2021 ANNUAL REPORT

Powering what's possible | 2021

GREAT RIVER ENERGY®

Bob Bruckbauer
Board Chair

David Saggau
President and Chief Executive Officer

Letter to stakeholders

With stable wholesale rates, record-setting transmission reliability and a plan to dramatically reduce emissions, Great River Energy is living up to its mission and fulfilling our promise to members.

Great River Energy recorded historic financial results in 2021. Consistently strong margins allowed us to return $57 million to our members through bill credits and manage wholesale electric rates.

Our financial position has never been stronger. Great River Energy's wholesale power rates are well below the weighted regional average cost of electricity, and we project them to remain stable.

We are rapidly transitioning from a historically coal-dependent cooperative to one with low carbon intensity. This shift has us positioned to meet Minnesota's 80% greenhouse gas reduction goal nearly two decades ahead of schedule.

Saying goodbye to a generation resource – and the talented employees that operate it – is never easy. We made the decision to sell our largest power plant, Coal Creek Station, because it will save our members money while preserving the jobs and communities that have supported the plant for decades. We are excited about what the future holds as the plant's new owners plan an ambitious carbon capture and storage project. We expect the transaction will close in 2022.

Our member-owners will continue to benefit from the high-voltage direct-current transmission system that serves the plant. The critical transmission resource will deliver energy from Great River Energy's latest – and largest – renewable energy project directly to Minnesota, where it will begin serving our member-owners with clean energy in 2025.

As we transition to a primarily renewable energy resource mix, our fleet of flexible natural gas peaking stations combined with access to market energy will provide the reliability our member-owners expect.

As we set out to serve our members with cleaner, more affordable energy, we are committed to electrifying the economy. Great River Energy and our member-owners play an important role in fostering electric transportation, home heating and cooling, business applications, agriculture, manufacturing techniques and more. Smart electrification is efficient, affordable and it is the right thing to do.

We measure our success by how well we serve our member-owners and interact with the world around us. Our efforts are paying off. Member satisfaction remains high. We are advancing our industry to new places. We are living our mission to provide member-owners with affordable, reliable energy in harmony with a sustainable environment.

Resource portfolio

To provide wholesale electric service across most of Minnesota and into Wisconsin, Great River Energy depends on a carefully planned collection of transmission lines and power supply resources. Each one plays a critical role in providing reliable, affordable and environmentally responsible energy.

Transmission

±400 KILOVOLT DC (KV)
436 MILES

500 KV
70 MILES

345 KV
76 MILES

230 KV
514 MILES

161 KV
41 MILES

115 KV
581 MILES

69 KV
3,081 MILES

Power supply

Coal

1 Coal Creek Station
Generating capability: 1,124 MW
Fuel: DryFine™ lignite coal
Plant to be sold in 2022

2 Spiritwood Station
Generating capability: 99 MW*
Fuel: DryFine lignite coal and natural gas
Plant to be converted to be fueled primarily by natural gas

Natural Gas

3 Elk River Peaking Station
Generating capability: 181 MW (summer)
Fuel: Natural gas; backup: fuel oil

4 Lakefield Junction Peaking Station
Generating capability: 471 MW (summer)
Fuel: Natural gas; backup: fuel oil

5 Cambridge Peaking Station
Generating capability: 172 MW (summer)
Fuel: Fuel oil (unit 1), and natural gas (unit 2)

6 Pleasant Valley Peaking Station
Generating capability: 401 MW (summer)
Fuel: Natural gas; backup: fuel oil

Fuel Oil

7 St. Bonifacius Station
Generating capability: 59 MW (summer)
Fuel: Fuel oil

8 Rock Lake Station
Generating capability: 20 MW (summer)
Fuel: Fuel oil

9 Maple Lake Station
Generating capability: 19 MW (summer)
Fuel: Fuel oil

10 Arrowhead Emergency Generating Station
Generating capability: 18 MW*
Fuel: Fuel oil

Wind

11 Trimont Wind
Purchase: 105 MW*

12 Elm Creek Wind
Purchase: 99 MW*

13 Prairie Star Wind
Purchase: 101 MW*

14 Ashtabula II Wind
Purchase: 51 MW*

15 Endeavor I Wind
Purchase: 100 MW*

16 Emmons-Logan Wind
Purchase: 200 MW*

Planned Wind Resources

17 Deuel Harvest Wind: 2023
Purchase: 200 MW*

18 Buffalo Ridge Wind: 2023
Purchase: 106 MW*

19 Dodge County Wind: 2023
Purchase: 259 MW*

20 Three Waters Wind: 2024
Purchase: 207 MW*

21 Discovery Wind: 2025
Purchase: 400 MW*

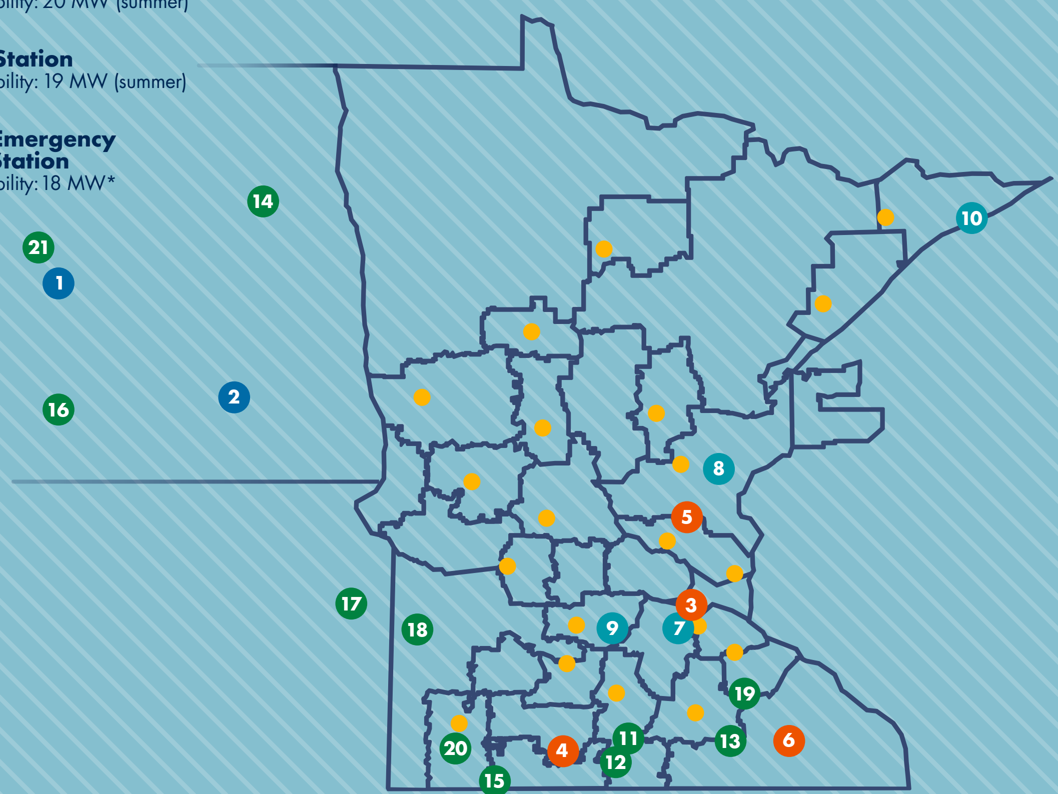
Other Renewable Energy

200 MW* (summer) from Manitoba Hydro.
12 MW* from two wind farms.
Approx. 3 MW* from 20 solar installations.

Generating capability based on summer generating capability for 2022-2023 planning year.

Solar installation

* Nameplate generating capability



The cooperative difference

Great River Energy provides wholesale power and delivery services to 28 electric cooperatives that collectively own Great River Energy and provide retail electric service to more than 725,000 members.

Cooperatives are not-for-profit organizations focused on providing excellent service to their member-owners. When there's excess revenue collected, it's reinvested in the company or returned to members.

That spirit of sharing guided Great River Energy throughout 2021. Great River Energy issued $24.6 million in bill credits to members during the year and provided a $32.5 million credit from year-end margins. These measures helped keep rates stable.

Great River Energy also returned $25 million in patronage capital to member-owners.

Era of rate stability

Great River Energy spent over a decade transitioning to a portfolio of power supply and transmission resources to efficiently serve its member-owner cooperatives. The benefits of those decisions are now being realized.

At a time when prices are rising on many products and services, Great River Energy is holding its wholesale electricity rates flat into 2022.

Great River Energy's wholesale power rates are 10.9% below the weighted regional average cost of electricity, and they are projected to remain steady or decline over the next several years.

Electric system endures extreme weather

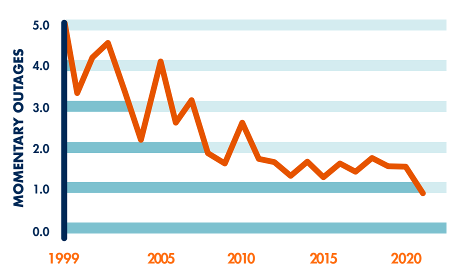
Great River Energy's system performed well in 2021 despite facing both a polar vortex and historic heat wave. The system did not experience any overloading and Great River Energy did not need to make any special operational changes.

Every resource in Great River Energy's power supply portfolio played a role in serving its membership, as did the cooperative's ability to reduce strain on the electric system through demand response programs.

Record reliability

Transmission reliability is among the most important aspects of electric service. The electric system has developed over time and undergoes constant monitoring and maintenance to ensure it is reliable and resilient.

Great River Energy's 2021 transmission reliability was excellent. It was one of the best years on record with eight of the ten reliability indices at new record levels.



Momentary outages have declined steadily since Great River Energy was formed in 1999.

Transmission partnership builds

A partnership of utilities responsible for more than 800 miles of high-voltage transmission lines has been reinvented. Great River Energy was central to the launch of Grid North Partners, a collaboration with ambitions to build the next series of regional transmission projects. Grid North Partners is an evolution of CapX2020.

