

The Source Narrative – 2008-2017

Introduction

WAPA 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.

In 2016, we launched The Source website to share accurate and up-to-date operational information in one convenient place. On May 11, 2018, we expanded The Source to include historical and future expenditure information from the past 10 fiscal years (2008-2017). This document describes the drivers behind WAPA’s costs over the past decade and provides context and background for the new historical data. Primary cost and investment drivers included:

- Operations & Maintenance costs as well as capital investments in our transmission system to ensure safe and reliable power and transmission services.
- Addressing cybersecurity and physical security threats and risks of attacks.
- Increasing regulatory requirements designed to strengthen the electric grid.
- Restructuring the organization while adding new capabilities to manage common functions more effectively and efficiently.

The impact of these investments and drivers on rates and staffing included:

- O&M: Annual increase of 2.5 percent, on average, per year.
- Purchase power & wheeling: Decrease in costs by \$229 million over the 10-year period.
- Capital investment: Total investment of \$1.7 billion in collaboration with our customers.
- Authorized full-time equivalents: Increased authorizations by 129, concentrated primarily in Maintenance, Power System Operations and Information Technology organizations.
- Rates: Over much of the reporting period, WAPA’s customers have experienced low rates, with more than 70 percent of WAPA’s customers experiencing stable or decreased rates this year.

We consistently look for ways to operate more efficiently and effectively while containing costs and making responsible investments. New capabilities in process improvement have saved or avoided more than \$55 million in costs WAPA-wide.

We have situated existing and new employee positions more effectively through organizational restructures and consolidating programs such as Power Systems Operations, Information Technology, Physical Security and Asset Management. Although the number of full-time employees has increased, the restructuring and consolidation efforts have limited growth. The increase in number of positions



ensures continued delivery on our mission while maintaining rates that are often lower than or equal to industry averages, helping rural communities thrive.

As you review the information provided on The Source, it may be helpful to first read this [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. The impact of O&M on WAPA’s rate grew by 2.5 percent, on average, per year. Non-rate-impacting costs include mainly reimbursable work done based on specific agreements.

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 unobligated balances to use during drought years. Thanks to these prudent practices, PPW costs have decreased by \$229 million over the 10-year period. Non-rate-impacting costs include purchasing power for customers who pay for costs incurred.

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 investments over the 10-year period include:

- Upper Great Plains: \$579 million. UGP capital activity included 12 substation additions totaling \$80 million in capital investment during the period. Three substations—Williston 2, Utica Junction and Letcher—made up \$40.9 million of that amount.
- Desert Southwest: \$429 million. Replacing aging transmission line infrastructure in the Parker-Davis project was the primary driver. Some of the replacements included collaboration with the Transmission Infrastructure Program, which financed \$76 million in transmission and system upgrades for the Electric District No. 5-to-Palo Verde Hub project between FY 2012-2015.
- Rocky Mountain: \$256 million. Capital activity included 14 major transmission line and substation projects totaling \$103.9 million. Four projects—Lovell-Yellowtail, Platte Valley Voltage Control, Cheyenne Miracle-Mile and Waterflow Phase Shifters—made up \$68 million of that amount.



- The capital investments include the Cheyenne-Miracle Mile transmission line and Snowy Range projects, which account for \$17 million.
- Sierra Nevada: \$295 million. Customers approved and funded a number of reliability projects, including Sacramento Area Voltage Support Project for \$83 million; Shasta Double-Breaker Bus for \$6 million; Tracy Double Breaker-Double Bus for \$22 million; Shasta Flanagan Reconductoring for \$10 million; and interconnections at Trinity.
- Headquarters: \$43 million. Headquarters centrally manages asset management, aviation, IT, safety, physical security and cybersecurity programs on behalf of the regions. The chief capital investment expenses were in lifecycle management strategy for IT and Aviation assets, which are needed to maintain 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 \$83 million of capital costs. This investment resulted in zero costs to customers and is not included in the above regional investments.

Full-time equivalent employee positions

WAPA's staffing level addresses new mandatory regulations and physical security and cybersecurity requirements. The increase of 129 full-time equivalent positions over the past 10 years, along with various organizational realignments, ensures we have adequate staff to meet critical needs and requirements facing the organization. Net increases were primarily in Maintenance, IT and Power System Operations. A number of employees in Security, IT, Enterprise Risk Management and Reliability Compliance were realigned to Headquarters to ensure WAPA-wide efficiencies and effectiveness while directly supporting WAPA's regions. These shifts, along with associated program budget realignments, are largely accounted for through indirect costs in our financial reporting model.

Rates

WAPA collaborates closely with customers to establish and administer rates for its 16 separate projects and 10 rate-setting systems. 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. More than 70 percent of WAPA's customers are experiencing stable or decreased rates this year.

- Rates have gone down for Upper Great Plains and Rocky Mountain customers as a result of innovative partnerships, which helped reduce the drought adder. The remaining balance of the deficit was paid ahead of schedule and, as of 2017, has resulted in \$40 million in annual savings. This is the second year that 417 of WAPA's 700 customers have had a rate reduction.
- Another 20 percent have experienced flat rates for nine consecutive years. Tight management of operation and maintenance costs as well as reduced purchase power needs contributed to

stable rates. The Colorado River Storage Project Management Center 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 1 percent per year on average, largely due to revenue from transmission sales and cost containment initiatives. In 2018, the CVP PRR decreased by 13 percent 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. Increased cost from Restoration Fund assessments and reduced hydropower generation due to drought are important variables when comparing SN’s effective rate to market rates.
- Desert Southwest strives to keep rates flat. Rates for the Pacific Northwest-Pacific Southwest Intertie project will remain unchanged through at least 2020. When rates need to increase, O&M and necessary replacements of aging transmission line infrastructure are the main drivers. Even so, transmission rates in DSW remain some of the lowest in the nation.

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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