



**PACIFICORP'S COMMENTS ON THE
GENERATOR CONTINGENCY AND
REMEDIAL ACTION SCHEME MODELING
REVISED STRAW PROPOSAL**

April 5, 2017

I. INTRODUCTION

PacifiCorp hereby submits the following comments to the California Independent System Operator Corporation ("ISO") on the Generator Contingency and Remedial Action Scheme ("RAS") revised straw proposal published March 15, 2017 ("Revised Straw Proposal"). PacifiCorp appreciates the opportunity to provide comments on this initiative for the ISO's consideration.

II. COMMENTS

PacifiCorp generally supports the ISO's proposal set forth in the Revised Straw Proposal, to model generator contingencies and RAS in the energy imbalance market ("EIM"). PacifiCorp believes that doing so has the potential to lower congestion pricing for RAS-armed generators not currently identified by the market. PacifiCorp offers the following specific comments and questions regarding the proposal to model generator contingencies and RAS in the EIM.

A. RAS Operations in Real-Time

The ISO proposes to model transmission loss along with subsequent generation loss due to RAS operation in the dispatch. PacifiCorp would appreciate an explanation of how the EIM would identify RAS-armed generators in real-time. Would the ISO expect EIM entities to send a status signal to the ISO in order to identify the RAS-armed generators? While some generators are armed to trip generation for RAS operations automatically based on preset arming requirements, others require operators to manually arm them for system conditions which include loss of connectivity to the RAS scheme or unusual system topology and conditions.

B. Generator Contingency

The ISO states in the Revised Straw Proposal that the proposed changes in functionality can be used to model loss of generation, which can require generation dispatched in certain locations in order to protect the transmission elements for the loss of another generator. PacifiCorp understands this in concept, but requests additional information regarding how the EIM would distinguish, for Disturbance Control Standards ("DCS") compliance purposes, whether the lost generation would be recovered using the balancing authority area ("BAA") internal contingency reserves or using a reserve-sharing group like the Northwest Power Pool in PacifiCorp's case. For

example, an EIM entity could have one or two generator units on automatic generation control ("AGC") for regulation purposes, and carry reserves on other units that are called upon for the loss of generation. However, the latter is done post-contingency and is not an immediate response. Please explain how this functionality is intended to work in the EIM.

PacifiCorp would also like to understand how the ISO plans to identify frequency responsive generation in the EIM entity's BAA.

III. CONCLUSION

PacifiCorp appreciates the ISO's consideration of these comments and looks forward to responses to the questions set forth above.