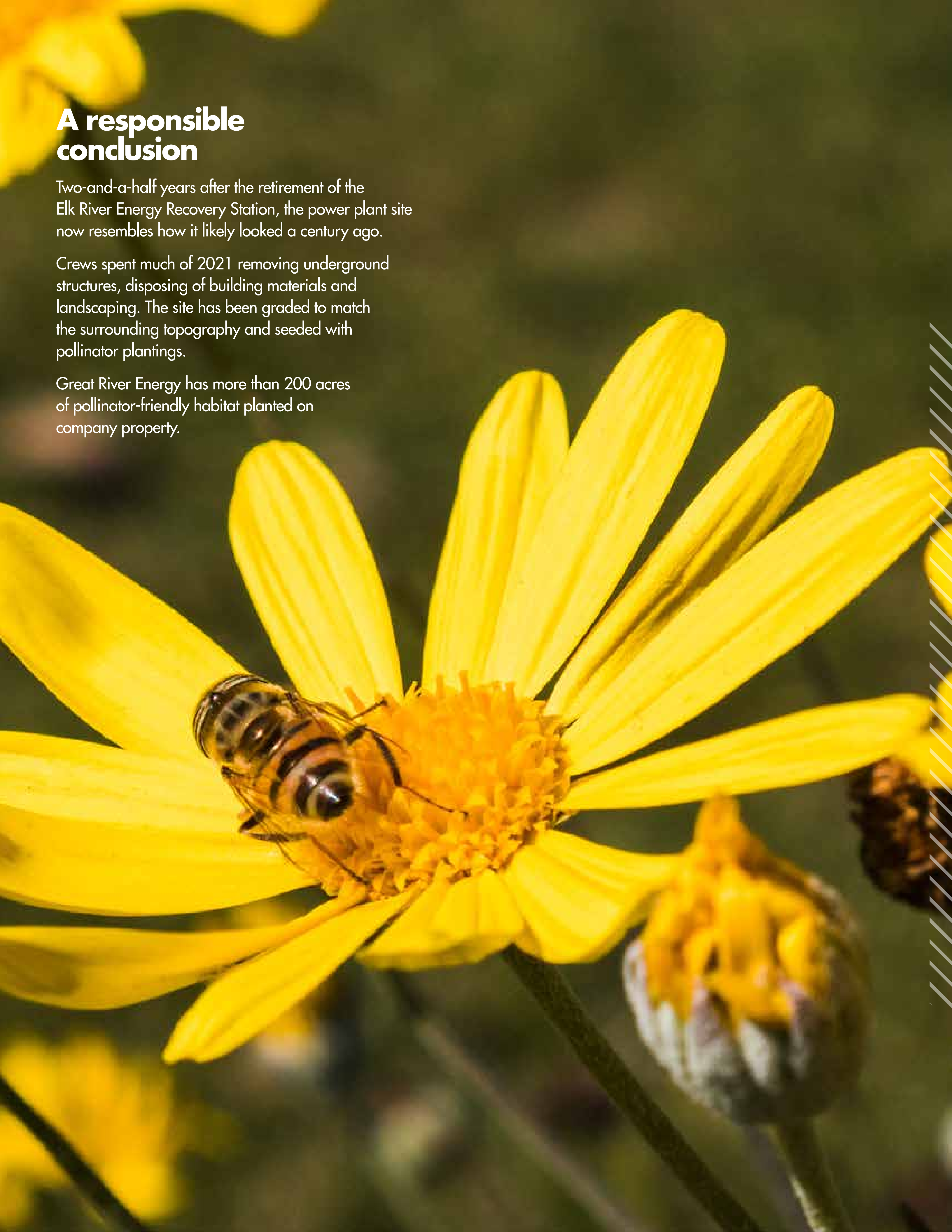
Great River Energy understands that more high-voltage regional transmission lines will be needed to maintain reliability as coal plants retire, more renewable energy is added to the system and there is an increased need for resilience to extreme weather.

A responsible conclusion

Two-and-a-half years after the retirement of the Elk River Energy Recovery Station, the power plant site now resembles how it likely looked a century ago.

Crews spent much of 2021 removing underground structures, disposing of building materials and landscaping. The site has been graded to match the surrounding topography and seeded with pollinator plantings.

Great River Energy has more than 200 acres of pollinator-friendly habitat planted on company property.



Energy evolution

By eliminating coal and more than doubling its renewable resources, Great River Energy will reduce its power supply costs and minimize its environmental impact. This plan has been in the works for many years, although 2021 witnessed some of the most significant and lasting changes.

Great River Energy reached an agreement to sell its largest power plant, the coal-based Coal Creek Station located in central North Dakota. The 436-mile high-voltage, direct-current transmission system that delivered the plant's energy to Minnesota for decades will now provide a dedicated pathway for the planned 400-megawatt Discovery Wind project.

A contract to receive a portion of the output of Coal Creek Station will provide critical round-the-clock energy as Great River Energy continues its energy evolution. Great River Energy's fleet of natural gas peaking plants will be important resources for capacity and reliability while providing valuable market hedges.

Battery comes into focus

Great River Energy's partner on its upcoming Cambridge Energy Storage Project, Form Energy, revealed long-awaited details about its technology. The primary component of Form's first-of-its-kind, multi-day battery is also a cornerstone of Minnesota's economy: iron.

While other battery technologies employ expensive and rare metals, iron is one of the safest, cheapest and most abundant minerals on Earth – and it is found in Minnesota's Iron Range.

80%

Great River Energy is on track to reduce its carbon dioxide emissions by greater than 80% by 2032 from 2005 levels.

Financials | 2021

(DOLLARS IN MILLIONS)	2021	2020	CHANGE
OPERATIONS			
Revenues	$ 1,030.2	$ 980.9	$ 49.3
Purchased power	$ 194.8	$ 155.1	$ 39.7
Fuel	$ 211.7	$ 192.2	$ 19.5
Operation and maintenance	$ 291.2	$ 299.7	$ (8.5)
Property and other taxes	$ 25.0	$ 31.0	$ (6.0)
Depreciation and amortization	$ 171.4	$ 166.6	$ 4.8
Interest expense	$ 119.7	$ 127.2	$ (7.5)
Other income	$ 6.6	$ 7.7	$ (1.1)
Nonutility operations, excluding noncontrolling interest	$ 23.9	$ (7.6)	$ 31.5
Net Section 45 transaction gain	$ -	$ 13.8	$ (13.8)
Net margin attributable to GRE	$ 46.9	$ 23.0	$ 23.9
FINANCIAL POSITION			
Electric plant	$ 2,721.6	$ 3,071.3	$ (349.7)
Utility plant – net	$ 1,894.9	$ 2,745.1	$ (850.2)
Deferred charges	$ 906.2	$ 374.0	$ 532.2
Cash and cash equivalents	$ 238.9	$ 216.9	$ 22.0
Assets held for sale	$ 214.5	$ -	$ 214.5
Total assets	$ 3,814.0	$ 3,913.3	$ (99.3)
Long-term obligations	$ 2,181.3	$ 2,325.0	$ (143.7)
Members' capital	$ 697.0	$ 675.2	$ 21.8
Equity to capitalization ratio	23.2%	21.8%	1.4%

GREAT RIVER ENERGY

FINANCIAL DISCUSSION AND ANALYSIS

Great River Energy's (GRE) financial position has never been stronger due to historic financial results in 2021. Consistently positive margins allowed GRE to return $57.1 million of bill credits to its members throughout the year. Additionally, GRE returned $25.0 million of patronage capital to its members in 2021 and plans to return another $25.0 million in 2022. Utility operating revenues ended the year at $1,030.2 million, which was $49.3 million higher than 2020. The increase was driven by exceptionally strong member sales and an increase in non-member revenue due to consistently higher energy market prices in the MISO market. Elevated MISO market prices also resulted in an overall increase in total operating expenses in 2021.

Net margin attributable to GRE for 2021 was $46.9 million. Without the member bill credits, GRE's 2021 margin would have been $104.0 million. Negative actual variances versus budget from net MISO market activity resulted in a power cost adjustment (PCA) charge of $46.9 million to GRE's members for 2021. The strong financial performance of 2021 increased GRE's equity to capitalization ratio to 23.2% at the end of the year. GRE's financial statements remain solid and positively position the cooperative for the future.

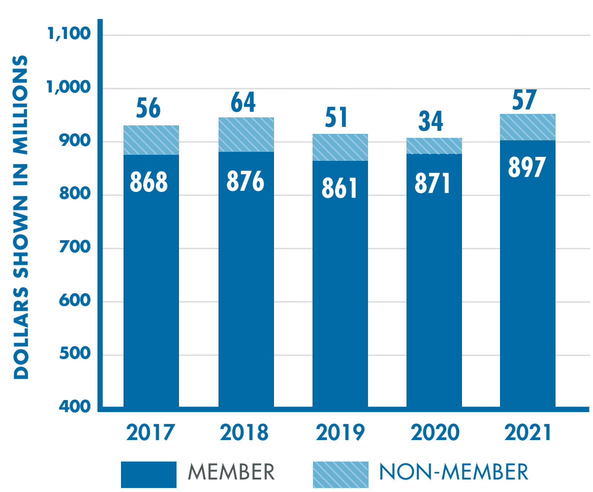
MARGINS

Net margin attributable to GRE for the year ended December 31, 2021 was $46.9 million and includes the net income from Midwest AgEnergy Group (MAG) and other equity method investments of $23.9 million. This compares to a budget of $23.0 million for 2021. GRE's indenture requires the maintenance of a margin-for-interest (MFI) ratio of 1.10x, excluding the operating results of subsidiaries and equity method investments. GRE's net utility margin, which is used to calculate the MFI ratio, was $23.0 million for 2021, resulting in an MFI ratio of 1.20x. GRE's board of directors targeted a debt service coverage (DSC) ratio of 1.17x when setting member rates for 2021. GRE's 2021 operations produced a DSC ratio of 1.21x.

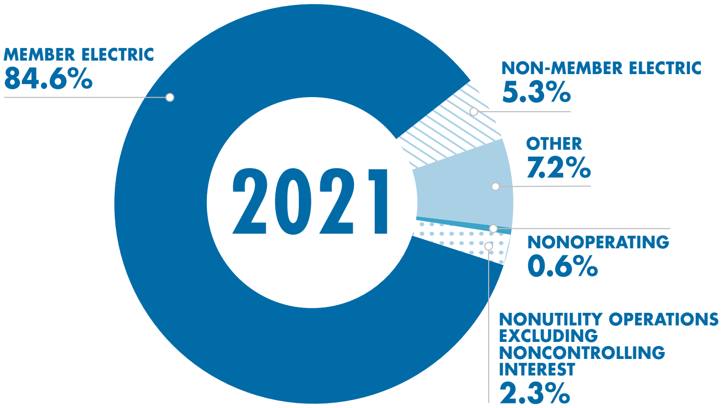
ELECTRIC REVENUE

Electric revenue increased $49.4 million or 5.5% to $954.0 million in 2021 from $904.6 million in 2020. Of the $49.4 million increase, $27.1 million was due to electric revenue from member cooperatives. Member demand and energy revenues were 5.1% and 2.1% higher than 2020, respectively, largely due to extended hot and dry weather during the summer months as well as extreme cold weather during the February polar vortex. Also driving the 2021 increase was the impact of the $46.9 million PCA charge. By comparison, GRE had a PCA charge of $8.3 million in 2020 and issued a PCA credit of $4.0 million in 2019. The PCA allows GRE to credit or collect differences between actual and budgeted results in MISO market activity, purchased power, non-member revenue, and fuel. The 2021 PCA charge was primarily due to unfavorable budget variances in MISO market activity and purchased power, offset partially by favorable budget variances in non-member sales,

ELECTRIC REVENUE BILLED



REVENUES



fuel, and member unit sales. In response to the increased demand and energy sales and the higher PCA charge in 2021, GRE was able to return $57.1 million to members in the form of bill credits.

Electric revenue from non-members increased $22.3 million or 65.0% to $56.6 million in 2021 from $34.3 million in 2020. This increase was driven primarily by higher MISO market energy revenue due to an increase of 204 gigawatt-hours (GWh), or 9.8%, in net generation output sold into the MISO market at average market prices that were 118.4% higher in 2021 compared to 2020.

OTHER OPERATING REVENUE

Other operating revenue decreased $0.1 million or 0.1% to $76.2 million in 2021 from $76.3 million in 2020. The decrease was due to lower net transmission revenue from the MISO market and inter-utility transmission agreements of $2.9 million due to favorable settlement true-ups with other transmission owners in 2020 that did not similarly occur in 2021. This decrease was partially offset by a $2.8 million increase in revenue from plant byproducts due to increased demand for fly ash and an increase in steam sales to MAG.

OPERATING EXPENSES

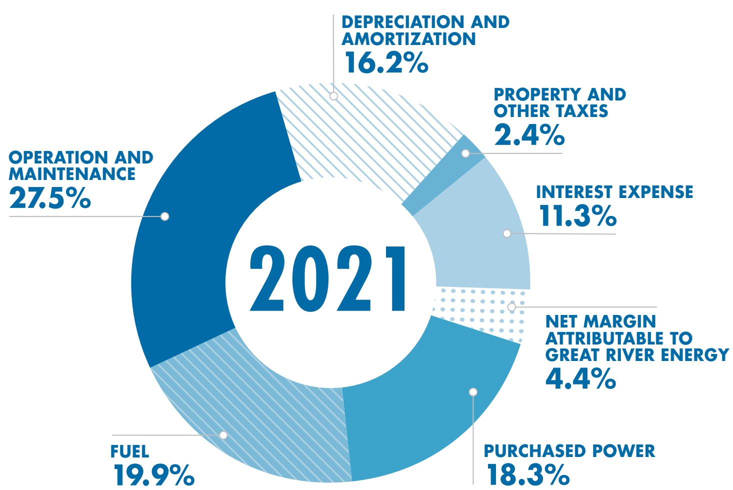
Total operating expenses for 2021 were $894.1 million, an increase of $63.3 million or 7.6% from $830.8 million in 2020.

