



Multiple Factors Threaten Competitiveness of CVP Power

CVP Power is No Longer a Low-Cost Resource—and Problems Are Compounding

Power generated at the federal multipurpose water projects of the Central Valley Project (CVP)—including Shasta, Folsom, Trinity and New Melones dams—is currently a central building block in the power supply of Northern California Power Agency (NCPA) member communities.

Historically, CVP power has been an economic source of power for the public power members of NCPA. However, a variety of factors have dramatically—and unnecessarily—raised CVP power rates above market alternatives, imposed resource uncertainty, and created significant risks.

These costs and risks threaten the viability of the CVP power supply. If left unchecked, CVP power customers will be forced to consider alternative power supplies when CVP contracts are renewed in 2025. If CVP power customers reduce their purchases, the CVP power program—and all the related programs it supports—will face a financial crisis, since the Western Area Power Administration (WAPA) may be unable to sell its power at rates that recover all of its costs. These problems are compounded by the Administration's proposal to privatize WAPA transmission assets and change the rate structure for WAPA. These short-sighted proposals will only further raise customer costs, risks, and uncertainty.

Multiple Risks to CVP Rate Competitiveness

In an average water year, CVP power needs to be sold at roughly \$25 per megawatt-hour (MWh) to cover the costs of generating power and repay the federal investment in the power facilities. With the addition of the appropriate and proportional share of Central Valley Project Improvement Act (CVPIA) Restoration Fund contributions, CVP power should cost just under \$30 per MWh—approximately the rate of market alternatives for power.

By law, CVP power customers' share of annual CVPIA Restoration Fund contributions should match the share of CVP capital costs assigned to power customers (roughly 26%). The Bureau of Reclamation has ignored this statutory proportionality requirement and imposed a vastly disproportionate share of the Restoration Fund on NCPA and other CVP power customers. Over the past decade, power customers have been assessed almost 37% of Restoration Fund expenditures—and in FY 2015 and FY 2016, the power customers' share of the Restoration Fund share climbed dramatically to 85%. While Reclamation has recently proposed modest steps to credit CVP power customers for prior CVPIA miscalculations, this addresses only a small share of the overpayments.

**Multiple Risks
to CVP Rate
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ness**

Disproportionate CVPIA costs are only one of a multiplicity of costs and risks faced by CVP power customers:

- **Water Year Variations Create Unpredictability.** Unlike a market purchase for long-term power supply, the CVP power resource fluctuates dramatically based upon water year and prior year storage in CVP reservoirs. During the recent drought years, base resource deliveries were about 2,000 gigawatt-hours (GWh) per year. During wet years, CVP power customers could receive more than 5,000 GWh per year.

The CVP generates more power in wet years than dry years—but both extremes pose financial risks. In dry years, CVP power customers still pay the fixed costs of the CVP while also buying expensive replacement power. In wet years, excess generation can result in “negative pricing” when CVP power customers pay renewable generators to shut down so that hydroelectric generation can occur when releases are required for flood control.

In addition, excess water releases in the Trinity River for fish are likely to continue, thereby reducing the amount of available energy. CVP power customers are paying for a predictable and constant resource but receive an unpredictable power supply.

- **Potential Increases in Aid to Irrigation.** Under Reclamation law, certain costs of irrigation projects that are “beyond the irrigators’ ability to pay” are assigned to power customers for repayment. Irrigation assistance costs are expected to be incorporated into CVP power rates beginning in 2030—and projected to cost power customers about \$10 million per year. However, if new Reclamation water projects are built—like Temperance Flat, Sites or a raise at Shasta Dam— these costs could increase exponentially.
- **Revised Fish Biological Opinions Could Add Costs and Reduce Operational Flexibility.** Reclamation and the California Department of Water Resources have recently started a “reconsultation” process with NOAA Fisheries, the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. This effort is designed to produce new biologic opinions that would apply to the operations of both the State Water Project and the CVP system. The potential impacts to CVP power operations could be substantial. For example, increased water spills for temperature reductions would reduce power generation and diminish valuable operational flexibility to generate power during peak times.

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ness

- **WaterFix Project Could Increase Costs, Without Providing Benefits.** The proposed project to divert Sacramento River water south of the Delta would produce no benefits to CVP power customers. Nonetheless, CVP power customers face a number of risks and uncertainties related to the project. Reclamation has indicated that it plans to assign project capital and O&M costs for this major water supply project to power customers. In addition, the “irrigation assistance” provisions of reclamation law could result in the assignment of additional project costs to power customers.
- **New Flow Criteria for the Sacramento River Would Greatly Reduce CVP Hydro Energy Production.** The State Water Resources Control Board, as directed by the Delta Reform Act, must develop new flow criteria on the Sacramento River to provide more reliable water supply to restore and enhance the Delta ecosystem. The increased flow requirements for the winter and spring months, however, mean less water available in the summer and early fall months to generate hydroelectricity when the market value of power is the highest. This reduction in hydropower output will have to be replaced with more expensive sources, thereby significantly increasing electricity costs for California’s utility customers.
- **Proposed PMA Transmission Privatization Would Raise Rates, Increase Risks.** The Administration has again proposed privatizing the transmission assets of WAPA and the other federal power marketing agencies. Any private party will want to maximize revenues and earn a return on its investment, leading to further rate increases. Moreover, privatization risks reliable service, particularly in rural areas, if a private purchaser abandons less profitable assets. CVP power customers are not only paying for these facilities, but also advance funds to WAPA for project maintenance. While Congress has repeatedly rejected past privatization proposals, the proposal further erodes customer confidence and poses additional financial and operational risks.
- **Market Rates Proposal Would Cost Ratepayers and Taxpayers.** The President’s budget also proposes charging “market rates” for the sale of federal power. While the proposal raises more questions than it answers, it is a short-sighted plan that produces losers on all sides. Since CVP power is currently above market, the proposal would appear to produce a rate reduction—and leave taxpayers to shoulder unrecovered costs. More likely, recovery of these uneconomic costs would be deferred. As a practical matter, if adopted, this plan would force CVP power customers to pay the higher of cost or market. By removing any economic value from CVP power, this plan would prompt the flight of CVP customers and jeopardize the financial viability of the entire CVP system.

**Contract
Renewal
During Period
of Risk and
Uncertainty**

Current CVP contracts expire in 2024. WAPA is beginning contract renegotiations in 2018. Today, CVP power customers face a grim outlook. Not only have CVP power rates been above market, but the CVP resource faces a significant number of risks, uncertainties, and cost pressures. Compared to market alternatives, the outlook for CVP power is growing riskier and more expensive.

**Power Rate
Risks
Threatens
Entire CVP
Program**

The economics of the CVP power system reaches far beyond the 700,000 electric customers served by NCPA member communities—or even the other CVP power customers. Revenue from CVP power sales is the lynchpin of the entire CVP program:

- Power revenues support the repayment and upkeep of the CVP network of dams;
- CVP project power is used to pump water throughout the system;
- CVP irrigation projects are supported with “irrigation assistance” from power customers;
- CVPIA Restoration Fund programs, even if properly reformed, will remain highly dependent on power revenues; and
- Vital flood control operations need power revenues to support joint project costs.

All of these programs are at risk if CVP power customers reduce their allocations or leave the system. And with CVP power uneconomic, there is no program alternative that will provide full cost recovery.

Significant action is needed to provide a comprehensive solution that restores the competitiveness of CVP power and the viability of the CVP system and assures that the many public benefits this project provides to Californians continues to be realized. As well, PMA privatization and market rates proposals need to be soundly rejected to create a stable atmosphere for continuation of the public-private partnership in water and power development in the West.