



**PACIFICORP'S COMMENTS ON THE
Energy Storage and Distributed Energy Resources Initiative
July 2, 2015**

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I. INTRODUCTION

PacifiCorp hereby submits the following comments to the California Independent System Operator Corporation ("ISO") for its Energy Storage and Distributed Energy Resources Stakeholder Initiative dated July 2, 2015. PacifiCorp appreciates the opportunity to provide these comments on this initiative for the ISO's consideration to explore increased utilization of Dispatchable Demand Resources ("DDR").

II. COMMENTS

A. Modeling Dispatchable Demand Resources

PacifiCorp has three different forms of demand response facilities and supports future ISO working group sessions to explain their operational characteristics. These facilities are currently in operation and are scheduled for inclusion in the full network model and submission of operational characteristics in the resource data template so they can be incorporated into the Energy Imbalance Market ("EIM"), day-ahead, and real-time markets.. These resources offer the substantial flexibility during the summer months and PacifiCorp asks the ISO to fast track any stakeholder effort to allow for inclusion of these facilities.

- Furnace Load – These loads operate similar to generators but are not dispatchable (i.e., cannot easily increase or decrease output within their bid range).
- Air Conditioning Load – These loads are scattered throughout PacifiCorp's eastern service territory but are not easily referenced with specific substations for modeling purposes.
- Irrigation Load – These loads are scheduled day ahead for curtailment and require load forecast adjustments to prevent over forecasting hours where the curtailment begins, and under forecasting hours where the curtailment ends, as well as accounting for the deviation in future persistent forecast calculations. These resources require a means conveying their contract specifications into an RDT that fully evaluates their capabilities.

Topics for consideration to more accurately reflect DDR resources

- Converting DDR contract terms into resource data template for EIM, day-ahead, and real-time markets
- Create a more binary market model that dispatches DDR resources on or off in lieu of allowing market to dispatch these resources throughout bid range
- Settlements
 - Settlement impacts should not occur unless DDR's are dispatched based on bid prices
- Resource Data Template
 - Flexibility to dispatch resources based on contract terms that have specific notification periods and duration.
- SIBR
 - Loads have difficulty consuming power when prices are low but are still dispatched in this manner.

III. CONCLUSION

PacifiCorp appreciates the ISO's consideration of these comments