

Oklahoma Senate Committee on Appropriations

2019-2020 Performance Report

Grand River Dam Authority

Agency Mission Statement:

We deliver affordable, reliable ELECTRICITY, with a focus on EFFICIENCY and a commitment to ENVIRONMENTAL STEWARDSHIP. We are dedicated to ECONOMIC DEVELOPMENT, providing resources and supporting economic growth. Our EMPLOYEES are our greatest asset in meeting our mission to be an Oklahoma Agency of Excellence.

Lead Administrator:

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Governance:

GRDA is governed by a seven-member board of directors comprised of representatives from each GRDA customer class (municipals, electric cooperatives and industrials) as well as the GRDA lakes area. Two at-large representatives also sit on the board.

Appointments are made by:

- The Oklahoma Governor (3),
- Speaker of the Oklahoma State House of Representatives, and
- President Pro Tempore of the Oklahoma State Senate

Two other board positions are ex-officio positions, filled by:

- The general manager of the Oklahoma Association of Electric Cooperatives (OAEC) or designee
- Executive director of the Municipal Electric Systems of Oklahoma (MESO) or designee

Board members serve staggered, five-year terms, with one position opening each year, to ensure continuity. Customer representation on the Board is characteristic of GRDA's status as a public power entity. Board meeting agendas are posted publicly; additionally, board meetings are held on the second Wednesday of each month and open to the public.

Current GRDA Directors:

Tom Kimball

- Chairman
- Appointed by Oklahoma Senate President Pro-Tempore
- At-large director
- Term ends 8/29/2022
- *Over 50 years of experience in the retail business, including 17 years in the corporate structure and 36 years in private business. He is also a founding member of the Owasso Economic Development Authority (1986).*

James Richie

- Vice Chairman
- Appointed by Oklahoma Speaker of the House
- At-large director
- Term ends 8/28/21
- *Active in the oilfield equipment auction industry since 1981, serving in every capacity of the industry. Richie has been involved in over \$2 billion in auction sales.*

Mike Lewandowski

- At-large director
- Appointed by Oklahoma Governor
- Term ends 8/29/23
- *Entrepreneur and owner of several McDonald's franchise locations throughout northeast Oklahoma and southwest Missouri.*

Pete Churchwell

- Appointed by Oklahoma Governor
- Representing Economic Development interests/lake enthusiasts and property owners
- Term ends 8/29/20
- *Former executive in the electric utility and energy industry sector, with 40 years of experience.*

Chris Meyers, PE

- Oklahoma Association of Electric Cooperatives General Manager
- *Registered Professional Engineer in Oklahoma with 30 years of experience in the electric utility industry.*

Dwayne Elam

- City Administrator – Wagoner, OK
- Designee of the Municipal Electric Systems of Oklahoma
- *Has represented GRDA municipal communities on the board since 2018.*

Joseph Vandevier, PE

- Appointed by Oklahoma Governor
- Representing Industrial and Commercial Customers
- Term ends 9/29/19
- *Founder and current managing member of Downhole Dynamics, providing business and technical consulting to the oil and gas industry. A member of the Society of Professional Engineers, he has 40 years of experience in the industry and is the former VP of Operations for Centrilift.*

GRDA Board Committees:

Assets: Churchwell, Kimball, Richie

- Management of real estate
- Lake operations and management
- Dock applications, rentals, leases of real property
- Lake rules and regulations

Audit, Finance, Budget and Policy: Lewandowski, Elam, Vandevier

- Financial reporting, auditors, budget and internal control
- Policies and bylaws

Fuel and Long-range planning: Meyers, Churchwell, Elam

- Purchase, sale and transportation of coal, natural gas or other fuels
- Review resources
- Plan for future needs of GRDA and customers

Compensation and Marketing: Kimball, Richie, Lewandowski

- Competitive compensation
- Marketing plans to support mission and communicate value of services provided to Oklahomans

Governance Accountability:

Board policy directs that, to make the most effective decisions for GRDA and the state of Oklahoma, directors are expected to attend board meetings and actively participate in committees. Additionally, per statute, any director who fails to attend three regularly scheduled board meetings in a calendar year may be removed by his or her appointing authority. Current directors adhere to the attendance policy and statute.