Purchased power increased $39.7 million or 25.6% to $194.8 million in 2021 from $155.1 million in 2020. This was driven by MISO market purchases that were $60.9 million higher in 2021 compared to 2020. While GRE purchased 267, or 9.5%, fewer GWh from the MISO market in 2021, those net purchases were made at average prices that were 126.0% higher than the same period in 2020. This was offset partially by a $3.0 million decrease in purchased power from wind contracts, due to 110 fewer GWh generated in 2021 compared to 2020, and an $18.7 million increase in revenue received from GRE's financial transmission rights (FTR). The FTR positions are accounted for as derivative instruments and are utilized by GRE as a hedge against transmission congestion between GRE's generation resources and load zones. The increased FTR revenue (which is recorded as an offset against purchased power) in 2021 is reflective of increased congestion experienced between GRE's generation resources and load zones compared to the same period in 2020.

Fuel expense increased $19.5 million or 10.1% to $211.7 million in 2021 from $192.2 million in 2020 driven primarily by a $19.6 million increase in peaking plant production. GRE's peaking plants were called upon by the market substantially more in 2021 compared to 2020 due to extreme weather in the summer and winter. Overall, peaking generation was 298.6% higher in 2021 compared to 2020 (423 GWh in 2021 compared to 106 GWh in 2020) and average natural gas prices were 79.1% higher ($3.51/MMBtu in 2021 compared to $1.96/MMBtu in 2020). Fuel expense at the baseload facilities decreased $0.1 million in 2021 compared to 2020. Baseload output was 9.0% higher (9,153 GWh in 2021 compared to 8,399 GWh in 2020) and the average cost per GWh was 8.3% lower in 2021 compared to 2020 primarily due to lower coal production costs.

Operation and maintenance expense decreased $5.6 million or 1.9% to $291.2 million in 2021 from $296.8 million in 2020. Power supply operation and maintenance expense decreased $0.9 million due to reduced labor and maintenance costs at Coal Creek Station. Transmission operation and maintenance expense decreased $0.5 million in 2021 compared to 2020 due largely to lower costs to serve member load under inter-utility transmission agreements. General and administrative expenses decreased $4.2 million in 2021 compared to 2020 due to the purchase and capitalization of communication equipment that had been leased in prior years as well as decreased spending on outside research and development memberships.

EXPENSES AND MARGIN



Property and other taxes decreased $6.0 million or 19.4% to $25.0 million in 2021 from $31.0 million in 2020. The decrease is due to a $2.6 million reduction in steam generation taxes in North Dakota that stemmed from a 2021 law change, a $2.1 million decrease in property taxes driven by favorable valuation resettlements in Minnesota, and a $1.3 million decrease in Minnesota state income taxes.

Depreciation and amortization increased $4.8 million or 2.9% to $171.4 million in 2021 from $166.6 million in 2020. The increase is due to the depreciation of communication equipment that had been leased in prior years, increased peaking plant depreciation due to the completion of a major project, and increased depreciation of GRE's aircraft.

OTHER INCOME (EXPENSE)

Other income—net decreased $0.5 million to $5.5 million in 2021 from $6.0 million in 2020. The decrease was due to lower patronage dividends received in 2021 compared to 2020. Interest income decreased $0.6 million to $1.1 million in 2021 from $1.7 million in 2020, driven by lower interest rates compared to 2020. Interest expense—net of amounts capitalized decreased $7.5 million or 5.9% to $119.7 million in 2021 from $127.2 million in 2020. Interest incurred on GRE's long-term obligations decreased in line with the decrease in principal outstanding during 2021 as well as the impact of higher-rate debt issuances that were refunded and replaced with new lower-rate debt during 2020.

NONUTILITY OPERATIONS

Nonutility operating revenue and expense represent the operations of MAG, a subsidiary of GRE. MAG's operating income represents the operations of its two biorefinery plants, Blue Flint Ethanol and Dakota Spirit AgEnergy. MAG had operating income of $30.6 million in 2021, and an operating loss of $9.7 million in 2020, of which $24.0 million of the income and $7.6 million of the loss, respectively, was attributable to GRE. The increase in earnings for the period is due to higher ethanol sales and gross margin in 2021 compared to the same period in 2020 as demand for ethanol recovered from pandemic-related lows in 2020. Also contributing to the increase in earnings was the impact of loan forgiveness and grant income received from the State of North Dakota during 2021.

NONCONTROLLING INTEREST

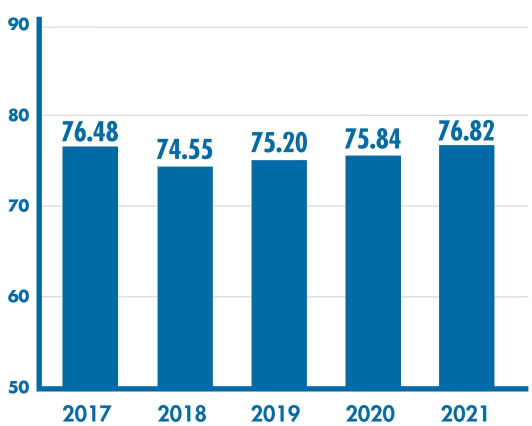
GRE owns 78.43% of MAG and has reflected the third-party investors' 21.57% share of MAG's operating income as noncontrolling interest.

MEMBER RATE

GRE's 2021 member billed rate was 76.82 mills/kilowatt-hour (kWh) compared to 75.84 mills/kWh in 2020. The budgeted average member rates were 75.90 mills/kWh for 2021 and 76.06 mills/kWh for 2020. The increase in the actual average member rate was due to a 1.3% increase in the 2021 blended average rate collected and the impact of a $46.9 million PCA charge in 2021 compared to a $8.3 million PCA charge in 2020. The 2021 and 2020 member billed rates reflect the refunds issued to members of $57.1 million and $11.0 million in 2021 and 2020, respectively. In an effort to provide relief to the members for PCA charges billed during 2021, the board approved (under regulatory accounting) and GRE refunded $24.6 million to members throughout the year and an additional $32.5 million in December in the form of a bill credit.

MEMBER AVERAGE RATE PER KWH

EXCLUDING WAPA | MILLS PER KWH



BALANCE SHEET REVIEW

GRE's total consolidated assets were $3,814.0 million in 2021, a decrease of $99.2 million year-over-year from 2020.

Utility plant—net decreased $850.2 million to $1,894.9 million in 2021 from $2,745.1 million in 2020. During 2021, GRE announced it had negotiated a transaction to sell Coal Creek Station and the high voltage direct current transmission system (the HVDC system) and expects to close the transaction in 2022. In accounting for the transaction as of December 31, 2021, the assets included in the transaction (collectively referred to as the disposal group) were written down to fair value and classified within assets held for sale in the consolidated balance sheet. The difference between the carrying value and the fair value of the disposal group was characterized as a loss on disposal and was deferred under regulatory accounting approved by the board of directors. Of the utility plant—net decrease of $850.2 million, the classification of the disposal group as held for sale accounted for $682.5 million of the decrease while the remaining $167.7 million decrease was largely driven by the depreciation and amortization of plant assets during the year.

Nonutility plant and equipment—net decreased $2.1 million to $143.5 million in 2021 from $145.7 million in 2020. The decrease was due to $10.2 million of depreciation charged to MAG's plant assets offset partially by the investment of $8.1 million in plant assets.

Other assets and investments increased $535.0 million to $1,024.7 million in 2021 from $489.7 million in 2020. Deferred charges—plant retirements increased $567.6 million, due to the deferral of $495.2 million loss on disposal of the Coal Creek Station and HVDC system assets as well as the deferral and accrual of $79.1 million of costs associated with the transaction. These costs include human resource related costs, transaction related costs, and Falkirk Mine accelerated depreciation expenses. This increase is offset partially by decreases in the Stanton Station and Elk River Resource Recovery Project (Elk River) plant retirement balances due to amortization and changes in decommissioning and reclamation estimates. Deferred charges—other decreased $23.0 million primarily due to the amortization of Coal Creek Station deferred outage costs. Deferred charges—financing related decreased $13.3 million due to a decrease in the market value of GRE's interest rate swap derivatives as well as the amortization of the settled interest rate swaps.

Current assets increased $218.2 million to $750.9 million in 2021 from $532.7 million in 2020. As discussed previously, GRE classified the fair value of the Coal Creek Station and HVDC system assets as held for sale as of December 31, 2021. This resulted in a $214.5 million increase to current assets. Cash and cash equivalents increased $22.0 million due to cash provided by operating activities exceeding plant additions, repayment of long-term obligations and the retirement of patronage capital. Accounts receivable increased $18.2 million as a result of stronger member electric sales, higher PCA charges, and increased ethanol sales at MAG. Derivative instruments increased $7.3 million due to an $18.4 million increase in the fair value of GRE's FTR positions, offset partially by a $11.3 million decrease in MAG's commodity contracts due to the transfer of forward contracts to a third party (discussed below) in 2021. These increases were offset by a $42.5 million decrease in inventories. Included in the disposal group of the Coal Creek Station and HVDC system assets classified as held for sale (discussed previously) are materials and supplies inventories of $19.0 million and fuel inventories of $7.3 million. Inventories—other decreased $17.9 million mainly due to an agreement for corn origination services entered into by MAG with a third party. MAG's corn inventory was sold and its forward contracts were transferred to the third party as part of the transaction.

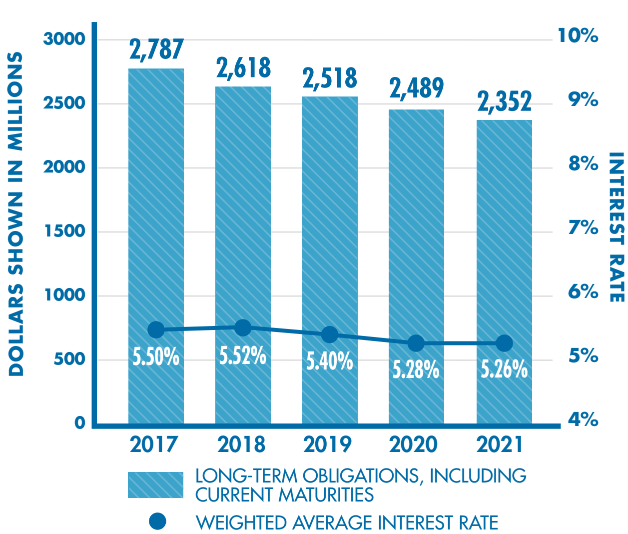
Members' capital increased $21.9 million to $697.0 million as a result of $46.9 million of net margin attributable to GRE added in 2021, offset partially by the retirement of $25.0 million of patronage capital returned to members. GRE's equity to capitalization ratio (excluding MAG) was 23.2% at the end of 2021.

Noncontrolling interest—subsidiary represents the capital attributable to MAG's third-party investors, which own 21.57% of MAG.

