

# Reclamation Manual

## Directives and Standards

---

**Subject:** Power Repayment

**Purpose:** To provide the requirements for repayment of power costs and the Bureau of Reclamation's obligations to the Power Marketing Administrations (PMAs).

**Authority:** The Reclamation Act of 1902 (Act of June 17, 1902, 32 Stat. 388), the Town Sites and Power Development Act of 1906 (Act of April 16, 1906, ch. 1631, 34 Stat. 116), Reclamation Project Act of 1939 (Act of August 4, 1939, ch. 418, 53 Stat. 1187), the Flood Control Act of 1944 (Act of December 22, 1944, ch. 665, 58 Stat. 887), the Department of Energy Act of 1977 (Act of August 4, 1977, Public law 95-91 Stat. 565), The Warren Act of February 21, 1911 (36 Stat. 926; 43 USC § 525), The Fact Finders' Act (Act of December 5, 1924, ch. 4, 43 Stat. 672), Interior Department Appropriation Act of 1939 - Hayden-O'Mahoney Amendment (Act of May 9, 1938; 52 Stat. 322), and acts relating to individual dams or projects.

**Contact:** Power Resources Office, D-5400

---

1. **Introduction.** Reclamation law requires that investments be repaid by the beneficiaries of that investment, except where that benefit is for the common welfare or defense of the nation. All projects that have been built have this philosophy as part of their foundation. In general, water and power beneficiaries repay Reclamation project costs. Costs of a project that are allocated to power are broken into two portions: those to be repaid by the project power beneficiaries (those using Project Use Power (PUP)) and those to be repaid by the preference power beneficiaries (those receiving power surplus to project needs). The costs to be repaid by the preference power beneficiaries may include a component for aid to irrigation. Repayment of the project costs assigned to the project power beneficiaries is covered in FAC 04-06, *Project Use Power*.
2. **History.** The Reclamation Act of 1902 created what became the Bureau of Reclamation and established initial agency responsibilities. In part, the act created a special fund in the Treasury known as the Reclamation Fund to be used for receipts and distribution of revenue. The act set out what was to be paid into and paid out of said fund. In 1906, the Town Sites and Power Development Act provided for “. . . giving preference to municipal purposes, any surplus power or power privilege, and the money derived from such leases shall be covered into the reclamation fund and placed to the credit of the project from which such power is derived.” In 1928, the Boulder Canyon Project Act, which authorized construction of Boulder Canyon (Hoover) Dam and Powerplant and the All-American Canal, contained language that was the precursor to Federal Preference Law and cost of service power rates.

# Reclamation Manual

## Directives and Standards

---

In 1937, the first of the three major acts which are considered together for general rate-making guidance was passed; the Bonneville Project Act, which required, in part, that rate schedules are to be based on the cost of the production of energy and established to encourage the widest possible diversified use. The second of the three major acts considered in rate making followed, the Reclamation Project Act of 1939, which provides for the preference "sale or leases of water or power to municipalities and other public corporations and agencies." It contains criteria for rates to be charged and an appropriate share of project cost to be repaid in a period not to exceed 40 years. The last of the three major acts is the Flood Control Act of 1944, which, in part, requires power to be marketed at the lowest possible rate consistent with sound business principles. In addition to these significant acts, Congress also provided guidance for many Reclamation projects on what was to be included or considered during the repayment and rate making for that project. In 1977, the Department of Energy (DOE) Organization Act was passed, which, in part, transferred to the DOE's Power Marketing Administrations (PMAs), which includes the Western Area Power Administration (Western) and the Bonneville Power Administration, the power marketing functions, including construction, and operation and maintenance (O&M) of transmission lines and attendant facilities of Reclamation. Pursuant to the DOE Act of 1977, the Secretary of Energy is delegated the authority for the power marketing and transmission functions for federally produced electric power. This re-delegation to the Secretary of Energy does not relinquish the Secretary of the Interior's obligation to assure the timely repayment of Reclamation projects' costs assigned to the power beneficiaries for repayment.

