

STATEMENT OF  
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U.S. DEPARTMENT OF ENERGY

BEFORE THE  
COMMITTEE ON ENERGY AND NATURAL RESOURCES  
SUBCOMMITTEE ON WATER & POWER  
U.S. SENATE

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EXAMINE ISSUES AND CHALLENGES AT THE  
POWER MARKETING ADMINISTRATIONS

SOUTHWESTERN POWER ADMINISTRATION

Madam Chairwoman and Members of the Subcommittee, thank you for the opportunity to share information about our program and the state of the agency for the Southwestern Power Administration (Southwestern).

For over 75 years, Southwestern has been marketing and delivering Federal hydropower to the heartland of this Nation. The wholesale customers we serve depend on Southwestern for competitive, reliable, domestically produced power and energy to run their towns, factories, and farms. Southwestern is proud of its role in making the region stronger, and I look forward to sharing with you today how we plan to continue our success in the future.

**SOUTHWESTERN PROFILE**

Southwestern markets and delivers hydroelectric power from 24 U.S. Army Corps of Engineers (Corps) multi-purpose dams with a combined capacity of 2,194 megawatts (MW). On average, Southwestern markets 5,600,000 MW-hours of energy annually, with revenue of approximately \$200 million per year.

It is important to note that the revenue Southwestern receives is applied to repayment, with interest, of the Nation's investment in the generating plants, transmission equipment, communication systems, and administrative and overhead expenses associated with operating our program. Put simply, Southwestern recovers every penny we spend through the rates we charge our customers.

Southwestern also owns and maintains 1,380 miles of high-voltage transmission lines, 26 substations and switching stations, and a communications system that includes digital microwave, VHF radio, and fiber optic components. Until 2019, approximately 200 Southwestern employees and contractors were housed at our Headquarters in Tulsa, Oklahoma; our Operations Center in Springfield, Missouri; and at one of our three Maintenance Units in Gore, Oklahoma; Jonesboro, Arkansas; and Springfield, Missouri. With the recent opening of

the new Operations Center in Nixa, Missouri, Southwestern's Power Schedulers and Dispatchers have made the move to a newly commissioned facility where around-the-clock operations can be conducted more securely. This new facility integrates with Southwestern's existing infrastructure to increase reliability and energy security by providing for continuity of operations in the event of a natural disaster or other emergency.

## **HYDRO-ONLY SYSTEM AND PURCHASED POWER**

One important thing to know about Southwestern is that it has the unique distinction of being the Nation's only electrical balancing area supported solely by hydroelectric generation. Our use of the reservoirs and river systems within our marketing area must be carefully balanced with flood control and other uses so that we can continue to meet the power needs of our customers. Furthermore, the projects we market from are almost entirely dependent on rainfall. Extended dry periods sometimes mean Southwestern must purchase replacement power and energy to meet our contractual obligations.

Current reports from the U.S. Drought Monitor characterize conditions in most of Southwestern's marketing area as near normal in terms of moisture and average in terms of temperature. Southwestern counts on spring rains to refill the reservoirs within our marketing area, giving us the fuel we need to generate hydropower through what are usually long, hot summers in our southern region.

If we don't get adequate rainfall, then Southwestern must purchase power to replace the hydropower that cannot be generated. It is important that Southwestern have access to funds when needed to plan for and meet daily contractual commitments in the dynamic energy environment. We have historically done this through Congressional authority to use our receipts over the long-term – across good water years and bad. Prior year balances have been available to Southwestern so that we are financially prepared and able to achieve rate stability for our customers. This funding authority is critical to operating our program according to sound business principles.

## **SAFETY AND NATIONAL ENERGY SECURITY**

In operating our business, Southwestern shares the same number-one goal of every other electric utility in the Nation – safety. We have a work force that is safety-conscious, aware, alert, and engaged so that we can continue doing our part to keep the lights on. And, of course, keeping the lights on is vital to our Nation's energy security. Hydropower generators respond quickly to changes in electrical demand and therefore can provide valuable and flexible support to the bulk-power system in times of crisis.

