

# SWP's comments on draft final proposal on Standard Resource Adequacy Capacity Product

January 14, 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 draft final proposal entitled "Standard Resource Adequacy Capacity Product" dated January 8, 2009. SWP respectfully submits following comments and questions to the CAISO on the draft final proposal:

- 1) **Reconciling 24-hour RA resource bid requirements with use of resources designed to meet loads only in peak hours within a day.** In previously filed comments, SWP highlighted a potential flaw in the Resource Adequacy (RA) resource scheduling / bidding design under MRTU such that Use Limited Resources (ULR) limited to certain hours within a day would have to be supplemented with 24-hour non-use limited resources. SWP has seen no response to these concerns, and thus has no reason to believe that the question has been resolved. The CAISO's clarification on this issue would be helpful to understand if the CAISO finds this as a problem or if not, how the problem is avoided.

The MRTU tariff section 40.6.8 requires a RA resource that is not a Use Limited Resource (ULR) to offer all of its RA capacity into the CAISO market for 24 hours. Otherwise, the CAISO software will insert "generated bids" for that non-ULR for the hours it did not offer provided the resource is not in outage. This means that an LSE might obtain pump storage RA resources to meet peak loads, and then need to acquire fossil fuel generation not only to fill the missing hours, but also to duplicate the RA already supplied by the pump storage under contract. This creates redundancy and inefficiencies. It also is fundamentally incompatible with resources that are designed to serve peak hours, such as pump storage, flywheel technologies, and other technologies that supposed to be promoted under Federal mandates.

SWP suggested a solution in the monthly availability assessment formula in the previous comments in order to fix this problem. This formula makes clear that in a given 24-hour period, an LSE can use multiple—but not redundant—resources to meet RA requirements. It also accounts for intra-month or day ahead adjustments that reduce load and thus RA requirements:

$$A_{jn} = \frac{\sum \text{Hourly RA MW Available not in SLIC outage} + \text{Hrly RA MW with SLIC outage (forced fuel/enviro/no or reduced load)} + \text{Hrly RA MW with SLIC outage ("Supplemental RA Unit") during the RA peak hours from Resource j.}}{(\text{Total RA MW of resource j}) \times (\text{Total compliance Hrs of Month during RA peak hours})}$$

- 2) **Allowing LSEs to designate different RA resources for certain hours within a 24-hour period.** SCP tags should be allowed based on temporal attributes within a given day, *i.e.*, availability for only certain hours within a 24-hour period (as suggested in SWP’s previous comments), so that an LSE could, for instance, designate a pump storage resource for hours ending 14:00-18:00 and use a fossil fueled generator *only* for the remaining hours of the day. This would be the best option in order to utilize the capacity available (on temporal basis) from different types of resources such as renewables and use limited resources.

An LSE who fills all hours—whether with one or multiple RA resources in a given day—should be deemed to meet its requirements. Use limited resources, which are likely to become more prevalent in the mix of resources as renewables mandates grow, are not subject to the minimum-load, long start-type concerns that appear to be driving the 24-hour requirement. Giving LSEs an ability to procure RA capacity for certain designated hours of availability as opposed to a blanket 24-hour basis would make the capacity market more efficient and help utilize all types of resources and their combination for RA capacity.

The draft final proposal does not address this issue. The CAISO’s clarification on this issue would be helpful to understand why such tags permitting different RA resources for different blocks of time within a 24-hour period can or cannot be considered in the design. If it is too complex at present, it could also be considered for future enhancements.

- 3) **Determining compliance with RA availability standards by reference to peak hours only.** SWP supports the SCP proposal for the CAISO to conduct RA resource monthly availability assessments only for RA peak hours to determine compliance measurement. Assessment of performance during the hours when the system is most likely to be capacity-constrained provides appropriate incentives.
- 4) **Deferring availability provisions concerning renewables, QFs and demand-side resources.** SWP supports deferment of SCP availability provisions to intermittent renewable resources (wind and solar), Qualifying Facilities, and demand response resources.
- 5) **Clarifying Forced Outages in terms of ambient cards and in terms of current provisions recognizing water resources facilities and outages in monthly availability assessments:**
  - a) **Resolving inconsistencies in the definition of “Available” and the formula.** The proposal states that “Available” will be defined as not being on a Forced Outage during the applicable peak hour period. SLIC outages using “normal” cards (good for four hours) and “ambient” cards (caused by environmental, fuel, temperature or other such problems and good for more than four hours) are not counted as Forced Outages. However, the proposal also states SLIC outages using “ambient” cards are counted against the availability of RA resource even though such outages are not classified as

Forced Outages. This causes an inconsistency between the definition of term “Available” and availability formula.

**b) 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 9<sup>th</sup> 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.

Using SWP’s recommended formula, set forth above, addresses the problem of reduced load warranting reduced RA requirements. The current formula does not address this matter

- 6) **Clarifying resource specific RA imports:** The CAISO should clarify whether a “resource specific import” discussed in the proposal is the same as a Resource Specific System Resource described in the MRTU tariff. Additionally, it should specify whether a unit contingent import could qualify as a resource specific import. For purposes of this proposal, what data needs to be provided from the resource? Does ISO have historical availability data for these resources? Will the 72 hours advance notice of outage, and maintenance outages and scheduled maintenance outages taken in a month, not lower the availability of such resources?
- 7) **Permitting automatic unit substitutions of identified RA resources for part or all of a 24-hour period.** The SCP proposal should state that when an identified RA resource is used to substitute for another RA resource, preapproval for such will not be required, but rather may occur automatically upon appropriate notice to the CAISO. As discussed earlier, this substitution should be permitted only for the necessary hours, without requiring redundant 24-hour coverage of hours already covered.

Additionally, this concept of non-duplicative substitution among identified RA resources in a given 24-hour period addresses the issue raised in item 2) above. If an LSE uses non-ULR RA resource some part of the day and substitutes for the other part of the day with ULR, then using the substitution process the LSE may utilize a combination of both resources. Such anticipated use of a combination of identified RA resources should be included in the monthly plans as well. In that case, the tariff section 40.6.8 should not apply to the non-ULR resource for the hours it is not offered for that day which is covered by ULR resource.

- 8) **With resolution of the issues set forth above and deferral of demand response, QFs and renewables, SWP supports moving forward.** SWP supports further development of provisions pertaining to demand response, QFs, solar and wind. Otherwise, to the extent the proposal can address SWP's concern as well as others', there is no need to extend the stakeholder process.