

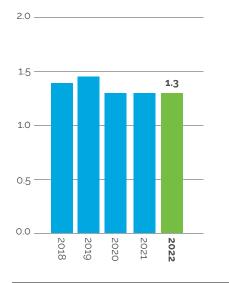


2022 Annual Report

BUILDING A BRIGHTER FUTURE

FINANCIAL HIGHLIGHTS

Margins for Interest Ratio (MFIR)



Net Margin

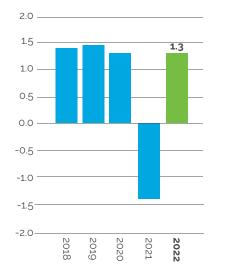




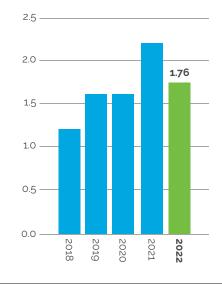
Cash, Cash Equivalents & Short-Term Investments (dollars in millions)



Times Interest Earned Ratio (TIER)*



Debt Service Coverage Ratio (DSCR)



Electric Energy Revenue

(dollars in millions)



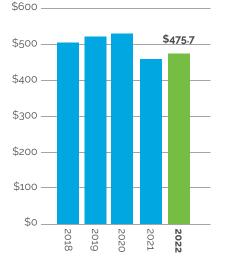
BUILDING A BRIGHTER FUTURE

At Big Rivers, we're powered by deep-rooted commitments to safety, reliability, resiliency, and sustainability. Those core characteristics help maintain our position as a leading Generation & Transmission (G&T) cooperative.

*The negative TIER in 2021 is due to the voluntary one-time usage of equity to reduce regulatory assets.

Equity





ABOUT BIG RIVERS

Big Rivers Electric Corporation is a member-owned, not-for-profit, Generation and Transmission cooperative (G&T).

We provide wholesale electric power and shared services to three distribution cooperative Member-Owners across 22 counties in western Kentucky. The Member-Owners are Jackson Purchase Energy Corporation, headquartered in Paducah; Kenergy Corp, headquartered in Henderson; and Meade County Rural Electric Cooperative Corporation, headquartered in Brandenburg. Together, the Member-Owners distribute retail electric power to more than 120,000 homes, farms, businesses, and industries.

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 Member-Owners. Business operations revolve around seven core values: safety, excellence, teamwork, integrity, Member and community service, respect for the employee, and environmental consciousness. Big Rivers owns and operates 936 MW of generating capacity from three power stations: Robert D. Green (454 MW), Robert A. Reid CT (65 MW), and D.B. Wilson (417 MW). The total power capacity is 1,114 MW,

including contracted capacity from the Southeastern Power Administration (SEPA). High-voltage electric power is delivered to the Member-Owners over a system of 1,338 miles of transmission lines and 26 substations owned by Big Rivers. Twenty-seven transmission interconnections link our system with several surrounding utilities.

Big Rivers is led by an experienced management team and is governed by a six-member board of directors. The board is comprised of two representatives from each Member-Owner. 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. Bia Rivers provides shared services in areas such as 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 community. Our priority has always been to keep the cost of electricity affordable and the reliability of service high.

MISSION

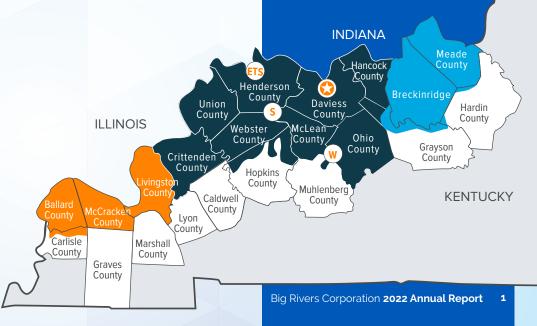
Big Rivers will safely deliver competitive and reliable wholesale power and costeffective shared services desired by our Member-Owners.

VISION

Big Rivers will be viewed as one of the top G&Ts in the country and will provide services the Members desire in meeting future challenges.

Today, the three Member-Owners of Big Rivers serve more than 120,000 members in 22 western Kentucky counties.

- 😒 Big Rivers Headquarters
- 🥚 Jackson Purchase Energy Corporation
- Meade County Rural Electric Cooperative Corporation
- Kenergy Corp
- Sebree Station (Green and Reid Stations)
- Wilson Station
- Energy Transmission & Substation





We are boldly establishing Big Rivers as a cooperative ready to seize growth opportunities for western Kentucky and successfully face the challenges of future decades.

\$43 MILLION net margins in 2022 (pre-TIER credit)

MESSAGE FROM OUR CEO AND BOARD CHAIR:

Big Rivers Electric Corporation is empowered by a mission to safely deliver reliable and affordable power and devoted to best serving our three Member-Owners – Jackson Purchase Energy Corporation, Kenergy Corp, and Meade County Rural Electric Cooperative Corporation. While much has changed for our cooperative system and region during the past sixty years, our foundational principles of safety, sound financials, and community concern remain constant. Recent years have driven Big Rivers to adapt quickly to shifting environments and technology developments, and we can confidently report that 2022 was a year of significant progress. We are boldly establishing Big Rivers as a cooperative ready to seize growth opportunities for western Kentucky and successfully face the challenges of future decades.

Safety has long been the leading principle for Big Rivers, marked by decades of employee-led safety initiatives and company recognition. The core of the safety program focuses on an individual's role in personal safety and the safety of coworkers, combined with the need for every person to return home safely after every shift. The energy field can often include dangerous environments, and the Big Rivers safety team and employees work tirelessly to minimize the risks. In June 2022, that ever-present risk of injury or death became a reality. We were devastated by the loss of two people, a Big Rivers employee and an on-site contractor, in an accident at Sebree Station. As the leaders of Big Rivers, fatalities and serious injuries are situations you hope never to experience, and our prayers and concerns remain with the families of the two men. In the months following the accident, we recognized that grief and uncertainty could lead to a higher risk for future safety incidents. To encourage employees during a difficult time, leadership put even greater emphasis on the need to take additional moments to evaluate situations for safety. By the end of 2022, Big Rivers hit several safety milestones at different locations and as a company, including an industry-leading 12 years without a lost-time incident for Transmission employees. We are proud of our employees for taking personal ownership of safety values and dedicating additional attention to workplace safety after the accident. The company continued to receive recognition for safety efforts, earning its 57th Governor and Safety Award and seventh consecutive Kentucky Employers' Mutual Insurance (KEMI) Destiny Award in 2022.

Electric cooperatives were born in the 1930s as an innovative solution to a lack of rural power. Today, cooperatives still use innovation to best serve their home regions with sound financials, reliable operations, and needed technology. Less than a decade ago, Big Rivers faced issues threatening finances and operations, leading the company to make an aggressive marketing plan for navigating those challenges and restoring the cooperative's financial position for future generations. In 2022, Big Rivers built on the investment grade rating achievements of recent years, earning another round of rating increases from all three credit agencies. Big Rivers is also hitting financial targets, saving on debt, and utilizing bill credits to drive down costs to Members. Net margins topped \$43 million in 2022 (pre-TIER credit), with more than \$17 million designated for regulatory assets and nearly \$12 million for 2023 Member bill credits.

Big Rivers is also incorporating innovation into operations and extending the life of key generation facilities. In early 2022, the two Green Station units

underwent a successful transformation from coal-fired to natural gas. The gas conversion project retained nameplate capacity for the units and allowed for a plant nearing retirement to continue valuable energy production. As the cooperative's original power plant, Coleman Station, underwent demolition to prepare the site for future economic development, Big Rivers moved forward on another generation upgrade. The scrubber system from the retired Coleman Station was dismantled and then reinstalled at Wilson Station, a comprehensive project allowing the power plant to now run with greater efficiency and less environmental impact. These inventive ideas will save Members money while cutting emissions and creating a more diverse generation portfolio.

Upgraded and efficient generation facilities will be critical to maintaining Member reliability as the makeup of energy in the US transitions from traditional sources to green energy technology. While the future is bright for emerging sources, the speed of evolution is currently straining regional transmission systems and putting the future of reliable electricity at risk.

Big Rivers is taking an "all of the above" approach to sustainability and reliability, working to incorporate coal, natural gas, hydropower, and solar energy to increase sustainability while maintaining efficient and reliable baseload electricity for our Members.

While the market and supply chain were heavily impacted by the coronavirus pandemic, Big Rivers successfully renegotiated a 160 MW contract from an upcoming solar field project in western Kentucky.

Our region's most significant reliability test occurred in late 2022 when subzero temperatures from Winter Storm Elliott gripped the Midwest for days during the busy Christmas holiday season. Surrounding utilities were pushed to implement rolling outages for two days and experienced their highest winter peak in history. While MISO issued Maximum Generation Alerts and faced tight conditions, the system never reached the level of load shedding. Under the pressure of severe weather conditions, Big Rivers sustained energy production and transmission with no Member interruptions. We also continue to push for even higher levels of yearround reliability, including extensive engineering and transmission projects designed to better serve growing population areas and industry development. Systemwide, Big Rivers finished the year with a System Average Interruption Duration Index (SAIDI) score of 3.02, equating to three minutes of average outage time for all Member-Owners and zero minutes of outage time for Meade County RECC in 2022.

Commitment to Community took center stage in early 2022, as Big Rivers held a January groundbreaking for the new Headquarters in downtown Owensboro. This major transition marks a new chapter in the cooperative's history and positions Big Rivers in a central location for all Member-Owners and large industrial customers moving forward. This Owensboro office is an investment in technology and resources for employees, allowing Big Rivers to create connections with a community now served by a long-term power contract. Western Kentucky is experiencing increasing economic development attention, and Big Rivers is working to support new and existing business growth across our service territory. The recent successes of landing the NUCOR steel mill in Brandenburg, the \$500 million Pratt Paper facility in Henderson, and the \$50 million Blockware Mining center in Paducah showcase Big Rivers' experience serving large industrial project needs. The Big Rivers engineering team completed a yearslong process to expand the 345kV transmission system to the new \$1.7 billion NUCOR facility, and the plant launched operations in late 2022.

\$1.7 BILLION NUCOR facility operations opened in late 2022

Big Rivers is setting sights on new horizons, transitioning to a new home base while keeping reliable and affordable energy for our Member-Owners at the core of everything we do. Recent years have significantly changed our power contracts and generation sources. Like many utilities, our cooperative is still navigating a sometimes unpredictable economy and supply chain following the impacts of 2020. However, we continue to make strides in overcoming challenges and celebrate financial, technological, and operational successes. Big Rivers

is **"Building a Brighter Future"** for Safety, Innovation, Reliability, and Commitment to Community, guided by more than six decades of service and a vision to position our cooperative as a generation and transmission leader for decades to come.

Sincerely,

Robert W Berry

Robert W. Berry President & CEO

Avance Ellas

Wayne Elliott Chair, Board of Directors

Safety is a defining feature of the Big Rivers mission. We seek to make safety a way of life for every employee, urging everyone to remember that no operating condition or urgency of service can ever justify endangering the health and well-being of anyone.

Big Rivers partners with employees to cultivate ownership of safety initiatives, and it's an effort that has resulted in positive safety outcomes and award recognition for many years. Big Rivers' safety achievements would not be possible without the dedicated buy-in from our employees, who lead department-level safety meetings and participate in programs to identify and correct issues.

This past year represented a return to normality for many all-employee and community safety programs as the risk of coronavirus spread subsided. While some training sessions shifted to video-based learning temporarily in 2020 and 2021, employees could once again meet in person to learn valuable safety lessons. However, the Big Rivers family experienced a tragedy when an employee and contractor died in a June 2022 accident at Sebree Station. Big Rivers leadership and the safety department recognized that heavy events and emotions could have a lasting impact on the year's safety outcomes and devoted extra time to encourage employees to remain focused on the safety of themselves and others in every situation.

Big Rivers finished 2022 by earning additional safety recognitions and hitting significant milestones, and the company's safety incident rates continue to outpace highperforming Generation and Transmission (G&T) cooperatives. Transmission employees reached 12 years without a lost-time incident and seven years without a recordable incident in 2022, a safety record that leads across Big Rivers locations and most utilities. Big Rivers remains the top holder for Governor's Safety and Health Awards, earning three more awards in 2022 and bringing the total to 57. Kentucky Employers' Mutual Insurance (KEMI) also selected Big Rivers for a seventh consecutive Destiny Award, which highlights companies with the lowest experience modification rates.

2022 SAFETY MILESTONES

57th

Governor's Safety and Health Award — More awards than any other entity in Kentucky _

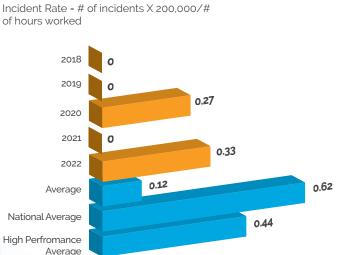


Recordable Incident Rate

Incident Rate = # of incidents X 200,000/# of hours worked



Lost-Time Incident Rate



2022 Annual Report | Safety

years without a lost-time incident and **7 YEARS** without a recordable incident by Transmission employees.

<u>A</u>A

years without a lost-time incident and **6 YEARS** without a recordable incident by Headquarters employees

> years without a lost-time incident and **1 YEAR** without a recordable incident by Wilson Station employees

2022 KEMI DESTINY AWARD WINNER

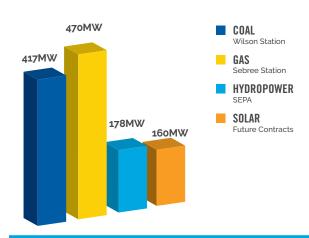
 $7^{\rm th}$ CONSECUTIVE YEAR. The KEMI Destiny Award is given to the Kentucky companies with the lowest experience modification rates in the state.



Safety has long been the leading principle for Big Rivers, marked by decades of employee-led safety initiatives and company recognition.



Generation Fuel Mix







Top Photo: Coleman Station dismantling and demolition in 2022. The site has been cleared for future economic development opportunities.

Bottom Photo: The former Coleman Station scrubber system was moved to Wilson Station in 2022. This significant improvement project increased efficiency and decreased environmental impact at Wilson Station.



