Comments on December 10, 2014 Reliability Services Initiative Working Group Call

Department of Market Monitoring
January 12, 2014

PG&E has raised an important point about the implications of low Resource Adequacy Availability Incentive Mechanism (RAAIM) pricing in their comments on the second revised straw proposal and again during the December 10th working group call. PG&E's concern is that low penalty prices in RAAIM will disrupt suppliers' incentives to provide replacement or substitute RA capacity. For example, if the RAAIM penalty is lower than the cost of procuring capacity on the open market, then suppliers will find it optimal to pay the penalty instead of procuring the replacement or substitute capacity. This change in incentives can lead to inefficient outcomes, including rational suppliers shifting some of their outage costs to load.

For example, suppose Resource A suffers an outage, and the participant controlling this unit is considering procuring substitute capacity. System conditions are tight, and only Resource B is available to provide the appropriate capacity. The participant controlling Resource B understands that it is needed for reliability, and that if the participant controlling Resource A does not buy the available capacity of Resource B, the ISO will have to issue an exceptional dispatch CPM order for that capacity. If the ISO issues the exceptional dispatch CPM, the participant controlling Resource B will receive the CPM soft offer cap price for its capacity.

Under this scenario, it would be reasonable to expect that the participant controlling Resource B would not sell its capacity for anything less than the CPM soft offer cap price. In turn, if the RAAIM penalty is less than the soft offer cap price, it is reasonable to think that the participant controlling Resource A will not be willing to pay the soft offer cap for substitute capacity. Instead, the participant controlling Resource A will pay the penalty, and a CPM will be issued for Resource B. The costs to procure Resource B's capacity will accrue to load in this scenario. The outcome is the same whether Resource A is controlled by a different entity than Resource B or they are both controlled by the same entity.

The problem with low RAAIM prices can also be illustrated using the argument, presented by the MSC's Shmuel Oren[1], that a one price system can sufficiently incent both generic and flexible resources. Dr. Oren's decision tree shows that if the RAAIM penalty price is equal to or greater than the Flexible RA premium plus the gain from unavailability, the incentives to provide capacity according to contract should be present. In the case of a decision on whether to provide substitute capacity, the cost of that substitute capacity is equal to the gain from unavailability. If the penalty price is less than

1 http://www.caiso.com/Documents/CapacityProcurementMechanismAvailabilityIncentiveMechanismDiscussion-MSC_Presentation-Oren.pdf

the cost of substitute capacity, then the penalty is not sufficient to incent resource availability or performance, according to our understanding of Dr. Oren's example.

The decision to incur the RAAIM penalty price rather than pay a higher replacement cost during an outage would not appear to violate rules regarding market manipulation or providing false information. Therefore, DMM recommends ensuring that the RAAIM penalty price is high enough to avoid the inefficient outcome and incentives described above. One option that provides certainty on this issue is to make the RAAIM penalty equal to the CPM soft offer cap price.