

The Source Narrative - Fiscal Year 2019

Introduction

Western Area Power Administration is committed to the safe, reliable and affordable delivery of power and transmission services consistent with sound business principles. Following our Strategic Roadmap's critical pathway of Business, Technology and Organizational Excellence, we strive to make sound investments and improve organizational alignment while staying current with industry developments and regulations. In this same spirit, we continue to evolve our transparency efforts with our customers, other Executive Branch agencies and members of Congress. Our refreshed core values guide our vision, day-to-day activities and decision making.

This document provides context on WAPA's fiscal year 2019 reported data and describes the primary drivers and variances between FY 2019 and FY 2018 costs.

Primary cost and investment drivers in FY 2019 included:

- Asset management strategies, Operations and Maintenance costs as well as capital investments in our transmission system ensuring safe, reliable power and transmission services.
- Public safety risks addressed through carefully planned asset replacements and vegetation management practices
- Addressing cybersecurity and physical security threats and risks of attacks.
- Increasing regulatory requirements designed to strengthen the electric grid.
- Improving efficiency and effectiveness of common functions by continuing to refine new capabilities.

The impact of these efforts on rates and staffing included:

- O&M: Net decrease of \$26 million or 4.3%.
- Purchase power and wheeling: Annual increase of \$28 million or 9.1%.
- Capital investment: Current year investment of \$98 million in collaboration with our customers.
- Authorized full-time equivalents: Did not change from the prior year.
- Power rates: Nearly 80% of our customers enjoyed stable or decreased rates.
- Cost predictability and cost containment via defined lifecycle management strategies.

We consistently look for ways to operate more efficiently and effectively while containing costs and making responsible investments. New capabilities in process improvement during FY 2019 have avoided more than \$21 million in costs WAPA-wide.

As you review the information provided on The Source, it may be helpful to first read the [How-to Guide](#).



Costs

WAPA has contained costs and staffing levels while also addressing new mandatory regulations and physical security and cybersecurity requirements.

Operations & Maintenance – All O&M activities supported maintaining the safety and reliability of our transmission grid and were largely driven by regulatory requirements and aging infrastructure needs. Costs include replacing aging equipment, removing constraints that would impede power flows and ensuring WAPA’s transmission system is at or above industry standards. Non-rate-impacting costs include mainly reimbursable work done based on specific agreements. The impact of O&M activities on WAPA’s rates decreased by \$26 million or 4.3% over the year.

Significant regional O&M variances between FY 2019 and FY 2018 were primarily due to:

- Desert Southwest: Decrease of \$40 million was primarily due to \$21.6 million decrease related to the Parker-Davis Project power system, mainly for bad debt expense that was recorded in the prior year and was settled in FY 2019. In addition, there was a \$10.7 million decrease in the Central Arizona Project power system related to expenses for two major projects (ED2-to-Saguaro transmission line and the Hassayampa Switching Station) which were completed in FY 2018. There was increased effort in vegetation management in FY 2018, which did not occur in FY 2019, causing a decrease of \$3 million. Other various miscellaneous activities and project closeouts resulted in a \$4.7 million decrease.
- Sierra Nevada: Increase of \$13.5 million was primarily due to a \$4.3 million increase in maintenance of transmission lines; uncollectible account expense of \$2.3 million due to bankruptcy action; \$3.1 million in other various miscellaneous activities. In addition, there was a prior year project use true-up which caused a decrease of \$3.8 million in FY 2018.

Purchase power & wheeling – This program allows WAPA to meet energy obligations to our customers during variable hydrological or drought conditions. When hydrology is low, WAPA purchases power for customers using strategic means to keep costs low, such as leveraging reservoir storage to buy during periods of low energy prices or in greater quantities, taking advantage of economies of scale. When there is sufficient power generated by the dams, WAPA uses its authority to create reserve balances to use during drought years. Non-rate-impacting costs include purchasing power for customers who directly pay for costs incurred. PPW costs have increased by \$28 million or 9.1% over the year.

Significant regional PPW variances between FY 2019 and FY 2018 were primarily due to:

- Colorado River Storage Project Management Center: Increase of \$30 million primarily due to hydrology conditions. Overall generation decreased over prior year due to dryer conditions in the first half of the year. As a result, purchase power increased significantly and the purchase power price increased over prior year.
- Sierra Nevada: Decrease of \$8.8 million primarily due to excess base resource which resulted in a decrease in transmission-related costs: \$10.2 million for non-project use and \$6.9 million for



project use. This was offset by an increase of \$8.8 million in energy purchases due to low base resource generation for first part of the year, resulting in higher custom product purchases.

- Upper Great Plains: Increase of \$10.6 million primarily due to load-to-resource timing requirements. Overall conditions remained similar to the prior year with a slight increase in overall generation. Purchase power increase was driven by timing needs and was offset by an increase in non-firm revenue sales for the period.

Capital Investments

Capital investments ensure the safe, reliable and affordable delivery of power to wholesale customers while meeting their changing needs. WAPA collaborates with customers on 10-year capital investment plans to ensure we are making the right investments at the right time and in the right place. Key drivers of WAPA's capital plan include asset management strategies, rebuilding parts of the transmission system across our service territory, public safety, statutory and regulatory compliance, cost predictability and cost containment.

