

# *Peaksaver* Transition – Update

Demand Response Working Group

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May 30, 2017

# Recap of Meetings and Feedback

- The transition of the *peaksaver* program is a high priority item in the 2017 DR work plan
- At the April 6<sup>th</sup> DRWG meeting, the IESO proposed the participation of *peaksaver* resources in the DR Auction after the *peaksaver* program ends
- Stakeholder feedback suggests that it is feasible for *peaksaver* resources to participate in the December 2017 DR Auction and to deliver into the energy market as a Residential Hourly DR resource, utilizing either existing *peaksaver* devices or new technology

# Stakeholder Concerns

## *Peaksaver*-specific concerns:

- Competitive advantage of incumbent aggregator and/or LDC
  - The IESO views its role as a facilitator of DR projects through the auction, with projects being under the control of the sector to develop through partnerships or directly with consumers
- *Peaksaver* device technology is outdated
  - The IESO welcomes new technology, which may or may not replace *peaksaver* devices, for providing DR

# Stakeholder Concerns

## Residential DR concerns:

- Minimum aggregation size is too large
  - As discussed previously, this issue is out of scope for the DRWG but can be considered in Market Renewal
- Minimum control group size is too large
  - This item is not in the 2017 work plan developed by the DRWG but can be considered in future plans
- Access to meter data
  - There are ongoing initiatives external to the IESO that address this concern, to which the IESO provides input

# Peaksaver devices

- As previously discussed, the existing *peaksaver* load control devices (LCDs) are either programmable thermostats or load control switches that cycle power to appliances, primarily residential air conditioners
- The devices are controlled through the pager network
- Possible questions:
  - How do *peaksaver* LCDs control load?
  - Is there information about the pager network?

# Peaksaver LCD Information

- The IESO does not own or operate the pager network used to control load through *peaksaver* LCDs, and we have limited information
- The following slides provide some information to the best of IESO knowledge which may be useful to participants to better understand *peaksaver* LCD operation
- The IESO recommends that participants interested in *peaksaver* talk to experts in the field of pager technology for further information

# Peaksaver LCD Communication

- Communication with *peaksaver* LCDs is one-way, directly to the LCD over radio frequency networks, using the device ID number on the LCD
- There are multiple pager network service providers, and the provider communicating with the *peaksaver* device can be remotely changed
- There are various control system software options that can be used to access the *peaksaver* LCD
- A single broadcast can address one or more *peaksaver* LCDs

# Load Control Devices

*Peaksaver* LCDs are able to receive commands to:

1. control the load for a specified time period up to 240 minutes, and then automatically restore the device
2. initiate a sequence of control/restore cycles with a cycle period up to 240 minutes and up to 100% control (e.g. 40% control on a 60 minute cycle means controlled for 24 min and restored for 36 min)



# Market Manuals and Reference Materials

- Market Manuals 1.2, 5.5 and 12:

<http://www.ieso.ca/Pages/Participate/Market-Rules-and-Manuals-Library.aspx>

- DR Auction Workbook:

<http://www.ieso.ca/sector-participants/market-operations/marketplace-training/training-materials>

- 2015 report evaluating the *peaksaver* program:

<http://www.ieso.ca/sector-participants/conservation-delivery-and-tools/evaluation-measurement-and-verification>

# Feedback

- Do DRWG members have the information required to transition *peaksaver* resources to the DR auction and energy market?
- Are there questions that are within the IESO control to answer?

# POTENTIAL FOR *PEAKSAVER* AND TARGET MWS FOR DEC 2017 AUCTION

# Background

- The IESO will be setting the DR auction target MWs by October 31, 2017 for the December auction
- *Peaksaver* MWs (up to 160 MWs) could be included in this target; however, there is significant uncertainty about the number of MWs that will actually materialize from *peaksaver* resources due to potential issues (such as access to meter data or outdated technology)
- If the target is set too high, this could have unintended consequences for the auction clearing price and the total cost of demand response procured through the auction

# Options for Discussion

- The IESO is interested in hearing from DRWG members on how *peaksaver* can transition while mitigating potential unintended consequences
- Possible options:
  - Include all MWs with the expectation that the sector will be successful using either existing or new technology for the bulk of *peaksaver* resources, noting risk for auction cost
  - Include a percentage of the MWs into the auction target, increasing the total over a number of years, thereby reducing the potential impact on the auction clearing price
  - Develop a transitional contractual approach based on the auction clearing price as a stepping stone to the December 2018 auction, noting administrative burden of this option

# Feedback

- Please provide feedback on the options being considered by June 7, 2017