Source Narrative - Fiscal Year 2020

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 decision making and day-to-day activities.

This document provides context on WAPA's fiscal year 2020 reported data and describes the primary drivers and variances between FY 2020 and FY 2019 results.

Our focus areas in FY 2020 included:

- Responding to the challenges of COVID-19 by prioritizing safety and reliability with sound business practices: Transitioning to maximum telework in early 2020 to safeguard workers, executing contingency plans to sequester key personnel to sustain operations and offset COVID-19 costs with Cares Act funding and the redeployment of unused travel and training funding.
- Employing asset management, system maintenance and capital investments in our transmission system ensuring safe, reliable power and transmission services.
- Addressing public safety risks through carefully planned asset replacements and vegetation management practices.
- Managing cybersecurity and physical security threats and risks of attack.
- Following regulatory requirements designed to strengthen the electric grid.
- Pursuing operational efficiencies.

The impact of these efforts on rates and staffing included:

- O&M: Increase of $1 million or 0.25%.
- Purchase Power & Wheeling: Decrease of $16 million or 4.8%.
- Capital investment: FY 2020 investment of $133 million in collaboration with our customers.
- Authorized full-time equivalents: Unchanged from the prior year.
- Power rates: On a weighted average basis, our average rates increased by 2.2% year over year but have declined 4.3% per annum over the past five years.

We consistently look for ways to operate more efficiently and effectively while making responsible investments. New capabilities in process improvement during FY 2020 avoided more than $20 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 increased by $1.4 million or 0.25% year over year.

Significant regional O&M variances between FY 2020 and FY 2019 were primarily due to:

- Desert Southwest: Increase of $11 million was primarily due to a $13.7 million increase relating to the Parker-Davis Project power system for a bad debt expense that was settled in FY 2019. In addition, the nearing completion of the Hassayampa Tap rebuild/upgrade resulted in a decrease of $2 million from FY 2019 on the Central Arizona Project power system, and $1 million increase on Colorado River Storage Project power system for major repairs at Pinnacle Peak Substation for the KU1A transformer and replacement of 345-kilovolt disconnect switches. Other miscellaneous activities and project closeouts resulted in a $1.7 million decrease.
- Rocky Mountain: Decrease of $5.6 million was primarily due to a reduction in interest on investment. The cumulative unpaid outstanding investment decreased substantially between FY 2020 and FY 2019 resulting in less interest due to Treasury than the prior year.
- Sierra Nevada: Decrease of $4.3 million was primarily due to a $2 million decrease in integrated vegetation management and access road repair expenses due to the Carr Fire in the prior year and a $2.3 million bankruptcy action that was recorded in FY 2019.

There was one unusual accounting event in FY 2020:

- Salt Lake City Area/Integrated Projects: Environmental costs increased by $6.6 million. This is due to enacted congressional language (Dingell Act), which indicates that WAPA no longer has authority to use power revenues to fund the Recovery Implementation Programs and record the transfer to the Bureau of Reclamation as a constructive return. A transfer to Reclamation occurred in FY 2020 for environmental stewardship and an estimated cost of $6.6 million was executed for RIPs by Reclamation. WAPA is currently accounting for this as an environmental operating expense and not as a constructive return as in previous years.

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 decreased by $16 million or 4.8% year over year. Significant regional PPW variances between FY 2020 and FY 2019 were primarily due to:

- Colorado River Storage Project Management Center: The decrease of $15 million is primarily due to better hydrology conditions during the course of the runoff, which caused a significant increase in the elevation of Lake Powell, the site of the largest power facility in the CRSP. The higher water elevation improved the efficiency of power production at the Glen Canyon facility in FY 2020, decreasing the need for firming purchase power expenses.
- Desert Southwest: The increase of $9.5 million was attributable to higher volumes purchased at higher prices. Higher volumes resulted from year-over-year increases in purchases supporting sales of electric power as well as purchases supporting the transmission balancing authority.
- Upper Great Plains: The decrease of $12.9 million is due to an overall operational efficiency of the SPP market which resulted in lower average pricing. Additionally, available generation was shaped to minimize peak purchases.

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, maintaining the transmission system across our service territory (which may include rebuilding or replacement), public safety, statutory and regulatory compliance, cost predictability and cost containment.

Regional plant placed-in-service during FY 2020 included:

- Desert Southwest: $51 million consisted of the completion of six transmission line replacement/upgrade projects for $14 million, the nearing completion of the Liberty Substation capacitor bank replacement project for $9 million, the Kayenta and Long House Valley Substation oil-filled variable shunt reactor installations for $8.7 million and the Longtin Substation for $8.3 million that was booked to plant in FY 2020. There was also the completion of seven communication projects on the Colorado River Storage Project power system for $3.4 million, five physical security projects for $3 million, 20 Replacements, Retirements, and Additions projects for $2.6 million, $1.4 million in moveable property, and $1 million for erosion control and a waterline replacement at Glen Canyon.
- Rocky Mountain: $14 million related to Big George-North Cody Conversion, $4.8 million to Granby Pumping Plant - Windy Gap transmission line rebuild, and $3.6 million to Laramie-Snowy Range Substation and T-Line.
- Sierra Nevada: $11 million consisted of the completion of the Station Service Reliability Upgrade at the Sacramento Operations Center for $3 million, substation rating upgrades at Keswick and Airport Substation for $2 million, completion of physical security remediation program upgrades to facility access at eight locations across the region for $3 million,

replacement of towers on the Shasta-Cottonwood line destroyed in the Carr Fire for $1 million, and other miscellaneous for $2 million.

