

Stakeholder Comments

Flexible RA and Must Offer Obligations - Phase 2 Working Group Meeting August 18, 2015

Submitted by	Company	Date Submitted
Nuo Tang ntang@semprautilities.com 858-654-1818	San Diego Gas & Electric	September 1, 2015

SDG&E appreciates the ISO holding a second FRACMOO 2 workshop. SDG&E continues to disagree with several of CAISO's assumptions and problem statements and believes more discussion is needed if a coconscious with stakeholders is to be obtained on FRACMOO2 as in:

- 1) Should over generation be treated in the same manner as under generation does as a reliability problem since over generation does not create real reliability problems?
- 2) How can forecasting of over generation be significantly improved in day ahead to properly reflect real time conditions
- 3) What are the proper assumptions to be used for changes in load, resources and imports/exports to evaluate future OG potential
- 4) How can day ahead market signals be improved to change behavior of self scheduling
- 5) Can current markets mitigate over generation with existing tools or other enhancements suggested by SDG&E
- 6) How long can the current or SCE proposed framework continue to work with such energy market enhancements
- 7) Should the Net-Load concept be abandoned for simple load and supply
- 8) Is LTPP or another forum a more appropriate place for over generation concerns that is years away
- 9) Is an energy market enhancement initiative within scope to advance FRACMOO2

SDG&E believes it is not productive to work further on the maximum inflexible generation concept until most of the above questions are resolved with stakeholders.

The purpose of the resource adequacy program has been to ensure sufficient resources are available to participate within the CAISO markets to meet forecasted peak demand. The flexible resource adequacy concept was introduced only several years ago and requirements with penalties were set starting in 2015. There has been no evidence that suggests the current flexible capacity construct has failed or would fail to resolve CAISO's new concerns without energy market enhancements. The CAISO has stated that the problem is in the future and not today so new capacity products and requirements are not necessary at this time. CAISO should focus on flexible eligibility criteria for other resources and other energy market enhancements in FRACMOO 2.

Many stakeholders requested CAISO to provide the gross load with generation profile of the minimum on-line resources. For illustrative purposes, Figure 1 is the graph with some broad assumptions of wind and solar generation. SDG&E requests CAISO to make available the assumptions used for its graph.

Figure 1.

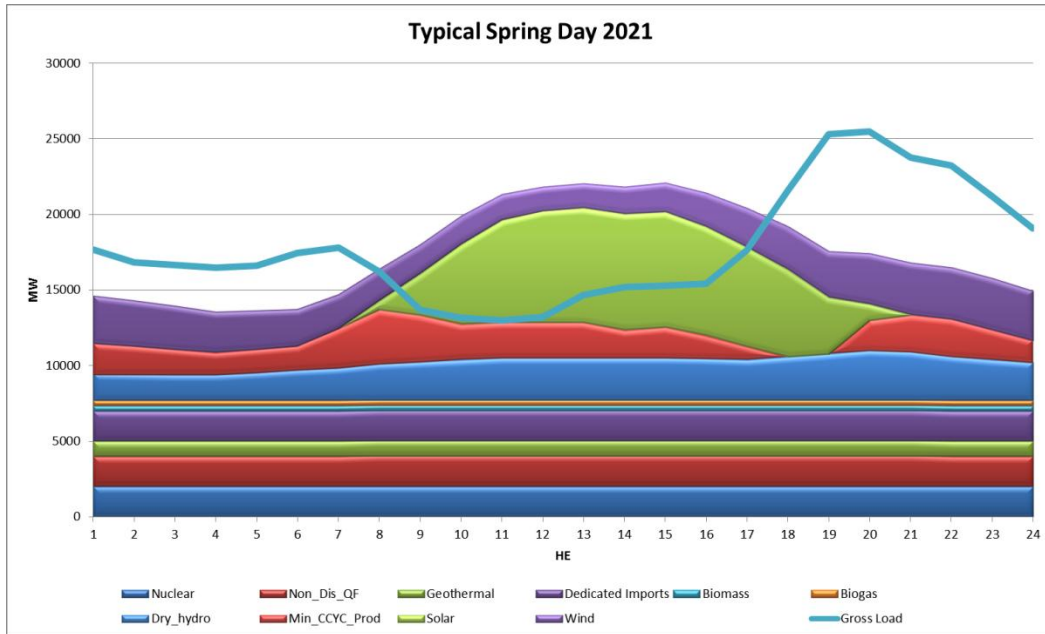
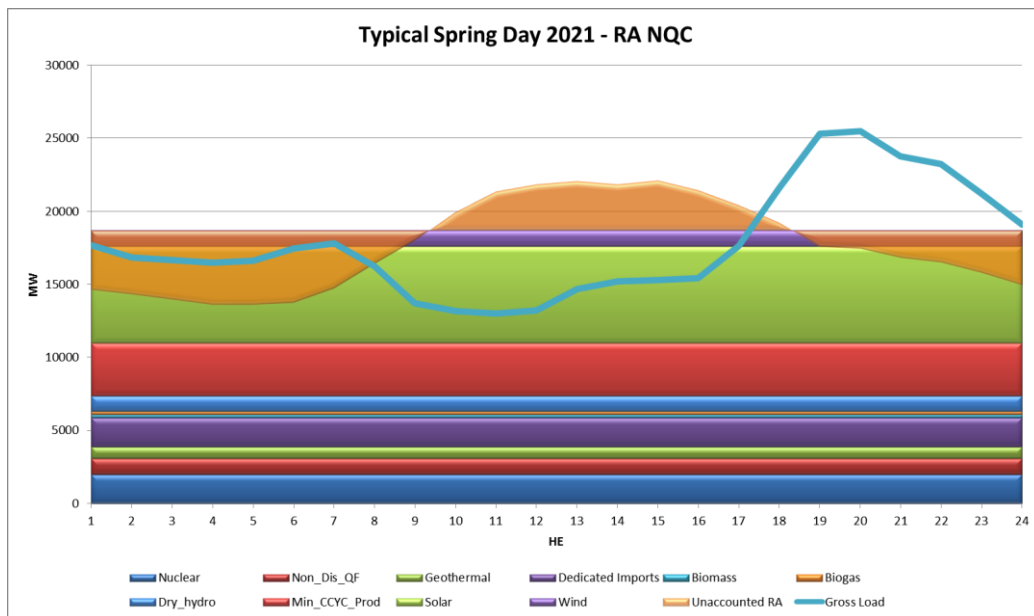


