**SDG&E Comments for ISO's Second Revised Straw Proposal on Regional Resource Adequacy**

| Submitted by | Company | Date Submitted |
|---|---|---|
| Nuo Tang<br>858-654-1818 | San Diego Gas & Electric Company | June 15, 2016 |

SDG&E appreciates the opportunity to comment on the second revised straw proposal. SDG&E believes ISO has included most of the essential elements of a regional RA framework. SDG&E requests ISO set a schedule to begin additional working groups to discuss the details of elements which make up the framework. Such elements include planning reserve margin and net qualifying capacity using an ELCC methodology. Additionally, SDG&E requests ISO to include a date in the framework by which a BAA must provide notice in order to trigger the RA process for the future compliance years. SDG&E will discuss these issues below.

**Load Forecasting**

SDG&E supports ISO's proposal to utilize the California Energy Commission's ("CEC") hourly load forecasts for California LSEs. However it is unclear to SDG&E if ISO expects the CEC to submit LSE specific or aggregate LSE information. SDG&E requests ISO to publish the load forecast accuracy results for each LRA after 1 year and LSE specific results after 3 years.

SDG&E agrees that ISO should have the ability to review forecast load which exceeds a set threshold. However, SDG&E is concerned that the proposed threshold only measures average historical load growth over 3 years of weather normalized historical load data. As ISO notes in its paper, CEC is currently reviewing the impacts of increases in rooftop solar PV and EV charging on peak demand. These impacts on forecast load may, by themselves, be greater than that of the proposed threshold. The ISO proposes a discussion with both the LSE and the respective state commission or LRA to understand the reasons for the forecast diverging greater than 4% compared to what the history-based growth in loads would indicate. SDG&E does not think that the ISO should have the unilateral ability to adjust forecast loads based solely on the forecast loads exceeding a set threshold. SDG&E recommends that a minimum of two of the three parties, such as the ISO and the state commission, must agree that the variance is inappropriate as prerequisite for the ISO to make any adjustments to the load forecast.

SDG&E requests ISO to clarify the amount of adjustment it proposes to make to forecasts exceeding a set threshold in the next proposal. Does the ISO propose to adjust the peak monthly forecast back to the 4% threshold, or will the ISO have the ability to choose a different value?

SDG&E would like the ISO to take into consideration the additional time that would need to be built into the current ISO study process to review, discuss and adjust forecasts. Since the final forecasts are expected to be incorporated into the following year's Local Capacity Technical (LCT) Analysis, a process which starts in December of the prior year, the ISO should start the LCT process earlier and ensure the LCT results are not postponed beyond the normal CPUC proceeding process.

The ISO currently uses revisions to load forecasts submitted to the CEC by LSEs in its CRR process. SDG&E believes it would be reasonable to follow the same process for RA requirements. The monthly adjustment process should be incorporated into all Local, System and Flexible RA requirements.

SDG&E requests that ISO to clarify if the CEC-developed load forecast will be used in determining the annual Flexible RA requirements. If so, SDG&E requests the ISO to detail how this proposed forecast methodology differs from the current forecast process for Flexible RA requirements.

SDG&E looks forward towards the Load Forecasting working group meeting.

**Planning Reserve Margin**

SDG&E supports a stochastic approach for calculating the PRM and agrees that the study process should not start until ISO has commitment from another BAA to officially join the ISO.

**Capacity Procurement Mechanism**

The ISO proposes to use a two-step process for CPM. Under the first step, if the aggregate level of resources procured by all LSEs meets the system wide needs plus PRM, then ISO will not issue a CPM designation. If the first step fails, the ISO must issue a CPM; the cost of backstop procurement will be allocated to the LSE(s) that did not meet the ISO's PRM for the entire system regardless of the LSE's PRM as established by the respective state agency or LRA. In other words, the first step allows LSEs that have lower PRM than that of the ISO PRM to lean on capacity procured by other LSEs. The second step does not allow leaning and specifically charges those LSEs the cost of CPM to ensure there is sufficient aggregate capacity to meet the ISO's PRM.

