



**Department of Energy**  
Western Area Power Administration  
Sierra Nevada Region  
114 Parkshore Drive  
Folsom, California 95630-4710

NOV - 7 2017

Ms. Janet Barbieri  
Project Manager  
Sites Project Authority  
P.O. Box 517  
Maxwell, CA 95955

Dear Ms. Barbieri:

Western Area Power Administration (WAPA) appreciates the opportunity to review the Sites Project Authority's (Authority) draft feasibility report for the proposed North-of-the-Delta Offstream Storage Project (Sites) and submits the following comments.

WAPA understands that the project as proposed will be financed and constructed by a non-Federal entity, so the role of the Federal government will be relatively minor. As a result, our comments will be limited to our overall impression of the economic and financial feasibility of Sites.

With respect to the specific report, WAPA makes the following observations.

- WAPA is unsure on the methodology used by the United States Bureau of Reclamation (Reclamation) to estimate the power benefits which were used in the separable cost remaining benefits cost allocation process to assign costs to the project power function. Paragraph 1.1.3 Potential Power Generation states: "It is important to note that the Project facilities will be designed and operated first to sustain the Project's water storage and delivery objectives. The authority will then evaluate whether to proceed with the hydropower component of the Project. If the Project chooses to pursue hydropower generation that would be offered in the energy and/or ancillary markets, it would pursue the approval process required for hydropower generation."

Table 8.2 assigns \$20.2 million in annual costs to power while Table 10.3 states that power re-generated at the proposed off-stream reservoir site is 42 gigawatt hours. Not only is this inconsistent with Paragraph 1.1.3, but also on an annual basis this translates to a cost of \$480/megawatt-hour. The current daily hour-ahead price that the California Independent System

Operator (CAISO) provides to independent power producers is in the \$30-35/megawatt-hour range.

Given the excess capacity and the expected deployment of additional new renewable resources expected over the next 15-20 years as a result of a mandatory 50 percent renewable portfolio standard, the day-ahead hourly price paid by the CAISO may be expected to decline rather than increase for the foreseeable future. If the Authority was planning to sell the power, recoup the investment and perhaps provide financial support to the water supply function that may not be possible. Since the California Energy Commission considers only hydropower generation plants smaller than 30 megawatts to be eligible for renewable credits, Sites will be considered large hydro and will not be capable of being included by any energy serving entity towards meeting part or all of its mandatory renewable portfolio standard requirements.

- Table 8.2 identifies only \$600,000 in annual operations, maintenance, and replacement costs. Considering that Sites is an off-stream storage and that pumping energy will be required in order to fill the reservoir, the report is unclear whether energy costs were appropriately identified as part of the costs of constructing and operating Sites in the economic and financial feasibility analyses which was undertaken for Sites. Given the relatively low annual cost, WAPA believes that project energy pumping costs may need to be added to the overall cost when doing a benefit-cost comparison, including how this proposed facility is related to the overall Central Valley Project (CVP) project use pumping requirements.
- Although only nine percent of the projected annual water yield of Sites is expected to be used by irrigators, when doing the cost comparison, the average annual cost of the water is around \$292/acre-foot. Given that part of Site's annual yield is projected to be assigned to CVP irrigators, WAPA is concerned that given Reclamation Law's irrigators ability to pay constraints, that CVP preference power users may receive an unintended, redirected impact should any of the downstream irrigators receive an allocation of the water, but be unable to repay any of the allocated capital investment costs. WAPA believes that if downstream CVP irrigation customers are expecting to purchase supplemental water supplies for the projected cost as shown in the report, either a financial analysis must be performed to determine the sufficiency of any proposed irrigation water contractor to avoid any irrigators' ability to pay constraints or alternatively, Sites authorization must include language that precludes the possible occurrence of such a situation.

With respect to developing additional new water infrastructure, California is at a crossroads, and as a result, considering moving forward in a number of different directions on a number of projects all at the same time. Should an affirmative

decision be made by multiple parties to move forward simultaneously on different fronts, WAPA is concerned that the beneficiaries of these projects will not have the financial ability to first finance the construction of such projects, and should they be built, to have the financial resources to be able to repay the costs for their construction and operation. Analyzing cumulative impacts of projects, including probable future projects, is a requirement of the California Environmental Quality Act process, and should be included in a feasibility report. Disregarding the need for a cumulative analysis because no individual project is guaranteed presents unnecessary risk to the California water and energy systems in the likely event that a preferred alternative of more than one of these major projects is implemented.

For example, should Sites, along with Temperance Flat, an Enlarged Shasta Dam, and some version of the proposed California Water Fix project ever be constructed, from an economic and financial feasibility perspective, WAPA believes that in total these projects are neither economically feasible nor financially affordable. As such a decision by policy makers needs to be made with respect to which project, if any, makes the most economic and financial sense. Given the relatively large uncertainties which still remain, WAPA is unsure whether the proposed project's accomplishments will even be realized. For example, the California State Water Resources Control Board is currently considering implementing new water flow standards in both the Sacramento and San Joaquin River systems. If the proposed 40 percent unimpaired flow standard is adopted for the Sacramento River, WAPA is unclear how that will impact the ability of the Sites Dam operators to be able to fill the reservoir.

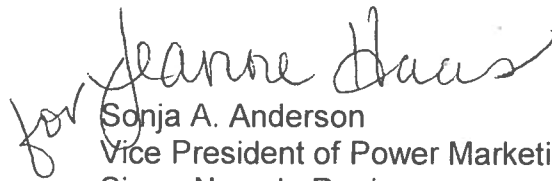
Reclamation has also embarked on a re-consultation effort with the fish and wildlife management agencies to implement a new biological opinion governing the long-term operation of the CVP and the State Water Project. Again, WAPA is unclear to what extent the progression and conclusion of that effort will impact the proposed water and hydropower accomplishments of Sites. If for example, less hydropower and water supply output is generated, that means per unit cost will increase, thus impacting Site's proposed economic and financial feasibility.

Reclamation is also in the process of completing a study to reallocate the costs of the CVP facilities. The outcome of this effort could potentially affect not only the costs assigned to each authorized project purpose, but in addition, with respect to the power function, have an impact on financial feasibility since Reclamation Law allows for the reassignment of any capital investment costs which are beyond the ability of the irrigators' to repay to be reassigned for repayment to the preference power customers. Consequently, integrating any new costs associated with this new increment block, especially, if a potential for an irrigation cost reassignment opportunity exists, could add additional new financial burdens on the existing CVP preference power customer base.

We understand the desire of Sites' proponents to move forward. However, as both Reclamation and the Authority finalizes its feasibility report, and moves to the next step in the process, WAPA encourages all parties to evaluate the generation requirements and financial effects, directly or indirectly, on CVP water and power rate payers for Sites and other storage projects then include that evaluation as part of the project support. From an economic and financial affordability standpoint, not all of the proposed projects can or should be built. WAPA recommends that as all of the proposed projects begin moving forward, to avoid suboptimal decision making, that Reclamation and all water project proponents look at all of these projects in their totality and only select the ones which in the aggregate are economically efficient and financially affordable, and assign benefits and costs accordingly.

Thank you for the opportunity to provide comments. We look forward to continuing to work with you and provide comments on your work products in the future.

Sincerely,

  
for Sonja A. Anderson  
Vice President of Power Marketing for  
Sierra Nevada Region

cc:  
David Murillo, Regional Director  
Bureau of Reclamation  
2800 Cottage Way  
Sacramento, CA 95825-1898

David van Rijn, Regional Planning Officer  
Bureau of Reclamation  
2800 Cottage Way  
Sacramento, CA 95825-1898