3. **Reclamation Fund.** The Reclamation Fund was established and created by the Reclamation Act of 1902, Section 1, from the receipts of the sale and disposal of public lands in certain States and Territories, with the exception of 5 percent for educational and other purposes. This special fund in the Treasury is utilized to invest and reinvest in the reclamation of arid lands in the Western United States.
  - A. **Disposition of Collected Power Revenues.** All collected power revenues must be deposited into the Reclamation Fund or other fund(s) established by legislation. A few notable funds are the Upper Colorado River Basin Fund, the Lower Colorado River Basin Development Fund, and the Colorado River Dam Fund. (The funds deposited into the Reclamation Fund or other fund(s) are credited to the appropriate Reclamation project.) If the project is authorized to have a revolving fund, or use-of-receipts, then any revenues not needed for that year's revenue requirement can be utilized to help offset subsequent years' costs instead of going directly to the Reclamation Fund and Treasury.

# Reclamation Manual

## Directives and Standards

---

- B. **Revenues Posted Directly to the Reclamation Fund.** Revenues from projects which are posted directly to the Reclamation Fund should generally be handled in the following way: (1) in any one year, revenues are first used to repay that year's O&M, any purchase power costs, and interest; (2) remaining revenues are applied toward repayment of any existing capitalized deficits; (3) toward repayment of any investments which, in that year, have reached the end of their repayment periods; and (4) toward repayment of other investments.
4. **Reclamation and PMA Roles and Responsibilities.** Reclamation is responsible for preparing the cost allocation for each project, which includes the costs allocated to power and establishing, in part, the criteria by which recovery of sufficient revenue is determined. Reclamation also provides its power revenue requirements to the appropriate PMA for inclusion in the Power Repayment Study (PRS), and is responsible for the repayment of all Federal investment assigned to Reclamation power facilities.
- A. **Project Use Power.** Reclamation is responsible for PUP rates and/or cost recovery for such power. Most PUP is paid for through a rate(s) that is collected based on the energy the PUP contractors use each month; however, some projects are collected through cost recovery included in their water rates.
- B. **Preference Power.** The PMAs are responsible for preference rates and/or cost recovery. Historically, the PMAs set rates for power surplus to that required for project use, to be collected for the capacity and energy used by preference contractors.
- C. **Revenue Recovery.** The PMAs determine and establish the rates for revenue recovery. They use a public process to develop the rate designs. The PMAs are responsible for billing and collection. In most cases, the PMAs collect the project revenues and either transfer them directly to the proper fund or transfer them to Reclamation, which then deposits them in the proper fund within the Treasury.
- D. **Repayment Responsibilities.** The following table lists the responsibilities of the agencies with regard to repayment of the projects:

# Reclamation Manual

## Directives and Standards

### Reclamation and PMA Roles and Responsibilities

Reclamation	PMA
Project repayment.	
Establish actual and future project costs.	Establish actual and future transmission and power marketing costs.
Determine cost and sub-cost allocations.	Provide cost data to Reclamation for cost and sub-cost allocation processes.
Provide costs allocated to power to PMAs	Provide transmission and power revenue requirements to Reclamation.
Determine and implement PUP rate and/or cost recovery. Provide PUP costs and revenues data to PMAs.	Provide support for PUP rate and/or cost recovery allocation development.
Manage cash flow.	Establish and manage billing and collection of power revenue.
Confer with PMAs regarding the revenue recovery being sufficient to cover expected cost recovery.	Develop and implement power rate(s) design. Confer with Reclamation regarding the revenue recovery being sufficient to cover expected cost recovery.
Provide support and data for PRS.	Responsible for the PRS.
Establish and manage ability-to-pay calculations.	Places costs beyond irrigators' ability-to-pay into PRS.
Work with PMAs on replacement guidelines.	Work with Reclamation on replacement guidelines.
Provide support to PMAs during rate(s) process.	Administer power rate(s) process, including Administrative Procedure Act (APA) process.
Administer Reclamation Fund and/or other project-specific funds within Treasury. Transfer funds to PMAs.	Transfer power revenue to Reclamation or directly transfer to appropriate fund(s).

5. **Cost Allocation/Sub-Cost Allocation.** Cost allocation is the process of identifying and allocating the costs of a multi-purpose project among the various authorized project purposes. Cost allocations are performed annually for plant-in-service (construction) costs and O&M costs. The cost allocation phase updates (1) the respective repayment obligations

## Reclamation Manual

### Directives and Standards

---

of the reimbursable project functions (which include irrigation and municipal and industrial (M&I) water supply and power) and (2) the costs allocated to non-reimbursable project functions which may include flood control, navigation, recreation, fish and wildlife and water quality improvement.

