The Source Narrative - Fiscal Year 2018

Introduction

WAPA continues to be 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.

In 2016, we launched The Source website to share accurate and up-to-date financial and operational information in one convenient place. On May 11, 2018, we expanded The Source to include historical and future expenditure information from fiscal years 2008 to 2017. The Source Narrative 2008-2017 document provides context and background for the initial reported historical data and describes the primary drivers behind WAPA's costs over the 10-year reporting period. This document provides context on FY 2018 reported data and describes the primary drivers and variances behind WAPA's FY 2018 costs compared with the prior year.

Primary cost and investment drivers in FY 2018 included:

- Operations and Maintenance costs as well as capital investments in our transmission system ensuring safe, reliable power and transmission services.
- 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 increase of $19 million or 3.4 percent.
- Purchase Power and Wheeling: Annual increase of $5 million or 1.8 percent.
- Capital investment: Current year investment of $137 million in collaboration with our customers.
- Authorized full-time equivalents: Did not change from the prior year.
- Power rates: More than 50 percent of WAPA's customers had their power rates decrease for the second consecutive year (Pick-Sloan and Loveland Area Projects). Another 20 percent experienced flat rates for the past nine years (Salt Lake City Area/Integrated Projects) while an additional 7.5 percent had a mid-year rate decrease (Central Valley Project).

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 2018 have avoided more than $17 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 rate grew by $19 million or 3.4 percent.

Significant regional O&M variances between FY 2018 and FY 2017 were primarily due to:

- Desert Southwest: Increase of $15 million due to $5.3 increase in replacements collaboratively identified with customers, $3.7 million increased effort on vegetation management, and $3 million for hardware replacements on the Mead-to-Phoenix Project. The increase also includes, $2.5 million for depreciation on the Electrical District No. 5-to-Palo Verde Hub Project, which is not typically recovered through the facility-use charge for the project

There were two unusual accounting events in FY 2018, which further increased the overall O&M impact to $39 million or 6.9 percent.

- Salt Lake City Area/Integrated Projects: increase of $13.5 million primarily due to a change in accounting for the Colorado River Basin Funding to the Bureau of Reclamation. The system entered into a Memorandum of Agreement with upper division states of Colorado, New Mexico, Utah and Wyoming to fund projects within Upper Colorado River Basin, and project costs are expensed as transferred to the Bureau of Reclamation. In FY 2017, the MOA Transfer was previously accounted for and reflected in WAPA's financial statements as a revenue transfer to the Bureau of Reclamation.
- Desert Southwest: increase of $6 million due to bad debt expense. During the completion of the FY 2018 audit, WAPA had not anticipated recovery of certain receivables; however actions taken in FY 2019, resulted in a full recovery of the amount.

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 pay for costs incurred. PPW costs have increased by $5 million or 1.8 percent over the year.

Significant regional PPW variances between FY 2018 and FY 2017 were primarily due to:

- Desert Southwest: Increase of $6 million primarily due to increased market prices in FY 2018 for purchase power.
- Sierra Nevada: Increase of $22 million primarily due to transmission expense increases. Base Resource was significantly less in FY 2018 (2,535 GWh) from that in FY 2017 (4,155 GWh). This resulted in increased purchases to meet load requirements and increased transmission usage for delivery of power. Additionally, the SN region experienced an increase in CAISO Transmission Access Charges due to an increase in the TAC rate. Finally, there was an increase in Resource Adequacy costs due to an increase of CAISO backstop procurement for this product.
- Upper Great Plains: Decrease of $22 million primarily due to favorable water conditions and better-than-average generation requiring fewer energy purchases to serve load. Southwest Power Pool (SPP) network transmission service costs also decreased due to the SPP January 2018 network rate decrease.

Capital Investments

These investments ensure we are able to continue transmitting power to wholesale customers and meet their changing needs. Aging infrastructure, increased congestion and more security requirements are drivers of cost. 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.