INNOVATION



More than 60 years ago, our Member-Owner cooperatives came together to create an innovative solution for western Kentucky's power generation and transmission needs.

Since then, Big Rivers has adapted to changing environments and technology, building additional power plants and expanding a transmission system to more than 1,300 miles across 22 counties. While the mission to best serve our Member-Owners with safe and affordable power remains at the core of everything we do, Big Rivers continuously seeks innovative ways to enhance its operations and financial position.

When a major industrial power consumer left the system in 2014, Big Rivers launched a coordinated effort to market excess energy and create a more stable future. During the next five years, the Energy Services department successfully negotiated long-term power contracts with utilities in Kentucky and nationwide and devoted additional resources to new and existing industry development. While the Big Rivers of today stands in a strong position, the company is striving for even greater achievements. Recent years brought the return of investment grade ratings, and Big Rivers received additional rating increases from each of the three credit agencies in 2022. The company is also incorporating creative financial opportunities to drive down costs and debt. Net margins exceeded \$43 million in 2022 (pre-TIER credit), with nearly \$12 million set to be returned to Members in

2023 bill credits and more than \$17 million allotted for regulatory assets.

Big Rivers is focused on creating a power generation portfolio that best serves our Members and region. As the energy market and fuel prices evolved in recent years, Big Rivers chose to retire one aging plant and overhaul another to a new fuel source. The two Green Units at Sebree Station were successfully converted from coal to natural gas in 2022, extending the life of a beneficial power plant nearing retirement and maintaining the units' nameplate capacity. Big Rivers is even integrating useful resources from former power plants. As the demolition process progressed at Coleman Station in 2022, crews carefully dismantled and relocated the valuable scrubber system to Wilson Station. This extensive \$100 million project improves efficiency and environmental impact at Wilson Station and allows Big Rivers to sell the remaining scrubber byproduct. In addition to the current 178 MW of contracted hydropower, Big Rivers will soon add another contract for 160 MW of solar energy. Generation portfolio diversification has cut carbon emissions by 70% since 2005 and will provide better protection from fuel price fluctuations moving forward.



12 MILLION

in Bill Credits will be returned to Members in 2023

Credit Rating

FITCH BBB Stable 08/15/22 (date of rating)

MOODY'S

Baa2 Stable 10/03/22 (date of rating)

S&P

BBB Stable 07/28/22 (date of rating)

Big Rivers seeks to be a leader in energy reliability, using our resources and technology to push the strength of our system even higher.

This past year brought new successes as the Big Rivers System Average Interruption Duration Index (SAIDI) hit 3.02 for the entire transmission system, equating to about three minutes of Member outage time in 2022. The Meade County RECC region SAIDI score was even more remarkable, with zero outage minutes for the year.

The nation's future reliability risk gained traction in 2022 as pivotal events pushed energy shortfalls into the news headlines and Member homes. National reliability organizations believe the current pace of power plant retirements, delays in new technology incorporation and transmission growth, and growing demands for energy will strain the nation's power grids at an increasing amount in the coming years. A real test would come during Winter Storm Elliott in December 2022. For several days leading into the Christmas holidays, temperatures in the Midwest hovered near zero degrees Fahrenheit and produced sub-zero wind chills. When home heating and holiday usage spiked, several utilities surrounding Big Rivers and MISO hit record peaks and were pushed into one or more days of rolling outages. While MISO declared a Max Generation Alert under the tight conditions, the Big Rivers system performed well under pressure, experiencing only minor weather issues and no member interruptions. Big Rivers closely follows reliability concerns and participates in efforts to inform lawmakers and the public of future impacts. Careful management of Big Rivers' 24-hour generation resources will also play a critical role in protecting reliable and affordable power service for western Kentucky.

On the transmission system level, Big Rivers is enhancing reliability and outage recovery by incorporating infrastructure projects and expanding automatic restoration & sectionalization (ARS) technology. Engineering completed the installation of 11 miles of 69 kV transmission from the Big Rivers Wilson EHV Substation to a remotecontrolled switch structure located at a Kenergy substation in McLean County, leading to increased 69 kV reliability in the south central service territory. Big Rivers also energized the Paducah Data Center project, designed to serve a new 30 MW load in the JPEC territory, in early 2022. Due to the industrial and residential growth in Meade County, Big Rivers devoted several projects in preparation for the new Nucor steel mill opening in late 2022. New substations and lines were energized at the 69 kV, 161 kV, and 345 kV levels, and Nucor produced its first steel plate in late 2022.



3.02 average minutes of outage time in 2022 for the entire transmission system

	Target Average minutes of outage time	Achievement Average minutes of outage time
System	8.53	3.02
JPEC	9.22	1.27
Kenergy	7.62	5.61
Meade County RECC	9.62	0

2022 INFRASTRUCTURE & RELIABILITY PROJECT TIMELINE

JAN.

• Meade County Substation 161 kV line terminal completed and energized.

• Paducah Data Center Project Phase I: Engineering completed the design and installation of equipment to serve a 30 MW load in the Jackson Purchase Electric Cooperative (JPEC) territory. Big Rivers installed a transformer, power circuit breakers, poles, fuses, disconnect switches, and metering to serve the new industrial load. The work for this project was completed and energized. The industrial customer began taking electric service on February 1, 2022.

MAR.

• Redmon Road Switching Station was energized at 345 kV via the Hardin County & Mill Creek 345 kV lines (from LG&E/KU).

- This was the **1st phase** of providing the Meade County area and Nucor with a 345 kV source.

JUNE

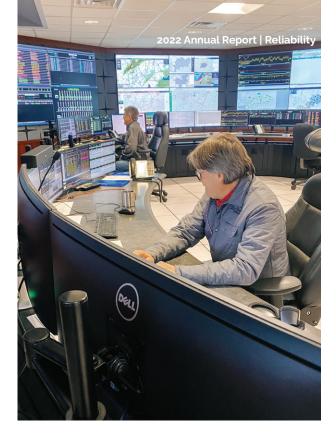
• Otter Creek Substation was energized at 345 kV via the newly constructed 345 kV line from Redmon Road Switching Station to the newly constructed Otter Creek Substation. This was the 2nd phase of providing Meade County area and Nucor with a 345 kV source.

• Otter Creek Substation was energized at 345 kV via the newly constructed 345 kV line and substation from Otter Creek to the newly constructed substation located at Nucor's facility. This was the **3**rd **and final phase** of providing Nucor with a 345 kV source, which allowed Nucor to begin conducting melt tests at their steel mill facility.

• Otter Creek Substation was placed in service. The 161 kV line provided both Meade County and Otter Creek Substation an additional source at each substation to improve service and reliability to the Meade County area.

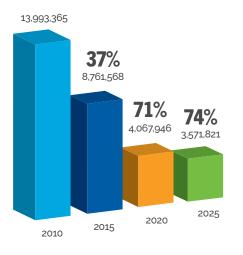
AUG./ SEPT. • Wilson EHV to Sacramento 6g kV transmission line Project: Engineering designed and completed the installation of 11 miles of 6g kV transmission from the Big Rivers Wilson EHV Substation to a remote controlled switch structure located at Kenergy's Sacramento Substation in McLean County. This project increased the reliability of the 6g kV transmission system in the south central Kenergy service territory.

WHILE MISO DECLARED A MAX GENERATION ALERT UNDER FREEZING CONDITIONS IN DECEMBER 2022, THE BIG RIVERS SYSTEM PERFORMED WELL UNDER PRESSURE, EXPERIENCING ONLY MINOR WEATHER ISSUES AND NO MEMBER INTERRUPTIONS.





Carbon Emissions (CO2 Tons)





Big Rivers is also diversifying its power portfolio to an "all of the above" approach, which has already reduced emissions by more than 70% since 2010.



BREC SERVICE TERRITORY

	2017	2018	2019	2020	2021	2022
RFI's (Request for information)	21	24	10	14	48	71
Capital Investment	\$230M	\$300M	\$1.3B	\$2B	\$29.1B	\$42.5B
Jobs	3,374	1,700	2,545	2,150	26,123	41,697
MW's	3,089	1,713	676	563	4,657	5,205



In January 2022, Big Rivers held the official groundbreaking for the new Owensboro Headquarters. The four-story facility better positions Big Rivers to serve the modern cooperative territory and key large industrial members. Construction continued to near completion by the end of the year.



or 15 Crypto Currency Project REFI's in 2022. Crypto currency interest continued to rise in western Kentucky with the \$50 Million Blockware Mining facility in Paducah opening in 2022.



160 MW of solar energy contracts will join the Big Rivers portfolio in 2024. Despite the challenges of 2020, Big Rivers successfully renegotiated the contract to bring solar energy to the system from a local project. Big Rivers is on a mission to serve our Member-Owners and help our communities thrive. As a cooperative, Big Rivers is run by a board of Members from western Kentucky and employs local people to provide the safe, reliable, and affordable energy this region needs.

In early 2022, the company took a significant step toward moving the Big Rivers Headquarters to a new location that would benefit the entire service territory. Big Rivers and Owensboro community leaders broke ground on a new four-story facility on a cold January day, and construction quickly progressed from foundation to near completion by the end of the year. While a home base in Henderson had served Big Rivers for many decades, recent years revealed that other locations would better support the cooperative's future. This move positions Big Rivers in a community now supplied power through a long-term contract and provides a central location to reach the entire service territory and key large industrials. The Owensboro office also represents an investment in updated employee equipment and technology, allowing for greater service to our Member-Owners and communities for future decades.

As interest in western Kentucky's economic development expands, Big Rivers is directing resources and experience to meet the demands of new and existing industries. Recent successes with the \$1.7 billion NUCOR steel mill in Brandenburg, the \$500 million Pratt Paper facility in Henderson, and the \$50 million Blockware Mining center in Paducah all point to Big Rivers' strength in industrial service and efforts to encourage regional growth. Big Rivers led the engineering and construction of several infrastructure projects designed to increase reliability to these sites, including the substations and transmission lines needed for Nucor's operational launch in late 2022. In total, these projects could bring more than 700 new jobs to the region, with the potential for additional positions during construction

and future expansions. Big Rivers is also clearing the former Coleman Station power plant site for development opportunities, as the property features valuable river and rail access for future industry.

Moving forward, Big Rivers is envisioning a generation and transmission system that prepares our region for future success. In 2022, the company invested approximately \$140 million toward Wilson Station and Green Station improvement projects, increasing environmental sustainability and preserving efficient 24/7 energy production. Big Rivers is also diversifying its power portfolio to an "all of the above" approach, which has already reduced emissions by more than 70% since 2010. As solar energy prices dropped and interest from members grew, Big Rivers sought to add economical solar energy from projects that both generate in and benefit western Kentucky. While recent inflation and supply chain issues challenged the solar industry, Big Rivers successfully renegotiated a 160 MW solar energy contract from a National Grid Renewables project scheduled to begin operations in 2024. With electric vehicles preparing to take over a larger share of the US market, Big Rivers is actively contributing input on the development of Kentucky's EV charging station network and incorporating public and employee charging stations into the new Owensboro Headquarters.

FIVE-YEAR REVIEW

As of December 31, 2022 and the Four Preceding Years Unaudited (Dollars in Thousands)

SUMMARY OF OPERATIONS Operating Revenue:	2022	2021	2020	2019	2018
Electric Energy Revenue	\$468,065	\$368,650	\$314,390	\$362,252	\$366,190
Other Operating Revenue and Income	22,283	24,494	14,318	16,475	14,015
Total Operating Revenue	490,348	393,144	328,708	378,727	380,205
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Operating Expenses:					
Fuel for Electric Generation	125,354	130,019	83,939	119,831	128,555
Power Purchased	131,733	37,436	35,756	37,893	51,910
Operations (Excluding Fuel), Maintenance and Other	108,620	113,762	114,605	123,062	130,153
Depreciation	72,465	172,136	54,630	49,356	20,709
Total Operating Expenses	438,172	453,353	288,930	330,142	331,327
Interest Expense and Other:	I	L	L	I	
Interest	41,267	28,575	33,393	36,937	38,568
Income Tax Expense/(Benefit)	-	-	(448)	(28)	(12)
Other-Net	592	684	830	696	717
Total Interest Expense and Other	41,859	29,259	33,775	37,605	39,273
Operating Margin	10,317	(89,468)	6,003	10,980	9,605
Non-Operating Margin	3,710	14,072	4,192	5.735	5,625
Net Margin (Loss)	\$14,027	\$(75,396)	\$10,195	\$16,715	\$15,230
SUMMARY OF BALANCE SHEET	¢2 061 715	¢2.050.060	¢1 000 0FF	¢2.008.122	¢2,200,007
Total Utility Plant	\$2,061,715	\$2,059,963	\$1,888,955	\$2,098,129	\$2,200,397
Accumulated Depreciation	1,095,847	1,151,975	1,102,333	1,193,043	1,187,688
Net Utility Plant ¹	965,868	907,988	786,622	905,086	1,012,709
Cash and Cash Equivalents	50,027	29,913	20,400	30,733	38,466
Restricted Cash-Construction Funds Trustee	-	-	353	353	-
Short-Term Investments	5,420	352	6,603	9,437	9,607
Reserve Account Investments ²	-	-	666	1,391	691
Other Assets	568,412	486,772	543,591	402,213	301,413
Total Assets	\$1,589,727	\$1,425,025	\$1,358,235	\$1,349,213	\$1,362,886
Equities:	\$475,667	\$460,226	\$531,539	\$523,164	\$505,816
Long-Term Debt ³	894,149	697,294	696,742	733,942	761,464
Line of Credit	25,000	60,000	-	-	-
Regulatory Liabilities – Member Rate Mitigation	29,000	00,000			
and TIER Credit	38,277	53,543	33,334	2,111	2,031
Asset Retirement Obligations	69,267	72,760	40,410	34,557	29,746
Other Liabilities and Deferred Credits	87,367	81,202	56,210	55,439	63,829
Total Liabilities and Equity	\$1,589,727	\$1,425,025	\$1,358,235	\$1,349,213	\$1,362,886
ENERGY SALES (MWH)	L	L	I.	L	
Member Rural	2,268,701	2,219,103	2,164,850	2,261,069	2,366,988
Member Large Industrial	919,426	781,628	824,680	946,070	953,808
Other	2,329,312	3,571,299	1,898,036	2,879,231	3,101,659
Total Energy Sales (MWh)	5,517,439	6,572,030	4,887,566	6,086,370	6,422,455
SOURCES OF ENERGY (MWH)					
Generated	3,121,412	5,443,411	3,440,864	4,964,983	5,291,136
		1,214,634			
Purchased	2,481,549		1,520,984	1,166,472	1,149,102
Losses and Net Interchange	(85,522)	(86,015)	(74,282)	(45,085)	(17,783)
Total Energy Available (MWh)	5,517,439	6,572,030	4,887,566	6,086,370	6,422,455
NET CAPACITY (MW)					
Net Generating Capacity Owned ⁴	936	936	936	1,444	1,444
Rights to HMP&L Station Two	-	-	-	-	187
Other Net Capacity Available	178	178	178	178	178
Total Net Capacity (MW)	1,114	1,114	1,114	1,622	1,809
	-1				_,000
DEBT RATIOS					
Margins for Interest Ratio (MFIR)	1.30	1.30	1.30	1.45	1.39
Times Interest Earned Ratio (TIER) ⁵	1.30	(1.41)	1.30	1.45	1.39
Debt Service Coverage Ratio (DSCR)	1.76	2.22	1.63	1.63	1.22

¹Includes intangible plant. ²Includes investment income receivable. ³Includes current maturities of long-term obligations. ⁴The reduction in Big Rivers' net generating capacity owned in 2020 is due to the retirement of Reid Station Unit 1 and the units at Coleman Station as of September 30, 2020. ⁵The negative TIER in 2021 is due to the voluntary one-time usage of equity to reduce regulatory assets.