- A. **Plant-in-Service Costs.** The method used to allocate plant-in-service costs is based upon the factors derived in the separable cost-remaining benefits allocation method. This is the standard economic method Reclamation uses to allocate costs of multipurpose projects to authorized project purposes.
  - B. **O&M Costs.** The method used to allocate O&M costs closely follows the plant-in-service allocation, although when O&M costs are not specifically related to particular plant-in-service features, alternative factors are used for identifying costs to authorized project purposes.
  - C. **Reclamation Responsibility.** Reclamation has the responsibility for the annual cost and any cost sub-allocation for plant-in-service and O&M costs for each project. Data is provided by the PMAs during the cost allocation process.
6. **Ability-to-Pay/Aid to Irrigation.** (Sometimes referred to as Irrigation Aid or Aid to Irrigation.) A principal purpose of the Reclamation Project Act of 1939 was to place water users'/irrigators' cost repayment on a basis of their ability to pay in order to assure the success of the agricultural economy (Solicitor Barry Opinion, 68 I.D. 305, 310 (1961)). Under ability-to-pay, water users are required to pay annual O&M costs, but a portion or all of their capital investment costs may be non-reimbursable by irrigators if it is shown that the users do not have the ability to pay the capital costs. Preference power beneficiaries repay those capital costs for which the irrigators are unable to pay. Preference power rates and revenue recovery are set "at cost" plus an additional amount, if applicable, to cover those costs that irrigators are unable to pay. Each project has established policy as to how to handle ability-to-pay issues. Reclamation, acting through the Reclamation Project Act of 1939, has the responsibility to determine an irrigator's ability-to-pay based on project policy. The PMAs must ensure the costs, which cannot be covered by the irrigators, are included in the PRS and the preference rate(s) or revenue recovery.
7. **Power Repayment Study.** The PRS is a tool the PMAs use to determine if the projected power revenue for each project is adequate to meet the annual requirements. The PMAs use the PRS to calculate how much revenue is needed to meet annual investment obligations, O&M expenses, and repayment requirements (including repayment periods).

# Reclamation Manual

## Directives and Standards

---

- A. **Method of Performing the PRS.** The computer-based method accomplishes all of the necessary calculations. The PRS has a complete historical record of power and power-related sales, revenues, expenses, and investments, plus future estimates for the same data throughout the remainder of the repayment period.
  - B. **Expenses to be Entered into the PRS.** Depending on the project authorization, expenses to be entered into the PRS may include all or some of the following: O&M, interest, purchased power, and other appropriate expense(s). For more information on the priority of when investments should be paid, refer to RA 6120.2 Section 8c(3) Priority of Revenue Application (see paragraph 10.B.).
  - C. **Construction Costs Allocated to Power.** In the PRS, construction costs allocated to power are divided into two parts for most studies. The first part covers costs assigned to power from Reclamation's cost allocation. This power investment is generally to be repaid with interest at the current rate or at such other rate as may be specifically authorized for the particular project. Interest during construction is included as part of this cost. The second part covers those remaining project costs that are assigned to power due to irrigation's inability to pay. These costs are, for the most part, the irrigation aid costs referred to earlier.
  - D. **Responsibility for Running the PRS.** The responsibility for preparing and running the PRS is the PMAs. Reclamation is responsible for supplying the cost allocation data and support required by the PMAs in order to run the PRS.
8. **Power Rate Process or Revenue Recovery.**
- A. **PMA Responsibilities.** The annual PRS determines whether the current rates will generate enough revenue to meet the annual repayment requirements. If the revenue recovery is sufficient, the rate(s) can continue in effect or be extended. However, if the rate(s) is excessive or insufficient, the PMAs develop a new rate to meet the new revenue requirements. The PMAs develop rates through a public process. The PMAs follow the APA and DOE regulations to administer the public process. The steps involved in the public process are contained in 10 CFR 903 and include:
    - (1) Run annual PRS to determine revenue needed.
    - (2) Complete cost studies and proposed rate design.
    - (3) Reclamation and the PMA confirm revenue recovery satisfies cost recovery needs.

## Reclamation Manual

### Directives and Standards

---

- (4) Announce a rate process in the *Federal Register*.
- (5) Hold informal meeting to discuss initial rate proposal.
- (6) Hold formal public information forum to explain proposed rates. Answer questions.
- (7) Hold formal comment forum. Take comments.
- (8) Review public comments for consideration.
- (9) PMA's Administrator reviews and proposes final rates.
- (10) Proposed rate(s) placed into effect on an interim basis by the Secretary of Energy.
- (11) Final rates proposal submitted to Federal Energy Regulatory Commission (FERC) for confirmation.
- (12) Rate(s) become effective.