Other noncurrent liabilities decreased $70.3 million to $315.8 million in 2021 from $386.1 million in 2020. This decrease was due to the $57.0 million reversal of Coal Creek Station's decommissioning accrual. Upon announcement of the negotiated transaction to sell Coal Creek Station and the HVDC system (discussed previously), GRE no longer recognized the obligation to decommission the plant. Other noncurrent liabilities also decreased due to the reduction of the employee severance accrual (due to the transaction announcement) and the reclassification of the remaining accrual as a current liability, a reduction in customer construction advances, and a reduction in retirement obligation for the Elk River ash landfill for which final cover construction was completed in 2021.

Regulatory liabilities increased $13.5 million to $50.9 million in 2021 from $37.4 million in 2020. The increase was driven primarily by an $18.4 million increase in the fair value of the FTR positions, offset partially by the recognition of $4.4 million in deferred revenue.

LONG-TERM DEBT



Long-term obligations decreased $143.7 million to $2,181.3 million in 2021 from $2,325.0 million in 2020. The decrease is due to principal payments made during the year of $164.1 million and loan forgiveness received by MAG of $6.8 million, offset partially by an increase of $30.0 million outstanding on the GRE unsecured revolving credit facility.

Current liabilities increased $68.6 million to $506.6 million in 2021 from $438.0 million in 2020. Current portion of long-term obligations increased $7.2 million due to increased yearly payments on the Series 2010D. Accounts payable increased $26.3 million due to the $32.5 million accrual of the member refund bill credit in December and higher natural gas purchases, offset partially by an $8.5 million decrease at MAG due to fewer deferred payments for corn at the end of 2021 since transitioning to a third party for corn origination services. Other accrued liabilities and notes payable increased $52.5 million mainly due to accruals related to the Coal Creek Station and HVDC system sale transaction. These increases were offset partially by a decrease in derivative instruments of $15.4 million primarily due to a decrease in the fair value of GRE's interest rate swaps and a decrease in MAG's liability for commodity contracts.

LIQUIDITY POSITION AND FINANCING

Excluding subsidiaries, GRE's year end 2021 unrestricted available liquidity of $442.0 million was comprised of cash and cash equivalents of $214.0 million and unused capacity on its existing unsecured credit facilities of $228.0 million. GRE's unsecured credit facilities include a $300.0 million revolving credit agreement that expires in May 2026. GRE also has a $30.0 million line of credit that expires in January 2023. GRE has the option to increase the aggregate amount of credit extended to $400.0 million under the revolving credit agreement and $60.0 million under the line of credit, subject to certain terms and conditions.

GRE uses its unsecured credit facilities for general working capital and for financing its construction program. Construction borrowings on the unsecured credit facilities are repaid periodically with issuances of long-term secured debt under GRE's Indenture of Mortgage, Security Agreement, and Financing Statement. Utilizing existing available cash and cash equivalents, budgeted internally generated funds, and planned short-term borrowings under credit facilities, GRE anticipates being able to fund planned additions and upgrades to existing generation, transmission, and other general plant facilities until the next forecasted debt issuance.

GRE's financial position continues to strengthen. GRE returned $25.0 million and $10.2 million of patronage capital to its members in 2021 and 2020, respectively, and based on the financial position as of December 31, 2021, has plans to return an additional $25.0 million in March 2022. In addition to this, GRE has maintained its competitive member rates position compared to others within the region, investment grade credit ratings, and strong liquidity position. GRE is pleased with its historically strong 2021 financial results and believes it is well positioned to continue the rapid transition of its power supply portfolio while also achieving its future financial and operational goals.

TO THE BOARD OF DIRECTORS AND MEMBERS OF GREAT RIVER ENERGY:

Management is responsible for the fairness and accuracy of the financial information presented in this annual report. The accompanying financial statements have been prepared in accordance with generally accepted accounting principles, using management's best estimates and judgments where appropriate. Great River Energy maintains an internal accounting control system that provides reasonable assurance of the integrity and reliability of the financial statements and the protection of assets from loss or unauthorized use or disposition. Directors, who are not employees, make up the Finance and Audit Committee of the Board of Directors. The committee meets regularly with management and independent public accountants to review and discuss Great River Energy's internal accounting controls and financial reports. The independent public accountants have free access to the committee and the board of directors, without management present, to discuss the findings of their audits.

David Saggau
President and CEO
Great River Energy
Maple Grove, Minnesota
March 3, 2022

TO THE BOARD OF DIRECTORS OF GREAT RIVER ENERGY

MAPLE GROVE, MINNESOTA

Opinion

We have audited the consolidated financial statements of Great River Energy and subsidiaries (the "Company"), which comprise the consolidated balance sheets as of December 31, 2021 and 2020, and the related consolidated statements of operations and comprehensive income, changes in capital, and cash flows for the three years in the period ended December 31, 2021, and the related notes to the consolidated financial statements (collectively referred to as the "financial statements").

In our opinion, based on our audits and the reports of the other auditors, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for the three years in the period ended December 31, 2021, in accordance with accounting principles generally accepted in the United States of America.

We did not audit the financial statements of Midwest AgEnergy ("MAG"), a consolidated subsidiary, or The Falkirk Mining Company ("Falkirk"), a variable interest entity, which statements reflect total assets constituting 4% and 6%, respectively, of consolidated total assets as of December 31, 2021 and 2020, and total revenues constituting 31%, 19% and 21%, respectively, of consolidated total revenues for the three years in the period ended December 31, 2021. Those statements were audited by other auditors, whose reports have been furnished to us, and our opinion, insofar as it relates to the amounts included for Falkirk and MAG, is based solely on the reports of the other auditors.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Company 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 accounting principles generally accepted in the United States of America, 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 the Company's ability to continue as a going concern for one year after the date that the financial statements are issued.

Auditor's 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 auditor's 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 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, 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 the Company'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 the Company'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 Information Included in the Annual Report

Management is responsible for the other information included in the management report and letter to stakeholders. The other information comprises the information included in the management report and letter to stakeholders but does not include the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audits of the financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Deloitte & Touche LLP

March 3, 2022

CONSOLIDATED BALANCE SHEETS
AS OF DECEMBER 31, 2021 AND 2020 (IN THOUSANDS)

ASSETS	2021	2020
UTILITY PLANT:		
Electric plant	$ 2,721,646	$ 3,071,286
Coal mine plant	413,792	410,727
Plant to be retired—net of accumulated depreciation	-	529,334
Construction work in progress	29,532	50,397
Less accumulated depreciation and amortization	(1,270,033)	(1,316,597)
Utility plant—net	1,894,937	2,745,147
NONUTILITY PLANT AND EQUIPMENT—Net	143,542	145,669
OTHER ASSETS AND INVESTMENTS:		
Restricted investments—deferred compensation	18,851	14,780
Other investments	33,789	33,268
Deferred charges:		
Financing related	122,880	136,214
Contract settlement	5,900	5,000
Plant retirements	735,862	168,243
Other	41,511	64,541
Other long-term assets	65,887	67,683
Total other assets and investments	1,024,680	489,729
CURRENT ASSETS:		
Cash and cash equivalents	238,945	216,930
Restricted cash	12,011	14,595
Assets held for sale	214,455	-
Accounts receivable:		
Members	154,162	144,566
Others	37,291	28,713
Inventories:		
Materials and supplies	47,377	63,147
Fuel	12,750	21,616
Other	6,934	24,798
Prepaids and other current assets	7,450	6,140
Derivative instruments	19,512	12,220
Total current assets	750,887	532,725
TOTAL	$ 3,814,046	$ 3,913,270

CONTINUED

AS OF DECEMBER 31, 2021 AND 2020 (IN THOUSANDS)

CAPITAL AND LIABILITIES	2021	2020
CAPITAL:		
Members:		
Patronage capital	$ 695,844	$ 673,958
Memberships	3	3
Additional paid-in capital—subsidiary—MAG	1,195	1,195
Total members' capital	697,042	675,156
Noncontrolling interest—subsidiary—MAG	29,312	22,708
Total capital	726,354	697,864
OTHER NONCURRENT LIABILITIES	315,818	386,080
REGULATORY LIABILITIES	50,921	37,385
LONG-TERM OBLIGATIONS—Less current portion	2,181,298	2,324,950
DEFERRED COMPENSATION	18,851	14,780
DEFERRED INCOME TAXES	14,224	14,176
COMMITMENTS AND CONTINGENCIES		
CURRENT LIABILITIES:		
Current portion of long-term obligations	171,089	163,852
Notes payable to members	51,237	50,811
Accounts payable	95,955	69,692
Property and other taxes	24,998	26,229
Other accrued liabilities and notes payable	116,130	63,658
Accrued interest payable	12,783	13,977
Derivative instruments	34,388	49,816
Total current liabilities	506,580	438,035
TOTAL	$ 3,814,046	$ 3,913,270

SEE NOTES TO CONSOLIDATED FINANCIAL STATEMENTS. *CONCLUDED*

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2021, 2020, AND 2019 (IN THOUSANDS)

UTILITY OPERATIONS	2021	2020	2019
UTILITY OPERATING REVENUE:			
Electric revenue	$ 954,021	$ 904,608	$ 912,514
Other operating revenue	76,222	76,311	78,099
Total utility operating revenue	1,030,243	980,919	990,613
UTILITY OPERATING EXPENSES:			
Purchased power	194,797	155,078	163,107
Purchased power—deferred charge write-off	-	56,092	-
Fuel	211,744	192,212	192,068
Fuel—Section 45 lease revenue	-	(149,957)	-
Fuel—deferred charge write-off	-	71,055	-
Operation and maintenance	291,209	296,761	292,922
Operation and maintenance—deferred charge write-off	-	11,983	-
Depreciation and amortization	171,382	166,569	178,938
Property and other taxes	25,005	30,987	27,381
Total utility operating expenses	894,137	830,780	854,416
UTILITY OPERATING MARGIN	136,106	150,139	136,197
OTHER INCOME (EXPENSE):			
Other income—net	5,459	6,004	10,520
Interest income	1,103	1,744	5,203
Interest expense—net of amounts capitalized	(119,668)	(127,244)	(128,920)
Other expense—net	(113,106)	(119,496)	(113,197)
NET UTILITY MARGIN	23,000	30,643	23,000
NONUTILITY OPERATIONS:			
Operating revenue	457,976	234,234	263,996
Operating expense	427,397	243,969	261,577
Operating income (loss)	30,579	(9,735)	2,419
(Loss) income from equity method investments	(89)	1	(72)
Loss from variable interest entity—NDRC	-	(149,991)	(20,036)
Total nonutility operations	30,490	(159,725)	(17,689)
NET MARGIN (LOSS) AND COMPREHENSIVE INCOME (LOSS), INCLUDING NONCONTROLLING INTEREST	53,490	(129,082)	5,311
NONCONTROLLING INTEREST:			
Subsidiary—MAG	(6,604)	2,091	(530)
Variable interest entity—NDRC	-	149,991	20,036
Total noncontrolling interest	(6,604)	152,082	19,506
NET MARGIN AND COMPREHENSIVE INCOME ATTRIBUTABLE TO GREAT RIVER ENERGY	$ 46,886	$ 23,000	$ 24,817

SEE NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

FOR THE YEARS ENDED DECEMBER 31, 2021, 2020, AND 2019 (IN THOUSANDS)