Financial Statements

December 31, 2022 and 2021

(With Independent Auditors' Report Thereon)



KPMG LLP Suite 2400 400 West Market Street Louisville, KY 40202

Independent Auditors' Report

The Board of Directors and Members Big Rivers Electric Corporation:

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Big Rivers Electric Corporation, which comprise the balance sheets as of December 31, 2022 and 2021, and the related statements of operations, comprehensive income (loss), equities, and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes to the financial statements.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of Big Rivers Electric Corporation, as of December 31, 2022 and 2021, and the results of operations, and cash flows thereof for each of the years in the three-year period ended December 31, 2022 in accordance with U.S. generally accepted accounting principles.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of Big Rivers Electric Corporation, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with U.S. generally accepted accounting principles, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about Big Rivers Electric Corporation's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a



substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and Government Auditing Standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are
 appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of
 Big Rivers Electric Corporation's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about Big Rivers Electric Corporation's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated March 22, 2023 on our consideration of Big Rivers Electric Corporation's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and the results of that testing, and not to provide an opinion on the effectiveness of Big Rivers Electric Corporation's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Big Rivers Electric Corporation's internal control over financial reporting and compliance.



Louisville, Kentucky March 22, 2023

Balance Sheets

December 31, 2022 and 2021

(Dollars in thousands)

Assets		2022	2021
Utility plant – net	\$	944,112	892,988
Intangible plant		21,756	15,000
Other deposits and investments		20,217	16,643
Current assets:		50.007	00.040
Cash and cash equivalents		50,027	29,913
Short-term investments Accounts receivable		5,420 52,861	352 47,920
Fuel inventory		39,149	47,920 17,198
Nonfuel inventory		14,983	18,329
Prepaid expenses and other assets		1,650	5,250
Total current assets		164,090	118,962
Deferred charges and other assets:			
Regulatory assets		420,978	361,521
Long-term accounts receivable		4,486	8,293
Deferred charges and other	_	14,088	11,618
Total deferred charges and other assets		439,552	381,432
Total	\$	1,589,727	1,425,025
Equities and Liabilities			
Capitalization:			
Equities	\$	475,667	460,226
Long-term debt		744,841	669,295
Total capitalization		1,220,508	1,129,521
Current liabilities:			
Current maturities of long-term obligations		149,308	27,999
Line of credit		25,000	60,000
Purchased power payable		8,121	5,087
Accounts payable		54,442	42,698
Accrued expenses		10,940	18,567
Accrued interest		651	1,135
Regulatory liabilities – member rate mitigation		10,735	16,332
Total current liabilities		259,197	171,818
Deferred credits and other:			
Regulatory liabilities – member rate mitigation		976	1,485
Regulatory liabilities – TIER credit		26,566	35,726
Asset retirement obligations		69,267	72,760
Deferred credits and other	_	13,213	13,715
Total deferred credits and other		110,022	123,686
Commitments and contingencies (note 12)	_		
Total	\$	1,589,727	1,425,025

Statements of Operations

Years ended December 31, 2022, 2021, and 2020

(Dollars in thousands)

	 2022	2021	2020
Operating revenue	\$ 490,348	393,144	328,708
Total operating revenue	 490,348	393,144	328,708
Operating expenses:			
Operations:			
Fuel for electric generation	125,354	130,019	83,939
Power purchased and interchanged	131,733	37,436	35,756
Production, excluding fuel	38,228	46,945	40,616
Transmission and other	35,991	34,735	37,042
Maintenance	34,401	32,082	36,947
Depreciation and amortization	 72,465	172,136	54,630
Total operating expenses	 438,172	453,353	288,930
Electric operating margin (loss)	 52,176	(60,209)	39,778
Interest expense and other:			
Interest	41,267	28,575	33,393
Income tax benefit			(448)
Other – net	 592	684	830
Total interest expense and other	 41,859	29,259	33,775
Operating margin (loss)	 10,317	(89,468)	6,003
Nonoperating margin:			
Interest income and other	 3,710	14,072	4,192
Total nonoperating margin	 3,710	14,072	4,192
Net margin (loss)	\$ 14,027	(75,396)	10,195

Statements of Comprehensive Income (Loss)

Years ended December 31, 2022, 2021, and 2020

(Dollars in thousands)

	 2022	2021	2020
Net margin (loss)	\$ 14,027	(75,396)	10,195
Other comprehensive income (loss):			
Defined-benefit plans:			
Actuarial gain (loss)	(2,833)	3,066	(779)
Amortization of (gain) loss	 1,727	(1,289)	296
Defined-benefit plans	 (1,106)	1,777	(483)
Postretirement benefits other than pensions:			
Prior service cost	(238)	(112)	(112)
Actuarial (gain) loss	3,162	2,418	(1,205)
Amortization of gain	 (404)		(20)
Postretirement benefits other than pensions	 2,520	2,306	(1,337)
Other comprehensive income (loss)	 1,414	4,083	(1,820)
Comprehensive income (loss)	\$ 15,441	(71,313)	8,375

Statements of Equities

Years ended December 31, 2022, 2021, and 2020

(Dollars in thousands)

			Other equities			
		Retained margin	Donated capital and memberships	Consumers' contributions to debt service	Accumulated other comprehensive income/(loss)	Total equities
Balance – December 31, 2018	\$	502,030	764	3,681	(659)	505,816
Net margin Pension and postretirement benefit plans		16,715 —			633	16,715 633
Balance – December 31, 2019		518,745	764	3,681	(26)	523,164
Net margin Pension and postretirement benefit plans	_	10,195 —			(1,820)	10,195 (1,820)
Balance – December 31, 2020		528,940	764	3,681	(1,846)	531,539
Net margin (loss) Pension and postretirement benefit plans	_	(75,396)			4,083	(75,396) 4,083
Balance – December 31, 2021		453,544	764	3,681	2,237	460,226
Net margin (loss) Pension and postretirement benefit plans	_	14,027			1,414	14,027 1,414
Balance – December 31, 2022	\$	467,571	764	3,681	3,651	475,667

Statements of Cash Flows

Years ended December 31, 2022, 2021, and 2020

(Dollars in thousands)

		2022	2021	2020
Cash flows from operating activities:				
Net margin (loss)	\$	14,027	(75,396)	10,195
Adjustments to reconcile net margin (loss) to net cash provided by operating activities:				
Depreciation and amortization		70,420	172,641	55,329
Interest compounded – RUS Series B Note		19,830	12,242	11,557
Interest income compounded – RUS Cushion of Credit (advance				
payments unapplied)		(41)	(111)	(169)
Forgiveness from long-term obligations		—	(9,941)	_
Noncash member rate mitigation revenue		—	—	(9,532)
Changes in certain assets and liabilities:				
Accounts receivable		(1,133)	(15,477)	(3,470)
Fuel and nonfuel inventory		(18,604)	2,321	13,333
Prepaid expenses and other		3,599	(121)	(831)
Deferred charges		10,824	(4,650)	(12,042)
Purchased power payable		3,034	1,374	1,011
Accounts payable		(1,189)	7,620	(3,706)
Accrued expenses		(8,110)	9,454	(2,085)
Other – net		(26,516)	(11,518)	6,619
Net cash provided by operating activities	_	66,141	88,438	66,209
Cash flows from investing activities:				
Capital expenditures		(180,040)	(149,396)	(61,154)
Proceeds from restricted investments and deposits		5,930	8,322	43,902
Purchases of restricted investments and other deposits and investments		(8,776)	(2,320)	(12,854)
Proceeds of short-term investments		51,919	6,994	11,074
Purchases of short-term investments		(56,988)	(744)	(8,239)
Net cash used in investing activities		(187,955)	(137,144)	(27,271)
Cash flows from financing activities:				
Principal payments on long-term obligations		(153,275)	(26,314)	(141,337)
Proceeds from long-term obligations		330,265	24,542	93,241
Proceeds from line of credit		45,000	75,000	83,300
Payments on line of credit		(80,000)	(15,000)	(83,300)
Payments on debt issuance costs		(62)	(362)	(1,175)
Net cash provided by (used in) financing activities		141,928	57,866	(49,271)
Net increase (decrease) in cash and cash equivalents		20,114	9,160	(10,333)
Cash and cash equivalents – beginning of year	_	29,913	20,753	31,086
Cash and cash equivalents – end of year	\$	50,027	29,913	20,753
Supplemental cash flow information: Cash paid for interest Cash paid for income taxes	\$	27,411	19,358 1	24,801 —
Supplemental schedule of non-cash financing and investing activities:				
Change in regulatory assets associated with asset retirement obligations	\$	14.792	22.319	13,476
Change in regulatory assets associated with utility plant	¥	32,962	(99,315)	156,122
Change in deferred charges associated with asset retirement obligations		(3,378)	3,378	
Purchases of utility plant in accounts payable		(10,508)	8,675	4,694
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Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

(1) Organization and Summary of Significant Accounting Policies

(a) General Information

Big Rivers Electric Corporation ("Big Rivers" or the "Company"), an electric generation and transmission cooperative, supplies wholesale power to its three member distribution cooperatives (Jackson Purchase Energy Corporation, Kenergy Corp. ("Kenergy"), and Meade County Rural Electric Cooperative Corporation ("Meade County RECC")) under all requirements contracts. Big Rivers also markets power to nonmember utilities, power marketers, and the Midcontinent Independent System Operator ("MISO"). The members provide electric power and energy to industrial, residential, and commercial customers located in portions of 22 western Kentucky counties. The wholesale power contracts with the members remain in effect until December 31, 2043. Rates to Big Rivers' members are established by the Kentucky Public Service Commission ("KPSC") and are subject to approval by the Rural Utilities Service ("RUS"). The financial statements of Big Rivers include the provisions of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 980, Regulated Operations, and give recognition to the ratemaking and accounting practices of the KPSC and RUS.

(b) Estimates

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and disclosure of contingent assets and liabilities. The estimates and assumptions used in the accompanying financial statements are based upon management's evaluation of the relevant facts and circumstances as of the date of the financial statements. Significant items subject to such estimates and assumptions include intangible asset recoverability, asset retirement obligations, pension and postretirement obligations, and other contingencies. Actual results may differ from those estimates.

(c) System of Accounts

Big Rivers maintains its accounting records in accordance with the Uniform System of Accounts as prescribed by RUS Bulletin 1767B-1, as adopted by the KPSC. These regulatory agencies retain authority and periodically issue orders on various accounting and ratemaking matters. Adjustments to RUS accounting have been made to make the financial statements consistent with generally accepted accounting principles in the United States of America.

(d) Revenue Recognition

Revenues generated from the Company's wholesale power sales are based on month-end meter readings and are recognized as earned when electricity is delivered. Capacity revenues are recognized in the period in which the Company provides capacity to a counterparty. MISO sales revenue is recognized based upon the megawatt-hours delivered in each hour at the market price.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

(e) Utility Plant and Depreciation

Utility plant is recorded at original cost, which includes the cost of contracted services, materials, labor, and overhead. In accordance with FASB ASC 835-20, *Interest – Capitalization of Interest*, the Company also includes capitalized interest on projects with an estimated total cost of \$250 or more before consideration of capitalized interest. The interest capitalized is determined by applying the effective rate of Big Rivers' weighted average debt to the accumulated expenditures for qualifying projects included in construction in progress. Replacements of depreciable property units, except minor replacements, are charged to utility plant.

Depreciation of utility plant in service is recorded using the straight-line method over the estimated remaining service lives, as approved by the RUS and KPSC. During 2012, a depreciation study was completed to evaluate the remaining economic lives of the Company's assets and establish new depreciation rates. The study was approved by the RUS in 2012 and by the KPSC in 2014, with the rates becoming effective February 1, 2014. The annual composite depreciation rates used to compute depreciation expense are as follows:

Electric plant	0.35%-25.38%
Transmission plant	1.36%–2.29%
General plant	3.76%–9.88%

For 2022, 2021, and 2020, the average composite depreciation rates were 2.85%, 3.09%, and 3.19%, respectively. At the time utility plant is disposed of, the original cost plus cost of removal less salvage value of such utility plant is charged to accumulated depreciation, as required by the RUS. For 2022, 2021 and 2020, Big Rivers TIER credit was charged to depreciation and amortization as discussed in Note 5.

