Comments (and some questions) regarding the Flexible RA (Joint Parties) Proposal

- This is the first time the "crowding out" problem, in which renewables displace flexible fossilfired generation from LSE RA showings, has been mentioned. The ISO should help stakeholders understand the extent of the problem by providing a table that shows by year for the period between 2013 and 2020:
 - a. How much flexible capacity is under long-term contract
 - b. How much flexible capacity rolls off long-term contract
 - c. How much new renewable capacity (NQC basis) is expected to count toward the RA showings
 - d. How much flexible capacity is likely to be displaced from RA showings by renewable capacity

Resource-by-resource detail is preferable, but aggregated values are sufficient. For the purpose of this analysis, it is appropriate for the ISO to consider all combined cycle and combustion turbine plants that have been placed in service since 1995 and all such resources that are expected to enter service by the end of 2020, all hydroelectric resources, and all pumped storage resources. The objective is to help stakeholders understand the point in time at which renewables are likely to start crowding out flexible capacity and the severity of the problem between now and 2020. At present the only assessment we have is based on forecasts that indicate new renewable capacity is expected to enter service at an accelerated pace beginning in 2015. This is anecdotal evidence without any underlying quantitative support that would allow a reasonable person to understand both the demand for flexibility and the likely supply of flexible capacity.

- 2) The Joint Parties' proposal effectively calls for RA requirements to be satisfied in the following order: non-renewable capacity under long-term PPAs, additional flexible capacity to meet a set-aside, RA-eligible renewables, everything else. The Joint Parties need to explain the commercial implications of this change in policy implementation on existing renewable contracts, renewable contract that are awaiting approval, and renewable resources that are placed under contract between now and 2020. Renewable energy producers should likewise be asked to explain the commercial implications from their perspective.
- 3) In cases where use limitations for flexible resources are based on manufacturer recommendations that attempt to maximize service life or on emissions limitations, the ISO needs to determine whether the limitations could be surmounted by allowing prices in its spot markets to reflect the costs associated with increased O&M costs or additional emissions permit and if so, how the cost impact of higher market prices compares to the annualized capital cost of procuring larger quantities of flexible resources.

- 4) The Joint Parties' proposal assumes "crowding out" is likely to impair the ISO's ability to meet its control performance obligations beginning in 2015. If answers to the above questions suggest otherwise, why should the Joint Parties' proposal be implemented prior to the time it is demonstrably needed?
- 5) Assuming there are no significant commercial impacts associated with placing flexible resources ahead of renewable resources in an LSE's RA showing, could the Joint Parties' proposal be eliminated, or could it be simplified?
- 6) Would implementation of a binding, hours-ahead market be a more effective way to deal with use limitations?

Please direct any questions to:

Jack Ellis (530-581-2134) jack@casaraquel.com