While SDG&E understands that it does not make sense to require LSEs to procure capacity during a period when there is already an aggregate surplus of dependable capacity, SDG&E believes there may be other unintended consequences that are created by ISO's CPM cost allocation mechanism in situations where some LSEs are "leaning" on the aggregate surplus of dependable capacity.

As an example:
Assume there are two LSEs of equal size where each LSE has a 5000 MW RA requirement. The ISO has a system wide PRM of 25%. LSE 1 has an actual PRM of 0% and LSE 2 has an actual PRM of 50%.

| | Annual Peak Load | PRM | Requirement | Capacity Procured |
|---|---|---|---|---|
| ISO | 10000 | 25% | 12500 | |
| LSE 1 | 5000 | 0% | 5000 | 5000 |
| LSE 2 | 5000 | 50% | 7500 | 7500 |

Because both LSEs procured sufficient capacity to meet the ISO's aggregate requirement, the ISO does not to CPM additional capacity. Assume that on a particular day the day-ahead load forecast increases to 13750 MW; ISO's energy market has only 12500 MW of RA capacity bids and the day-ahead market

needs an additional 1250 MW of non-RA capacity. ISO will award the non-RA capacity through its Residual Unit Commitment (RUC) and allocate the cost to Load. All RA capacity must provide a $0 RUC offer while non-RA capacity may provide non-zero RUC offers. However, if LSE 1 had procured additional capacity to meet the ISO minimum PRM, that capacity would be able to absorb the increased demand and no RUC capacity would be necessary. Effectively, LSE 2 is paying double to meet system demand.

SDG&E requests ISO to clarify that in the case of a CPM due to aggregate deficiency, the ISO is proposing to allocate the costs of CPM to the LSEs which had lower PRM than the ISO's PRM. The CPM backstop is only for the difference between the aggregate portfolio PRM and the ISO PRM.

| | Annual Peak Load | PRM | Requirement | Capacity Procured | CPM MW Cost Allocation |
|---|---|---|---|---|---|
| ISO | 10000 | 25% | 12500 | 500 | |
| LSE 1 | 5000 | 0% | 5000 | 5000 | 500 |
| LSE 2 | 5000 | 50% | 7500 | 7000 | 0 |

SDG&E also requests that the ISO to clarify if this allocation methodology would be applied for non-deficiency events such as exceptional dispatch or significant event. If the cost allocation is not the same for those events, what is the reason behind that cost allocation mechanism?

**Uniform Counting Methodologies Proposal**

SDG&E generally supports the ISO's proposal to continue with the current NQC approach. However, given the large amount of support from stakeholders for the ELCC methodology for variable energy resources, it is confusing why the ISO chooses to wait for the CPUC action. SDG&E requests ISO to start a separate stakeholder process to transition into an ELCC methodology by 2018. This process does not have to rely on regionalization.

The CPUC in 2015 adopted, and similarly is expected in 2016 to adopt, a methodology for the NQC of pre-dispatch CHP resources to be based on the PMax of the resource. Pre-dispatch means the ability to bid into the day-ahead market. CHP resources that are able to submit a schedule into the day-ahead market but are not dispatchable may receive a QC value based on the higher of their bid or self-schedule amounts in the day-ahead market. SDG&E requests ISO to make similar changes to its methodology for CHP resources that are capable of being pre-dispatched.

**Maximum Import Capability**

SDG&E does not support the ISO's proposed methodology of allocation and nominations. The ISO's proposal seems to discount any regionalization benefits for market participants. Specifically, the ISO proposes to segregate the BAAs even after the entities join together. Existing LSEs continue to receive MIC allocations based only on the interties/branch groups of the existing BAA while new LSEs are limited

to the new interties/branch groups of their respective BAA. SDG&E does not understand the need for segregation, particularly since the ISO also proposes to grandfather pre-RA commitments for new LSEs.

SDG&E believes the current 13-step process should be altered to improve efficiency and procurement. The current steps do not allow for an equitable and transparent process. It is transacted only through a bilateral market and leaves too many allocations unused and difficult to procure at a time of need.

