

IESO Engagement

From: Adrian Grod
Sent: February 25, 2016 5:02 PM
To: IESO Engagement
Subject: RE: PeaksaverPLUS Program Review -Minutes and Feedback

Hi Daniela,

As previously mentioned, please see Rodan's feedback to the IESO stakeholder engagement questions below.

1) *What issues do you foresee with transitioning Peaksaver to a market based structure? What barriers would need to be addressed to accomplish this?*

The effort to transition Peaksaver from a customer engagement program to a market based structure may meet significant challenges, including substantial M&V requirements and the punitive nature of the performance-based energy market.

In general, the curtailment potential of present peaksaver devices is highly weather dependent. With the loads targeted by the current program, the result has been a single season asset, with noteworthy variability within that season. Loads of this type do not lend themselves well to the current Market Rules, and any entity that aggregates these devices will likely be forced to derate the curtailment potential of any peaksaver population to the minimum achievable value. Additional derating might be required for legacy devices (both 1-way and 2-way) to account for intermittent connectivity.

These factors make participation in the market through a vehicle such as the DR Auction difficult, since they require a single, firm commitment per season to an enrolled capacity. Current Market rules with respect to curtailment performance and prudential support could prove to be a further disincentive, as penalties could easily exceed earnings and expose residents (or the host LDC) to unpalatable liability (particularly during a peak period). A more flexible "bid what you have" approach would have to be developed in order to facilitate market participation of "monoculture" loads with highly variable capacity.

2) *Recognizing the limited value of existing technology, should the IESO fund the LDCs to update the Peaksaver offer to customers to allow for new technology options?*

The answer to this question depends on the stated aims of the program. If it is seen as a customer engagement tool, then it makes sense to continue to use existing devices and update the offer to remain relevant.

If having a dispatchable peak management asset remains a priority, then a technology refresh to increase the number of 2-way devices and offer additional functionality makes sense to enhance the IESO's visibility of the availability and operational status of these devices.

If the focus of peaksaver is to be as more of a conservation tool, then "bring-your-own-device" programs (including offerings from Nest, Lyric and Ecobee) would make sense moving forward; however these devices may not be easily dispatchable by anyone other than the manufacturers (if at all) and may require the use of cross-border servers (posing potential privacy concerns).

3) Do you have existing inventory of devices that have not been installed? How much inventory and how do you believe this should be handled?

Not Applicable

4) What related opportunities do you see in the rapidly evolving connected home/home automation space?

Currently the peaksaver program spans from May to September and is comprised of highly seasonal and weather dependent load. Further study could yield additional, persistent loads that might be appropriate targets for peaksaver such as automated lighting, electric water heaters and other less seasonal loads. In our experience, controlling electric water heaters has been proven effective for decades to effectively reduce peak demand year round by shifting part of the LDC's demand from peak to off-peak hours. However, careful study would be needed to determine if additional automation would produce results proportionate with the investment in controls.

Best Regards,

Adrian Grod | Energy Analyst
Rodan Energy Solutions
| www.rodanenergy.com



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