Southwestern regularly plans and trains for emergency response to bulk-power system interruptions and physical and cyber threats, both internally and with our regional and national utility partners. In addition to our regular internal drills, we participate in regional power system restoration exercises with Southwest Power Pool, Inc. (SPP) and in national exercises such as the North American Electric Reliability Corporation (NERC) GridEx program.

This kind of planning and training provides opportunities for Southwestern to demonstrate how we would respond to and recover from simulated, coordinated, cyber and physical security

threats and incidents, which strengthens crisis communications relationships and provides an opportunity to evaluate lessons learned.

Southwestern is also actively involved in initiatives within the Department of Energy (DOE), such as researching the possibility of enhancing the Federal power system in Southwestern's region to bolster resilience and the reliability of the Nation's defense critical electric infrastructure.

### **RELIABILITY AND INFRASTRUCTURE**

An integral part of maintaining national energy security is making sure the generation and transmission assets are working and reliable. Southwestern keeps its transmission system reliable by planning and executing repair, performing preventative maintenance, and ensuring cyber and physical security protections are in place. We have a long-term construction plan to prioritize investments, and we evaluate and plan yearly to make sure the appropriate work is being done, while striving to keep downward pressure on expenditures.

An important part of our planning process is coordinating with SPP, the Regional Transmission Organization (RTO) with which Southwestern participates, to ensure that Southwestern's transmission replacements are part of the regional transmission planning process.

We are also actively engaged in investing in the Corps-owned generating assets in our marketing region. With the Corps' partnership and the unwavering support of our customers, we have a well-established customer funding program that allows for reinvestment in critical infrastructure so that Federal hydropower will continue to be competitive for future generations.

As of 2019, nearly \$750 million in funding has been approved under the customer funding program. There are over 300 completed and ongoing projects to replace or repair aging equipment such as gates, pipes, cranes, and even the roofs of the powerhouse buildings themselves. In conjunction with work on these ancillary systems, we have also tackled replacement of major equipment through partial and complete rehabilitations. Aging turbines, generators, transformers, exciters, governor systems, and all the other essential components are getting a complete overhaul, resulting in more efficient and reliable Federal power and energy for our customers and the Nation. To date, we have completed two plant rehabilitations under the program, with three more in the construction phase, and seven more in the design and planning stage.

### **TRANSMISSION POLICY**

While we do our own internal infrastructure planning for the transmission and the generating assets, we are also involved in regional transmission system planning with the three RTOs within our six-state marketing area: SPP, the Midcontinent Independent System Operator (MISO), and the Electric Reliability Council of Texas (ERCOT).

Each of these RTOs has its own rules and policies, and Southwestern staff has spent considerable time over the past several years building relationships and learning the intricacies of how each functions in relation to the Federal hydropower program.

For several years, Southwestern staff worked diligently with SPP staff to implement credits for network transmission service products offered by SPP to our customers. In 2018, we were successful in providing a reduction in SPP transmission service costs to Southwestern's customers taking SPP network service for their balance of power needs and eliminate a pancaked rate under the SPP RTO.

Southwestern actively works to provide additional value to our ratepayers in the ever-evolving atmosphere of wholesale energy markets. One current initiative we are working on is modifying our scheduling procedures so that our customers can realize maximum value from the Federal hydropower resource in combination with the other resources in their energy portfolios.

### **CONTROLLING COSTS, RATES, AND REPAYMENT**

One of Southwestern's strategic goals is to keep costs down. Over the past several years, we have taken an aggressive look at what makes up our rate base and how we can manage costs.

In an effort to decrease annual expenses associated with leasing office space, Southwestern is currently pursuing available options to acquire a new facility to house its personnel at its Headquarters in Tulsa, Oklahoma. Based on 30-year net present value savings versus the current lease configuration, Southwestern forecasts \$12.1 million to \$18.1 million in total savings to our program. When implemented, this reduction in costs will be one of the largest single savings to customers in Southwestern's history and is expected to be accompanied by significant downward pressure on rates.

