under Appendix E

- The EOSCA list is only used when Ontario is at risk of entering an emergency operating state
- Operational timelines under the EOSCA list will be consistent with the CBDR program (as outlined in MM 4.2) for Standby Notifications, Confirmations and Activations
- Standby notification will occur after an SSR is issued indicating expected under generation
- Activation will occur after 3% voltage reductions, constraining on imports and constraining off dispatchable loads

Q1. Are there any operational areas of the program rules that have not been reflected in the proposed changes?

Feedback can be submitted to
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