	Patronage Capital	Memberships	Additional Paid-in Capital	Noncontrolling Interest: Subsidiary—MAG	Noncontrolling Interest: Variable Interest Entity—NDRC	Total Capital
BALANCE—January 1, 2019	$ 651,552	$ 3	$ 1,195	$ 24,421	$ 150,948	$ 828,119
Net margin (loss) and comprehensive income (loss)	24,817	-	-	530	(20,036)	5,311
Return of members' patronage capital	(15,211)	-	-	-	-	(15,211)
Capital contributed by noncontrolling interest	-	-	-	-	47,611	47,611
Capital distributed to noncontrolling interest	-	-	-	-	(10,656)	(10,656)
Dividends paid by noncontrolling interest	-	-	-	-	(1,026)	(1,026)
BALANCE—December 31, 2019	$ 661,158	$ 3	$ 1,195	$ 24,951	$ 166,841	$ 854,148
Net margin (loss) and comprehensive income (loss)	23,000	-	-	(2,091)	(149,991)	(129,082)
Return of members' patronage capital	(10,200)	-	-	-	-	(10,200)
Capital contributed by noncontrolling interest	-	-	-	-	13,614	13,614
Capital distributed to noncontrolling interest	-	-	-	(152)	(30,378)	(30,530)
Dividends paid by noncontrolling interest	-	-	-	-	(86)	(86)
BALANCE—December 31, 2020	$ 673,958	$ 3	$ 1,195	$ 22,708	$ -	$ 697,864
Net margin and comprehensive income	46,886	-	-	6,604	-	53,490
Return of members' patronage capital	(25,000)	-	-	-	-	(25,000)
BALANCE—December 31, 2021	$ 695,844	$ 3	$ 1,195	$ 29,312	$ -	$ 726,354

SEE NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

CONSOLIDATED STATEMENTS OF CASH FLOWS

FOR THE YEARS ENDED DECEMBER 31, 2021, 2020, AND 2019 (IN THOUSANDS)

	2021	2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net margin (loss), including noncontrolling interest	$ 53,490	$ (129,082)	$ 5,311
Adjustments to reconcile net margin (loss) to net cash provided by operating activities:			
Depreciation and amortization:			
Included in depreciation and amortization	171,382	166,569	178,938
Included in fuel and interest	23,001	24,018	21,890
Included in operation and maintenance	18,866	18,896	19,288
Included in nonutility operating expense	10,134	10,199	10,475
Gain on loan forgiveness	(6,794)	-	-
Unrealized losses on commodity derivatives	4,156	7,918	174
Loss on disposal of nonutility plant and equipment	148	1,357	-
Loss (income) from equity method investments	89	(1)	72
Patronage credits earned from investments	(1,467)	(1,586)	(1,773)
Deferred charges	(18,068)	91,870	(27,747)
Regulatory liabilities	(4,400)	(12,074)	(12,875)
Changes in working capital (excluding cash, investments, and borrowings):			
Accounts and long-term receivables	(18,173)	(6,305)	(7,763)
Inventory and other assets	17,437	(8,224)	14,379
Accounts payable, taxes, and other accrued expenses	14,248	(18,677)	(4,451)
Accrued interest	(1,194)	360	(43,596)
Noncurrent liabilities	(6,773)	(5,507)	(10,596)
Net cash provided by operating activities	256,082	139,731	141,726
CASH FLOWS FROM INVESTING ACTIVITIES:			
Utility plant additions	(71,968)	(91,275)	(127,221)
Nonutility plant and equipment additions	(8,294)	(953)	(415)
Proceeds from sale of property	736	9,778	876
Redemption of patronage capital from investments	946	923	922
Net cash used in investing activities	(78,580)	(81,527)	(125,838)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from issuance of long-term obligations	295,396	484,485	304,900
Repayments of long-term obligations	(427,628)	(527,359)	(390,025)
Return of members' patronage capital	(25,000)	(10,200)	(15,211)
Cost of new debt issuances	(1,265)	(3,731)	-
Notes received from members—net	426	6,391	9,741
Subsidiary—MAG:			
Capital distributed to noncontrolling interest	-	(152)	-
Variable interest entity—NDRC:			
Capital contributed by noncontrolling interest	-	13,614	47,611
Capital distributed to noncontrolling interest	-	(30,378)	(10,656)
Dividends paid by noncontrolling interest	-	(86)	(1,026)
Net cash used in financing activities	(158,071)	(67,416)	(54,666)
NET INCREASE (DECREASE) IN CASH, CASH EQUIVALENTS, AND RESTRICTED CASH	19,431	(9,212)	(38,778)
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH—Beginning of year	231,525	240,737	279,515
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH—End of year	$ 250,956	$ 231,525	$ 240,737

SEE NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

1. ORGANIZATION

Organization—Great River Energy (GRE) is a Minnesota electric generation and transmission cooperative corporation providing wholesale electric service to member distribution cooperatives engaged in the retail sale of electricity to member consumers in Minnesota and a small section of Wisconsin. This service is provided in accordance with the terms of the power purchase and transmission service contracts between GRE and the members. These contracts have expiration dates of December 31, 2045, and December 31, 2050, respectively.

Basis of Accounting—The consolidated financial statements are prepared on the accrual basis of accounting and include the accounts of GRE as well as the following entities:

ENTITY	RELATIONSHIP
The Falkirk Mining Company (Falkirk)	Variable interest entity
North Dakota Refined Coal LLC (NDRC)	Variable interest entity
Midwest AgEnergy Group, LLC (MAG)	Subsidiary of GRE
Blue Flint Ethanol LLC (Blue Flint)	Subsidiary of MAG
Dakota Spirit AgEnergy, LLC (DSA)	Subsidiary of MAG

NDRC is no longer consolidated as of January 31, 2020. See discussion within Note 1 for further information on the consolidation of NDRC and subsidiaries.

All intercompany balances and transactions have been eliminated in consolidation, except for the steam sales between GRE and MAG discussed within Note 1.

Falkirk—GRE has an agreement with Falkirk for the development and operation of a lignite coal mine. Falkirk is the coal supplier for the Coal Creek Station, GRE's facility located near Underwood, North Dakota, and Spiritwood Station, GRE's facility located near Jamestown, North Dakota. Falkirk is a wholly owned subsidiary of the North American Coal Corporation (NACC), which is a wholly owned subsidiary of NACCO Industries, Inc. Falkirk is principally engaged in lignite mining through the operation of a surface mine in North Dakota.

GRE is required to provide financing for all costs associated with the mine development and operation. Accounting principles generally accepted in the United States of America (GAAP) require GRE to consolidate Falkirk in its financial statements since Falkirk qualifies as a variable interest entity for which GRE is the primary beneficiary. The coal purchase price includes all costs incurred by Falkirk for development and operation of the mine, including the following (in thousands):

	2021	2020	2019
Interest expense	$ 323	$ 349	$ 414
Income tax expense	1,200	2,452	2,305
Net income	15,609	13,613	13,557

These costs are part of the contract cost of coal purchased under the coal sales agreement and included in fuel expense on the consolidated statements of operations and comprehensive income. Accordingly, the net effect of consolidating the income statement of Falkirk had no impact on GRE's margin for the years ended December 31, 2021, 2020, and 2019.

Assets and liabilities of Falkirk included in the consolidated balance sheets as of December 31, 2021 and 2020, after intercompany eliminations, are as follows (in thousands):

	2021	2020
Coal mine plant	$ 365,487	$ 362,422
Accumulated depreciation and amortization	(243,556)	(174,996)
Deferred charges	6,943	12,629
Other long-term assets	22,827	17,765
Materials and supplies inventory	22,553	22,422
Fuel inventory	6,335	7,745
Other current assets	1,804	747
Other noncurrent liabilities	186,715	182,218
Long-term obligations	10,146	14,360
Current liabilities	16,761	18,825

As part of a transaction announced by GRE in 2021, GRE and Falkirk have agreed to terminate the coal supply agreement (see Note 15). Upon closing of this transaction, GRE will cease having a variable interest in Falkirk as the primary beneficiary and will no longer consolidate Falkirk's financial statements. The above Falkirk assets and liabilities reflect adjustments made in 2020 for changes in estimated service lives for assets and the timing of obligations. See further discussion in Notes 2, 11, and 14.

NDRC—In 2011, GRE entered into an agreement with NDRC, or its wholly owned subsidiaries, for the lease and operation of the DryFining facility at Coal Creek Station. During 2019, GRE exercised a purchase option to buy out of the remaining term of the original 16-year lease term for $17.0 million.

The result of the transaction, which closed on January 31, 2020, is summarized below (in thousands):

(Revenue) Expense	*2020*
Deferred lease revenue recognized	$ (166,957)
Purchase option price	17,000
Refined coal purchase costs regulatory asset	66,000
Transaction costs related to NDRC regulatory asset	5,055
Net gain recognized on transaction	$ (78,902)

In accordance with regulatory accounting, GRE utilized the net gain on transaction to write off $56.1 million of the purchase power contract settlement regulatory asset as a charge to purchased power expense and to write off $9.0 million of the settled postretirement benefit plans regulatory asset as a charge to operation and maintenance expense. The remaining net gain of $13.8 million was recognized in net margin in 2020.

For NDRC, the transaction resulted in the recognition of a net loss of $150.0 million, which represents the expensing of net prepaid lease payments, reducing its equity to $0. All operational metrics included in the lease and related agreements were met over the life of the transaction. As a result, no amounts related to these metrics were paid to NDRC at transaction closing.

Additionally, upon the closing and settlement of the transaction, GRE ceased having a controlling financial interest in NDRC. As such, and per the guidance set forth in Accounting Standards Codification (ASC) 810 *Consolidation*, GRE deconsolidated the financial statements of NDRC subsequent to January 31, 2020. The result of operations and related cash flows for NDRC for the month ended January 31, 2020, have been included in the consolidated statements of operations and comprehensive income, changes in capital, and cash flows, respectively, for the year ended December 31, 2020.

Prior to the closing and settlement of the transaction, GRE was required per ASC 810 *Consolidation* to consolidate NDRC in its financial statements since NDRC qualified as a variable interest entity for which GRE is the primary beneficiary. NDRC had entered into an operating and maintenance agreement with NoDak Energy Services LLC (NoDak) to perform the day-to-day operation and maintenance of the DryFining facility. NoDak qualified as a variable interest entity for which NDRC was the primary beneficiary. As a result, GRE had also consolidated NoDak as part of NDRC. The utility fuel operating expense in the consolidated statements of operations and comprehensive income includes a net benefit to GRE of $0.4 million for the period ended January 31, 2020, and $14.7 million for the year ended December 31, 2019 related to this agreement. This includes the revenue from the lease and other agreements partially offset by the costs incurred for the purchase of refined coal from NDRC. The net loss incurred by NDRC of $150.0 million and $20.0 million for the years ended December 31, 2020 and 2019, respectively, is reported as nonutility operations in the consolidated statements of operations and comprehensive income and is all attributed to the noncontrolling interest owners.

MAG—GRE is a 78.43% owner in MAG. MAG has two wholly owned subsidiaries, Blue Flint and DSA. Blue Flint operates an ethanol biorefinery facility located in Underwood, North Dakota. DSA operates a biorefinery located near Jamestown, North Dakota. Blue Flint and DSA each have a production capacity of approximately 75-80 million gallons of undenatured ethanol per year. Both facilities are dry-mill production facilities that produce and sell ethanol, dry and modified distillers grain, and distillers oil.

Blue Flint purchases steam and water under a long-term contract from Coal Creek Station, and DSA purchases steam and water under a long-term contract from Spiritwood Station for use in the production of ethanol and related products. Steam and water purchases were $14.2 million, $12.4 million, and $12.5 million for the years ended December 31, 2021, 2020, and 2019, respectively. The sale of steam and water by Coal Creek Station and Spiritwood Station is recorded as utility other operating revenue, and the purchase by Blue Flint and DSA is recorded as nonutility operating expense. DSA also purchases electricity from GRE for powering the production of ethanol and related products. Electricity sales were $3.0 million, $2.8 million, and $2.8 million for the years ended December 31, 2021, 2020, and 2019, respectively. The sale of electricity by GRE is recorded as electric revenues, and the purchase by DSA is recorded as nonutility operating expense. These transaction were not eliminated in consolidation for 2021, 2020, and 2019.