Core Mission:

GRDA's core mission is very broad – lake and ecosystems management and electricity generation and transmission.

GRDA manages a diversified generation portfolio, all of which is located in Oklahoma:

- Run-of-River Hydro generation at Pensacola Dam which creates Grand Lake
- Run-of-River Hydro generation at Kerr Dam which creates Lake Hudson
- A unique pumped-storage hydro, Salina Pumped-Storage which stores “energy” in the W.R. Holway Reservoir
- Thermal (Coal and Natural Gas) Generation at the Grand River Energy Center.
- Thermal (Natural Gas) Generation at the Redbud Combined-Cycle Gas Plant, operated by OG&E
- Wind Generation through purchase power agreements (GRDA does not own or operate these facilities) from Canadian Hills Project (Canadian County), Mustang Run Project (Osage County), Breckenridge Project (Garfield County), and Kay Project (Kay County).

GRDA is a transmission owner and operator:

- More than 1,200 miles of transmission with voltages ranging from 69kV up to 345kV
- Owns and operates approximately 100 substations

GRDA is capable of providing all-requirements electric service and is registered with the Southwest Power Pool, Regional Transmission Organization as providing the following services:

- Transmission Operator
- Transmission Owner
- Generator Operator
- Generator Owner
- Transmission Planner
- Distribution Provider
- Resource Planner
- Load-Serving Entity
- Purchasing-Selling Entity

GRDA manages Grand Lake O' the Cherokees, Lake Hudson, and Chimney Rock Lake, which includes being a good steward of 70,000 surface acres of lakes in Northeast Oklahoma. Those duties also include lake safety and law enforcement.

GRDA lakes provide storage and water supply for 50 Oklahoma water districts and municipal water systems, including Tulsa. The water supply is becoming an ever-increasing focus for GRDA. GRDA's lakes are often the most recognized feature of the Authority.

While other state agencies are involved in lake and ecosystems management (Oklahoma Water Resources Board, Oklahoma Department of Wildlife Conservation) GRDA has primary jurisdiction over the waters of the Grand River system and the lakes created by the GRDA hydroelectric facilities (Pensacola Dam, Robert S. Kerr Dam, Salina Pumped Storage Project).

In 2016, by an Act of the Oklahoma Legislature, GRDA assumed responsibility for Oklahoma's designated scenic rivers, and the protection of the Illinois River and its tributaries.

Because it has jurisdiction over its lakes/Grand River system, GRDA provides its own law enforcement, which includes law enforcement functions directly tied to mandates GRDA must fulfill in order to operate a portion of the nation's bulk electric system. These mandates are non-delegable and come from electric utility oversight agencies such as the Southwest Power Pool, North American Electric Reliability Corporation and the Federal Energy Regulatory Commission.

In line with its new emphasis on water quality, GRDA has contracted with the Grand Lake Watershed Alliance Foundation to develop an education program to raise awareness of the Grand Lake Watershed and emphasize public involvement in caring for the watershed.

According to the Oklahoma Department of Commerce, the operations, construction and positive externalities from GRDA result in a significant economic impact for Oklahoma. From 2015 to 2017, during construction of a new combined-cycle natural gas plant, GRDA was estimated to facilitate an annual economic activity impact of over \$1 billion into Oklahoma's economy. The longer-term impact, without construction activity, is \$850 million annually.

GRDA 2018 in Review

Throughout 2018, the Grand River Dam Authority's focus was on improving efficiency while maintaining high levels of reliability and promoting a safe working environment for its employees.

That focus was evident in many areas of the Authority's broad mission. From the ongoing effort to install a new Enterprise Resource Planning (ERP) system, to the realignment of duties and positions in other areas and new processes and policies, GRDA's goal was to implement and embrace greater efficiency Authority-wide.

Setting the pattern

Even in the New Year's earliest moments, those goals were being reached. On January 1, 2018, Units 2 and 3 at the Grand River Energy Center (GREC) combined to reach an output of 978 megawatts. That is significant when you consider that much of 2017 was spent in construction mode for Unit 3 and re-construction mode for Unit 2.