SDG&E proposes an alternative for consideration.

1. The ISO should not calculate the maximum import capability based on historical flows. (SDG&E prefers a forward-looking study-based method rather than historical data.)
2. Grandfather pre-RA commitments based on location and LSE. It is reasonable to allow new LSEs to have pre-RA commitments on existing intertie/branch groups after the BAA joins the ISO.
3. Identify the remaining Import Capability after step 2 and, at all locations, allocate remaining Import Capability to all LSEs based on their respective load share ratios
4. Create a bulletin board or mechanism where LSEs or SCs of generators can submit bids and offers to buy and sell allocations based on location and term.
5. This process can be repeated annually/monthly/intra-monthly

SDG&E believes the above process allows market participants to equally receive an opportunity to obtain the necessary allocations in a timely and transparent manner. SDG&E's alternative is superior to the ISO's current process where market participant actions in step 11 are dependent on the ISO's email server response times, as well as the speed at which incoming emails are able to reach the ISO. It is not reasonable that outcomes for market participants are dependent on the minute differences in email receipt and response times.

SDG&E requests that the ISO provide its reasoning if the ISO does not wish to consider SDG&E's alternative.

**RA Unit Outage Substitution Rules for Internal and External Resources**

The ISO has identified that certain entities may operate systems that are non-contiguous and interconnected to multiple third-party transmission systems. When those entities' committed RA resources go on forced outage, the SCs may provide substitution capacity to lower non-availability penalties. ISO proposes to allow external resources to provide substitution for those non-local RA resources.

Since non-local RA resource substitution rules do not require the substitute resource to be adjacent to the resource on outage, the SC may procure any other non-RA internal resource even in the non-contiguous system. In other words, a resource in PAC-West is allowed to be substituted by a resource in PAC-East or the current CAISO BAA. Commenting on ISO's proposal specifically, SDG&E sees no reason to prohibit external dynamically transferred resources to substitute for internal system resources unless it creates a reliability issue. SDG&E notes that the Sutter power plant in SMUD is dynamically

transferred but is listed as an internal resource. It may be beneficial to stakeholders if ISO can detail the history of how Sutter became an internal resource.

If the issue is the lack of access to the bilateral market, then ISO should find a different solution. SDG&E believes one solution would be to use the offers from the Competitive Solicitation Process (CSP) to provide substitution for those resources that are not able to find substitution capacity rather than charge RAAIM for non-availability.

**Notification Date For Other BAAs to Join the ISO**

The annual resource adequacy process starts well before the compliance year. SDG&E believes the ISO must insert an activation date within this proposal to ensure the process is not interrupted for all other LSEs. The following table provides a non-exhaustive list of processes and their respective place in the process.

| Processes | Timeline |
|---|---|
| January Compliance Month | T – 0 Months |
| January Compliance Showing | T – 2 Months |
| Year Ahead Compliance Showing | T – 3 Months |
| Final NQC/EFC lists published for Year Ahead Showing | T – 4 Months |
| MIC Allocation | T – 7 Months |
| LCR and FCR studies finalized and submitted to CPUC | T – 8 Months |
| Load Forecasts submitted to CEC | T – 8 Months |
| Draft LCR and FCR Studies are reviewed | T – 9 Months |
| FCR Data Submitted by LSEs | T – 12 Months |
| FCR Data Requested by ISO | T – 13 Months |
| LCR draft study manual reviewed | T – 15 Months |

If any BAA gave notice after T-15 months, it grows increasingly more difficult to unwind certain processes which would impact other LSEs; particularly, MIC allocations and the Flexible Capacity Requirements. This is similar to the process laid out for a resource transitioning into the ISO due to a BAA boundary change. That process requires the transition to already have occurred by June 15th of the transition year or have executed relevant revisions to the BAs' Interconnected Control Area Operating Agreement (ICAOA) by June 15th for an implementation date prior to January 1 of the upcoming RA compliance year.