Utility net margin and nonutility operating income as of December 31, 2021, 2020, and 2019, would be as follows had these transactions been eliminated (in thousands):

	2021		2020		2019	
	As Presented	With Elimination	As Presented	With Elimination	As Presented	With Elimination
Net utility margin	$ 23,000	$ 5,846	$ 30,643	$ 18,262	$ 23,000	$ 10,512
Nonutility operating income (loss)	23,886	41,040	(7,643)	4,738	1,817	14,305
Total	$ 46,886	$ 46,886	$ 23,000	$ 23,000	$ 24,817	$ 24,817

In 2021, GRE entered into an amended agreement with MAG for the early termination of the Blue Flint site lease and the steam and water supply agreement. The amended agreement calls for GRE to pay MAG an agreed upon termination payment. GRE has accrued for the payment as of December 31, 2021, as a current liability in other accrued liabilities and notes payable in the consolidated balance sheet. As part of their approval of the amended agreement with MAG, GRE's board of directors authorized regulatory accounting for the termination payment and GRE has deferred the amount as part of the plant retirements regulatory asset (see Note 11).

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Regulatory Accounting—As the board of directors sets rates on a cost-of-service basis, GRE follows GAAP related to the effects of certain types of regulation, which provide for the reporting of assets and liabilities consistent with the economic effect of the rate structure. As such, regulatory assets are recorded to reflect probable future revenues associated with certain costs that are expected to be recovered from customers through the ratemaking process. Regulatory liabilities are recorded to reflect probable future reductions in revenues associated with amounts that are expected to be credited to customers through the ratemaking process. For further information, see Note 11.

Public Business Entity—GRE believes it meets the definition of a public business entity due to the issuance of debt securities that are traded on an over-the-counter market.

Cash, Cash Equivalents, and Restricted Cash—Cash equivalents include all highly liquid investments with original maturities of three months or less (e.g., money market funds). Certain cash and cash equivalents are classified as investments when they relate to trust funds held for long-term purposes.

Restricted cash represents GRE cash deposits held in trust which are restricted for allowable purposes under GRE's Indenture of Mortgage, Security Agreement, and Financing Statement. Restricted cash also includes MAG cash deposits with commodity investment brokers held as collateral to cover settlements of futures and options contracts.

Supplemental Cash Flow Information—Supplemental cash flow information for the years ended December 31, 2021, 2020, and 2019, is as follows (in thousands):

	2021	2020	2019
Supplemental disclosure of cash flow information:			
Cash paid for interest—net of amounts capitalized	$ 121,567	$ 127,578	$ 178,440
Cash paid for taxes—Falkirk	$ 4,280	$ 118	$ 945
Noncash investing and financing activities:			
Utility and nonutility plant acquisitions included in accounts payable	$ 6,968	$ 5,435	$ 6,199

Interest on borrowed funds in the amount of $1.8 million, $1.7 million, and $3.4 million was capitalized in 2021, 2020, and 2019, respectively, and these amounts are excluded from the cash payments for interest noted above.

Inventories—Materials and supplies inventories are stated at lower of average cost or net realizable value. Fuel inventories are carried at average cost and include coal, lime, oil, and gas used for electric generation. Other inventories represent corn, work in process, chemicals, ethanol, distillers grains, and corn oil inventories held at MAG. Corn, work in process, and chemical inventories are stated at the lower of cost (first-in, first-out method) or net realizable value. Ethanol, distillers grains, and corn oil inventories are stated at the lower of cost (average monthly cost) or net realizable value.

Emission allowances are also accounted for as fuel inventory and recorded at the lower of cost or net realizable value. Renewable energy credits (RECs) are either purchased or acquired in the course of generation, or purchased as a result of meeting load obligations, and are recorded as fuel inventory at cost. GRE's allowances and RECs in inventory have a recorded cost of $0.7 million and $0.3 million at December 31, 2021 and 2020, respectively.

Utility Plant—Utility plant is stated at original cost, which includes materials, contract and direct labor, overhead, and interest during construction. Interest charged to construction on borrowed funds are included as a component of utility plant cost and credited to interest expense. The rates applied reflect the actual rates for borrowed funds. Repairs and maintenance are charged to operations as incurred. When generation and transmission assets are retired, sold, or otherwise disposed of, the original cost, plus the cost of removal, less salvage, is charged to accumulated depreciation and the corresponding gain or loss is amortized over the remaining life of the plant. Included in accumulated depreciation are retired assets totaling $35.3 million and $35.1 million at December 31, 2021 and 2020, respectively, that will continue to be amortized. Also included in accumulated depreciation are nonlegal or noncontractual costs of removal components in the amount of $6.9 million and $17.9 million for 2021 and 2020, respectively. When other property assets are retired or sold, the cost and related accumulated depreciation are eliminated and any gain or loss is reflected in depreciation expense.

Plant To Be Retired—Net of Accumulated Depreciation—Plant to be retired represents the undepreciated net book value of Coal Creek Station as of December 31, 2020. During 2020, GRE announced plans to sell the plant or retire it in 2022.

Assets Held for Sale—During 2021, GRE announced it had negotiated a transaction to sell Coal Creek Station and the HVDC system (see Note 15). The assets included in the transaction are collectively referred to as the disposal group. As of December 31, 2021, GRE determined it had met the criteria set forth in ASC 360 *Property, Plant and Equipment.* As such, GRE wrote down the carrying value of the disposal group to its fair value and classified the disposal group within assets held for sale in the consolidated balance sheet. The loss on disposal is as follows (in thousands):

	2021
Coal Creek Station—carrying value	$ 491,056
HVDC system—carrying value	218,638
Total disposal group—carrying value	709,694
Total disposal group—fair value	214,455
Loss on disposal	$ 495,239

In accordance with regulatory accounting approved by the board of directors, GRE has deferred the $495.2 million loss on disposal (see Note 11). GRE expects the transaction to close in 2022.

Depreciation and Amortization—Depreciation for financial reporting purposes is provided based upon the straight-line method at rates designed to amortize the original cost of properties over their estimated service lives. The effective depreciation rate was 3.4%, 3.3%, and 3.3% for 2021, 2020, and 2019, respectively. The range of useful lives for utility plant is three to 50 years. Coal mine plant and equipment is depreciated or amortized over the estimated useful lives using either the straight-line method or the units-of-production method based on estimated recoverable tonnage and is included in utility fuel expense in the consolidated statements of operations and comprehensive income.

Amortization of coal lands and leaseholds is calculated on the units-of-production method based upon estimated recoverable tonnage and is included in utility fuel expense in the consolidated statements of operations and comprehensive income. In 2020, coal mine plant useful lives were revised by Falkirk to coincide with the announced plans to sell Coal Creek Station or retire it in 2022. The additional depreciation and amortization expense that resulted from the revision was deferred by GRE in 2020 and 2021 in accordance with regulatory accounting (see Note 11). Amortization expense also includes the accretion expense related to asset retirement obligations and the amortization of deferred charges, except as described in Note 11.

Nonutility Plant and Equipment—Net—Nonutility plant and equipment represents the plant and equipment assets of MAG. Depreciation for financial reporting purposes is provided based upon the straight-line method. The range of useful lives for nonutility plant and equipment is three to 40 years.

A summary of nonutility plant and equipment—net as of December 31, 2021 and 2020, is as follows (in thousands):

	2021	2020
Land improvements	$ 16,166	$ 16,166
Buildings and improvements	37,039	36,993
Plant equipment and other	160,601	160,286
Construction work in progress	7,452	338
Less accumulated depreciation	(77,716)	(68,114)
	$ 143,542	$ 145,669

Recoverability of Long-Lived Assets—GRE reviews its long-lived assets whenever events or changes in circumstances indicate the carrying value of the assets may not be recoverable. GRE determines potential impairment by comparing the carrying value of the asset with the net cash flows expected to be provided by the operating activities of the business or related products. Should the sum of the expected cash flows be less than the carrying values, GRE would determine whether an impairment loss should be recognized. Other than the loss on disposal of assets held for sale, no impairment losses have been identified in the consolidated financial statements.

Income Taxes—GRE accounts for income taxes using the asset/liability method prescribed under ASC 740, *Income Taxes*. Under this method, deferred income taxes are recognized for temporary differences between the tax and financial reporting bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. GRE establishes a regulatory asset or liability to account for the difference between GRE's deferred tax assets or liabilities. A regulatory asset or liability associated with deferred income taxes generally represents the future increase or decrease in income taxes payable that will be received or settled through future rate increases.

Members' Patronage Capital—Revenues in excess of current-period costs (net margin and comprehensive income attributable to GRE in the consolidated statements of operations and comprehensive income) in any year are designated as assignable margins. These assignable margins are considered capital furnished by the members and are credited to the members' individual accounts. Assignable margins are held by GRE until they are retired and returned, without interest, at the discretion of the board of directors and subject to long-term obligation agreement restrictions (see Note 5). The board of directors has adopted a policy of retiring and returning assignable margins (patronage capital) on a first-in, first-out basis. Upon approval by the board of directors, GRE retired and returned patronage capital of $25.0 million, $10.2 million, and $15.2 million in 2021, 2020, and 2019, respectively. Retained assignable margins are designated as patronage capital in the consolidated balance sheets.

Use of Estimates—The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. The significant estimates in the consolidated financial statements relate to key inputs to actuarial calculations of defined benefit obligations, compensation and benefit accruals, asset retirement obligation liabilities, accrued property and other taxes, useful lives of utility and nonutility plant, recoverability of deferred tax assets, and contingencies and other reserves. Actual results could differ from those estimates.

Revenue Recognition—GRE recognizes revenue to depict the transfer of goods and services to customers in an amount that reflects the consideration to which GRE expects to be entitled in exchange for those goods or services. The related disclosures below provide further information about the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers.

Revenues from Contracts with Customers

The revenues of GRE are primarily derived from providing wholesale electric service to members. Revenues from contracts with customers represent over 99% of all GRE revenues. Below is a disaggregated view of GRE's revenues from contracts with customers as well as other revenues, including their location on the statement of operations and comprehensive income (in thousands):

YEAR ENDED DECEMBER 31, 2021

Revenue streams	Electric Revenue	Other Operating Revenue	Other Income-Net	Nonutility Operating Revenue
Member revenue	$ 897,383	$ -	$ -	$ -
Non-member revenue – MISO	42,568	-	-	-
Non-member revenue	14,070	-	-	-
Transmission revenue – related to others	-	53,141	-	-
Utility plant byproduct revenue	-	21,581	-	-
Other income – net	-	-	5,459	-
Ethanol sales	-	-	-	329,496
Ethanol byproduct revenue	-	-	-	90,812
Other revenue	-		-	45,113
Total revenue from contracts with customers	954,021	74,722	5,459	465,421
Interest income	-	-	1,103	-
Lease income	-	1,500	-	-
Other income	-	-	-	17,565
Realized and unrealized losses on commodity contracts	-	-	-	(25,010)
Total revenue	$ 954,021	$ 76,222	$ 6,562	$ 457,976
Timing of revenue recognition				
Services transferred over time	$ 954,021	$ 67,292	$ -	$ -
Goods transferred at a point in time	-	7,430	5,459	465,421
Total revenue from contracts with customers	$ 954,021	$ 74,722	$ 5,459	$ 465,421