Figure 2 is the same graph but with expected RA NQC rather than generation profile. The Unaccounted RA area is the difference between the generation profile and the RA counting.

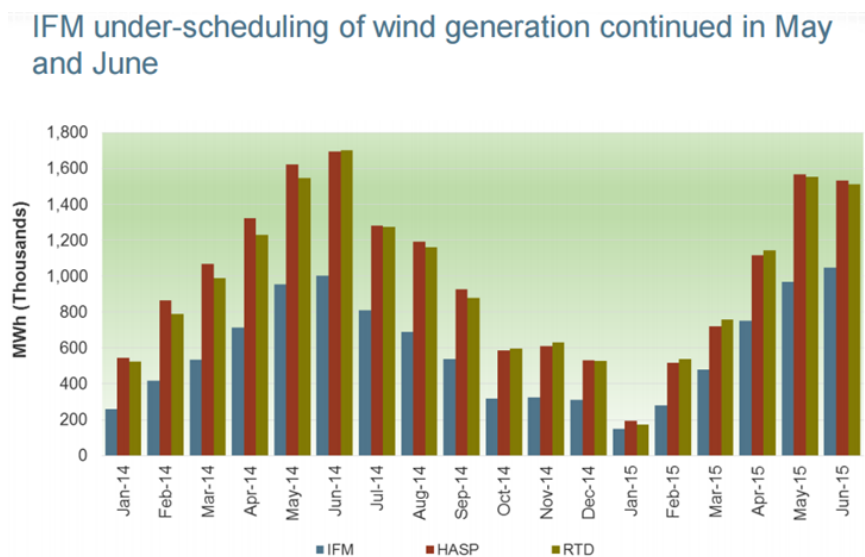
Figure 2



The two figures demonstrate that the RA program shouldn't be utilized to resolve over-generation because NQC is static across each day of the month and geared to meeting the peak gross load. Due to the variability of actual generation versus planned capacity, resource adequacy capacity is not load following.

SDG&E believes energy market enhancements should be the first step in reducing the probability of over-generation. As an example, CAISO's MPP information show both wind and solar resources under-schedule output in IFM compared to RTD. Solar schedule outputs have improved compared to that of wind. Better forecasting in IFM would more accurately reflect prices to not self-schedule.

Figure 3



CAISO mentions several existing tools and enhancements that are underway to improve the energy markets. SDG&E believes CAISO should allow those tools and enhancements sufficient time to change behavior before creating new untested constraints for capacity. SDG&E strongly supports CAISO creating new initiative(s) for energy market enhancements to ensure generators have proper market signals to participate economically.

SDG&E also believes resolving over-generation in the long run is an issue that should be taken up in the CPUC's LTPP process. Guiding long term procurement will ensure CAISO has the appropriate mixture of resources to meet the ever changing needs of the grid. Coupling appropriate future resources with the proper market signals will keep OG from being a significant concern and the CAISO will rarely have to use its current or improved real-time OG mitigation tools.

For the next working group, SDG&E recommends CAISO consider how removing the EFC cannot be greater than NQC limitation could allow resources to meet flexibility in both upward as well as downward ramps. SDG&E believes this is a simpler solution than CAISO's "allowances" both for

operations as well as procurement. Based on the feedback during the workshop, a majority of stakeholders, including SDG&E, either do not understand CAISO's proposal and or believe it is overly complex.

CAISO should also discuss how inter-ties could provide flexible capacity and specifically how logistically flexible intertie capacity would be shown in a supply plan, meet flexible category requirements and provide substitute or replacement capacity.

CAISO should consider SCE's suggestion for a single must offer obligation. If CAISO's STUC process can look at the entire duck rather than just 4.5 hours; all resources can bid in for the same time horizon to be optimized for dispatch. SDG&E believes CAISO can remove the need for flexible capacity categories if it employs a multi-dimensional test as SCE suggests along with other energy market enhancements.