And though it is satisfying to identify cost savings in new places, our most dependable way of keeping an eye on costs is our annual Power Repayment Studies (PRS), conducted for each of the three rate systems in our marketing area. During the process of conducting the PRS, Southwestern reviews the projected and actual costs of operating our business to assure that sufficient revenues are being collected to repay those costs, along with the principal and interest on the Federal investment. We work within our own agency to accurately capture those costs and with the Corps to account for all costs related to the hydropower purpose at the Corps' multi-purpose projects.

### **SUSTAINABLE WORKFORCE**

To maintain a reliable Federal hydropower product, you must have a reliable workforce. First as Deputy and now as Administrator of Southwestern, I have worked to optimize effectiveness with the following main goals: reduce costs where possible; meet DOE objectives; align related business functions; and put more focus on activities critical to Southwestern, DOE, and Southwestern's customers. Our focus is along three main business lines: Corporate Operations, Power Delivery, and Corporate Compliance.

Within these main business lines, we are focusing on recruiting and retaining employees in key areas such as financial management, contracting, system operations, reliability compliance, resources, power marketing, craft trades, and engineering.

## **FEDERAL HYDROPOWER COUNCIL**

In addition to strong support at our own agency, it is crucial to have strong support at the generating agency to make our program a success. In Southwestern's case, this means collaborating and coordinating with the Corps. Over the past few years, we have participated in the Federal Hydropower Council, where we work with Corps regional and national senior level staff to tackle difficult issues related to procurement, project management, and general policy matters.

In short, this partnership strives to implement new processes and policies to do things better and faster and to improve the Federal hydropower product, price, and value in the evolving energy industry. Southwestern is excited about the opportunity to approach our shared issues at the highest levels of leadership to benefit the Federal hydropower program, our collective customers, and the Nation.

## **BUDGET HIGHLIGHTS**

Southwestern's program is funded by appropriations, authority to use receipts, alternative financing, and other authorities approved by Congress. Southwestern's FY 2020 request nets to an appropriation request of \$10.4 million (Attachment 1), or just under 7% of our \$157 million total program need. The use of alternative financing and offsetting collection authorities to fund expenses and purchased power and wheeling are essential to Southwestern accomplishing its mission with minimal Congressional appropriations. Regardless of the funding source, all Southwestern and the Corps regional hydropower costs are repaid through power rates charged to customers. Generally, the more funding flexibility we have, the more efficiently we can operate our business and provide a high-value product to our customers.

## **CONCLUSION**

Although we appreciate the authority to run our program according to sound business principles, we cannot do it effectively without the participation and support of others. As an agency of DOE, we work with our partners and stakeholders including our customers, the Corps, Congress, the Office of Management and Budget, Federal and state agencies, utilities, regulatory organizations, water resource groups, and the American public.

We've relied on these partnerships for more than 75 years. As Administrator, I am not about to change that. I offer my firm commitment to continue working together to reinforce positive relationships, so that Southwestern – and the Nation – can continue to be successful in the future.

Madam Chairwoman, this concludes my testimony. I would be pleased to address any questions that you or the Members of the Subcommittee may have.

Southwestern Power Administration  
 FISCAL YEAR 2020 BUDGET REQUEST  
 SUMMARY  
 (dollars in thousands)

	FY 2018 Enacted	FY 2019 Enacted	FY 2020 Request
Program Direction (PD)	31,335	32,995	35,157
Operation and Maintenance (O&M)	16,680	17,006	13,639
Construction (CN)	14,932	16,875	15,067
Purchase Power and Wheeling (PPW)	50,000	60,000	93,000
Subtotal, Southwestern Power Administration	112,947	126,876	156,863
Offsetting Collections, PD (annual expenses)	-16,035	-29,695	-31,467
Use of Prior Year Balances, PD (annual expenses)	-12,000	0	0
Offsetting Collections, O&M (annual expenses)	-2,853	-5,707	-5,908
Use of Prior Year Balances, O&M (annual expenses)	-2,200	0	0
Offsetting Collections, PPW	-40,000	-50,000	-83,000
Alternative Financing, O&M	-9,042	-8,894	-6,018
Alternative Financing, CN	-9,417	-12,180	-10,070
Alternative Financing, PPW	-10,000	-10,000	-10,000
Total, Southwestern Power Administration	11,400	10,400	10,400