YEAR ENDED DECEMBER 31, 2020

Revenue streams	Electric Revenue	Other Operating Revenue	Other Income-Net	Nonutility Operating Revenue
Member revenue	$ 870,332	$ -	$ -	$ -
Non-member revenue – MISO	17,573	-	-	-
Non-member revenue	16,703	-	-	-
Transmission revenue – related to others	-	56,056	-	-
Utility plant byproduct revenue	-	18,759	-	-
Other income – net	-	-	6,004	-
Ethanol sales	-	-	-	169,136
Ethanol byproduct revenue	-	-	-	59,316
Other revenue	-		-	5,610
Total revenue from contracts with customers	904,608	74,815	6,004	234,062
Interest income	-	-	1,744	-
Lease income	-	1,496	-	-
Realized and unrealized gains on commodity contracts	-	-	-	172
Total revenue	$ 904,608	$ 76,311	$ 7,748	$ 234,234
Timing of revenue recognition				
Services transferred over time	$ 904,608	$ 68,437	$ -	$ -
Goods transferred at a point in time	-	6,378	6,004	234,062
Total revenue from contracts with customers	$ 904,608	$ 74,815	$ 6,004	$ 234,062

YEAR ENDED DECEMBER 31, 2019

Revenue streams	Electric Revenue	Other Operating Revenue	Other Income-Net	Nonutility Operating Revenue
Member revenue	$ 861,300	$ -	$ -	$ -
Non-member revenue – MISO	29,403	-	-	-
Non-member revenue	21,811	-	-	-
Transmission revenue – related to others	-	46,817	-	-
Utility plant byproduct revenue	-	18,397	-	-
Other income – net	-	-	10,520	-
Ethanol sales	-	-	-	196,805
Ethanol byproduct revenue	-	-	-	61,164
Other revenue	-	11,745	-	9,167
Total revenue from contracts with customers	912,514	76,959	10,520	267,136
Interest income	-	-	5,203	-
Lease income	-	1,140	-	-
Realized and unrealized losses on commodity contracts	-	-	-	(3,140)
Total revenue	$ 912,514	$ 78,099	$ 15,723	$ 263,996
Timing of revenue recognition				
Services transferred over time	$ 912,514	$ 59,718	$ -	$ -
Goods transferred at a point in time	-	17,241	10,520	267,136
Total revenue from contracts with customers	$ 912,514	$ 76,959	$ 10,520	$ 267,136

Electric revenue

Electric revenues consist of wholesale electric power sales to members through the member power purchase and transmission service contracts, to non-members through bilateral contracts, and from participation in the Midcontinent Independent System Operator (MISO) market. All the electric revenues meet the criteria to be classified as revenue from contracts with customers and are recognized over time as energy is delivered or transmitted. Revenue is recognized based on the metered quantity of electricity delivered or transmitted at the applicable contractual or market rates. Electric revenues from members are recorded net of bill credits approved by GRE's board of directions. For the years ended December 31, 2021, 2020, and 2019, GRE issued bill credits to members of $57.1 million, $11.0 million, and $5.0 million, respectively.

The rate schedules within the member contracts include a power cost adjustment, which allows for increases or decreases in member power billings based upon actual power costs compared to plan for certain categories of revenues and expenses. The power cost adjustment was a charge to GRE members of $46.9 million and $8.3 million for 2021 and 2020, respectively, and a credit of $4.0 million for 2019. Credits or charges are recorded as a decrease or increase, respectively, in member revenues and are recorded in electric revenue in the consolidated statements of operations and comprehensive income.

GRE did not defer the recognition of member electric revenue in 2021 or 2020 but deferred the recognition of $8.2 million under regulatory accounting in 2019. GRE recognized deferred member electric revenues of $4.4 million, $12.1 million, and $15.4 million in 2021, 2020, and 2019, respectively, under regulatory accounting (see Note 11). Deferred member electric revenues are recorded in electric revenue in the consolidated statements of operations and comprehensive income.

Other operating revenue

Other operating revenue primarily includes: revenue received from the transmission of electricity for others under MISO rate tariffs or under various integrated transmission agreements; revenue from the sale of utility plant byproducts, such as steam and fly ash; and other revenue. All these revenue streams meet the criteria to be classified as revenue from contracts with customers. Transmission revenue for others is recognized over time as GRE stands ready to serve the load with its transmission assets per the agreements. Steam revenue is derived from supplying steam to Blue Flint and DSA located adjacent to Coal Creek Station and Spiritwood Station, respectively, and is recognized over time as the steam is transferred through and measured at the interconnection point. Fly ash is marketed and sold to external customers by a third party with whom GRE has a marketing agreement. Fly ash revenue is recognized as of the point in time when the third party completes the resale to the external customer. In 2019, other revenue primarily consisted of a gain recognized upon the settlement of a steam contract related to Spiritwood Station.

Other income – net

Other income – net primarily includes income from miscellaneous work performed for others and the operation of an energy recovery plant. The work for others relates to services provided by GRE to its members (or third parties) that is not included in the rate charged for electricity under the member power purchase and transmission service contracts. In 2019, GRE recognized a gain of $5.7 million in accordance with regulatory accounting.

Nonutility operating revenue

Nonutility operating revenue represents revenues from MAG consolidated operations. Revenue from the production of ethanol and related byproducts is recognized when obligations under the terms of the respective contracts with customers are satisfied. This occurs with the transfer of control of products and risk of loss is assumed by customers, generally when the product is shipped from the facility. Revenue is measured as the amount of consideration expected to be received in exchange for transferring goods. This recognition represents a point in time satisfaction of the performance obligation. Revenue is also recognized on certain ethanol contracts that utilize future price indexes at the time of title transfer, when the price is estimable using a methodology which reflects future commodity price averages for the settlement month. This recognition represents a point in time satisfaction of the performance obligation. For the year ended December 31, 2021, MAG recognized a gain on loan forgiveness of $6.8 million. This gain is included in nonutility operating revenue in the consolidated statements of operations and comprehensive income.

Subsequent Events—GRE has considered subsequent events for recognition or disclosure through March 3, 2022, the date the consolidated financial statements were available to be issued. All material subsequent events have been disclosed in these consolidated financial statements (see Notes 15 and 16).

3. ACCOUNTING PRONOUNCEMENTS

Recently Adopted

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326)*, which changes how entities account for credit losses on receivables and certain other assets. The guidance requires use of a current expected loss model, which may result in earlier recognition of credit losses than under previous accounting standards. GRE adopted the amendments in this ASU on January 1, 2021. Adoption of this standard did not have a material impact on GRE's consolidated financial statements.

Recently Issued

In November 2021, the FASB issued ASU 2021-10, *Government Assistance (Topic 832)*, which seeks to increase transparency of government assistance received by business entities. Specifically, disclosures will be required for the type of assistance received, the accounting for the assistance, and the effect of the assistance on the financial statements. ASU 2021-10 is effective for reporting periods beginning after December 15, 2021. GRE does not expect adoption to have a material impact on its consolidated financial statements.

4. LEASING TRANSACTIONS

GRE evaluates contracts that may contain leases, including PPAs and arrangements for the use of equipment, railroad cars, and vehicles. A contract contains a lease if it conveys the exclusive right to control the use of a specified asset. A contract determined to contain a lease is evaluated further to determine if the arrangement is a finance lease. GRE recognizes right-of-use assets and a corresponding lease liability at the lease commencement date.

GRE has elected the practical expedient under which non-lease components, such as asset maintenance costs included in payments, are not deducted from minimum lease payments for the purposes of lease accounting and disclosure. In addition, leases with an initial term of 12 months or less are classified as short-term leases and are not recognized on the consolidated balance sheet. If a lease contains an option to extend and there is reasonable certainty the option will be exercised, the option is considered in the lease term at inception. If a lease contains an option for early buy-out and there is reasonable certainty the option will be exercised, the option is considered in the lease term and cash flows from inception. GRE has also elected a practical expedient at the time of adoption to continue with the historical treatment for land easement arrangements in effect at the adoption date. As such, GRE has not recognized any lease assets or liabilities for such arrangements. GRE's lease agreements do not contain any material residual value guarantees, material bargain purchase options, or material restrictive covenants.

Operating Leases—GRE enters various leases for equipment used in its operations under varying terms and conditions, expiring at various times through 2027. Falkirk enters various leases for land and equipment with terms expiring at various times through 2024. MAG enters various leases for railroad cars, grain storage, equipment, and land with terms expiring at various times through 2045. The right-of-use assets for operating leases in place at the time of adoption were capitalized on the basis of their remaining payment obligation balances, discounted to present value based on the rate implicit in the lease or on the incremental borrowing rates appropriate for the entity, the leased asset, and the lease terms. The remaining payments for operating lease right-of-use assets are charged to expense on a straight-line basis over the life of the lease.

Finance Leases— GRE entered into various lease agreements which were classified as financing leases. The leases were for railroad cars used in the operation of Spiritwood Station and equipment used in transmission operations and have terms expiring at various times through 2026. Falkirk has also leased certain equipment that is used in mining operations and have terms expiring at various times through 2024. MAG does not have any material finance leases.

Components of lease expense for the years ended December 31, 2021, 2020, and 2019 include the following (in thousands):

	2021	2020	2019
Operating lease expense:			
Included in operation and maintenance	$ 1,643	$ 1,749	$ 1,982
Included in fuel	3,371	4,222	5,279
Included in nonutility operating expense	10,191	9,802	9,324
	$ 15,205	$ 15,773	$ 16,585
Finance lease expense:			
Amortization of right-of-use assets	$ 3,185	$ 2,445	$ 2,264
Interest on lease liabilities	485	544	572
	$ 3,670	$ 2,989	$ 2,836

Costs associated with short-term leases, variable rent, and subleases were immaterial for the years ended December 31, 2021, 2020, and 2019.

Supplemental balance sheet information related to operating and finance leases is as follows (in thousands):

	Classification	December 31, 2021	December 31, 2020
Assets:			
Operating leases	Other long-term assets	$ 19,124	$ 30,956
Finance leases	Utility plant—net	15,377	15,954
Finance leases	Nonutility plant and equipment—net	29	51
Liabilities:			
Current			
Operating leases	Other accrued liabilities and notes payable	$ 6,416	$ 11,675
Finance leases	Current portion of long-term obligations	4,996	3,231
Noncurrent			
Operating leases	Other noncurrent liabilities	$ 13,897	$ 20,234
Finance leases	Long-term obligations—less current portion	9,376	11,935

The weighted average remaining lease terms and weighted average discount rates are as follows:

	December 31, 2021		
	MAG	FALKIRK	GRE
Weighted average remaining lease term (in years)			
Operating leases	3.2	1.0	3.6
Finance leases	2.8	2.0	3.4
Weighted average discount rate			
Operating leases	5.60%	2.83%	3.11%
Finance leases	4.94%	3.72%	2.84%

As of December 31, 2021, maturities of lease liabilities were as follows (in thousands):

YEARS ENDING DECEMBER 31	Operating Leases	Financing Leases
2022	$ 7,405	$ 5,385
2023	4,645	4,902
2024	4,230	3,545
2025	3,200	948
2026	1,501	331
Thereafter	2,258	-
Total minimum lease payments	23,239	15,111
Amounts representing interest	(2,926)	(739)
Present value of minimum lease payments	20,313	14,372
Current maturities	(6,416)	(4,996)
Noncurrent lease liabilities	$ 13,897	$ 9,376

As of December 31, 2021, there were no material additional operating or financing leases that have not yet commenced.

