

CVP Cost Allocation Study

Consideration Paper: Identifying the Single Purpose Alternative for Power

Date

March 20, 2015

Purpose of Paper

Identifying the Single Purpose Alternative for the Power Function of the Central Valley Project (CVP) Cost Allocation Study

Background

The Separable Cost Remaining Benefits (SCRB) method will be used to establish the construction costs that will be allocated to each authorized purpose of the multipurpose CVP. This method limits the amount allocated to a specific purpose to the lesser of the projected benefits or the cost of a single purpose alternative that would provide the same present-day level of project accomplishments. The purpose of this paper is to describe and outline the approach to be used to identify the single purpose alternative for the hydropower purpose and a method for estimating its costs. The paper “*CVP Cost Allocation Study Decision Paper on Power Benefits Methodology*” describes how the benefit values will be derived. Under past policy and practice, Reclamation has used a hydropower-based single purpose power alternative when conducting cost allocation studies; however, in the specific case of the CVP cost allocation, a thermal-based single purpose power alternative in lieu of a hydropower-based alternative has been used and accepted since the 1960s. The basis for using a thermal-based single purpose power alternative is premised on the CVP authorizing legislation (50 Stat. 850) which authorized Reclamation to construct a steam generator plant.

In addition, Reclamation believes that it would be very difficult to conceptualize a hydropower-based single purpose alternative. Although the relative size of the hydropower plant could be readily determined by associating the relevant hydrology with the dam size, decisions about placement and configuration of single purpose hydropower generation facilities such as penstocks and other appurtenant facilities would be more difficult and subject to debate among stakeholders. As a result, significant time and resources would be required to

work with subject matter experts and stakeholders to reach consensus on the most probable single purpose hydropower generation facilities. This represents a risk to the study cost and schedule. In contrast, the cost of thermal-based single purpose powerplants could be estimated in a straightforward manner using existing methodology from the Electric Power Research Institute or published data from the California Energy Commission or the California Public Utility Commission.

Finally, the Principles and Guidelines for Water Resources Planning, 1983 (Principles and Guidelines), under Section IX – Cost Allocation, do not prohibit using thermal-based single purpose alternatives, as Section 1.9.2 (c) states that “*Alternative cost for each purpose is the financial cost of achieving the same or equivalent benefits with a single-purpose plan.*”

When formulating the thermal-based single purpose alternative, it should conform, to the extent practicable, to existing operating conditions and include the necessary transmission facilities so that the alternative produces and delivers the same energy and ancillary services accomplishments as the present day project

Consideration

Based on past precedent, conformity with the Principles and Guidelines, and authorizing CVP legislation, Reclamation has the discretion to use a thermal-based single purpose alternative for the power purpose of the CVP Cost Allocation Study. The thermal-based single purpose alternative would need be configured and sized to incorporate the limitations and constraints imposed by existing operating conditions, so that it reflects actual project operations. As a result, project accomplishments for the single purpose alternative would reflect the current level of energy and associated ancillary services accomplishments and also include the required associated transmission facilities needed to serve the power customers.

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