**B. Reclamation Responsibilities.** Reclamation's responsibility during the rate-making process is that of a partner of the PMA, and to provide support and information to the PMA, if so requested. The PMAs are responsible for conducting the rate-making process which has multiple steps and requires them to follow the APA and DOE guidelines.

9. **Rate Design.** Rate methodology, or rate design, and the PRS are, at times, mistakenly referred to as one and the same. While the PRS determines the necessary revenue to be recovered, it does not determine the actual rate design. After a revenue requirement is determined for each service or product, the unit charge(s), or rate(s), is calculated by dividing each service or product's revenue requirement by the appropriate billing determinants for each service or product. This is called rate design. A rate can be designed for capacity sales, energy sales or some other power-related service.

**A. Rates Set by PMAs.** The following are examples of various rates the PMAs may set:

- (1) Energy Rate
- (2) Capacity Rate

## Reclamation Manual

### Directives and Standards

---

- (3) Transmission Rate
  - (4) Ancillary Services Rates
    - (a) Spinning Reserve
    - (b) Non-spinning Reserve
    - (c) Regulation
  - B. **Reclamation and PMA Responsibilities.** The PMAs have the responsibility for developing and implementing the rate designs for power and power-related products and services, which can be designed for capacity sales, energy sales or some other power commodity. Reclamation confers with the PMAs to verify that the rate design will recover sufficient revenues to cover the power-related costs.
  - C. **Confirmation and Approval of Rates.** The Secretary of Energy confirms and approves the rate(s) on an interim basis. FERC has the authority to give final approval on the rates.
10. **Project Repayment.** The details of repayment are left to the Secretary of the Interior or authorized delegate's discretion so long as it is consistent with the following requirements: the repayment of the costs of irrigation facilities will be made without interest and the cost recovery required to effect repayment will be the lowest consistent with sound business principles. Sales from Federal power, which include PUP and preference power, are used for project repayment.
- A. **Project Use.** Reclamation shall determine the PUP rate or cost recovery amount required for the project's share of repayment of electrical power used. The Directive and Standard covering usage of PUP and cost recovery/rate setting is FAC 04-06, *Project Use Power*.
  - B. **Preference Power.** The Reclamation Project Act of 1939, Section 9(c), gives preference to municipalities and other public corporations and agencies for the sale or lease of power. The act states, in part: ". . . That in said sales or leases preference shall be given to municipalities and other public corporations or agencies; and also to cooperatives and other nonprofit organizations financed in whole or in part by loans made pursuant to the Rural Electrification Act of 1936 and any amendments thereof." The PMAs determine the rates for power and power-related revenue requirements



