

New Market Design Initiatives Proposed by SDG&E

Resource Adequacy – Hourly Supply Plan

The current requirements for RA Supply Plans and Resource Adequacy filings are marked by conflicts in RA capacity counting conventions between the CAISO and CPUC, for example how to account for planned outages. Further, these conventions cause a gap between planning and real-time capacity data that dilutes the operational usefulness of the RA program. To resolve these weaknesses, SDG&E proposes that RA Supply Plans be submitted with hourly resolution of capacity data. Conventional tools (i.e. Excel) enable this level of detail without significant burden to market participants, regulators or the CAISO, provided that upfront data standards are adopted and maintained. For example, hourly resolution could eliminate the CPUC's convention of discounting capacity for planned outages, since hourly availability data from SLIC could be used to provide a more accurate forecast of available NQC on an hourly basis. Hourly RA values would also allow for more accurate depiction of demand response capacity, use-limited resource capacity and time-varying capacity of intermittent resources. Also, cost causation for CAISO-procured capacity would be precisely identified, thereby reducing the need for inequitable distribution of such costs onto market participants. SDG&E requests that the CAISO investigate the benefits/costs of this methodology to replace the existing reporting requirements.

Seasonal Local RA Requirements

The CAISO should adopt seasonal (e.g. Summer, Winter, Shoulder) Local RA requirements because the single annual requirement used today is overly simplistic. The application of the 90/10 requirement over the entire year is nonsensical because the CAISO is a summer-peaking system, as evidenced by decades of load data. SDG&E's understanding is the CAISO prefers this convention because it provides a safety cushion against outages and other contingencies across the year, even if load during non-summer months is well below the 90/10 forecast. SDG&E counters that such an approach results in unnecessary cost to market participants. For example, SDG&E is prevented from offering surplus RA capacity to the market that it has already claimed to satisfy the Local RA requirement. Such restrictions limit market solutions to efficiently allocating capacity costs among market participants.

Allocation of RA Import Capacity

The allocation of RA Import Capacity among market participants is currently prioritized by the allocation made in the prior year. This approach, similar to CRR allocations, is illogical because it locks in such allocations based on past data without requiring ongoing support to demonstrate the going-forward merit of these allocations. Over time, this process disadvantages market participants who wish to acquire out-of-state resources that could otherwise lower the cost of energy supply into the CAISO, since the RA capacity value may not be realized. SDG&E proposes that the CAISO implement a process whereby RA Import Capacity is allocated among market participants based on demonstrable need or benefit to the overall market.

STUC Price Publication

SDG&E proposes that the CAISO publish STUC prices in OASIS. While not used for settlement, STUC prices can be used to commit fast-start resources. Market participants could then determine the BCR contribution arising from inaccurate STUC prices (relative to RTM prices).

Fractional MW Regulation Awards

SDG&E proposes that the CAISO establish minimum thresholds for regulation awards. SDG&E has observed that certain of its AGC-capable units receive regulation awards of as little as 0.01 MW, which is not only infeasible but also removes otherwise available capacity above the regulation range from the

market. An effective solution would be to enable market participants to specify a minimum regulation award quantity.

Startup and Minimum Load Cost

The CAISO limits market participants to defining unit startup and minimum load costs as either purely fixed (Registered Costs - fixed dollars per startup and hourly minimum load costs) or purely variable (Proxy Costs - imputed fuel and aux power cost). However, a significant segment of supply resources have both fixed and variable startup components, for example due to provisions in power plant service agreements. These costs are documented and verifiable by the CAISO. SDG&E proposes that the CAISO enable market participants to define both fixed and variable cost components simultaneously in a unit's master file. More accurate representation of dispatch costs would improve market efficiency by removing the need for market participants to modify bids to mitigate the risk of under-recovering BCR.

Modify Sanctions For Late FORs

Currently sanctions for late Forced Outage Reports is \$500/day each day such reports are late. This sanction structure is arbitrary because it does not differentiate between the impacts of such violations on system reliability. A sanction for a late report on a 10 MW unit that returns to service in several hours is the same for a 1,000 MW generator that is forced out of service for months. SDG&E requests that the CAISO develop a sanction structure that reflects significance of the outage.