Heavily damaged in a July 2016 fire, Unit 2 was returned to service late in 2017, with new technologies and upgraded efficiency. Meanwhile, when it went online in late summer 2017, Unit 3 – GRDA's new, 495MW combined cycle natural gas plant – was the most efficient 60 hertz power plant in the world. The combined high output from both units on January 1 was an exciting moment for GRDA's GREC operations team, as well as all of the Authority. The units' combined production would set the pattern for power production and reliability in the year ahead.

Greater Efficiency with ERP

The greatest benefit of an Enterprise Resource Planning (ERP) system is increased efficiency. That was certainly a key factor in GRDA's decision to begin the ERP installation process in 2018. With its ability to eliminate repetitive processes, strengthen internal controls, increase productivity and oversight of capital project spending and provide GRDA board and management with more accurate financial data, the coming ERP system will provide that increased level of efficiency for employees across many departments. For GRDA, the new ERP system (expected to be fully functional in July 2019) is a real, tangible sign of the Authority's ongoing commitment to efficiency and will benefit our operations, our customers and stakeholders all across the state of Oklahoma.

GREC Efficiency

At the Grand River Energy Center – where a large portion of the GRDA workforce is located – several new efficiency initiatives were implemented in 2018. Some of those initiatives were directly associated with power production, as facility personnel looked for ways to improve reliability of the generating units, while also improving cycle efficiency and minimizing off-peak losses. At the same time, efforts to optimize staffing, implement a new approach to maintenance scheduling and a mobile asset management program were also put into practice.

The results speak for themselves. The heat rate of GRDA Unit 2 – an important factor in generator efficiency – was improved by nearly 16 percent over numbers from 2015 (the last full year of operation before the Unit 2 fire). Meanwhile, due to staffing optimization success, overtime hours per pay period dropped from 2,318 in 2014 to an average of 631 by the middle of 2018. Staffing levels also dropped from 201 to 133 in those years, respectively. Through the new maintenance scheduling program, GRDA anticipates a savings of nearly \$600k.

Hydro Efficiency

To realize new efficiencies across the GRDA Hydro Department meant overcoming the challenges of an aging workforce, structural (silos) inefficiencies and a reactive approach to maintenance.

The workforce challenge centered on the fact that a full 50 percent of GRDA hydro employees were eligible for retirement in 2018. To address this challenge, and to preserve hundreds of years of this workforce's collective knowledge, the department has new performance based incentives to retain key employees who were retirement-eligible. At the same time, a new mentoring process was adopted to help promote continuity and succession across the department. Meanwhile, the approach to new hires also changed. GRDA developed a multi-craft apprentice program and implemented new and smarter recruitment tools to place the right people in the right positions.

The multi-craft approach is helping the department to overcome the “silo” issues and also provide for a more efficient approach to maintenance, as multi-craft employees can respond to a variety of maintenance issues. A new 10-hour day scheduled is also helping to minimized call-outs at key times of the day.

As a result, both overtime costs and payroll expenses continue to decrease while corrective maintenance reporting and preventive maintenance job planning are also improving.

Customer Meetings

Throughout 2018, GRDA hosted its customers at several meetings and workshops, all designed to further dialogue, strengthen partnerships and provide information on topics ranging from economic development to rate design.

In mid-February, GRDA hosted its first customer meetings of the year. On consecutive days, GRDA management met first with its wholesale customer group then retail customer group to provide updates on critical issues that would hold the Authority's focus throughout the year. These meetings are also an opportunity for GRDA to provide customers with an updated 10-year financial forecast and allows for face-to-face meetings with GRDA staff involved in phases of utility operations.

In August, GRDA hosted its public power customer representatives at an in-depth Cost of Service & Rate Design workshop. The workshop guided participants through the key elements of utility rate design and the trend and issues that can especially impact the process for municipal-owned systems.

In late September, the educational workshop series for customers continued with a “Digital Economic Development Marketing Best Practices” workshop on the campus of Northeastern State University in Tahlequah. GRDA sponsored the event and the Tahlequah Public Works Authority played host as Janet Ady (Ady Advantage) instructed participants on the many ways public power communities can market themselves to potential new business and industry through their websites and social media channels.

