Central Valley Project Cost Allocation Study: Considerations on the Two Cost Allocation and Two-Period Repayment Approach (Dec. 12, 2014)

Purpose of Paper

In an effort to address the changes in the operation of the Central Valley Project (CVP) since its initiation, which has resulted in significant differences in emphasis for the authorized purposes, a two cost allocation and two-period repayment approach is being considered for use in the CVP Cost Allocation Study. Reclamation Policy has indicated that this approach meets the intent of the Reclamation Manual Directive and Standard (D&S) PEC 01-02, "Project Cost Allocations" (http://www.usbr.gov/recman/pec/pec01-02.pdf).

Background

The federal statutes authorizing individual water projects and the statutes generally applicable to all water projects, known collectively as "Reclamation law," govern Reclamation's water projects. Reclamation law determines how the costs of constructing water projects are allocated among project purposes and how repayment responsibilities are assigned among the projects' beneficiaries. Cost allocation is the process of allocating an equitable share of the total cost to each purpose (or use) in a multipurpose project, and the costs allocated to each purpose are deemed to be reimbursable or non-reimbursable. Reimbursable costs are those that are to be repaid by certain water users, including irrigation contractors, power, and municipal and industrial water suppliers. Non-reimbursable costs are those that are not repaid by water and power users but are instead generally borne by the federal government because certain project purposes are viewed by Congress as being national in scope, such as costs allocated to flood control and navigation, fish and wildlife enhancement, and recreation. At the time each water project is authorized and designed, Reclamation estimates the total construction costs and allocates the costs among the project uses. Once project construction is completed and the actual construction costs are determined, Reclamation performs a final cost allocation. When significant time separates the authorizing allocation and the final (completed project) allocation, an interim allocation may be prepared to reflect changes in operation.

Federal authorization of the CVP is provided by the Emergency Relief Appropriation Act of 1935. The CVP is a financially and operationally integrated project that has been developed in segments. Initial project revenues (or repayment) were recognized in 1944 from electric generation from Shasta Dam. The last major facility of the CVP was the New Melones Unit, which was completed by the U.S. Army Corps of Engineers and turned over to Reclamation in November 1979. Periodic interim cost allocations, using the separable costs remaining benefits (SCRB) methodology, were completed in 1956, 1960 and 1970. The last completed cost allocation, a minor update to the 1970 allocation, was completed in 1975. Public Law 99-546 (Coordinated Operations Agreement or COA) directed the Secretary of the Interior to operate the project in conjunction with the State of California to meet water quality standards, and the Secretary was directed to undertake a cost allocation and implement it no later than January 1, 1988, with final repayment by 2030. A cost allocation study was completed in May 2001, which concluded that the 1975 allocation remained the preferred cost allocation method.

In late 2010, the Mid-Pacific Region initiated a final Cost Allocation Study to allocate the CVP facilities' costs among the congressionally authorized purposes. Reclamation Manual D&S PEC 01-02 states that historic costs and benefits would be considered beginning with the initial date of service for a 100-year period of analysis or the economic life of the project, whichever is less. Repayment obligations would subsequently be assigned based on an allocation of all CVP construction costs to date. Due to major changes in operations and benefits associated with the CVP that have occurred over time, the water and power customers have argued that this strict application of Reclamation Manual D&S PEC 01-02 would not likely result in an equitable allocation of the costs of the project from the standpoint of current individual beneficiaries.

Two Cost Allocation and Two-Period Repayment Approach

Based on the initial date of plant in service of 1944 and the 2030 repayment completion deadline, there is a total of 86 years for project repayment. The proposed approach will split the repayment period and apply different cost allocations to each period. The first period will utilize cost allocation factors representing historic operation and benefits associated with that period. The second period will utilize cost allocation factors reflecting expected future operation and benefits.

Identification of the end of the first period and the beginning of the second period needs to be established. Ideally, this delineation would be clearly associated with significant changes in operation and benefits associated with the CVP. COA directed a change in operation of the CVP and directed the Secretary to implement a cost allocation January 1, 1988. This date is a clear indication of new operation and benefits and splits the 86-year repayment period equally into two 43-year periods. Alternately, on October 30, 1992, the Central Valley Project Improvement Act (CVPIA) was passed, which significantly altered operations for the protection, restoration and enhancement of fish and wildlife. This change in operation and benefits provides an alternate breakdown of the two periods, splitting the 86-year repayment period approximately 56 percent before CVPIA and 44 percent afterwards.

The current cost allocation updated in 1975 is considered representative of operation and benefits associated with the initial (historic) repayment period. This cost allocation was estimated in 1970 reflecting conditions at that time and updated in 1975 with changes in some single-purpose cost estimates and indexed costs and benefits forward from 1970. The existing cost allocation was before the changes in operations associated with COA and subsequent operational changes with the CVPIA.

The new cost allocation, based on prospective benefits, will represent operations and benefits for the subsequent (future) repayment period. Benefits for a 100-year prospective period will be estimated and used to develop cost allocation factors that will be applied to the second repayment period.

Reclamation's Policy Office has indicated that this approach would consider historic and prospective costs and benefits and meets the intent of PEC 01-02. Reclamation's perspective is that the current cost allocation sufficiently reflects the historic conditions for the first period and that a prospective cost allocation would sufficiently reflect conditions for the second period as requested by water and power contractors.

Concerns have been raised from Reclamation and from water and power users regarding the issue of under or over payment of repayment obligations if there are changes in cost allocation factors. The two cost allocation and two-period repayment approach allocates cost for each repayment period based on the cost allocation factors representing each period. Total repayment will be subtracted from the estimated obligation to reflect net outstanding repayment. This will result in a fair and equitable net position for all those assigned repayment obligations.

Example

As an example, the Excel spreadsheet, "Allocation of CVP Construction Costs" (http://www.usbr.gov/mp/cvp/cvp-cas/docs/CVP_CAS_Repayment_Example.xlsx), based on COA and separating the two repayment periods in 1988, is intended to depict an example of the two cost allocation and two-period repayment approach for the CVP. The example reflects, with simplifications, current CVP costs and the cost allocation factors associated with the current cost allocation applied to the first repayment period. The actual cost allocation requires many unique allocation factors based on legislation and negotiations. The simplifications should not impact the illustrative purpose of this example.

The cost allocation factors associated with the new cost allocation applied to the second repayment period can be estimated with the yellow highlighted cells. The cost allocation factors in the highlighted cells reflect the current cost allocation and can be changed to the expected cost allocation factors. Simplifying assumptions have been made that may not reflect the actual results of the new cost allocation. For example, non-reimbursable direct-assigned CVP costs are fixed in this example at 18 percent. The remaining 82 percent of CVP total costs will be split between reimbursable and non-reimbursable purposes. Changing the numbers in the highlighted cells, maintaining appropriate relationships (Cell J24), will reflect different expected conditions. The objective of this example is not to identify a desired cost allocation but rather to depict the potential impact that changes in cost allocation factors could have on total repayment. With modification, the impact of separation of the two repayment periods in 1992 can also be demonstrated.

Considerations

The objective of cost allocation is to fairly and equitably allocate costs of a project to the authorized purposes. In the CVP, where significant time has elapsed from initiation to date, there have been changes in the operation of the project, which has resulted in significant differences in emphasis for the authorized purposes. Reclamation is considering the two cost allocation and two-period repayment approach with 1988 as the delineation date in an attempt to recognize an evolution in operations. Utilizing a historic cost allocation for the initial repayment period and a prospective cost allocation for the remaining repayment period maintains a balance of historic and future operation and benefits, while meeting the intent of long-standing Reclamation Policy.

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