Regional plant placed-in-service during FY 2018 included:

- Desert Southwest: $13 million primarily due to replacing aging transmission lines from Gila to Welton Mohawk, an emergency breaker replacement at Pinnacle Peak Substation, replacement of the 161-kV oil breakers with SF6 gas breakers at Parker Substation, Mesa Substation remediation effort, Tucson Substation upgrade from 115 kV to 230 kV, a major replacement effort to replace aging HVACs across the DSW region, an upgrade of the erosion control system at Mead Substation, and upgrade communication system at 11 microwave sites.
- Rocky Mountain: $29 million primarily due to four facilities: Goshen County Substation, Granby Pumping Plant-Windy Gap, Pole Hill Switchyard and Thermopolis Substation.
- Sierra Nevada: $16 million primarily due to replacing aging transmission lines from Keswick to Cottonwood and Airport Substation and the completion of the North Area Building Project at Keswick Substations and Redding Maintenance Facility.
- Upper Great Plains: $67 million primarily due to major substation additions energized at Groton South, VT Hanlon and Towner. Significant capital replacement work included close out of transformer replacements at Spencer and Newel, the Jamestown 115-kV control panel replacements and security fencing and roof replacement at the Watertown Operations building.
- Headquarters: $12M primarily due to centrally managing Asset Planning and Management, Aviation, Information Technology, Occupational Safety and Health, Security and Emergency

Management and Cyber Security programs on behalf of the regions. The main capital investment expenses were in lifecycle management strategy for IT and aviation assets, which are needed to keep current and secure infrastructure and systems currently being used.

We forecast investing $1.6 billion in our assets over the next decade, more than two-thirds of which will go toward transmission lines and substations.

Most non-rate-impacting investments are a result of non-reimbursable funding used to replace communication equipment required by legislation, accounting for annual increase of $4 million of capital investments. 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 2018 WAPA's authorized and actual full-time equivalent employee positions remained consistent with the prior year.

Rates

WAPA collaborates closely with customers to establish and administer rates for its 10 rate-setting projects, which are made up of 14 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 this year.

- Upper Great Plains and Rocky Mountain: Power rates have gone down for customers as a result of reducing the drought adder to zero. The remaining balance of the drought deficit was paid ahead of schedule and, as of 2018, has resulted in about $40 million reduction in rates. FY 2018 is the second year UGP and RM customers have had a rate reduction.
- Colorado River Storage Project Management Center: SLCA/IP customers have experienced flat rates for nine consecutive years. Effective management of expenses, as well as reduced purchase power needs attributable to sufficient hydrology, contributed to stable rates for customers. The CRSP MC also decreased its building space by 30 percent, which is anticipated to result in future savings.
- Sierra Nevada: Central Valley Project's Power Revenue Requirement, or PRR, increased less than one percent per year on average, largely due to revenue from transmission sales and cost containment initiatives. In 2018, the CVP PRR decreased by 10.4 percent primarily due to the Bureau of Reclamation's proposal to credit CVP Improvement Act overpayments by power customers. As CVP power customers are required to pay their contractual share of the PRR cost regardless of the amount of project power delivered, the effective rate varies based on amount of the CVP generation produced and delivered. Restoration Fund assessments and reduced hydropower generation due to drought are important variables when comparing SN's effective

rate to market rates.

- Desert Southwest: Works collaboratively with its customers to keep rates as low as possible. Boulder Canyon Project rates increased in 2018 mainly due to collection of working capital for the new marketing period. Rates for the Central Arizona Project have remained unchanged since 2017. Rates for the Pacific Northwest-Pacific Southwest Intertie Project have not changed since 2013 and will not do so until at least 2020. Parker-Davis Project rates increased modestly due to changes in O&M and necessary replacements of aging transmission line infrastructure. Even so, transmission rates in DSW remain some of the lowest in the nation.

Funds Returned to Treasury

In our continuing efforts to improve financial transparency WAPA added a new report to The Source during FY 2018 disclosing funds returned to the U.S. 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 before 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 10 years ended Sept. 30, 2018, WAPA has returned $3.2 billion and the Bureau of Reclamation has returned $306.6 million to the U.S. Treasury. During FY 2018, WAPA returned $265.5 million to the Reclamation Fund.