(f) Intangible Plant

Indefinite-lived intangible assets are tested for impairment annually, and more frequently when there is a triggering event. Annually, or when there is a triggering event, the Company first performs a qualitative assessment by evaluating all relevant events and circumstances to determine if it is more likely than not that the indefinite-lived intangible assets are impaired. Intangible plant was recorded as a result of the resolution from a certified dispute amongst Big Rivers, Meade County RECC, and Louisville Gas and Electric ("LG&E") in KPSC Case No. 2019-00370. During 2020, \$15,000 was paid for the certified territorial rights which do not expire. This portion of the intangible plant has an indefinite life and is not subject to amortization. During 2022, the Company completed reliability projects in the amount of \$6,756, which were transferred to LG&E in accordance with the resolution. Amortization expense of \$116 was recorded in 2022 for the reliability projects using an amortization period of 43.67 years. Intangible plant is subject to impairment testing and if impaired, the carrying value is accordingly reduced. There was no impairment recorded in 2022 or 2021.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

(g) Impairment Review of Long-Lived Assets

Long-lived assets and intangible assets subject to amortization are reviewed as facts and circumstances indicate that the carrying amount may be impaired. FASB ASC 360, *Property, Plant, and Equipment*, requires the evaluation of impairment by comparing an asset's carrying value to the estimated future cash flows the asset is expected to generate over its remaining useful life. If this evaluation were to conclude that the future cash flows were not sufficient to recover the carrying value of the asset, an impairment charge would be recorded based on the difference between the asset's carrying amount and its fair value (less costs to sell for assets to be disposed of by sale) as a charge to net margin.

(h) Asset Retirement Obligations

FASB ASC 410-20, Asset Retirement and Environmental Obligations – Asset Retirement Obligations, requires legal obligations associated with the retirement of long-lived assets to be recognized at fair value when incurred and capitalized as part of the related long-lived asset. The liability is accreted each period based on the credit-adjusted risk-free rate of return that existed when the liability, or portion thereof, was initially measured. The period accretion is recognized as an increase in the carrying amount of the liability, and the capitalized cost is depreciated over the useful life of the related asset. When the asset is retired, the entity settles the obligation for its recorded amount or incurs a gain or loss.

Big Rivers has recorded liabilities in its financial statements for asset retirement obligations ("AROs") related to the requirements of the U.S. Environmental Protection Agency's ("EPA") Disposal of Coal Combustion Residuals from Electric Utilities Rule ("CCR Final Rule") and Effluent Limitations Guidelines Rule ("ELG Final Rule") for the coal ash ponds located at its Green Station and the City of Henderson's Station Two ("Station Two") generating units. The CCR Final Rule was published in the Federal Register on April 17, 2015 and provides a comprehensive set of requirements for the safe disposal of CCRs, commonly known as coal ash, from coal-fired power plants. The EPA subsequently published an update to the CCR Final Rule, effective on September 28, 2020, allowing facilities to submit a demonstration for an extension to the deadline for unlined CCR surface impoundments to stop receiving waste. The Company submitted the demonstration in November 2020 requesting approval to operate its Green Station ash pond until June 2022, with closure commencing at that time. The ELG Final Rule was published in the Federal Register on November 3, 2015 and sets limits on the levels of toxic metals in wastewater that can be discharged from power plants. See Note 3 for further discussion of the Company's AROs.

In 2021, Big Rivers also recorded AROs for the closure of the landfill located at its Green Station and closure of Phase Two of the landfill located at its Wilson Station.

(i) Inventory

Inventories are carried at average cost and include coal, lime, limestone, oil and gas used for electric generation, and materials and supplies used for utility operations. Purchased emission allowances are recorded in inventory at actual cost by each vintage year. Allowances issued by the EPA are recorded at zero cost by each vintage year. Total purchased and EPA issued allowances are carried in inventory

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

at a weighted average cost by each vintage year. Issuances of allowances are accounted for on a vintage basis using a monthly weighted average cost.

(j) Cash and Cash Equivalents

Big Rivers considers all short-term, highly liquid investments with original maturities of three months or less to be cash equivalents.

(k) Short-Term Investments

Short-term investments include investments in debt securities. The aforementioned short-term investments have original maturities of less than one year.

(I) Regulatory Assets and Liabilities

FASB ASC 980 applies to regulated entities for which rates are designed to recover the costs of providing service. In accordance with this FASB topic, certain items that would normally be reflected in the statement of operations are deferred on the balance sheet. Regulatory assets represent probable future revenues associated with certain incurred costs, which will be recovered from members through the regulated rate-making process. Regulatory assets are reduced during the period(s) in which the related costs are recovered through rates or when future recovery is no longer probable. Conversely, regulatory liabilities represent future reductions in revenues associated with amounts that are to be credited, or refunded, to members through the regulated rate-making process. Regulatory liabilities are reduced during the period(s) in which the related amounts are refunded to members through rates or when future refunding of the amounts is no longer probable.

(m) Long-Term Accounts Receivable

During 2021, the Company amended a market-based rate partial and full requirements contract with an existing non-member customer. The amendment included deferral of charges incurred by the customer during 2021. As of December 31, 2022, the total due from the customer was \$7,099, with \$4,486 recorded as long-term accounts receivable and \$2,613 recorded in accounts receivable. The customer began making monthly installment payments during 2021 and will continue these payments through May 2027. An allowance for doubtful accounts is recorded if it is determined it is probable that the Company will not collect all principal and interest contractually due. There is no allowance recorded at December 31, 2022 or 2021.

(n) Other Deposits and Investments

Other deposits and investments consist primarily of patronage capital, cash collateral/margin call deposits, investments in associated organizations, and investments held in trust for a deferred compensation plan. Investments held in trust consist primarily of equities and money market accounts and are carried at fair value. Remaining deposits are recorded at their original cost as their cost approximates fair value due to the nature of the deposit.

(o) Income Taxes

Big Rivers was formed as a tax-exempt cooperative organization as described in Internal Revenue Code Section 501(c)(12). To retain tax-exempt status under this section, at least 85% of Big Rivers'

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

annual income must be generated from transactions with the Company's members. In 1983, sales to nonmembers resulted in Big Rivers failing to meet the 85% requirement. Until Big Rivers can meet the 85% member income requirement, the Company will not be eligible for tax-exempt status and will be treated as a taxable cooperative.

As a taxable cooperative, Big Rivers is entitled to exclude the amount of patronage allocations to members from taxable income. Income and expenses related to nonpatronage-sourced operations are taxable to Big Rivers. Big Rivers files a federal income tax return and certain state income tax returns.

Under the provisions of FASB ASC 740, *Income Taxes*, Big Rivers is required to record deferred tax assets and liabilities for temporary differences between amounts reported for financial reporting purposes and amounts reported for income tax purposes on the tax return. Deferred tax assets and liabilities are determined based upon these temporary differences using enacted tax rates for the year in which these differences are expected to reverse. Deferred income tax expense or benefit is based on the change in assets and liabilities from period to period, subject to an ongoing assessment of realization. Tax benefits associated with income tax positions taken, or expected to be taken, in a tax return are recorded only when the more-likely-than-not recognition threshold is satisfied and measured at the largest amount of benefit that is greater than 50% likely of being realized upon settlement.

(p) Patronage Capital

As provided in the Company's bylaws, Big Rivers accounts for each year's patronage-sourced income, both operating and non-operating, on a patronage basis. Notwithstanding any other provision of the bylaws, the amount to be allocated as patronage capital for a given year shall not be less than the greater of regular taxable patronage-sourced income or alternative minimum taxable patronage-sourced income.

(q) Derivatives

Management has reviewed the requirements of FASB ASC 815, *Derivatives and Hedging*, and has determined that certain contracts to which the Company is a party to meet the definition of a derivative under FASB ASC 815. The Company has elected the Normal Purchase and Normal Sale exception for these contracts, and therefore, the contracts are not required to be recognized at fair value in the financial statements.

(r) Fair Value Measurements

FASB ASC 820, *Fair Value Measurement*, defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal, or most advantageous, market for the asset or liability in an orderly transaction between market participants at the measurement date. ASC 820 establishes a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy requires entities to maximize the use of observable inputs when possible. The three levels of inputs used to measure fair value are as follows:

- Level 1 quoted prices in active markets for identical assets or liabilities;
- Level 2 observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data; and

• Level 3 – unobservable inputs that are supported by little or no market activity and that are significant to the fair values of the assets or liabilities, including certain pricing models, discounted cash flow methodologies, and similar techniques that use significant unobservable inputs.

(s) Deferred Loan Costs

The Company capitalizes costs incurred in connection with long-term debt. These costs are amortized using the effective interest method over the term of the respective debt financing agreements.

In accordance with ASU 2015-03, *Interest-Imputation of Interest (Subtopic 835-30)*, deferred loan costs related to a recognized debt liability are presented on the balance sheet as a direct deduction from the carrying amount of the related debt liability instead of being presented as an asset.

(t) Deferred Credits and Other

Deferred credits and other includes employee-related benefits and capacity revenue sales billed but not yet earned. Employee related benefits include, but are not limited to, pension and post-retirement benefit costs and amounted to \$12,489 and \$13,465 at December 31, 2022 and 2021, respectively. Deferred capacity revenue, which will be recognized within the next year, amounted to \$724 and \$250 at December 31, 2022 and 2021, respectively.

(u) New Accounting Guidance

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)* (ASU 2016-02). The main principle of this ASU requires that lessees recognize all leases (other than leases with a term of twelve months or less) on the balance sheet as lease liabilities, based upon the present value of the lease payments, with corresponding right of use assets. ASU 2016-02 also makes targeted changes to other aspects of the current guidance, including the lease classification criteria and the lessor accounting model. In May 2020, the FASB delayed the required implementation date of ASU 2016-02 for private entities by one year. The amendments in ASU 2016-02 are effective for the Company for annual reporting periods beginning after December 15, 2021. The Company assessed the impact of adopting the guidance and does not believe it has a material effect.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments* – *Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, which allows a company to irrevocably elect the fair value option on certain financial instruments. Subsequently, the FASB issued ASU 2019-04, *Codification Improvements to Topic 326, Financial Instruments* – *Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments* and ASU 2019-05, *Financial Instruments* – *Credit Losses (Topic 326): Targeted Transition Relief* in May 2019; ASU 2019-11, *Codification Improvements to Topic 326, Financial Instruments* – *Credit Losses* in November 2019; and ASU 2020-03, *Codification Improvements to Financial Instruments*, in March 2020. The effective date of the guidance for the Company will be for annual reporting periods beginning after December 15, 2022. The Company is currently assessing the impact of adopting the guidance but does not believe this guidance will have a material effect.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

(2) Utility Plant

The Company converted Green Station to a natural gas generating unit during 2022. Gross coal fired utility plant of \$170,555 was retired after the conversion was complete. Additionally, the retirement of the coal fired assets resulted in a decrease of \$103,732 to accumulated depreciation. The total coal fired utility plant, net, associated with this conversion in the amount of \$66,823 was retired and recorded as a regulatory asset. See Note 5 for further discussion of the Company's regulatory asset balances related to the Green Station gas conversion. At December 31, 2022 and 2021, utility plant is summarized as follows:

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| | | 2022 | 2021 |
|-------------------------------|----|-----------|-----------|
| Classified plant in service: | | | |
| Production plant | \$ | 1,366,409 | 1,484,121 |
| Transmission plant | | 396,500 | 324,393 |
| General plant | | 62,678 | 61,130 |
| Other | | 67 | 67 |
| | | 1,825,654 | 1,869,711 |
| Less accumulated depreciation | _ | 1,095,847 | 1,151,975 |
| | | 729,807 | 717,736 |
| Construction in progress | _ | 214,305 | 175,252 |
| Utility plant – net | \$ | 944,112 | 892,988 |
| | | | |

Big Rivers' secured long-term debt obligations and the 2020 Amended and Restated Syndicated Senior Secured Credit Agreement, dated June 11, 2020, are secured under Big Rivers' Indenture dated as of July 1, 2009, as supplemented and amended (the "Indenture"), between Big Rivers and U.S. Bank National Association, as trustee (the "Indenture Trustee"). Obligations are secured under the Indenture by a mortgage lien on substantially all of Big Rivers' owned tangible, and certain intangible, properties including Big Rivers' production, transmission, general, and other Utility Plant. See Note 4 for further discussion of Big Rivers' Debt and Other Long-Term Obligations secured under its Indenture.

Depreciation expense on utility plant for the years ended December 31, 2022, 2021 and 2020, was \$43,312, \$41,187 and \$21,119, respectively. The increase from 2020 to 2021 in depreciation expense on utility plant, net, is related to the discontinuation of the deferral of depreciation expense on the Wilson plant as of January 1, 2021. See Note 5 for discussion of Wilson plant depreciation.

Interest capitalized for the years ended December 31, 2022 and 2021, was \$5,543 and \$3,246, respectively.