- Upper Great Plains: $50 million includes 115-kV breaker-and-a-half addition at Brookings Substation for $12.4 million, Roberts County 115-kV substation addition for $8.4 million, control building and panel replacements at Fargo and Jamestown for $5.0 million, 345-kV transformer replacement at Fort Thompson for $2.9 million, and routine line and substation equipment replacements for $21.1 million.
- Headquarters: $6 million investments related to lifecycle management strategy for Information Technology, Aviation assets and systems enhancements.

Majority of non-rate-impacting investments, approximately $3.4 million, are a result of non-reimbursable funding, primarily for replacements required by legislation. This investment resulted in zero cost to customers and is not included in the above regional investments.

We forecast investing $1.9 billion in our assets over the next decade, approximately 76% of which will go toward transmission lines and substations.

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 2020, WAPA's authorized and actual full-time equivalent employee positions remained consistent with the prior year.

Rates

WAPA establishes and administers rates for its 11 rate-setting projects, which are made up of 14 multipurpose water resource projects, one coal-fired plant[1] and one transmission project in close collaboration with its customers. Each project has its own authorizing legislation requiring WAPA to recover the full cost of its operations from the beneficiaries of these federal projects in order to repay the capital invested, with interest, to the U.S. Treasury. In FY 2020, many of WAPA's customers experienced stable or decreased rates measured year-over-year.

- 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 2020 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 11 consecutive years due to the collaborative efforts of the Bureau of Reclamation, Colorado River Energy Distributors Association, the Colorado River Upper Basin States and WAPA on initiatives to reduce capital repayment obligations. These efforts, combined with several years of above-average hydrology, offset

[1] In 2017, the entities sharing ownership in the Navajo Generating Station voted to close the plant by the end of calendar year 2019. The plant ceased generating on Nov. 19, 2019.

rising O&M costs. The latest initiative in FY 2020 led to a 5.5% decrease in the energy rate for FY 2021.

- 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 2020, the CVP PRR decreased by 7.9% to $68.8 million, primarily due to the Bureau of Reclamation's Final Cost Allocation study, which resulted in an adjustment to the CVP capital repayment obligation for power. 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 over $3 million, a 4.8% reduction, to $66.4 million in 2020. Transmission rates for both the Central Arizona Project and the Pacific Northwest-Pacific Southwest Intertie Project remain unchanged. Parker-Davis Project power and firm transmission rates increased 4.3% and 5.8% respectively, primarily due to a decrease in unapplied revenue, rising purchase power needs 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 marketing area except for 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 13 years ended Sept. 30, 2020, WAPA has returned $3.9 billion and the Bureau of Reclamation has returned $321.4 million to the U.S. Treasury. During FY 2020, WAPA returned $272.3 million to the U.S. Treasury.

Reserve Balance Action Plans

Summary of Reserve Balance Strategy Targets

WAPA has four primary purposes for its reserve balance strategy:

- Annual operation and maintenance expenses
- Capital investments
- Purchase Power & Wheeling expenses
- Other for generating agency annual and capital requirements

Balances are primarily from receipts and customer advances; very little is appropriated funding.

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 2020 supports annual reserve balances of $90 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 $409 million for FYE 2020 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 WAPA's main appropriated account (CROM) and $85 million for WAPA's revolving fund account (CRBPMF).

> Note – The PMAs' PPW reserve strategies are discussed and expanded upon 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."

Other – Reserve component mitigates risk for the generating agency 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 2020, the strategy supports up to $24 million.

For the above reserve purposes, WAPA's reserve strategy supports balances up to $1 billion.

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-Amistad, Emergency).
- Proposed budgetary offsets (i.e., rescission, sequester, and use of prior year balances).

Reserve Actions Taken

Annual – A $15 million offset to annual reserves was included in the FY 2021 WAPA Congressional Budget request to keep balances within target levels.

Capital – No actions necessary; regional balances were within target levels.

PPW – WAPA matched available receipt authority as needed, bringing the CROM balance up to the full $393 million target.

Other – No actions necessary; balances were within target levels.

Results

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

Annual – FYE 2020 annual reserves are in line with the strategy. FYE 2020 balances at $83 million were within $7 million of the annual reserve target of $90 million a variance of less than 8%.

Capital – FYE 2020 capital reserves are in line with the strategy. FYE 2020 balances at $219 million are less than the capital reserve cap of $409 million.

PPW – FYE 2020 PPW reserves continue to make progress toward the strategy and have substantially reached the target objectives. 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.

- FYE 2020 CROM PPW reserves at $393 million align with the reserve target.
- FYE 2020 CRBPMF PPW reserves at $28 million were $57 million short of the FY 2020 revised $85 million target, a shortfall of 67%.

Other – Reserve balance in current CRBPMF reserves allocated to “Other” is $24 million and is in line with strategy.

WAPA’s combined reserve balances of $747 million fall within our reserve strategy targets providing for amounts up to $1 billion.

For full disclosure, WAPA’s overall FYE 2020 unobligated balances, including non-reserve balances of $115 million, totals $862 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 publicaffairs@wapa.gov.

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