SWP's comments on ISO Whitepaper
Standard Resource Adequacy Capacity Product

February 20, 2009

The California Department of Water Resources State Water Project (SWP) appreciates the opportunity to provide comments to the California Independent System Operator (CAISO) on its whitepaper entitled "Standard Resource Adequacy Capacity Product" dated February 6, 2009. SWP respectfully submits following comments and questions to the CAISO on the whitepaper.

1) **Availability standard, charges and credits**:
   a) Target Availability Value: The proposal states that Use Limited Resources (ULR) outage data will be excluded in the calculation of the monthly Target Availability Value (TAV) because of the fact that the historical outage data on those resources do not differentiate between a forced outage and an outage due to an energy limit. It further states when such distinctions are available it will be included in the calculation of TAV.
      i. It is not clear what methodology will be used to distinguish such outages for ULRs and what span of such historical outage data will be used for calculation.
      ii. The proposal identifies non-resource specific RA import resources as having unique metrics on availability and that they will have a separate funding account. The proposal admits that ULRs have no established metrics on availability. Since the proposal establishes different TAV for non-resource specific RA imports, it is possible to have ULRs with a different TAV also because their availability metric in the ULR RA fleet is unknown and could have unique metrics too.

      The CAISO should do further analysis with respect to ULRs TAV.
   b) Non-Resource specific RA imports:
      i. The proposal should clarify if the application of the term "non-resource specific RA import" refers to the RA resources that are not "Resource-Specific System Resource" as defined in the MRTU tariff.
      ii. On page 4, the proposal states that the money collected from *non-availability charges assessed to non-RA imports* will be used to provide credits to non-resource specific RA import resources that achieve 100% availability for the period. Why would a non-availability charge be assessed to a non-RA Import? It appears to be an error.
      iii. The proposal indicates that resource specific RA imports would be treated like internal generators for the purpose of SCP (i.e. they would use SLIC outages to report outages). It is not clear if the outage is to be reported for the generating unit (imports do not exist in the CAISO masterfile) or the import of energy at the ties (with resource IDs at the CAISO). How does this work with unit contingent imports that do not

use SLIC outages for outage reporting (only phone conversation is used)?

c) Ambient outages: In the previous version of the SCP, it stated that an ambient outage counts against the availability of a resource due to limitations of caused by temperature, weather, and lack of fuel. In the new proposal, there is an allowance for outages not to be counted against the availability if the ambient outages fall under "Uncontrollable Force" and for the outages pertaining to exceeding "operational environmental limits". SWP appreciates this consideration. However, some specific issues need to be clarified:

   i. Participating pump load that is a monthly designated RA resource may not be available to be offered or available to drop load if it is not pumping for some period within an effective month. In other words, the RA resource (pump load) will not be offered (and hence no outage reporting will occur) for the period when it is not pumping. When a load is not consuming power, it by definition has no need for Resource Adequacy capacity, and thus need not provide RA capacity for the absent load. Because the capacity is not needed, there should be no sanctions in that case or it should not be penalized for not being offered.

   ii. Unavailability of an RA resource (generating unit that is situated in series, downstream of a pumping plant) due to the reduced or no load at the upstream pumping plant (because of hydraulic linkage) should not be counted against availability—again, because there is no RA need associated with load that is not using the grid

   iii. For an LSE, if the on-peak load is reduced in the DAM compared to the monthly RA plan, then proportional adjustment of the RA capacity to meet the daily RA requirement should be allowed and reduction in the availability (if offered) of RA capacity compared to the monthly RA plan should not be counted against the availability. Again, diminished need for RA resources should be recognized. If the resource is not offered (and hence no outage reporting will occur) as a result of adjustment in daily requirement compared to the monthly RA plan, there should be no sanctions.

The aforementioned three issues should be addressed either by allowing "no offer" or counting those outages as "Uncontrollable Forces" so that the RA resources under these conditions would not be penalized with unavailability charges. The intention of the proposal under "operational environmental limit" to avoid counting against availability could perhaps be applied to address the above conditions. The CAISO should clarify and "predefined cause codes" should be created to address these situations.

The proposal also talks about ULR use plan. The proposal states that the CAISO will compare the use plans for ULRs against actual operations and will notify the resource owner of inaccuracies in use plans. SWP would like to point out that the use plan may be updated intra-monthly also could differ

from actual day to day operations significantly because of operations being dictated by water demand that can vary on a daily basis.

The formula indicates that ambient outages counted against availability is the total outages less outages caused by "uncontrollable forces" less outages caused by "exceeding set limits" . The term "exceeding set limits" has not been clearly explained or defined. Does this mean that a ULR that is supposed to be available during RA peak hours suddenly goes in outage (lets say, is now available for only 2 hours during RA peak hours) due to an "operational environmental limit" such as described in the above three specific issues? A numerical example illustrating some specific scenario would make understanding clear.

Additionally, SWP would like to reiterate its concerns provided in the previous set of comments, an excerpt is as follows:

"Reconciling RA availability requirements with SWP water management operations: Outages attributable to facilities used for essential water management operations should be dealt with in a manner consistent with current CAISO tariff and Operating Procedure provisions. Outages necessary because of water management needs should not be counted against the availability of such an RA resource. In response to a 9th Circuit decision, SWP and the CAISO reached a settlement concerning outages of SWP hydro generators, which like SWP pump loads, are used primarily for the purpose of water deliveries and water management. SWP resources receive more flexible outage treatment in recognition of the need for the grid to accommodate and support water management needs. See: *Operating Procedure T-113J; MRTU tariff § 9.3.1.2,*

Additionally, pump loads make conservative month-ahead forecasts based on expected water operations, which may differ from actual usage. This may be because of changed water circumstances or because of CAISO-dispatched load drop. Accordingly, these loads may make mid-month, day-ahead, or real time adjustments to decrease energy consumption. In such case, RA resources should be commensurately reduced. For instance, RA generation at SWP's Devil Canyon unit, which draws water from the California aqueduct, depends on Edmonston pump loads upstream on the aqueduct. If Edmonston pumping is reduced, so too may be Devil Canyon generation."

2) **Unit Substitution**: The proposal states that in the event of an outage of an RA resource replacement can be made using a non-RA resource. It is not clear what would be the obligation for that non-RA resource? Will that non-RA resource be subject to the same requirement as the original RA resource that is in outage? How does "Generated Bids (tariff section 40.6.8) applicable to RA resource" apply to this non-RA resource that is acting as a RA resource now? If the substituted non-RA resource does not perform what would be the penalties or will it be subject to bonus if it performed well?

3) **Transition issues**: The new proposal indicates that the exemption from SCP tariff (grandfathering) will be provided for the term of the RA contracts signed before January 1, 2009. Will this grandfathering apply to those contracts that are an explicit RA contract or to any other contract that may be energy only, energy and capacity both? Some of the contracts may be an energy contract but the associated capacity could be utilized as a RA capacity also.

   The formula used to determine the SCP MW subject to count against availability has an error. Apparently the presentation slides during the conference call showed error being removed with a corrected formula. That change should be reflected in the updated version.

4) The most significant issue SWP raised along this stakeholder process was ULR not being an effective RA resource because of tariff section 40.6.8 requirement. SWP highlighted this issue in the previous set of comments and stakeholder processes. The CAISO's answer to that issue was "that an Use-Limited Resource cannot offer its capacity for a full 24 hours does not mean that the LSE has to procure a non-ULR to make up for the hours that a ULR cannot operate". SWP supports the CAISO's clarification and believes this interpretation from the CAISO should make ULRs an effective RA resource.