As of December 31, 2022 and 2021, the Company had recorded an estimated \$45,621 and \$50,862, respectively, related to nonlegal removal costs included in accumulated depreciation as required by the RUS.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

(3) Asset Retirement Obligations

The Company has AROs arising from legal obligations associated with the retirements of certain long-lived assets. The liabilities were initially measured at fair value and subsequently adjusted for accretion expense and changes in estimated future cash flows. The corresponding asset retirement costs are capitalized as part of the carrying amount of the related long-lived assets and depreciated over their remaining useful lives. The following table presents the activity for the ARO liabilities for the years ended December 31, 2022 and 2021:

| |
2022 | 2021 |
|-------------------------------------|--------------|------------|
| ARO balance at beginning of year | \$
72,760 | 40,410 |
| Additional obligations incurred | — | 22,442 (a) |
| Changes in estimated timing or cost | — | 143 (b) |
| Accretion expense | 3,553 (c) | 10,020 (c) |
| Actual costs incurred |
(7,046) | (255) |
| ARO balance at end of year | \$
69,267 | 72,760 |

- (a) An ARO liability was recorded in 2021 for closure costs associated with the Green Station landfill and Phase Two of the Wilson Station Landfill.
- (b) During 2021, a favorable ruling was received in the final order of Case No. 2019-00269, which states the City of Henderson is liable for its share of closing the Station Two ash pond. As a result of this ruling, Big Rivers recorded an adjustment to the Station Two ash pond ARO liability to reflect both a change in cost estimate and extension of the final closure date. See Note 5 for further discussion of litigation with the City of Henderson.
- (c) The 2022 and 2021 annual ARO accretion expense of \$3,553 and \$7,935, respectively, was deferred and included in the Regulatory Assets amount reported on the Company's balance sheet as of December 31, 2022 and 2021. The remaining 2021 ARO accretion expense of \$2,085 was deferred and included in the Deferred Charges amount reported on the Company's balance sheet as of December 31, 2021. The KPSC final order in Case No. 2019-00435, the Environmental Compliance Plan, approved the recovery of the capital costs for ash pond closure through the environmental surcharge mechanism ("ESM") based on non-levelized amortization of the actual ash pond closure spending-to-date, allocable over a rolling 10-year period. This method ensures that cost recovery from Members through the ESM is based on actual project spending while also allowing Big Rivers to match its amortization expense with ESM revenue.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

(4) Debt and Other Long-Term Obligations

A detail of long-term debt at December 31, 2022 and 2021 is as follows:

| | _ | 2022 | 2021 |
|---|----|---------|---------|
| CFC Refinance Promissory Note, Series 2012B, serial note | | | |
| pricing, 4.30% effective interest rate, final maturity | | | |
| date of May 2032 | \$ | 173,143 | 187,540 |
| RUS 2009 Series B Promissory Note, stated amount of | | | |
| \$245,530, no stated interest rate, 5.80% imputed interest | | | |
| rate, maturing December 2023 | | 115,891 | 218,827 |
| CoBank Promissory Note, Series 2012A, 4.30% fixed interest | | | |
| rate, final maturity date of June 2032 | | 139,008 | 150,333 |
| 2018 RUS Guaranteed FFB Loan, W8, 2.83% fixed interest | | | |
| rate, final maturity date of January 2033 | | 20,169 | 22,322 |
| 2018 RUS Guaranteed FFB Loan, X8, 2.94% fixed interest | | | |
| rate, final maturity date of December 2043 | | 16,209 | 16,900 |
| 2021 RUS Guaranteed FFB Loan, Y8A, 1.94% fixed interest | | | |
| rate, final maturity date of December 2043 | | 24,542 | 24,542 |
| 2022 RUS Guaranteed FFB Loan, Y8B, 3.34% fixed interest | | | |
| rate, final maturity date of December 2043 | | 122,765 | — |
| 2022 RUS Guaranteed FFB Loan, AA8, 2.31% fixed interest | | == =0.0 | |
| rate, final maturity date of December 2043 | | 57,500 | — |
| 2022 CFC Loan 1, 4.58% fixed interest rate, | | 40.005 | |
| final maturity date of September 2042 | | 49,225 | _ |
| 2022 CFC Loan 2, 4.82% fixed interest rate, | | 40.605 | |
| final maturity date of September 2042 | | 49,625 | — |
| 2022 CFC Farmer Mac Loan, 4.37% fixed interest rate, | | 40.207 | |
| final maturity date of September 2042
CFC Promissory Note, Series 2020B, 2.49% fixed | | 49,207 | |
| interest rate, final maturity date of February 2031 | | 83,300 | 83,300 |
| interest rate, intal maturity date of February 2051 | _ | 03,300 | 03,300 |
| Total long-term debt | | 900,584 | 703,764 |
| Less current maturities | | 149,308 | 27,999 |
| Less unamortized deferred debt issuance costs | | 2,625 | 2,701 |
| Less advance payments unapplied – RUS cushion of credit | | 3,810 | 3,769 |
| Total long-term debt – net of current maturities, | | | |
| deferred debt issuance costs, and advance | | | |
| payments | \$ | 744,841 | 669,295 |
| | | | |

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

The following are scheduled maturities of long-term debt at December 31, 2022:

| | _ | Amount | |
|------------|----|---------|--|
| Year: | | | |
| 2023 | \$ | 149,308 | |
| 2024 | | 45,738 | |
| 2025 | | 45,007 | |
| 2026 | | 46,882 | |
| 2027 | | 46,073 | |
| Thereafter | | 567,576 | |
| Total | \$ | 900,584 | |

(a) National Rural Utilities Cooperative Finance Corporation (CFC) Refinance Note, 2012B

In July 2012, Big Rivers issued new debt with CFC in the form of a secured term loan in the amount of \$302,000 (the "Refinance Note"). The Refinance Note is secured under Big Rivers' Indenture, dated July 1, 2009 between the Company and U.S. Bank National Association, and consists of twenty individual notes with different fixed interest rates ranging from 3.05% to 5.35%. The Refinance Note has an effective interest rate of 4.30% and a final maturity date of May 2032.

(b) RUS Notes

On July 15, 2009, Big Rivers' previous RUS debt was replaced with the RUS 2009 Promissory Note Series A (the "RUS Series A Note") and the RUS 2009 Promissory Note Series B (the "RUS Series B Note"). The RUS Series A Note was repaid in full in 2018.

The RUS Series B Note has no stated interest rate, is recorded at an imputed interest rate of 5.80%, and is secured under Big Rivers' Indenture. A prepayment of \$122,765 of the \$245,530 stated amount was made in May 2022. The remaining \$122,765 of the RUS Series B Note is due December 2023.

(c) CoBank, ACB (CoBank) Promissory Note, Series 2012A

In July 2012, Big Rivers issued new debt with CoBank in the form of a secured term loan in the amount of \$235,000, which is secured under Big Rivers' Indenture. The loan has a fixed interest rate of 4.30% and a final maturity date of June 2032.

(d) 2018 RUS Guaranteed FFB Loan, W8

In April 2018, Big Rivers received a \$25,630 loan from the Federal Financing Bank ("FFB") (the "W8 Loan") which is guaranteed by the RUS and secured under Big Rivers' Indenture. The W8 Loan is for long-term financing of capital projects included in Big Rivers' 2012 Environmental Compliance Plan ("ECP") to comply with the EPA's Mercury and Air Toxics Standards ("MATS") rule. These capital projects were completed in 2016 and were originally funded with Big Rivers' general funds. Accordingly, the proceeds of the W8 Loan were used to replenish Big Rivers' general funds. The W8

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

Loan has a fixed interest rate of 2.828%, which includes a 0.125% RUS administration fee, and has a final maturity date of January 2033.

(e) 2018 RUS Guaranteed FFB Loan, X8

In April 2018, Big Rivers received a \$17,965 loan from the FFB, (the "X8 Loan") which is guaranteed by the RUS and secured under Big Rivers' Indenture. The X8 Loan is for long-term financing of capital projects included in Big Rivers' 2013-2015 Transmission Construction Work Plan, which were completed in 2017 and were originally funded with Big Rivers' general funds. Accordingly, the proceeds of the X8 Loan were used to replenish Big Rivers' general funds. The X8 Loan has a fixed interest rate of 2.935%, which includes a 0.125% RUS administration fee, and has a final maturity date of December 2043.

(f) 2021 RUS Guaranteed FFB Loan, Y8 A

In November 2021, Big Rivers received a \$24,542 loan from the FFB, (the "Y8 A Loan") which is guaranteed by the RUS and secured under Big Rivers' Indenture. The Y8 A Loan is for long-term financing of capital projects included in Big Rivers' 2016-2019 Transmission Construction Work Plan, which were completed in 2020 and were originally funded with Big Rivers' general funds. Accordingly, the proceeds of the Y8 A Loan were used to replenish Big Rivers' general funds. The Y8 A Loan has a fixed interest rate of 1.936%, which includes a 0.125% RUS administration fee, and has a final maturity date of December 2043.

(g) 2022 RUS Guaranteed FFB Loan, Y8 B

In May 2022, Big Rivers received a \$122,765 loan from the FFB, (the "Y8 B Loan") which is guaranteed by the RUS and secured under Big Rivers' Indenture. The Y8 B Loan was issued to refinance one-half of the RUS Series B Note maturing on December 31, 2023. The Y8 B Loan has a fixed interest rate of 3.342%, which includes a 0.125% RUS administration fee, and has a final maturity of December 2043.

(h) 2022 RUS Guaranteed FFB Loan, AA8

In February 2022, Big Rivers received a \$57,500 loan from the FFB, (the "AA8 Loan") which is guaranteed by the RUS and secured under Big Rivers' Indenture. The AA8 Loan is for long-term financing of capital projects included in Big Rivers' 2020-1 Amendment to the 2020-2023 Transmission Construction Work Plan, which were completed in 2022 and were originally funded with Big Rivers' general funds. The AA8 Loan has a fixed interest rate of 2.312%, which includes a 0.125% RUS administration fee, and has a final maturity of December 2043.

(i) National Rural Utilities Cooperative Finance Corporation (CFC) Loan, 2022A

In 2022, Big Rivers issued new debt with CFC in the form of three secured term loans totaling \$150,000, which are secured under Big Rivers' Indenture. CFC Term Loan One was advanced in April 2022 and has a stated interest rate of 4.58%; CFC Term Loan Two was advanced in July 2022 and has a stated interest rate of 4.82%; and CFC Farmer Mac Loan was advanced in April 2022 and has a stated interest rate of 4.374%. Each loan has a final maturity date of September 2042.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

(j) Line of Credit (CFC Syndicated Line, Series 2020A)

On March 5, 2015, Big Rivers entered into a \$130,000 Syndicated Senior Secured Credit Agreement (the "2015 Agreement") with CFC, CoBank, Fifth Third Bank, KeyBank National Association, and Regions Bank. In conjunction with the 2015 Agreement, Big Rivers issued secured promissory notes (the "Series 2015A Notes"), equal to each lender's commitment, which are secured under Big Rivers' Indenture.

On September 19, 2017, the 2015 Agreement was amended to, among other things, reduce the total facility amount from \$130,000 to \$100,000, and extend the maturity date from March 5, 2018 to September 18, 2020.

On July 11, 2020, the existing 2015 Agreement, that was previously amended and restated in 2017, was replaced with a \$150,000 Syndicated Secured Credit Agreement (the "2020 Agreement") with CFC, CoBank, Fifth Third Bank, KeyBank National Association, Regions Bank, and Bank of America. In conjunction with the 2020 Agreement, Big Rivers issued secured promissory notes (the "Series 2020A Notes"), equal to each lender's commitment, which are secured under Big Rivers' Indenture.

As of December 31, 2022, Big Rivers had outstanding borrowings of \$25,000 under the 2020 Agreement and \$36,190 in issued letters of credit outstanding, which reduced its available borrowing capacity under the 2020 Agreement from \$150,000 to \$88,810.

As of December 31, 2021, Big Rivers had outstanding borrowings of \$60,000 under the 2020 Agreement and \$37,190 in issued letters of credit outstanding, which reduced its available borrowing capacity under the 2020 Agreement from \$150,000 to \$52,810.

(k) CFC Promissory Note, 2020B

On December 23, 2020, Big Rivers issued new debt with CFC in the form of a secured balloon note in the amount of \$83,300 for the purpose of early redemption of the Series 2010A Bonds. This note is secured under Big Rivers' Indenture, with a fixed interest rate of 2.49% and a final maturity date of February 2031.

(I) Old National Bank, Paycheck Protection Program ("PPP") Note

In response to the COVID-19 pandemic, the federal government passed and signed the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act) into law on March 27, 2020. This act allowed qualified businesses to borrow money through the Paycheck Protection Program administered by the Small Business Administration ("SBA) to cover payroll and other related expenses. On April 7, 2020, Big Rivers applied for PPP funds in the amount of \$9,941. The unsecured loan was approved, and funds were received on April 21, 2020. On August 18, 2020, Big Rivers submitted an application requesting forgiveness of the \$9,941 loan. Big Rivers received notice on August 17, 2021, that the PPP loan principal and accrued interest was forgiven in full and is recorded in the Interest income and other line on the statement of operations.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

(m) RUS Cushion of Credit

In 2018, Big Rivers began participating in the cushion of credit program administered by the RUS in conjunction with the execution of the 2018 W8 and X8 RUS Guaranteed FFB Loans. Under the cushion of credit program, RUS borrowers may make voluntary irrevocable deposits into the cushion of credit account. Per the terms of the RUS' commitment to guarantee Big Rivers' W8 and X8 Loans, Big Rivers agreed to make an initial deposit of \$3,200 to the cushion of credit account upon receipt of the loan funds and to make additional deposits, as needed, so that the balance at the beginning of each year going forward is equal to or greater than the annual payments due on the W8 and X8 Loans during the year. The interest rate dropped from 5% to 4% on October 1, 2020, and became a variable rate, which is equal to the one-year Treasury rate as of October 1 of each year. The rate in effect as of December 31, 2022, is 4.05%. During 2022, the cushion of credit account accrued interest at an annual rate of 0.09%.

Big Rivers' amounts in the cushion of credit account (deposits and accrued interest) may only be used to make scheduled principal and interest payments on the W8 and X8 Loans. As of December 31, 2022 and 2021, Big Rivers' balance in the RUS cushion of credit account was \$3,810 and \$3,769, respectively, which is included on the Company's balance sheet as a reduction to long-term debt.

(n) Covenants

Big Rivers is in compliance with all debt covenants associated with both its long-term and short-term debt obligations. The Company's Indenture and other debt agreements require that a Margins for Interest Ratio ("MFIR") of at least 1.10 be maintained for each fiscal year. The MFIR is the sum of margins for interest plus interest charges, divided by interest charges. The 2020 Agreement requires that Big Rivers, throughout the duration of the agreement, maintain a minimum Members' Equities' Balance at the end of each fiscal quarter-end and as of the last day of each fiscal year in an amount at least equal to \$417,000 plus 50% of the cumulative positive net margin for the period from December 31, 2019, to the end of the Borrower's most recently ended fiscal year. Big Rivers' MFIR for the fiscal year ended December 31, 2022, was 1.30, taking into account the TIER Credit discussed in note 5, and its Equities balance was \$475,667.

