



ENVIRONMENTAL

SOCIAL & GOVERNANCE

REPORT



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MESSAGE FROM CEO & BOARD CHAIR



Since its inception in 1961, Big Rivers Electric Corporation has and continues to endeavor to be a leader in the energy industry by providing safe, reliable, and competitive wholesale power and service to our three Member-Owners - Jackson Purchase Energy Corporation, Kenergy Corp, and Meade County Rural Electric Cooperative Corporation. Our mission guides us to produce safe and reliable power that strengthens and provides for our region today while developing a resilient and sustainable energy system for tomorrow. Just as the rural communities we serve strive to be good stewards of the land that provides for them and our region, we at Big Rivers also know that environmental stewardship must be a vital part of our mission.

Through our efforts and strategic planning, we responsibly provide reliable, affordable, and sustainable electricity to all of our Member-Owners. Our “all of the above approach” allows us to balance these factors in a way that meets all of our current goals while providing a pathway to a sustainable future.

(CONTINUED) MESSAGE FROM CEO & BOARD CHAIR

When forming our long-term investment and development plans, we evaluate a range of scenarios, including carbon emissions and other significant environmental concerns. This conscious decision to include sustainability in our planning along with economic and operational issues allows us to make more well-rounded decisions that address a broad spectrum of our Member-Owner needs.

BIG RIVERS DESIRES TO BE A LEADER IN RELIABLE, AFFORDABLE, AND SUSTAINABLE ENERGY FOR OUR MEMBER-OWNER COOPERATIVES.

Many things are rapidly changing in the energy industry, and we will continue to push ourselves to be ready for the challenges of the future while still maintaining those traits which have kept us strong. Our commitments to our Member-Owners, employees, and our communities allow for nothing less. We are excited about our future and the role that Big Rivers will continue to play in this community.



ROBERT BERRY
BIG RIVERS ELECTRIC
PRESIDENT & CEO



WAYNE ELLIOTT
BIG RIVERS ELECTRIC
BOARD CHAIR

ENVIRONMENTAL:

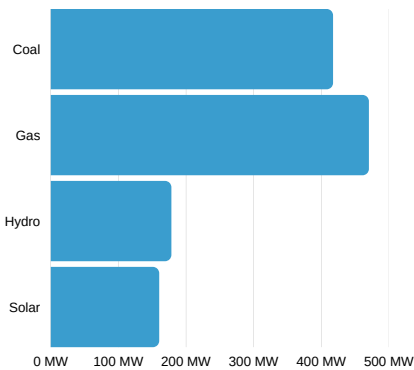
ENERGY

The Big Rivers of today is evolving from the cooperative formed in 1961, but the mission to safely provide competitive and reliable electricity to our Member-Owner cooperatives remains. One of Big Rivers' core values is to be environmentally conscious and good stewards of the environment throughout our service area.

Big Rivers has made great strides in these areas while keeping our obligations to our Member-Owners as our main priority. Time and technology continue to drive our Member needs, and advancements in green technology allow for more diverse generation opportunities. This diversification has come in many forms, including strategic plant closures and adding hydroelectric, natural gas, and renewable options to our generating mix. Through all this, Big Rivers seeks to find a balance in diversification by protecting the cost of electricity for our Member-Owners, utilizing our valuable generation resources, and embracing new options that will strengthen the company for the next 60 years. Coal has been and will continue to be a vital part of the Big Rivers generating fleet. Still, when economically advantageous for our Member-Owners, Big Rivers will continue to look to other generation technologies to supplement our assets.

Big Rivers' strategic and cost-effective diversification of its resource mix has significantly reduced its overall carbon emissions. Since 2005, Big Rivers' total carbon emissions have been reduced by 70%. This level of carbon reduction puts Big Rivers significantly ahead of many of the other Kentucky utilities.

GENERATION FUEL MIX



WILSON STATION - COAL
417 MW

SEBREE STATION - GAS
470 MW

HYDROPOWER - SEPA
178 MW

SOLAR
160 MW
*FUTURE CONTRACTS

**CARBON REDUCTION
2005-2030**



BIG RIVERS HAS CUT CARBON EMISSIONS BY MORE THAN 70% SINCE 2005.