Partnership successes

In mid-March, the Oklahoma State Regents for Higher Education (OSRHE) awarded GRDA with two separate “Regents Business Partnership Excellence” awards during a special luncheon at the University of Central Oklahoma in Edmond. GRDA received the recognition for innovative partnerships with both Northeastern State University (NSU, Tahlequah) and Northeastern Oklahoma A&M College (NEO, Miami). GRDA was the only organization to receive two awards at the event.

The GRDA/NSU partnership resulted in the establishment of a new water monitoring laboratory on the Tahlequah campus, which will be utilized by students and devoted to water quality research along the scenic Illinois River. That partnership will also help to fund scholarships and provide in-class projects and independent research devoted not only to water quality but also animal movements on the river and enhanced bacteria research. The lab will also be utilized by NSU faculty and staff, as well as GRDA personnel.

The GRDA/NEO partnership actually began in 2016 when the organizations came together to not only increase educational and research opportunities for students but also revitalize livestock grazing and pecan-producing on properties owned by GRDA along the Neosho River in Ottawa County. Through the partnership, GRDA leases nearly 3,000 acres to NEOAM which in turn subleases some of the property to other agriculture interests. Revenues from those subleases help support the college’s agriculture programs. Other property is utilized as outdoor classrooms.

Providing more mutual aid

When hurricanes hit North Carolina and Florida in the fall, GRDA once again answered the call for mutual aid. In September, a team of GRDA Police Officers, all trained in swift water rescue operations, traveled to North Carolina in the wake of Hurricane Florence. The officers made the trip as part of a Mayes County task force that also included personnel from Mayes County Emergency Management, Pryor Fire Department, Locust Grove Fire Department and the Quapaw Tribe Fire/EMS contingent. For eight days, this team conducted water rescues and evacuation efforts near Whiteville, North Carolina.

The following month, the electric distribution system in the public power community of Tallahassee, Florida was hit hard by Hurricane Michael. In response, a team of 31 employees from GRDA’s powerline maintenance and police departments traveled to Florida to assist with rebuilding efforts. Their response was part of a nationwide mutual aid program, administered by the America Public Power Association.

These efforts in 2018 continued GRDA’s long tradition of providing mutual aid to other public power systems and neighboring states. In years past, GRDA crews have also responded to Hurricanes Matthew, Harvey, Irma and Rita. Key power line maintenance personnel also served as leads on hurricane recovery projects in the United States Virgin Islands following Hurricanes Irma and Maria.

S&P Global Platts Award

One of the major highlights of GRDA’s 2018 came near the year’s end when the Authority learned that it had been named a finalist for the prestigious *Power Award of Excellence* presented at the S&P Global Platts Energy Awards ceremony in New York City in early December.

The event brought together energy leaders from across the globe to recognize utilities for excellence in a number of areas. While GRDA did not win the award, it was selected as a global finalist for its contributions and investment in power generation, which was critically evaluated to be impactful and reliable. Some key aspects judges considered when selecting GRDA were the ability to plan strategically for growth and peak performance, embrace a radically evolving industry and consistently develop for customers.

Outstanding Steward of America's Waters

In early May, GRDA learned that its innovative "Rush For Brush" program, which has been a key factor in enhancing the fisheries of GRDA lake waters for over a decade, would be a 2018 recipient of the National Hydropower Association (NHA) "Outstanding Stewards of America's Waters" award.

According to the NHA, the award is given annually to "recognize projects that have provided extraordinary recreational, historical, environmental or educational value." GRDA's program was one of two recipients in the public education category. "Rush For Brush" was recognized for its value in effectively communicating and promoting the benefits of hydropower.

First established in 2007, "Rush For Brush" has grown to become one of the GRDA's most successful enhancement and outreach efforts. At annual program workshops (typically held twice a year), GRDA supplies the materials and volunteers supply the labor to help construct artificial fish habitats from concrete blocks and PVC pipe. To date, 5,780 habitats have been constructed by 1,100 volunteers. The habitats now cover nearly 11 acres of lake bed in GRDA-managed lakes.

Adopt The Shoreline, clean up the river bank

While GRDA demonstrates its natural resources stewardship in many ways, one new initiative began in 2018, with the help of many volunteers around the shoreline of Grand Lake.