An MFIR of less than 1.10, per the Indenture and other debt agreements, may result in the following actions, restrictions, or consequences: Big Rivers may not secure additional debt under the Indenture; the Company must seek rates that are reasonably expected to yield a 1.10 MFIR; the Company must provide a written plan satisfactory to the RUS setting forth actions to be taken to achieve the specified MFIR on a timely basis; an event of default may occur; interest rates may increase; and its line of credit may be terminated with an acceleration of any outstanding amounts becoming due immediately.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

(5) Rate Matters

In connection with the rate matters discussed below, the following tables provide a summary of Regulatory Assets and Liabilities reflected in the Balance Sheet as of December 31, 2022 and 2021:

| | Regulatory assets | | |
|-------------------------------------|------------------------|---------|---------|
| | | 2022 | 2021 |
| Coleman plant deferred depreciation | \$ | 6,464 | 13,870 |
| Wilson plant deferred depreciation | | _ | 32,364 |
| Non-FAC PPA | | 26,198 | 12,863 |
| Asset retirement obligations | | 43,965 | 31,899 |
| Environmental costs (CCR) | | 12,279 | 13,814 |
| ECP case expense | | 137 | 233 |
| Station Two contract termination | | 93,998 | 92,957 |
| Coleman plant retire/decommission | | 134,158 | 132,615 |
| Reid 1 plant retire/decommission | | 9,446 | 9,342 |
| Green plant gas conversion | | 94,333 | 21,564 |
| Total regulatory assets | \$ | 420,978 | 361,521 |
| | Regulatory liabilities | | |
| | | 2022 | 2021 |
| Member rate mitigation | \$ | 11,711 | 17,817 |
| TIER Credit | | 26,566 | 35,726 |
| Total regulatory liabilities | \$ | 38,277 | 53,543 |

The rates charged to Big Rivers' members generally consist of a demand charge per kilowatt ("kW") and an energy charge per kilowatt-hour ("kWh") consumed as approved by the KPSC. The rates include specific demand and energy charges for its two classes of customers, the large industrial customers and the rural customers, under its jurisdiction. For the large industrial customers, the demand charge is generally based on each customer's maximum demand during the current month. For the rural customers, the demand charge is based on Maximum Adjusted Net Local Load (as defined in Big Rivers' tariff).

The Company has certain KPSC approved tariff riders; including a fuel adjustment clause, an environmental surcharge, and the Member Rate Stability Mechanism ("MRSM").

Coleman plant depreciation and Wilson plant depreciation:

The KPSC entered an order on October 29, 2013, granting Big Rivers an annual revenue increase of \$54,227, effective August 20, 2013 (Case No. 2012-00535). In its order, the KPSC excluded the Coleman plant depreciation from rate recovery. The KPSC directed the Company to defer this depreciation expense and record the deferred amounts in a regulatory asset account. The KPSC's order indicated this action was being taken due to the planned temporary idling of Coleman, the length of time the plant would be idled, and the impact of the rate increase on customers. As of December 31, 2022, cumulative depreciation

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

expense of \$6,464 was deferred for the Coleman plant, which includes the TIER credit reduction from 2019, as discussed below. Management believes the remaining balance is probable of recovery in future rates. The Coleman plant was retired September 30, 2020, as described below for Case No. 2020-00064.

The KPSC entered an order on April 25, 2014, granting Big Rivers an annual revenue increase of \$36,160, effective February 1, 2014 (Case No. 2013-00199). In its order, the KPSC approved Big Rivers' 2012 Depreciation Study, but excluded Wilson plant depreciation from rate recovery. The KPSC directed the Company to defer the Wilson depreciation expense and record in a regulatory asset account, similar to the Coleman depreciation expense deferral per the KPSC's order in Case No. 2012-00535. As of December 31, 2022, Big Rivers had fully recovered the deferred depreciation expense for the Wilson plant. The KPSC also approved Big Rivers' proposal to temporarily offset the rate increase by utilization of the MRSM. The KPSC further granted Big Rivers' proposed accounting treatment for transmission revenues related to the Hawesville smelter and authorized Big Rivers to pass the transmission revenues to its members through the MRSM. The net effect of this accounting treatment was the recognition of revenue on a monthly basis with an offset to the applicable regulatory liability accounts as the reserve funds were used to offset the impact of the base rate increase on the members' monthly bills.

Non-FAC PPA:

Effective July 17, 2009, the KPSC approved the implementation of the Non-Fuel Adjustment Clause-Purchased Power Adjustment ("Non-FAC PPA") which is a rate mechanism allowing Big Rivers to recover certain costs of purchased power that are not recoverable through its Fuel Adjustment Clause ("FAC"). An accrual is recorded monthly to a regulatory asset or liability account based on the difference between the actual purchased power costs recoverable through the Non-FAC PPA and the purchased power base cost included in base rates. The balance in the regulatory asset or liability account as of June 30 each year is billed or refunded to members during the following twelve-month period beginning September 1 through August 31 of the following year.

Asset Retirement Obligations:

The CCR Final Rule requires Big Rivers to address the eventual permanent closures of its Green Station coal ash pond and the coal ash pond at the City of Henderson, Kentucky's Station Two, as well as its landfills at Green Station and Wilson Station. Big Rivers recorded asset retirement obligations for its ash ponds at its Green Station and Station Two generating stations and for its landfills at Green Station and Wilson Station. See Note 3 for further discussion of the Company's asset retirement obligations.

On January 5, 2016, the KPSC issued an order in Case No. 2015-00333 approving Big Rivers' request to establish regulatory assets for the deferral of certain expenses it would incur for compliance with the CCR Final Rule, including accretion and depreciation expense related to the Green Station and Station Two ash ponds' AROs and other incremental expenses. On June 11, 2021, the KPSC issued an order in Case No. 2021-00079 approving Big Rivers' requests to establish a regulatory asset for the deferral of certain expenses related to the Green Station and to recover those deferred expenses through a levelized amortization of the deferred amount over the period from 2022 through 2043. The ARO for the Green Station landfill is recorded in this regulatory asset. On October 25, 2022, the KPSC issued an order in Case No. 2022-00201, approving Big Rivers' request to establish regulatory assets for the deferral of certain

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

expenses it would incur for compliance with the CCR Final Rule, including accretion and depreciation expense related to the ARO for the Wilson Station landfill.

Environmental Costs (CCR) and ECP Case Expense:

On August 6, 2020, the KPSC approved Big Rivers' 2020 Environmental Compliance Plan ("2020 ECP"), (1) granting Big Rivers the authority to close the Green Station and Station Two ash ponds; (2) granting Big Rivers the authority to move the Coleman Station flue gas desulfurization system ("FGD") to Wilson Station to replace Wilson's FGD; (3) conditionally granting Big Rivers' request to establish regulatory assets for the accretion and depreciation expense related to the Coleman Station legacy ash ponds, should the CCR Final Rule be extended to apply to such legacy ash ponds; (4) conditionally granting Big Rivers the authority to close the Coleman Station ash ponds, should the CCR Final Rule be extended to apply to such legacy ash ponds; (5) authorizing Big Rivers to amortize the Green Station and Station Two ash pond AROs through its environmental surcharge; (6) conditionally authorizing Big Rivers to amortize the costs incurred to close the Coleman Station ash pond through its environmental surcharge should the CCR Final Rule be extended to apply to the Coleman Station ash ponds; (7) authorizing Big Rivers to amortize the regulatory asset for CCR-related expenses through its environmental surcharge; and (8) authorizing Big Rivers to establish a regulatory asset for the costs of preparing and prosecuting the 2020 ECP case, the recovery of which regulatory asset was approved in Case No. 2021-00061.

As of December 31, 2022, the total amount of CCR-related expenses and costs for asset retirement obligations deferred and included in Regulatory Assets on the Company's balance sheet was \$56,244, and the costs of preparing and prosecuting the ECP case that have been deferred and included in Regulatory Assets on the Company's balance sheet was \$137.

Station Two Contract Termination:

On August 29, 2018, the KPSC entered an order (Case No. 2018-00146) (i) finding that the Station Two units were no longer capable of the normal, continuous, reliable operation for the economically competitive production of electricity; (ii) finding that the Station Two contracts, except for the Joint Facilities Agreement, have therefore terminated pursuant to their own terms; (iii) granting Big Rivers' request for authority to continue to operate Station Two under terms of the Station Two contracts for a period up to May 31, 2019; and (iv) reserving a ruling on Big Rivers' request for authority to establish a Station Two regulatory asset. The remaining issues in this case were resolved with a Settlement Agreement between the Office of the Attorney General, the Kentucky Industrial Utility Customers ("KIUC"), and Big Rivers. The Settlement Agreement provided, among other things, that the KPSC would approve the Station Two regulatory asset. On October 23, 2018, the KPSC issued a final order approving the Settlement Agreement in full. RUS approved the Settlement Agreement on February 22, 2019. As of December 31, 2022, the total amount of the Station Two contract termination included in the Regulatory Assets on the Company's balance sheet was \$93,998. This includes Station Two assets transferred from utility plant to Regulatory Assets and the Company's portion of decommissioning costs incurred to date.

Demand Side Management:

On December 12, 2018, the KPSC approved Big Rivers' request to phase out its existing Demand Side Management ("DSM") programs, to establish a new Low-Income Weatherization Program, and to establish a regulatory liability for the savings associated with the phase out of the existing DSM programs. As of

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

December 31, 2022, the DSM savings were no longer recorded in a Regulatory Liability based on the ruling received in Case No. 2020-00064, as discussed below.

Coleman Plant and Reid 1 Plant Retire/Decommission:

On June 25, 2020, the KPSC entered an order in Case No. 2020-00064 approving a Settlement Agreement, as modified by the Commission, between Big Rivers, KIUC and the Attorney General, which approved Big Rivers' requests to: (1) establish regulatory assets for the remaining net book value of Coleman Station and Reid Station Unit 1 at retirement, and for the costs to decommission those units; (2) cease charging DSM savings to a regulatory liability; (3) utilize the existing DSM regulatory liability in 2020 and 80% of equity headroom in 2021 to reduce Smelter Load Mitigation (SLM) regulatory assets (the Wilson and Coleman depreciation regulatory assets; the Coleman, Reid 1, and Station Two retirement and decommissioning regulatory assets; and a regulatory asset through which the costs related to a focused management audit were deferred); and (4) recover the amounts deferred in those regulatory assets through amortization. The KPSC also approved replacing the TIER Credit mechanism in Big Rivers' MRSM tariff with a new TIER Credit mechanism. Under the new TIER Credit, in years in which Big Rivers earns in excess of a 1.30 TIER, 40% of the excess margins will be returned to Big Rivers' members over the following year through a monthly bill credit. The remaining 60% of the excess margins will be deferred in regulatory liability accounts, with a minimum reguired balance of \$9,000, to be utilized in a year in which Big Rivers does not achieve a 1.30 TIER or to further decrease the balance of the regulatory assets with KPSC approval. The first \$700 of the bill credit each year will be allocated to Rural customers, and any bill credit over \$700 will be allocated between the Rural and Large Industrial customers based on revenues.

On March 8, 2022, Big Rivers filed a motion for clarification of the KPSC's Order entered on June 25, 2020, in Case No. 2020-00064. Specifically, Big Rivers asked the KPSC to clarify that the utilization of equity headroom to reduce the Smelter Load Mitigation ("SLM") regulatory assets is not recoverable from its members. The KPSC issued an order on March 15, 2022, clarifying the June 25, 2020 Order, by stating that Big Rivers' member equity headroom in 2021 to record a one-time amortization of the SLM regulatory assets is not recoverable from Big Rivers' members in current or future rates. Big Rivers recorded \$84,945 for utilization of its equity headroom as a charge to amortization expense in 2021. During 2022 and 2021, the Company reduced the SLM regulatory asset balances by recording amortization of \$39,770 and \$108,989, respectively. The amortization recorded was ordered in Case No. 2020-00064 and includes the equity headroom adjustment in 2021, annual TIER credit allocation, and monthly amortization.

Green Plant Gas Conversion:

On June 11, 2021, the KPSC granted Big Rivers a certificate of public convenience and necessity ("CPCN") to convert Big Rivers' two existing coal-fired generating units at its Green Station to run on natural gas, authorized the gas conversion assets to be depreciated over a seven-year period, and granted Big Rivers the authority to establish a regulatory asset to defer recognition of the costs that Big Rivers expects to incur as a result of the retirement of certain Green Station assets that will no longer be utilized after the conversion. The gas conversion was completed in late May 2022. The costs incurred as a result of the gas conversion, including the retirement of the assets in the amount of \$66,823, discussed in Note 2, were recorded in the regulatory asset. The gas conversion assets are being depreciated over a seven-year period beginning in June 2022. As of December 31, 2022, the total amount of this regulatory asset incurred to date was \$94,333.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

Regulatory Liabilities:

On June 25, 2020, the KPSC approved changes to the company's MRSM tariff. In years in which Big Rivers earns margins in excess of a 1.30 TIER, excluding the utilization of equity headroom, 40% of the excess margins will be returned as a monthly bill credit, the new TIER Credit, to Big Rivers' members over the following year through the MRSM tariff. The remaining 60% of the excess margins will be deferred in regulatory liability accounts. Big Rivers' new TIER Credit was \$29,277 for 2022, with 40%, or \$11,711 to be returned to members through bill credits over a twelve-month period beginning February 2022. This amount is recorded as a regulatory liability at December 31, 2022, presented between current and long-term maturities based on the timing of future bill credits expected to be provided to the members. The remaining 60%, or \$17,566, was also deferred in regulatory liability accounts and is expected to offset the regulatory assets, as described above, subject to KPSC approval. The regulatory liability of \$9,000 remaining from 2022 will continue to remain as a minimum required balance as described above. The new TIER Credit was recorded as depreciation and amortization expense on the statement of operations.

On February 28, 2022, Big Rivers filed an application with the KPSC, Case No. 2022-00028, for review of its MRSM charge for calendar year 2021. In its application, Big Rivers proposed to use the regulatory liability amount in excess of the minimum required balance of \$9,000 that was established in Case No. 2020-00064, discussed above, or \$26,726, to further reduce the SLM Regulatory Assets in 2022. The KPSC approved Big Rivers' proposal on July 6, 2022.

(6) Income Taxes

At December 31, 2022, Big Rivers had a Non-Patron Net Operating Loss ("NOL") Carryforward of approximately \$36,172 expiring at various times between 2029 and 2037 which was entirely offset by a full valuation allowance.