Regional plant placed-in-service during FY 2019 included:

- Desert Southwest: \$19 million primarily consisted of the complete demolition and rebuild of the Tucson Substation, Mead transformer replacement and installation of an additional 600MVA transformer, Mesa Substation remediation effort, steel lattice structure replacement of three 230kV line segments and three pole replacement projects to include rerouting of a transmission line segment.
- Rocky Mountain: \$24 million primarily due to the Big George-to-North Cody 115kV conversion, Box Butte-to-Chadron 115kV rebuild, and Badwater 230kV reactors. Revolving fund change is related to the Archer 230kV switch replacements, Ault breaker replacement, and Flaming Gorge breaker replacement.
- Sierra Nevada: \$18 million primarily due to addition of variable shunt reactors at Elverta and Olinda Substations and replacement of the aging power transformer at Folsom Substation.
- Upper Great Plains: \$35 million includes replacement of manned maintenance facilities at Fort Thompson and Sioux City as well as routine line and station equipment replacements. Larger construction projects were in their first or second year of a three-year cycle and will be energized in FY 2020 or FY 2021. Major construction work in progress includes the 345kV transformer replacement at Fort Thompson, Roberts County 115kV substation addition and the 115kV addition at Brookings Substation.

We forecast investing \$1.9 billion in our assets over the next decade, approximately 75% of which will go toward transmission lines and substations.

The majority of non-rate-impacting investments, approximately \$100 million, are a result of non-reimbursable funding used to replace communication equipment required by legislation. This investment resulted in zero costs to customers and is not included in the above regional investments.



Full-Time Equivalent Employee Positions

Our authorized full-time equivalent positions ensure we have adequate staff to meet critical needs and requirements facing the organization. During FY 2019, WAPA's authorized and actual FTE employee positions remained consistent with the prior year. WAPA's internal budget guidance through FY 2022 anticipates flat FTE with an expectation to reallocate internally as needs change.

Rates

WAPA collaborates closely with customers to establish and administer rates for its 11 rate-setting projects, which are made up of 15 multipurpose water resource projects, one coal-fired plant and one transmission project. Each project has its own authorizing legislation that requires the U.S. Treasury to be repaid by those who benefit from federal investments in these projects. Many of WAPA's customers are experiencing stable or decreased rates in FY 2019.

- Upper Great Plains and Rocky Mountain: Power rates for the Loveland Area Projects and the Pick-Sloan Missouri Basin Program – Eastern Division remained stable for FY 2019 after experiencing 14% and 15% decreases respectively in January 2018.
- Colorado River Storage Project Management Center: Salt Lake City Area/Integrated Projects customers have experienced flat rates for 10 consecutive years. Effective management of expenses contributed to stable rates for customers.
- Sierra Nevada: The Central Valley Project's Power Revenue Requirement increased less than 1% per year on average since 2008, largely due to revenue from transmission sales and cost-containment initiatives. However, in 2019, the CVP PRR increased by 6.6%, to \$74.7 million, primarily due to the Bureau of Reclamation's discontinuing the Croffset credit which is applied to CVP capital repayment obligation. Croffset credits result when preference power customers' Restoration Fund contributions exceed their calculated Central Valley Project Improvement Act repayment obligation. Additionally, CVP power customers are required to pay their contractual share of the PRR regardless of the amount of base resource delivered. The effective rate varies based on amount of the base resource delivered and Restoration Fund assessments. Drought significantly impacts these two variables when comparing SN's effective rate to market rates.
- Desert Southwest: The base charge for the Boulder Canyon Project decreased in 2019 by 9.3% to \$69.7 million. Transmission rates for the Central Arizona Project remain unchanged since 2017. Since 2013, transmission rates for the Pacific Northwest-Pacific Southwest Intertie Project have not changed. Parker-Davis Project power and firm transmission rates increased 8.2% and 6.9% respectively, due to O&M costs, purchase power costs and replacements of aging transmission line infrastructure.



Funds Returned to Treasury

WAPA is responsible for returns to the U.S. Treasury for all power projects within its 15-state market area with the exception of the Boulder Canyon and Central Valley projects' project-use O&M collections prior to FY 2014. Returns to Treasury fluctuate based on net cash flow from operations and use of receipts. A significant contributing factor is hydrological conditions, which impact purchase power costs. For the 12 years ended Sept. 30, 2019, WAPA has returned \$3.6 billion and the Bureau of Reclamation has returned \$307.5 million to the U.S. Treasury. During FY 2019, WAPA returned \$281 million to the U.S. Treasury.

Reserve Balance Action Plans

Summary of Reserve Balance Strategy Targets

WAPA began with three primary purposes for its reserve balance strategy:

- Annual operation and maintenance expenses.
- Capital investments.
- Purchase power and wheeling expenses.

Annual – Reserve annual O&M funds roughly three months to sustain operations during emergencies, continuing resolutions or lapses in appropriations. The reserve strategy for fiscal-year-end 2019 supports annual reserve balances of \$87 million.