The "Adopt The Shoreline" program was the result of a coordinated effort between GRDA, the Grand Lake Sail & Power Squadron, Grand Lake Association, "Grow With Grove" Steering Committee and community volunteers. Patterned after a similar program on Missouri's Lake of the Ozarks, the program utilizes volunteer labor to help keep the lake shoreline free of trash and debris.

GRDA realized the real need for an ongoing shoreline cleanup initiative after routine aerial surveys of Grand Lake. While the "Lend A Hand For Lady Grand" program has been successful for many years, this new program is expected to expand both the reach and volunteer base for cleanup efforts.

The program divides the shoreline into 10 zones, with a coordinator assigned to each zone. Those coordinators organize their volunteer team to clean up their adopted shoreline areas at various times throughout the year.

GRDA supplies trash bags for the effort and also pays disposal costs for all approved cleanups. It is also staffing its own full-time shoreline cleanup crew, complete with a barge and the equipment necessary to remove large debris from the shore. In the future, the program will be highlighted by large cleanup events in the fall and spring of each year.

The GRDA commitment to cleanup was also evident along the Illinois River in 2018. During the heavy summer floating season, the GRDA Float Crew – which cleans up trash and recyclable materials from the river bank – collected nearly 2,500 pounds of recyclable materials. That was in addition to 40,000 pounds of trash collected by the float crew and other members of GRDA's Scenic Rivers Operations team during the season.

Sharing the Safety Message

On the water, in the classroom, at fairs and festivals and everywhere in between, GRDA Police Officers continued to share the important water safety messages with young and old alike. Throughout 2018, they stressed life jacket usage, taught safe boating courses, conducted vessel checks, answered questions about boating rules and regulations and patrolled the waters of GRDA's Grand Lake, Lake Hudson, W.R. Holway Reservoir and the scenic Illinois River.

While such activities are just one part of the greater law enforcement role these officers fulfill, the thousands upon thousands of visitors who come to GRDA waters each year benefit from this constant reinforcement of the water

safety message. GRDA understands that to be a good steward of the natural resources under its control, it must educate, support and protect all those who utilize the resources.

Supporting Education

GRDA's support of Oklahoma education at all levels was evident time and again throughout 2018. The Authority opened the doors of its facilities to provide student, educator and administrator tours and even helped to host summer day camps at Grand Lake and the Illinois River. Team GRDA members also participated in career fairs, took part in educational panel discussions and visited classrooms to discuss the importance of education in the workplace.

During the summer, GRDA worked closely with the Oklahoma Conservation Commission and the Oklahoma State University Extension Office to host both the *Journey to the Bottom of the Creek* and *A Grand Adventure* workshops for students. The day-long camps focused on water quality and conservation, aquifers, as well as other creek-side and lake-side experiences. Plans are already in the works for 2019 events.

During the year GRDA furthered a commitment to STEM education programs by sponsoring BMX-STEM kits for each of the public schools in its municipal customer communities. More than just bicycles, the BMX kits include a STEM-based curriculum to guide students as they build, ride and maintain the bikes. Each kit includes five bikes and the goal is for the kits to benefit students for many years to come.

In June, approximately 40 Oklahoma Career Tech Superintendents visited GRDA's Grand River Energy while taking part in a tour of Oklahoma industry. Also in the summer, teachers from all across the area also toured GRDA facilities during a teacher day camp, facilitated by the MidAmerica Industrial Park. GRDA's purpose in these events was both workforce development and educational support. As teachers and administrators toured the facilities, they were exposed to the many career options that could await their students when they join tomorrow's workforce. Helping keep the best and brightest at home, in Oklahoma, continues to be a GRDA goal.

FERC Relicensing Underway

The multi-year process to secure a new Federal Energy Regulatory Commission (FERC) license to operate Pensacola Dam continued for GRDA in 2018.

The year's activities began when FERC representatives conducted a series of scoping meetings and site visits in February. Those meetings were held around the lake area as well and in Tulsa to gather public comments on the effort and proposed study plans associated with the relicensing. During the spring, GRDA also filed its proposed study plan.

The process, which GRDA anticipates will lead to a new 50-year license to operate Pensacola Dam, will not be completed until 2022.

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