The Tax Cuts and Jobs Act of 2017 ("TCJA") amendment to Section 174 requires U.S.-based and non-U.S.-based research and experimental (R&E) expenditures to be capitalized and amortized over a period of five or fifteen years, respectively, for amounts incurred in tax years starting after December 31, 2021. The Company does not expect the Section 174 capitalization rule to have a material impact on operations.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

The components of the net deferred tax assets as of December 31, 2022 and 2021 were as follows:

| |
2022 | 2021 |
|---|----------------------|-----------------|
| Deferred tax assets:
Net operating loss carryforward
Fixed asset basis difference | \$
9,025
3,466 | 8,802
6,901 |
| Total deferred tax assets |
12,491 | 15,703 |
| Deferred tax liabilities:
RUS Series B Note
Bond refunding costs |
(3,343)
(46) | (3,343)
(51) |
| Total deferred tax liabilities |
(3,389) | (3,394) |
| Net deferred tax asset (pre-valuation allowance) | 9,102 | 12,309 |
| Valuation allowance |
(9,102) | (12,309) |
| Net deferred tax asset | \$
 | |

A reconciliation of the Company's effective tax rate for 2022, 2021, and 2020 is as follows:

| | 2022 | 2021 | 2020 |
|---|----------|----------|--------|
| Federal rate | 21.0 % | 21.0 % | 21.0 % |
| State rate – net of federal benefit | 4.0 | 4.0 | 4.0 |
| Permanent differences | 0.6 | — | 0.2 |
| Patronage allocation to members | (25.6) | (25.0) | (25.2) |
| Alternative minimum tax credit recovery | | | (4.6) |
| Effective tax rate | <u> </u> | <u> </u> | (4.6)% |

The Company files a federal income tax return, as well as certain state income tax returns. The years currently open for federal income tax examination are 2018 through 2020. The major state tax jurisdiction currently open for income tax examination is Kentucky for years 2018 through 2021. The Company has not recorded any unrecognized tax benefits or liabilities related to federal or state income taxes.

The Company classifies tax-related interest and penalties as an operating expense on the statement of operations and accrued expenses on the balance sheet. No material tax-related interest or penalties have been recorded during 2022, 2021, or 2020.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

(7) Pension Plans

(a) Defined-Benefit Plans

Big Rivers has a noncontributory defined-benefit pension plan covering substantially all employees who meet minimum age and service requirements and who were employed by the Company prior to the plan closure dates cited below. The plan provides benefits based on the participants' years of service and the five highest consecutive years' compensation during the last ten years of employment. Big Rivers' policy is to fund such plan in accordance with the requirements of the Employee Retirement Income Security Act of 1974.

Prior to January 1, 2014, Big Rivers had two separate defined-benefit pension plans. The salaried employees' defined-benefit plan was closed to new entrants effective January 1, 2008, and the bargaining employees' defined-benefit plan was closed to new hires effective November 1, 2008. The Company simultaneously established base contribution accounts in the defined-contribution thrift and 401(k) savings plans, which were renamed as the retirement savings plans. The base contribution account for an eligible employee, which is one who meets the minimum age and service requirements, but for whom membership in the defined-benefit plan is closed, is funded by employer contributions based on graduated percentages of the employee's pay, depending on his or her age.

In order to meet minimum participation requirements, Big Rivers' salaried employees defined benefit plan was merged into the bargaining employees defined benefit plan. The merger was effective January 1, 2014, for purposes of Internal Revenue Code and effective December 31, 2014, for all other purposes. Effective January 1, 2017, participation was frozen in the merged plan for highly compensated employees in order to comply with IRS code section 401(a)(26).

Effective December 31, 2021, all employees within the defined benefit plan were frozen. No employee shall accrue any benefits under the plan on or after December 31, 2021. The employees impacted will subsequently become eligible for the base contribution accounts described above.

The Company has adopted FASB ASC 715, *Compensation – Retirement Benefits*, including the requirement to recognize the funded status of its pension plan and other postretirement plans (Note 10 – Postretirement Benefits Other than Pensions). ASC 715 defines the funded status of a defined-benefit pension plan as the fair value of its assets less its projected benefit obligation, which includes projected salary increases and defines the funded status of any other postretirement plan as the fair value of its assets less its accumulated postretirement benefit obligation.

ASC 715 also requires an employer to measure the funded status of a plan as of the date of its year-end balance sheet and requires disclosure in the notes to the financial statements of certain additional information related to net periodic benefit costs for the next fiscal year. The Company's pension and other postretirement benefit plans are measured as of December 31, 2022 and 2021.

The following provides an overview of the Company's noncontributory defined-benefit pension plan.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

A reconciliation of the Company's benefit obligations of its noncontributory defined-benefit pension plan at December 31, 2022 and 2021, is as follows:

| |
2022 | 2021 |
|--|--------------|---------|
| Benefit obligation – beginning of period | \$
13,143 | 23,439 |
| Service cost – benefits earned during the period | — | 649 |
| Interest cost on projected benefit obligation | 324 | 469 |
| Plan curtailments | — | (4,437) |
| Benefits paid | (5,268) | (8,837) |
| Actuarial loss (gain) |
(577) | 1,860 |
| Benefit obligation – end of period | \$
7,622 | 13,143 |

Big Rivers' defined-benefit pension plan provides retirees and terminated employees with a lump-sum payment option. Benefits paid in 2022 include lump-sum payments totaling \$5,181 – the result of seven former employees electing the lump-sum payment option. Benefits paid in 2021 include lump-sum payments totaling \$8,749 – the result of nine former employees electing the lump-sum payment option.

The accumulated benefit obligation for the defined-benefit pension plan was \$7,622 and \$13,143 at December 31, 2022 and 2021, respectively.

A reconciliation of the Company's pension plan assets at December 31, 2022 and 2021, is as follows:

| |
2022 | 2021 |
|---|--------------|---------|
| Fair value of plan assets – beginning of period | \$
15,176 | 22,255 |
| Employer contributions | 47 | 47 |
| Actual return on plan assets | (2,868) | 1,711 |
| Benefits paid |
(5,268) | (8,837) |
| Fair value of plan assets – end of period | \$
7,087 | 15,176 |

The funded status of the Company's pension plan at December 31, 2022 and 2021, is as follows:

| |
2022 | 2021 |
|---|------------------------|--------------------|
| Benefit obligation – end of period
Fair value of plan assets – end of period | \$
(7,622)
7,087 | (13,143)
15,176 |
| Funded status (under)/over | \$
(535) | 2,033 |

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

Components of net periodic pension costs for the years ended December 31, 2022, 2021, and 2020, were as follows:

| |
2022 | 2021 | 2020 |
|--|-------------|---------|---------|
| Service cost | \$
_ | 649 | 597 |
| Interest cost | 324 | 469 | 625 |
| Expected return on plan assets | (541) | (1,221) | (1,318) |
| Amortization of prior service cost | | (33) | (33) |
| Amortization of actuarial loss | | 130 | 41 |
| Settlement and curtailment (gain) loss |
1,727 | (1,386) | 289 |
| Net periodic benefit cost | \$
1,510 | (1,392) | 201 |

A reconciliation of the pension plan amounts in accumulated other comprehensive income at December 31, 2022 and 2021, is as follows:

| | _ | 2022 | 2021 |
|--|----|---------|---------|
| Prior service cost | \$ | _ | _ |
| Unamortized actuarial loss | _ | (2,407) | (1,301) |
| Accumulated other comprehensive income | \$ | (2,407) | (1,301) |

The recognized adjustments to other comprehensive income at December 31, 2022 and 2021, are as follows:

| |
2022 | 2021 |
|-----------------------------------|-------------|---------|
| Prior service cost | \$
 | _ |
| Unamortized actuarial gain/(loss) |
1,106 | (1,777) |
| Other comprehensive (income)/loss | \$
1,106 | (1,777) |

At December 31, 2022 and 2021, amounts recognized in the balance sheets were as follows:

| |
2022 | 2021 |
|----------------------------|-------------|-------|
| Deferred credits and other | \$
(535) | 2,033 |

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

Assumptions used to develop the projected benefit obligation and determine the net periodic benefit cost were as follows:

| - | 2022 | 2021 | 2020 |
|--|--------|--------|--------|
| Discount rate – projected benefit obligation | 5.39 % | 2.57 % | 2.05 % |
| Discount rate – net periodic benefit cost | 2.57 | 2.05 | 2.99 |
| Rates of increase in compensation levels | N/A | 4.00 | 4.00 |
| Expected long-term rate of return on | | | |
| assets | 3.65 | 5.75 | 6.50 |

The expected long-term rate of return on plan assets for determining net periodic pension cost for each fiscal year is chosen by the Company from a best estimate range determined by applying anticipated long-term returns and long-term volatility for various asset categories to the target asset allocation of the plan. The expected long-term rate of return on assets is based on the median expected rate of return for a passively-managed portfolio plus the incremental return from active management.

Big Rivers utilizes a third-party investment manager for the plan assets, and has communicated thereto the Company's Retirement Plan Investment Policy, including a target asset allocation mix of 10% U.S. equities (an acceptable range of 5%–15%), 10% international equities (an acceptable range of 5%–15%), 60% Long-Term Government Fixed Income (an acceptable range of 50%–70%), and 20% U.S. Credit (an acceptable range of 10%–30%). As of December 31, 2022, the investment allocation was 9% in U.S. equities, 10% in international equities, 62% in Long Term Government Fixed income and 19% in U.S. Credit. As of December 31, 2021, the investment allocation was 10% in U.S. equities, 62% in Long Term Government Fixed income and 19% in U.S. Credit. The objective of the investment program seeks to (a) maximize return on investment, (b) minimize volatility, (c) minimize Company contributions, and (d) provide the employee benefit in accordance with the plan. The portfolio is well diversified and of high quality. The average quality of the fixed income investments must be "A" or better. The equity portfolio must also be of investment grade quality. The performance of the investment manager is reviewed semiannually.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

At December 31, 2022 and 2021, the fair value of Big Rivers' defined-benefit pension plan assets by asset category are as follows:

| |
Level 1 | Level 2 | December 31,
2022 |
|---------------------------|-------------|---------|----------------------|
| Cash and money market | \$
190 | _ | 190 |
| Equity securities: | | | |
| Common stock | 398 | — | 398 |
| Mutual funds | 940 | _ | 940 |
| Fixed: | | | |
| Corporate bonds and notes |
 | 5,559 | 5,559 |
| | \$
1,528 | 5,559 | 7,087 |

| |
Level 1 | Level 2 | December 31,
2021 |
|---------------------------|-------------|---------|----------------------|
| Cash and money market | \$
578 | _ | 578 |
| Equity securities: | | | |
| Common stock | 1,217 | — | 1,217 |
| Mutual funds | 1,667 | — | 1,667 |
| Fixed: | | | |
| Corporate bonds and notes |
 | 11,714 | 11,714 |
| | \$
3,462 | 11,714 | 15,176 |

Expected retiree pension benefit payments projected to be required during the next ten years following 2022 are as follows:

| |
Amount |
|--------------------------|-------------|
| Year ending December 31: | |
| 2023 | \$
386 |
| 2024 | 557 |
| 2025 | 461 |
| 2026 | 678 |
| 2027 | 691 |
| Thereafter |
4,402 |
| Total | \$
7,175 |

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

(b) Defined-Contribution Plans

Big Rivers has two defined-contribution retirement plans covering substantially all employees who meet minimum age and service requirements. Each plan has a thrift and 401(k) savings section allowing employees to contribute up to 75% of pay on a pretax and/or after-tax basis, with employer matching contributions equal to 60% of the first 6% contributed by the employee on a pretax basis.

A base contribution retirement section was added and the plan name changed from Thrift and 401(k) Savings to Retirement Savings, effective January 1, 2008, for the salaried plan and November 1, 2008, for the bargaining plan. The base contribution account is funded by employer contributions based on graduated percentages of pay, depending on the employee's age.

The Company's expense under these plans was \$3,738, \$4,583, and \$4,518 for the years ended December 31, 2022, 2021 and 2020, respectively, recorded as operating expenses on the statement of operations.

(c) Deferred Compensation Plan

Big Rivers sponsors a nonqualified deferred compensation plan for its eligible employees who are members of a select group of management or highly compensated employees. The purpose of the plan is to allow participants to receive contributions or make deferrals that they could not receive or make under the salaried employees qualified defined-contribution retirement savings plan (formerly, the thrift and 401(k) savings plan) as a result of nondiscrimination rules and other limitations applicable to the qualified plan under the Internal Revenue Code. The nonqualified plan also allows a participant to defer a percentage of his or her pay on a pretax basis.

The nonqualified deferred compensation plan is unfunded, but the Company has chosen to finance its obligations under the plan, including any employee deferrals, through a rabbi trust. The trust assets remain a part of the Company's general assets, subject to the claims of its creditors. The employer contribution for December 31, 2022 and 2021, was \$301 and \$222, respectively, and the deferred compensation expense for December 31, 2022, 2021, and 2020, was \$16, \$364, and \$388, respectively. As of December 31, 2022 and 2021, the trust assets were \$1,779 and \$1,653, and the deferred liability was \$1,779 and \$1,653, respectively. The company classifies trust assets as other deposits and investments and the deferred liability as deferred credits and other on the balance sheet.

(8) Short-Term Investments

At December 31, 2022, the Company's short-term investments included \$5,420 of investments in debt securities which are included in the Company's balance sheet at amortized cost. At December 31, 2021, the Company's short-term investments included \$353 of investments in debt securities which are included in the Company's balance sheet at amortized cost. The investments in debt securities are classified as held-to-maturity, based on management's intent and ability to hold them to maturity. Both CDs and investments in debt securities are included in "Cash and Cash Equivalents" (if the original maturity date is less than or equal to three months) or "Short-term-investments" (if the original maturity date is greater than three months but less than one year).