Reserve Balance Action Plans

Summary of Reserve Balance Strategy Targets

WAPA has three primary purposes for its reserve balance strategy: annual O&M expenses, capital investments, and purchase power and wheeling expenses.

Annual O&M balances allow WAPA to sustain operations during emergencies, continuing resolutions or lapses in appropriations. WAPA's annual FYE reserve balance target is one quarter+21 days of the upcoming year's budget requirement for annual expenses. The FYE 2018 strategy supports annual reserve balances of $89 million.

Capital balances provide necessary funding in advance of starting capital construction projects and provide flexibility with schedule and priority changes. WAPA's capital FYE reserve balance target is based on the upcoming three-year capital investments planned in WAPA's 10-year Capital Investment Plan with an offset for the portion of the plan that's covered by appropriated Program Direction. The target is based on an up-to-three-year balance with regional discretion to carry lower balances to meet their respective regional needs. The FYE 2018 target for capital was $252 million, which assumes each region targets the full three-year balance.

PPW balances improve both WAPA and customer cash management of the PPW program needs during short- and long-term drought conditions. WAPA's PPW reserve balance strategy is based on an anticipated PPW program shortfall of $427 million before drought conditions are recognized and budget and rate adjustments are initiated to compensate. The strategy is focused on the largest of WAPA's systems, recognizing that the risk of severe drought is less likely to occur at multiple regions at the same time.

For the three primary purposes, WAPA's reserve balance strategy for FYE 2018 supports up to $768 million.

In addition to the three primary purposes, WAPA has balances for other activities. These are primarily related to work-for-others and congressionally directed funds. Since these other balances are driven by stakeholders, WAPA does not have a strategy objective for them. For full disclosure, WAPA includes the 'other' balances in the final results.

Development of Initial FY18 Action Plans for Primary Purpose Categories

Initial action plans for FY 2018 were developed based on the opening balance position for the three primary purpose categories, the variance from the strategy objectives, and the actions that could be achieved during FY 2018 to bring the balances for the primary purposes closer to the strategy objectives.

Actions Taken

Annual – The opening annual balance of $129 million exceeds the strategy target by $40 million. To decrease the annual balances, WAPA successfully worked with the Department of Energy, the Office of Management and Budget and Congress to reduce the FY 2018 annual Net Zero appropriation by $44 million.

Capital – The opening capital balance of $189 million is lower than FYE 2018 target of $252 million by $63 million. To stay within balance targets of $252 million, each region's capital balances were reviewed against their respective regional capital planning requirement and adjusted as necessary.

PPW – The opening balance of $230 million is nearly $150 million less than the $427 million strategy objective. The FYE 2018 target for PPW was set at $280 million, a growth of $50 million based on a four-year plan to increase existing balances by $50 million per year to reach the $427 million level by FYE 2020.

Results

In addition to managing overall reserve balances to $717 million, WAPA made substantial progress executing the reserve strategies in each of the three primary purpose areas.

Annual – Reserve balances at FYE 2018 of $87 million were slightly under the reserve target of $89 million, even though actions taken during the year to shift financing from annual Net Zero to alternative customer financing increased pressure on the reserve balance levels.

Capital – Reserve capital balances were $188 million, well under the $252 million level the strategy would support. The balances reflect greater regional alignment with the strategy, which will help ensure the capital balances are maintained within targets and within regional stakeholders' expectations.

PPW – Balances were increased by $45 million, $5 million under the four-year plan to reach the $427 million strategy objective by the end of FY 2020.

Overall, the combined reserve balances for the three primary purpose categories came in at $600 million, well under the combined $768 million level the strategy would support. Total FYE 2018 balance, including 'other' category of $117 million is $717 million.

Read more about WAPA's reserve funding strategy here.

Summary

As we continue our journey along *Strategic Roadmap 2024*, we remain committed to improving transparency at WAPA, both with customers and other branches of government, and remaining laser focused on our mission and the state of the industry. Evolving our services to improve information sharing and 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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