



Comments of OhmConnect, Inc.
In Response to the Demand Response Working Group (DRWG) May 11, 2017 Meeting

Submitted by	Company	Date Submitted
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1. INTRODUCTION

OhmConnect, Inc. (OhmConnect) appreciates the opportunity to submit comments to the Independent Electricity System Operator (IESO) on the presentations to the DRWG from the May 11, 2017 meeting. These comments are organized around three themes:

1. Responding to comments regarding standby notices for residential customers.
2. Ranking proposed changes to the standby and activation processes.
3. Incorporating a utilization payment.

2. COMMENTS

Standby Notices for Residential Customers

OhmConnect would first like to expand on statements made by WhiskerLabs and EnergyHub in their comments to the IESO, and then reiterated by the IESO during the May 11 meeting. In their comments, WhiskerLabs and EnergyHub note that “early standby notice is more of a concern for some large customers and customers without enabling technology” than it is for “[a]ggregators of residential customers enabled with connected devices or energy management systems [who] can respond relatively quickly, with little advanced notice”.¹ While we concur that these statements are true, and accurately depict the benefits of residential customers participating in Demand Response (DR), we caution the IESO not to presume that *all* residential customers are able to respond to DR events without advance notification. For example, OhmConnect’s DR program offers an additional behavioral component to augment our customers’ load drop alongside automated load reductions. In other terms, we encourage, but do not require, our customers to integrate smart devices or other enabling technologies. Our experience has revealed that the combination of behavioral and automated performs most strongly in a DR event when customers, especially those without smart devices or other enabling technologies, are given advance notice. For these reasons OhmConnect believes there is still merit in retaining

¹ See April 21, 2017 “Draft Comments to the IESO on Demand Response Priorities”, at pp. 2-3.

some form of the standby notice that also meets the IESO's need for resources "that can respond to emerging system conditions closer to real-time".²

Proposed Changes to Standby and Activation Processes

Next, OhmConnect wishes to provide a response to the IESO's request for feedback and ranking of the various options for modifying standby notice, activation notice, and activation length.

Of the three proposed options for changing the standby notice, OhmConnect is most supportive of Option 2, which would reduce the four-hour scheduling requirement. We believe that this will allow DR resources to assist the grid during spikes in energy usage and prices. In addition, Option 2 creates better alignment with any decreases made to the length of activation. Overall, we see it as a reasonable change to the existing system. OhmConnect is less supportive of Option 1 because it does not seem to fully align the energy market (i.e. submission of bids) with the predispatch scheduling processes. Nevertheless, we believe this solution would be manageable if it were adopted. We do not support Option 3, because this does not provide any scheduling flexibility to the Demand Response Market Participants (DRMPs). For example, it appears to remove the ability for resources to choose how to bid, including bidding in a "stairstep" function (i.e. with multiple price-quantity pairs) that might more accurately reflect each resource's marginal cost. In addition, Option 3 increases the likelihood of customers experiencing "program fatigue" through frequent dispatching while hindering the DRMP's ability to manage the frequency of dispatches. Finally, the price trigger would modify the resource to reflect it as a higher-cost "base" load -- which we do not understand to be the intended use of DR in the IESO -- instead of as a flexible and responsive load.

OhmConnect requests that the IESO clarify the single Option A that was presented for modifying the activation notice. OhmConnect's interpretation is that under the proposed Option A the activation notice would occur if dispatching the DR resource is economical during at least one hour in the Availability Window, instead of during at least four hours. Therefore, presumably this would increase the likelihood that a resource would receive an activation notice. If OhmConnect's interpretation is accurate, then we have no concerns at this time with this proposed change, as it appears to better align with any changes made to the activation length. However, we also suggest that this change only be adopted if changes are made to the activation length; otherwise, we are concerned this option could cause the resource to be activated "out of merit" by dispatching the resource for four hours, even if dispatch is economical for only one of those hours.

OhmConnect strongly supports the adoption of Option II for adjusting the activation length such that the activation block hours are aligned with those scheduled in predispatch. As the IESO noted in its presentation, this option further aligns dispatch block with system needs and increases efficiency of the market. We do not believe Option I of maintaining the four-hour dispatch should be continued. The existing four-hour minimum dispatch increases the

² See May 11, 2017 "Notification and Activation of Hourly DR Resources", at Slide 6.

likelihood of customer enrollment fatigue that can result from frequent or lengthy dispatches, and does not allow fully flexible dispatch durations to support the goal of “[providing] flexibility to respond to changing system conditions”.³ However, we would also caveat that our support for Option II is contingent on the IESO maintaining the single dispatch per day constraint. When resources are dispatched more than once per day, our experience indicates the performance of the resources can decrease during the later dispatches.

Overall, OhmConnect believes that the primary option that should be adopted by the IESO is Option II, which would adjust the activation length. In addition, OhmConnect believes that the adoption of Option 3 (which would establish a price trigger) is the least desirable option. Our ranking of the six solutions is therefore as follows:

1. Option 2, Option A, Option II
2. Option 1, Option A, Option II
3. Option 2, Option A, Option I
4. Option 1, Option A, Option I
5. Option 3, Option A, Option II
6. Option 3, Option A, Option I

We note, however, that the combination of Option 2, Option A, and Option I seems infeasible: it is unclear to us how the four-hour dispatch length can be retained if the four-hour scheduling requirement is reduced to one hour.

Utilization Payment

OhmConnect considers utilization payments to be a critical topic, and appreciates the IESO’s willingness to address it in the DRWG. We believe that a decision on the implementation of a utilization payment should be made concurrent with any changes to the standby and activation processes, because these all impact market bidding. Although the IESO presented to the DRWG that “[i]ncreasing the economic dispatch of HDR can be achieved through modifying parameters, and likely a combination of these [standby and activation] parameters”,⁴ OhmConnect posits that changes to utilization payments could also increase the dispatch of HDR resources as DRMPs adjust their bid prices to account for the additional utilization payment. Therefore, consideration of the standby and activation process changes should be in scope.

3. CONCLUSION

OhmConnect thanks the IESO for considering our comments. We look forward to discussing these topics at the next DRWG meeting.

³ See February 7, 2017 “Update to Evaluation Criteria for DR Priorities” presentation, at Slide 3.

⁴ See May 11, 2017 “Notification and Activation of Hourly DR Resources”, at Slide 8.