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

The amortized costs and fair values (Level 1 measurement) of Big Rivers' short-term investments at December 31, 2022 and 2021, were as follows:

| | 20 |)22 | 20 | 21 |
|-------------------------|-----------|--------|-----------|--------|
| | Amortized | Fair | Amortized | Fair |
| | costs | values | costs | values |
| Debt securities: | | | | |
| Corporate notes | \$ | | — | — |
| U.S. Treasuries | 5,420 | 5,394 | 353 | 352 |
| Total debt securities | 5,420 | 5,394 | 353 | 352 |
| Other: | | | | |
| Certificates of deposit | | | | |
| Total short-term | | | | |
| investments | \$5,420 | 5,394 | 353 | 352 |

Gross unrealized gains and losses on short-term investments at December 31, 2022 and 2021, were as follows:

| | | 202 | 22 | 202 | 21 |
|-----------------------------------|----|-------|--------|-------|--------|
| | _ | Gains | Losses | Gains | Losses |
| Debt securities: | | | | | |
| Corporate notes | \$ | | | — | — |
| U.S. Treasuries | | | (26) | | (1) |
| Total debt securitie | es | _ | (26) | _ | (1) |
| Other:
Certificates of deposit | _ | | | | |
| Total short-term
investments | \$ | | (26) | | (1) |

(9) Fair Value of Other Financial Instruments

FASB ASC 820 defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measures. It applies under other accounting standards that require or permit fair value measurements and does not require any new fair value measurements.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

The carrying value of accounts receivable, net of allowance of \$1,423 at December 31, 2022 and 2021, and accounts payable approximate fair value due to their short maturity. The carrying value of long-term accounts receivable is the net amount deemed certain of collection, which approximates fair value. At December 31, 2022 and 2021, the Company's cash and cash equivalents included short-term investments in an institutional U.S. government money market portfolio account classified as trading securities under ASC 320, *Investments – Debt and Equity Securities*, that were recorded at fair value which was determined using quoted market prices for identical assets without regard to valuation adjustment or block discount (a Level 1 measure), as follows:

| | - | 2022 | 2021 |
|--|----|------|-------|
| Institutional U.S. government money market portfolio | \$ | 147 | 3,926 |

It was not practical to estimate the fair value of patronage capital included within other deposits and investments due to these being untraded companies.

Big Rivers' long-term debt at December 31, 2022, consisted of CFC notes totaling \$404,501, a CoBank note in the amount of \$139,008, a RUS note totaling \$115,891, and RUS guaranteed FFB loans totaling \$241,184 (Note 4). The CFC, CoBank, RUS, and FFB debt is carried at amortized cost. We determined the fair value of debt utilizing a discounted cash flow model. Key inputs to the model included the weighted average term of the debt outstanding and market interest rates for similarly situated utility borrowers as of the balance sheet dates.

| |
2022 | |
2021 | | |
|----------------|--------------------|---------------|--------------------|---------------|--|
| | Carrying
Amount | Fair
Value | Carrying
Amount | Fair
Value | |
| Long-term debt | \$
900,584 | 853,220 |
703,764 | 831,841 | |

(10) Postretirement Benefits Other than Pensions

Big Rivers provides certain postretirement medical benefits for retired employees and their spouses. Generally, except for generation bargaining retirees, Big Rivers pays 85% of the premium cost for all retirees age 62 to 65. The Company pays 25% of the premium cost for spouses age 55 to 61. Beginning at age 65, the Company pays 25% of the premium cost if the retiree is enrolled in Medicare Part B. For each generation bargaining retiree, Big Rivers establishes a retiree medical account at retirement equal to \$1.40 per year of service up to 30 years. The account balance is credited with interest based on the 10-year treasury rate subject to a minimum of 2% and a maximum of 4%. The account is to be used for the sole purpose of paying the premium cost for the retiree and spouse.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

The discount rates used in computing the postretirement benefit obligation and net periodic benefit cost were as follows:

| | 2022 | 2021 | 2020 |
|--|-------------------|-------|-------|
| Discount rate – projected benefit obligation | 5.39% | 2.77% | 2.44% |
| Discount rate – net periodic benefit cost | 2.77%/4.42%/4.69% | 2.44 | 3.34 |

The healthcare cost trend rate assumptions as of December 31, 2022 and 2021, were as follows:

| | 2022 | 2021 |
|--------------------------------|-----------------|--------|
| Initial trend rate | 6.70 % / 6.65 % | 5.48 % |
| Ultimate trend rate | 4.00 | 4.50 |
| Year ultimate trend is reached | 2047 | 2038 |

A one-percentage-point change in assumed healthcare cost trend rates would have the following effects:

| |
2022 | 2021 |
|---|---------------------|------------------|
| One-percentage-point decrease:
Effect on total service and interest cost components
Effect on year-end benefit obligation | \$
(79)
(726) | (103)
(1,160) |
| One-percentage-point increase:
Effect on total service and interest cost components
Effect on year-end benefit obligation | \$
98
863 | 133
1,424 |

A reconciliation of the Company's benefit obligations of its postretirement plan at December 31, 2022 and 2021, is as follows:

| |
2022 | 2021 |
|--|--------------|---------|
| Benefit obligation – beginning of period | \$
13,662 | 15,808 |
| Service cost – benefits earned during the period | 358 | 491 |
| Interest cost on projected benefit obligation | 439 | 354 |
| Participant contributions | 496 | 405 |
| Plan amendments / Special termination benefits | 382 | _ |
| Benefits paid | (1,771) | (978) |
| Actuarial loss (gain) |
(3,162) | (2,418) |
| Benefit obligation – end of period | \$
10,404 | 13,662 |

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

Big Rivers revised the eligibility requirements for postretirement medical with regard to age and service. Beginning January 1, 2013, eligibility for retirement is age 62 with 10 years of service. The service requirement is waived for active employees on December 31, 2012, who will not have 10 years of service at age 62. The eligibility requirements for postretirement medical were revised again on July 1, 2022, to remove the 10 years of service requirement. A reconciliation of the Company's postretirement plan assets at December 31, 2022 and 2021, is as follows:

| |
2022 | 2021 |
|---|-------------|-------|
| Fair value of plan assets – beginning of period | \$
_ | _ |
| Employer contributions | 1,275 | 573 |
| Participant contributions | 496 | 405 |
| Benefits paid |
(1,771) | (978) |
| Fair value of plan assets – end of period | \$
 | |

The funded status of the Company's postretirement plan at December 31, 2022 and 2021 is as follows:

| |
2022 | 2021 |
|---|----------------|----------|
| Benefit obligation – end of period
Fair value of plan assets – end of period | \$
(10,404) | (13,662) |
| Funded status | \$
(10,404) | (13,662) |

The components of net periodic postretirement benefit costs for the years ended December 31, 2022, 2021, and 2020 were as follows:

| |
2022 | 2021 | 2020 |
|------------------------------------|-----------|-------|-------|
| Service cost | \$
358 | 491 | 490 |
| Interest cost | 439 | 354 | 472 |
| Amortization of prior service cost | (96) | (112) | (112) |
| Amortization of gain | (284) | _ | (20) |
| Curtailment recognized | (24) | — | — |
| Special termination benefits |
144 | | |
| Net periodic benefit cost | \$
537 | 733 | 830 |

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

A reconciliation of the postretirement plan amounts in accumulated other comprehensive income at December 31, 2022 and 2021 is as follows:

| |
2022 | 2021 |
|--|-------------|-------|
| Prior service credit | \$
23 | 381 |
| Unamortized actuarial gain |
6,034 | 3,155 |
| Accumulated other comprehensive income | \$
6,057 | 3,536 |

The recognized adjustments to other comprehensive income (loss) at December 31, 2022 and 2021, are as follows:

| |
2022 | 2021 |
|-----------------------------------|-------------|-------|
| Prior service cost | \$
(238) | (112) |
| Unamortized actuarial gain/(loss) | 3,162 | 2,418 |
| Amortization of net gain |
(404) | |
| Other comprehensive income/(loss) | \$
2,520 | 2,306 |

At December 31, 2022 and 2021, amounts recognized in the balance sheets were as follows:

| |
2022 | 2021 |
|--|--------------------------|---------------------|
| Accounts payable
Deferred credits and other | \$
(1,554)
(8,850) | (1,262)
(12,400) |
| Net amount recognized | \$
(10,404) | (13,662) |

Expected retiree benefit payments projected to be required during the years following 2022 are as follows:

| |
Amount | |
|------------|-------------|--|
| Year: | | |
| 2023 | \$
1,554 | |
| 2024 | 1,213 | |
| 2025 | 988 | |
| 2026 | 874 | |
| 2027 | 858 | |
| Thereafter |
3,727 | |
| Total | \$
9,214 | |

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

In addition to the postretirement plan discussed above, Big Rivers has another postretirement benefit plan, which vests a portion of accrued sick leave benefits to salaried employees upon retirement or death. To the extent an employee's sick leave hour balance exceeds 480 hours, such excess hours are paid at 20% of the employee's base hourly rate at the time of retirement or death. The accumulated obligation recorded for the postretirement sick leave benefit is \$718 and \$767 at December 31, 2022 and 2021, respectively. The postretirement expense recorded was \$30, \$141, and \$96, for 2022, 2021, and 2020, respectively, and the benefits paid were \$79, \$140, and \$7 for 2022, 2021, and 2020, respectively.

(11) Related Parties

For the years ended December 31, 2022, 2021, and 2020, Big Rivers had tariff sales to its members of \$298,514, \$221,959, and \$226,152, respectively. In addition, for the years ended December 31, 2022, 2021, and 2020, Big Rivers had certain sales to Kenergy for the Domtar Paper Co. load of \$4,726, \$4,673, and \$3,013, respectively.

At December 31, 2022 and 2021, Big Rivers had accounts receivable from its members of \$31,421 and \$19,912, respectively.

(12) Commitments and Contingencies

Big Rivers is involved in ongoing litigation with the City of Henderson and the City of Henderson Utility Commission doing business as Henderson Municipal Power and Light (collectively, "HMP&L") in which Big Rivers is seeking damages from HMP&L relating to HMP&L's refusal to pay the costs associated with Excess Henderson Energy produced at Station Two. HMP&L has filed a counterclaim alleging that if HMP&L is required to pay the costs of the Excess Henderson Energy, it is entitled to an offset for the revenues related to that energy. In December 2017, Big Rivers and HMP&L entered into an agreement to settle all claims relating to Excess Henderson Energy. Under the settlement agreement, HMP&L agreed to be responsible for all costs related to Excess Henderson Energy generated after the effective date of the settlement agreement. Big Rivers does not dispute that HMP&L is entitled to the Excess Henderson Energy-related revenues after the payment date in the settlement agreement if it pays the costs of that energy.

On May 1, 2018, the contracts under which Big Rivers was operating Station Two terminated as a result of the Station Two units no longer being capable of the economically competitive production of electricity. To allow HMP&L time to make alternate arrangements for its power supply, Big Rivers continued to operate the units under the terms of the Station Two contracts until the units were retired on January 31, 2019. The termination of the Station Two contracts has given rise to disputes between the parties, including (i) a claim HMP&L has filed seeking amounts HMP&L claims it is owed as a result of the annual budget settlement process that occurred during the term of the Station Two contracts; (ii) a claim HMP&L filed seeking a declaratory judgment on the percentage owed by each party for the decommissioning and post-closure compliance costs for the Station Two Ash Pond; (iii) a separate action HMP&L filed seeking a declaratory order that the December 2017 settlement agreement only applies to some of the Excess Henderson Energy; and (iv) a proceeding Big Rivers filed with the KPSC to resolve all outstanding disputes between it and HMP&L arising out of the Station Two contracts (KSPC Case No. 2019-00269). HMP&L's claims relating to the annual budget settlement process, the Station Two Ash Pond, and the settlement agreement are being held in abeyance pending the outcome of the KPSC case and all appeals therefrom.

Notes to Financial Statements December 31, 2022 and 2021 (Dollars in thousands)

On August 2, 2021, the KPSC entered a final order in Case No. 2019-00269, largely in Big Rivers' favor. HMP&L appealed that order to the Franklin Circuit Court, which is pending. On September 29, 2021, Big Rivers filed a proceeding with the KPSC asking the KPSC to enforce its final order from Case No. 2019-00269. That proceeding is pending. The Company believes there will be no material adverse effect to its financial statements when the litigation and disputes with HMP&L are resolved.

Big Rivers is involved in other litigation arising in the normal course of business. While the results of such litigation cannot be predicted with certainty, management, based upon advice of counsel, believes that the final outcome will not have a material adverse effect on the financial statements.

(13) Subsequent Events

Management evaluated subsequent events up to and including March 22, 2023, the date the financial statements were available to be issued.

BOARD OF DIRECTORS

Wayne Elliott *Chair* Jackson Purchase Energy Corporation

Brent Wigginton *Vice-Chair* Kenergy Corp

Paul Edd Butler Secretary-Treasurer Meade County RECC

Erick Harris Jackson Purchase Energy Corporation

Robert White Kenergy Corp

Dr. James Sills Meade County RECC

Tyson Kamuf Corporate Counsel

SENIOR LEADERSHIP TEAM

Robert Berry President and CEO

Amanda Jackson Executive Assistant

Nathan Berry Chief Operating Officer

Talina Mathews Chief Financial Office

Mike Mizell Chief Administrative Officer

Chris Bradley VP Systems Operations

Ron Repsher VP Energy Services

Jennifer Keach Director Communications and Community Relations

Sharla Wells Director Legislative Affairs and Governmental Relations

MEMBER OWNERS

Jackson Purchase Energy Corporation

Greg Grissom President and CEO

Serves Ballard, Carlisle, Graves, Livingston, Marshall, and McCracken counties

Headquartered Paducah, Kentucky

Number of Accounts 30,515

Miles of Lines

Kenergy Corp

Jeffrey Hohn President and CEO

Serves

Breckinridge, Caldwell, Crittenden, Daviess, Hancock, Henderson, Hopkins, Livingston, Lyon, McLean, Muhlenberg, Ohio, Union, and Webster counties

Headquartered Henderson, Kentucky

Number of Accounts 59,214

Miles of Lines

Meade County Rural Electric Cooperative Corporation

Martin Littrel President and CEO

Serves Breckinridge, Grayson, Hancock, Hardin, Meade, and Ohio Counties

Headquartered Brandenburg, Kentucky

Number of Accounts 31,209

Miles of Lines 3,286



Big Rivers Electric Corporation 710 W 2nd Street Owensboro, KY 42301 www.bigrivers.com