ENVIRONMENTAL:

AIR

For many years, Big Rivers has consistently taken steps to reduce its level of air emissions across the board, often in advance of regulatory deadlines. The Big Rivers' generation fleet is fully compliant with all current Federal and State air emissions regulations and is well-positioned to comply with many of the anticipated future regulations.

Big Rivers was one of the first cooperatives to convert to cleaner fuel, install environmental equipment, and invest in technologies to ensure current compliance and compliance well into the future.

Coal-fired Wilson Station excels at efficiency and reliability, providing a steady source of 24-hour generation crucial for the grid and our Member-Owners. Big Rivers recently invested more than \$100 million to replace Wilson Station's existing Kellogg Wet Flue-Gas Desulfurization system consisting of four horizontal modules with a Since Vertical Tower Absorber that will reduce emissions even further and lower generating costs. Additionally, the new FGD system will produce synthetic gypsum for wallboard production, thus eliminating the need to landfill the FGD byproduct. Beneficial reuse of the byproduct continues with the sale of the ash product to cement and concrete production facilities. Moving forward, little to no product will be placed in the onsite landfill.



WILSON STATION SCRUBBER SYSTEM TO REDUCE EMISSIONS AND LOWER GENERATING COSTS

In all, Big Rivers has invested more than \$500 million to improve air quality and achieved significant results.

Additionally, Big Rivers recently spent more than \$40 million to convert its Sebree Station from coal to natural gas, cutting the plant's emissions by more than 50% and further diversifying generation fuel supply needs. By balancing the overall fuel load between gas and coal, Big Rivers helps protect both against price volatility and supply constraints, and we simultaneously solidify our ability to meet the energy demands of our Member-Owners in all situations.



SEBREE STATION CONVERTED FROM COAL TO NATURAL GAS IN EARLY 2022.

ENVIRONMENTAL:

WATER

Highlighted by waterways such as the Ohio and Green rivers, water is a vital resource in Western Kentucky and for power plant operations. Big Rivers is committed to ensuring the quality of the water we use.

Big Rivers fully complies with the Clean Water Act and the National Pollutant Discharge Elimination System (NPDES), which requires water and discharge permits, and Effluent Limitation Guidelines, which regulate the use and discharge of water used in plant operations. Big Rivers has invested heavily in high-quality onsite testing resources to maintain high levels of compliance.

Big Rivers utilizes onsite laboratory facilities, including a state-certified central laboratory staffed with full-time scientists using state-of-the-art equipment, to conduct ongoing monitoring to ensure its water quality and compliance with environmental regulations.

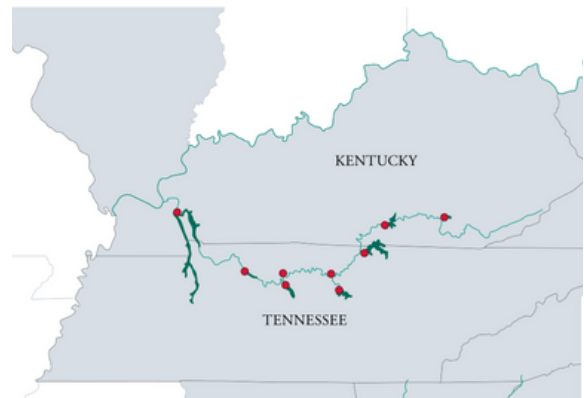


THE BIG RIVERS LABORATORY AT WILSON STATION

Water is used primarily as a cooling source for our power plants. We remove corrosive minerals from a portion of the water that could damage equipment. This purified water runs through a closed loop of boiler tubes and produces steam that turns turbines, which then turn the generator to produce electricity. Water is also used to cool and condense that steam and return it to the source.

HYDROPOWER

Big Rivers also utilizes water resources to generate carbon-free power for our Member-Owners. Specifically, we use a contract with the Southeastern Power Administration to provide 178 MW of clean, reliable energy at costs that are advantageous to our Member-Owners. This addition of hydropower to our generation mix was another strategic move to diversify in a carbon-sensitive fashion.