Capital – Reserve capital funds are necessary to provide multiyear capital construction project startup funding and provide flexibility with schedule and priority changes. The strategy supports reserves up to three years of the capital planning requirement; that's \$218 million for FYE 2019 capital reserves.

PPW – Reserve PPW funds improve both WAPA and customer cash management of the highly volatile PPW program needs during short- and long-term drought conditions. WAPA's PPW FYE reserve balance strategy is based on an anticipated three-year PPW program shortfall of \$393 million for the WAPA's main appropriated Construction, Rehabilitation, Operation and Maintenance (CROM) account and \$125 million for WAPA's revolving Colorado River Basin Power Marketing Fund (CRBPMF) account

Note - The Power Marketing Administrations' PPW reserve strategies are discussed in a September 2019 Department of Energy Report to Congress titled "Power Marketing Administrations Execution of Current Receipt Authority for Purchase Power and Wheeling Expenditures."

New in FY 2019 - WAPA introduced a fourth reserve component: Other. The new reserve component mitigates risk for the generating agency's annual and capital program requirements that rely solely on transfers from WAPA's CRBPMF balances. WAPA offsets this annual reserve component by the balances on hand at the generating agency. For FYE 2019, the strategy supports up to \$2 million.

For the above reserve purposes, WAPA's reserve strategy supports balances up to \$825 million.



Non-Reserve Balances

In addition to the reserve strategies, WAPA has balances associated with non-reserve activities. WAPA does not develop a strategy objective for these balances as the balances are primarily driven by stakeholders. For full disclosure, WAPA includes these non-reserve balances in the total results.

The non-reserve balances are primarily related to:

- Reimbursable work for others.
- Congressionally directed funds and earmarks.
- Other WAPA accounts (Transmission Infrastructure Program, Falcon and Amistad, Emergency)
- Proposed budgetary offsets (i.e., rescission, sequester and use of prior year balances)

Reserve Actions Taken

Annual – A \$5 million reduction to annual reserves was included in the FY 2020 WAPA Congressional Budget Request to keep balances within target levels. Additional out-year budget offsets are under consideration.

Capital – Regional reviews were completed to validate need for retention. The reviews led to approval of a temporary increase in one region and a recommendation to return a portion of another region's balances to Treasury.

PPW – Consistent with Congressional guidance around the budgetary scoring concern, WAPA matched all available receipt authority provided by Congress.

WAPA reviewed and revised the reserve strategies for its Revolving Fund program requirements. That led to a few changes for the CRBPMF reserve components:

- Revolving Fund annual reserve target reduced slightly.
- PPW reserve for revolving account increased to align more with the CROM account methodology to provide for cash shortfall associated with a severe long-term drought. The CROM reserves are not available for the revolving fund account.
- Introduction of new reserve component to ensure generating agency financing risks for their annual O&M and capital financed through transfers from the CRBPMF are mitigated appropriately.

Results

WAPA made continuing progress executing the reserve strategies in each of the primary purpose areas.

Annual – FYE 2019 annual reserves are in line with the strategy. FYE 2019 balances at \$92 million were within \$5 million of the annual reserve target of \$87 million; a variance of less than 6%.

Capital – FYE 2019 capital reserves are in line with the strategy. FYE 2019 balances at \$198 million were within \$20 million of the capital reserve cap of \$218 million; a variance of less than 10%.



PPW – FYE 2019 PPW reserves continue to make progress towards the strategy and have substantially reached the target objectives. CROM balances specifically are in line with the strategy. FYE 2019 CROM PPW reserves at \$370 million were within \$23 million of the reserve target; a variance of less 6%. FYE 2019 CRBPMF PPW reserves at \$85 million were \$40 million short of the FY 2019 revised \$125 million target, a shortfall of 20%. WAPA will continue to seek progress in this area to ensure the risk of high PPW cost variability is appropriately mitigated for both the CROM and CRBPMF accounts.

Other – When the CRBPMF PPW reserves are more fully developed, WAPA will be able to address additional risk mitigation for the generating agencies programs. Current CRBPMF reserves allocated to Other is \$0.

WAPA’s combined reserve balances at \$745 million provide for roughly 90% of the \$825 million risk-mitigation level WAPA is targeting.

WAPA’s overall FYE 2019 unobligated balances, including non-reserve balances of \$116 million, totals \$861 million.

WAPA relies 100% on cash to manage its business. Without a borrowing mechanism, cash reserves are critical for operating during emergencies, droughts or other abnormal business conditions. Read more about WAPA’s reserve funding strategy [here](#).

Summary

As we continue our journey along *Strategic Roadmap 2024*, we remain committed to enhancing programmatic and financial transparency at WAPA, both with customers and other branches of government, and remaining laser focused on our mission and the state of the industry. Continuing to enhance financial information sharing and program collaboration with customers aligns with our core value to “Be curious, learn more, do better. Repeat.” As we build and develop this site based on feedback from you, we will provide detailed cost information and narrative summaries annually. If you have questions or comments about this site, email thesource@wapa.gov.

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