# Reclamation Manual

## Directives and Standards

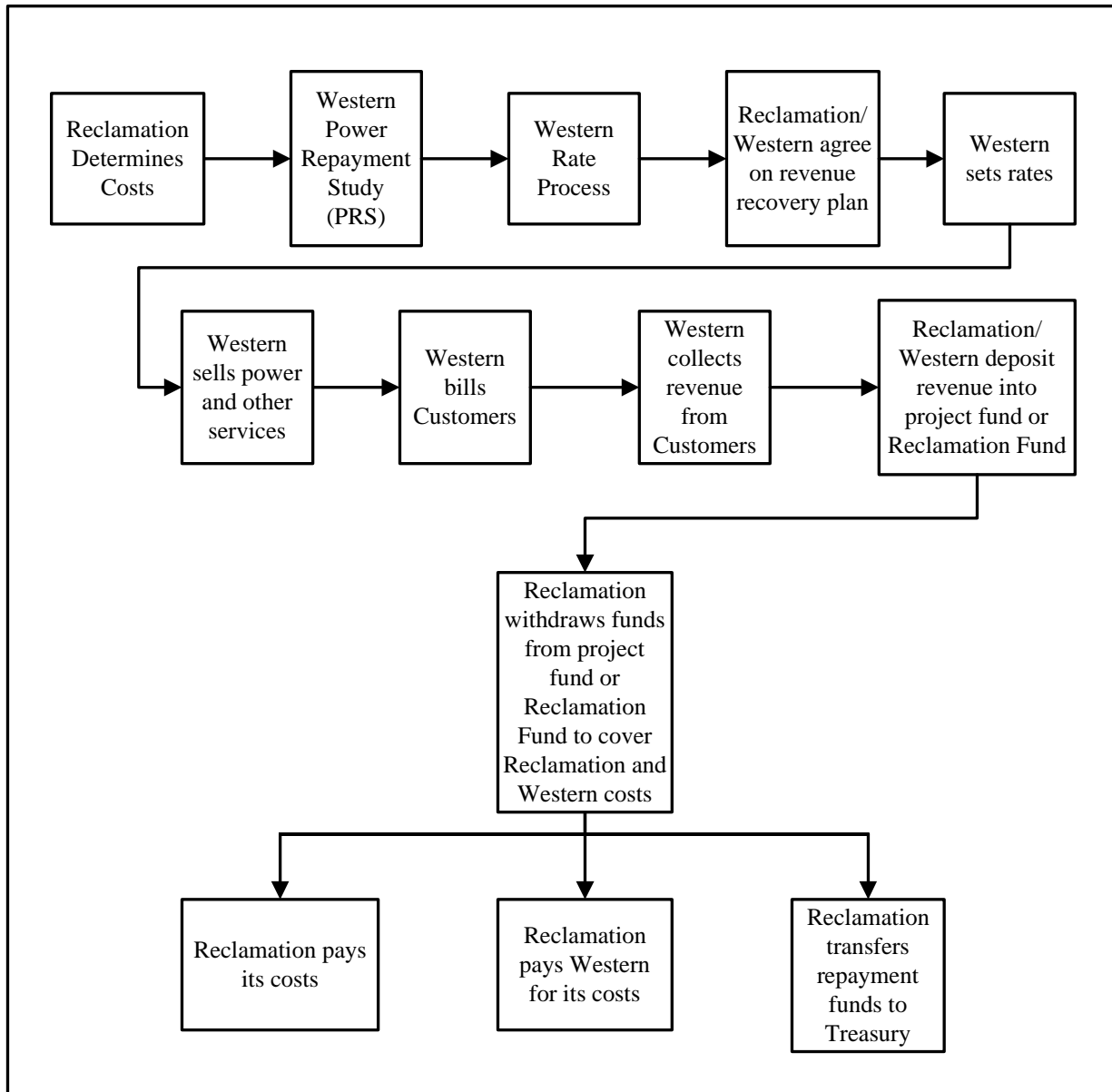
---

needed to assure project repayment. Reclamation provides input regarding the costs to be recovered. DOE Order RA 6120.2, entitled "Power Marketing Administration Financial Reporting," is the policy document all PMAs comply with for accounting and repayment purposes, unless otherwise directed by specific legislation.

- C. **Reclamation and PMA Responsibilities.** Reclamation is responsible for the repayment of Reclamation projects and for cost recovery with the assistance of the PMAs. The PMAs are responsible for revenue recovery/rate setting with the assistance of Reclamation. Figure 1 shows Western's project repayment process.
11. **Replacements, Units, Service Lives, Factors Report.** Part of the criteria used for repayment studies includes analyzing replaceable percentages of equipment by service life category and major cost classifications in order to forecast year-by-year replacements for determining revenue requirements for the entire length of the PRS. The main source of information for this service life data is the "Replacements, Units, Service Lives, Factors Report." Reclamation and Western jointly have the responsibility for updating and keeping current the "Replacements, Units, Service Lives, Factors Report." In addition, each is responsible for additions to the report based on changes in technology and new types of equipment becoming available. This report is generally updated every 5 years, alternating between agencies.
12. **Project-Specific Requirements.** Congress has, in general, provided specific requirements for each authorized project. Each regional or area office should understand the legislation, regulations, Solicitor's opinions, and court orders that make up the Reclamation law specific to their project(s). That subset of the overall Reclamation law and local practice will dictate if there are project use rates or cost recovery through other mechanisms (such as inclusion in the water rate). The PMAs recover revenues through power and power-related services sales at particular rates. Reclamation will also perform similar recovery with respect to the project water deliveries. Reclamation Manual Directives and Standards, such as this, cannot deal with the details of any project-specific funds in Treasury or their administration. In addition, the particulars of advance funding, receipts and revolving funds, and how they may interact with the PMAs' rate-making, cannot be described as applying to all of Reclamation. Each Reclamation regional or area office must determine if written directives related to a specific project are needed.

# Reclamation Manual

## Directives and Standards



**Figure 1. Project Repayment for the Western Area Power Administration**