**SOUTHEASTERN POWER ADMINISTRATION (SEPA)
CUMBERLAND SYSTEM HYDROPOWER MAP**

ENVIRONMENTAL:

LAND

There is no question that the generation of large amounts of electricity requires a great deal of land. Whether for actual sites for generation plants, areas for disposal of byproducts, or just areas of buffer between our sites and neighbors, land is a vital component of our operations.

While generating electricity with coal is one of the most efficient and economical means of providing power, it does create certain byproducts. The installation of the new FGD beneficially reuses the byproduct by converting it to wall board grade gypsum. Likewise, the ash product from the coal-fired generation will be sold to cement and concrete production facilities, eliminating the need for a landfill.

Big Rivers has a comprehensive plan to properly treat all waste materials in a fashion that is fully compliant with all state and federal regulations. At Wilson Station, Big Rivers is employing state-of-the-art technology to close our existing landfill in an environmentally safe and cost-efficient way. Rather than utilizing the typical clay soil cover and grass to close the landfill, Big Rivers is using a geo-synthetic membrane covered with turf that will last for years, will protect the integrity of the materials in the landfill, and can be maintained at far less cost than the more traditional closure method.

In fact, this is the first approved use of this closure technology in Kentucky, and environmental regulators are now suggesting that other utilities consider following Big Rivers' lead and use the same materials to close their landfills. This is just another example of Big Rivers balancing our goals of environmental stewardship and our obligations to our Member-Owners in such a way as to drive new, improved opportunities and innovation while continuing to provide reliable and affordable energy.



WILSON STATION LANDFILL WITH GEO-SYNTHETIC MEMBRANE COVERED WITH TURF

SOCIAL: CULTURE

SAFETY IS OUR CORE VALUE

Safety is the top priority for Big Rivers, driving a culture that ties together company training and employee-led efforts. Each year, our employees reach industry-leading safety milestones and earn statewide safety recognition. It is no exaggeration to say that our safety culture is "world-class." We know these accomplishments would not be possible without constant dedication from our employees to preserve a safe workplace for themselves and others.



Big Rivers' safety record continues to earn recognition, with the company receiving its 57th Governor's Safety and Health Award in 2022. Big Rivers also earned its seventh consecutive Kentucky Employers' Mutual Insurance Destiny Award, which highlights companies for strong safety cultures and low experience modification rates. These achievements lead not only among utilities but also industry as a whole across the Commonwealth.

The energy field comes with unique dangers and requires detailed safety steps to prevent accidents. However, Big Rivers surpasses safety records from other high-performing Generation and Transmission (G&T) cooperatives. Our Transmission location, covering the line workers, substation technicians, and right-of-way employees, reached an impressive industry milestone of seven years without an OSHA recordable injury and 12 years without a lost-time injury in 2022.

Throughout the recent pandemic, our Human Resources team also skillfully managed evolving health and safety threats. The department carefully tracked coronavirus cases and exposures, preventing large-scale spread within the workplace and protecting employee health.

GOVERNANCE

Incorporated in June of 1961, the mission of Big Rivers is to safely deliver competitive and reliable wholesale power and cost-effective shared services desired by the three Member-Owners. These three Member-Owners are Kenergy, Meade County RECC, and Jackson Purchase Energy Cooperative. Each electric membership cooperative is a democratic organization controlled by their members, who actively participate in setting policies and making decisions for each organization. Each cooperative elects its board of directors based on a vote of its membership. Each cooperative then elects two members from its board of directors to sit on the Big Rivers Board of Directors. Overall, the three Member-Owners of Big Rivers serve more than 120,000 members in 22 counties in Western Kentucky. This organization closely ties Big Rivers to its Member-Owners and helps align all of our efforts toward shared goals.



Big Rivers employs approximately 300 people at four locations in Kentucky, who actively contribute to the communities our Member-Owners serve. Continually focused on the needs and local priorities of our Member-Owners, Big Rivers provides shared services to each of the Member-Owners in areas such as environmental compliance, information technology, mapping and planning, safety programs and training, economic development, an energy efficiency program, and customer support services. Big Rivers and the Member-Owners pledge to serve western Kentucky with integrity, accountability, innovation, and a commitment to the community. Our priority has always been to keep the cost of electricity affordable and the reliability of service high.