Supplemental cash flow information related to leases is as follows (in thousands):

YEAR ENDED DECEMBER 31	2021	2020	2019
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash flows from operating leases	$ (11,615)	$ (6,607)	$ (12,648)
Operating cash flows from financing leases	(485)	(544)	(571)
Financing cash flows from financing leases	(4,977)	(3,119)	(6,360)

5. LONG-TERM OBLIGATIONS

The consolidated long-term obligations as of December 31, 2021 and 2020, are as follows (in thousands):

	2021	2020
First Mortgage Bonds, Series 2007A, 6.254%, due 2022–2038	$ 531,400	$ 579,700
First Mortgage Bonds, Series 2008A, 7.233%, due 2022–2038	326,399	330,861
First Mortgage Bonds, Series 2008B, 3.107%, due 2022–2023	3,333	5,000
First Mortgage Notes, Series 2009A, 5.0% to 7.15%, due 2022–2024	22,300	31,100
First Mortgage Bonds, Series 2009B, 5.81% to 6.94%, due 2022–2031	185,000	220,000
First Mortgage Bonds, Series 2010D, 4.478%, due 2022–2030	260,500	282,500
First Mortgage Note, Series 2014A, 2.84%	-	10,000
First Mortgage Note, Series 2014B, LIBOR plus 1.15%,		
1.235% at December 31, 2021, due 2033–2038	100,000	100,000
First Mortgage Note, Series 2015A, 3.76%, due 2022-2028	95,000	100,000
First Mortgage Note, Series 2015B, 4.11%, due 2028-2035	100,000	100,000
First Mortgage Note, Series 2015C, 4.62%, due 2036-2044	100,000	100,000
First Mortgage Note, Series 2015D, 4.70%, due 2036-2044	50,000	50,000
First Mortgage Note, Series 2017A, 3.59%, due 2022-2045	245,000	260,000
First Mortgage Note, Series 2020A, 3.25%, due 2026-2045	200,000	200,000
Syndicated Credit Facility, National Rural Utilities Cooperative Finance Corp,		
ABR plus 0.50%, 3.75% at December 31, 2020	-	33,750
ABR plus 0.00%, 3.25% at December 31, 2020	-	16,250
ABR plus 0.125%, 3.375% at December 31, 2021	80,000	-
Department of Energy, 0%, due 2022–2028, 5.2% to 6.1% imputed interest	2,710	3,179
Finance lease obligation, Spiritwood Station railroad cars, 2.75% imputed interest	3,199	4,153
Finance lease obligation, 1.12% to 4.81% imputed interest	2,503	1,815
Finance lease obligations, Falkirk Mine, 0.84% to 5.09% imputed interest	8,642	9,162
Term Note, Falkirk, 0.36%, due 2022-2026	5,126	6,300
Term Note, MAG, 5.92%, due 2022-2028	48,116	55,116
Term Note, MAG, 3.75%, due 2022-2025	3,504	9,686
Other—at various rates and maturities	4,788	6,401
Subtotal	2,377,520	2,514,973
Less unamortized bond issuance costs	(18,225)	(18,650)
Less unamortized bond discount	(6,908)	(7,521)
	2,352,387	2,488,802
Current maturities	(171,089)	(163,852)
Long-term obligations—net	$ 2,181,298	$ 2,324,950

GRE issues secured debt under an Indenture of Mortgage, Security Agreement, and Financing Statement (Indenture). The Indenture requires GRE to establish and collect rates reasonably expected to yield a specified margins-for-interest level. Under the Indenture, GRE has limitations on the retirement of patronage capital if, after the distribution, an event of default would exist or GRE's members' capital would be less than 20% of total long-term debt and members' capital. Substantially all of the tangible assets of GRE and the power purchase and transmission service contracts with the members (see Note 1) are pledged as security under the Indenture.

The First Mortgage Note, Series 2014B debt agreement has a feature that allows GRE to periodically change how the variable rate is determined or change to a fixed interest rate option, at its election, subject to the applicable provisions in the debt agreement.

GRE has a $300.0 million unsecured revolving credit facility for which National Rural Utilities Cooperative Finance Corporation (CFC) is the administrative agent that expires in May 2026. This facility can be increased, at GRE's option, to $400.0 million subject to certain terms and conditions. At December 31, 2021 and 2020, the outstanding balance was $80.0 million and $50.0 million, respectively. GRE also has an unsecured line of credit facility with CoBank, ACB (CoBank) for $30.0 million that expires in January 2023. This facility can be increased, at GRE's option, to $60.0 million, subject to certain terms and conditions. There were no amounts outstanding on this facility at December 31, 2021 and 2020.

GRE is subject to a number of customary covenants under the Indenture, other debt agreements, and the credit facilities.

Substantially all of the assets of MAG are pledged as security for the Term Notes. The loan documents contain restrictive covenants on financial ratios, capital expenditures, and net worth.

MAG has a secured revolving line of credit in the amount of $25.0 million that expires on November 30, 2023. There were no amounts outstanding on this facility at December 31, 2021 and 2020.

Future maturities on long-term obligations as of December 31, 2021, are as follows (in thousands):

YEARS ENDING DECEMBER 31	
2022	$ 171,089
2023	173,426
2024	177,261
2025	177,662
2026	245,678
Thereafter	1,432,404
	$ 2,377,520

6. INVESTMENTS

GRE's investments as of December 31, 2021 and 2020, are as follows (in thousands):

	2021	2020
Other investments:		
Capital certificate investments—CFC	$ 19,644	$ 19,644
Cooperative investment patronage allocations	14,145	13,624
Total other investments	33,789	33,268
Restricted investments—investments for deferred compensation	18,851	14,780
	$ 52,640	$ 48,048

The capital certificate investments bear interest at a rate of 5% and a portion of them are required under borrowing arrangements with CFC. At December 31, 2021, GRE had no commitments to purchase additional capital certificate investments from CFC. Capital certificate investments are classified as held-to-maturity and reported at amortized cost using the specific identification method.

GRE's cooperative investment patronage allocations are reported at cost plus allocated equities.

GRE's investments held for deferred compensation are reported at fair value (see Note 8).

The investments reported at amortized cost at December 31, 2021 and 2020, are as follows (in thousands):

	Amortized Cost	GROSS Unrealized Gains	GROSS Unrealized Losses	Fair Value
2021				
Long-term investments—held-to-maturity securities—capital certificate investments	$ 19,644	$ -	$ -	$ 19,644
2020				
Long-term investments—held-to-maturity securities—capital certificate investments	$ 19,644	$ -	$ -	$ 19,644

Capital certificate investments have maturities greater than 10 years.

Interest income received on all investments, including cash and cash equivalents, was $1.1 million, $1.7 million, and $5.2 million in 2021, 2020, and 2019, respectively.

7. DERIVATIVE INSTRUMENTS

As part of its risk management program, GRE may periodically use interest rate swaps and swaptions to manage market exposures. Terms and tenor of the swap and swaption agreements are generally structured to match the terms of the risk being managed. Mark-to-market gains and losses related to the interest rate hedging agreements are deferred as regulatory assets or liabilities until the execution of the related debt transaction and the agreements are settled. The amount paid or received at settlement is then deferred as a regulatory asset or liability and amortized to the consolidated statements of operations and comprehensive income as a component of interest expense over the term of the related debt issuance.

GRE is exposed to credit risk as a result of entering into these interest rate hedging agreements. Interest rate hedging contracts entered into by GRE are governed by an International Swap Dealers Association Master Agreement. As of December 31, 2021, all of the counterparties with transaction amounts outstanding under GRE's hedging program are rated investment grade by the major rating agencies. The contractual agreements contain provisions that could require GRE or the counterparty to post collateral or credit support. No amounts have been posted by GRE or the counterparties as of December 31, 2021 or 2020.

See additional information regarding the fair value of these instruments in Note 8 and amounts recorded in deferred charges and regulatory liabilities in Note 11.

GRE enters into contracts for the purchase and sale of commodities for use in its business operations. GAAP requires an evaluation of these contracts to determine whether the contracts are derivatives. Certain contracts that meet the definition of a derivative may be exempted from derivative accounting as normal purchases or normal sales. GRE evaluates all of its contracts at inception to determine if they are derivatives and if they meet the normal purchases or normal sales designation requirements. All of the contracts for the purchase and sale of commodities used in business operations, with a few limited exceptions, qualify for a normal purchases or normal sales designation. The commodity contracts that do not qualify for a normal purchases or normal sales designation are recorded at fair value, and the gains or losses are deferred as regulatory assets or liabilities. The realized gains and losses on settled commodity derivatives, which include exchange-traded futures contracts and financial transmission rights, are recognized as purchased power. See additional information regarding the fair value of these derivatives in Note 8.

MAG enters into derivative transactions to hedge its exposure to commodity price fluctuations. In connection with the execution of forward commodity contracts, MAG normally elects to create a hedging relationship by executing an exchange-traded futures contract as an offsetting position. MAG does not enter into derivative transactions for trading purposes.

MAG's derivative gains and losses are included in the consolidated statements of operations and comprehensive income for the years ended December 31, 2021, 2020, and 2019, are as follows (in thousands):

	2021	2020	2019
Realized and unrealized (losses) gains recognized from undesignated hedges:			
Nonutility operating revenue	$ (25,010)	$ 172	$ (3,141)
Nonutility operating expenses	(26,361)	(6,183)	6,219

MAG is exposed to credit and market risk as a result of entering into these contracts. MAG manages the credit risk by entering into transactions with high-quality counterparties. Futures contracts entered into by MAG are governed by an International Swap Dealers Association Master Agreement. MAG manages market risk associated with commodity price contracts by establishing and monitoring parameters that limit the types and degree of market risk that may be undertaken. Actual results could materially differ based on the changes in commodity prices.

The location and fair value of derivative instruments in the consolidated balance sheets as of December 31, 2021 and 2020, are as follows (in thousands):

	Location	2021	2020
Derivatives in an asset position, none of which are designated as hedging instruments:			
Interest rate contracts	Derivative instruments	$ 177	$ -
Commodity contracts	Derivative instruments	19,335	12,220
Total derivative instrument assets		$ 19,512	$ 12,220
Derivatives in a liability position, none of which are designated as hedging instruments:			
Interest rate contracts	Derivative instruments	$ 24,140	$ 32,420
Commodity contracts	Derivative instruments	10,248	17,396
Total derivative instrument liabilities		$ 34,388	$ 49,816

8. FAIR VALUE OF FINANCIAL INSTRUMENTS

GAAP establishes a framework for measuring fair value by creating a hierarchy for observable independent market inputs and unobservable market assumptions and provide for required disclosures about fair value measurements. Considerable judgment may be required in interpreting market data used to develop the estimates of fair value. Accordingly, the estimates presented herein are not necessarily indicative of the amounts that could be realized in a current market exchange. The use of different market assumptions and/or estimation methodologies may have a material effect on the estimated fair value.

A description of the inputs used in the valuation of assets and liabilities is as follows:

Level 1—Inputs represent unadjusted quoted prices for identical assets or liabilities exchanged in active markets.

Level 2—Inputs include direct or indirect observable inputs other than Level 1 inputs, such as quoted prices for similar assets or liabilities exchanged in active or inactive markets, quoted prices for identical assets or liabilities exchanged in inactive markets, and other inputs that are considered in fair value determinations of the assets or liabilities.

Level 3—Inputs include unobservable inputs used in the measurement of assets and liabilities. Management is required to use its own assumptions regarding unobservable inputs because there is little, if any, market activity in the assets or liabilities or related observable inputs that can be corroborated at the measurement date.

Assets are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. GRE's policy is to recognize significant transfers between levels at December 31.

A summary of the assets and liabilities at fair value at December 31, 2021 and 2020, set forth by level within the fair value hierarchy, is as follows (in thousands):

	Assets at Fair Value as of December 31, 2021			
	Total	Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash equivalents—money market funds	$ 171,379	$ 171,379	$ -	$ -
Restricted investments—deferred compensation:				
Money market funds	1,939	1,939	-	-
Mutual funds:				
Domestic stock funds	5,501	5,501	-	-
Balanced funds	7,361	7,361	-	-
Fixed income funds	2,071	2,071	-	-
International stock funds	1,980	1,980	-	-
Interest rate contracts	177	-	177	-
Commodity derivatives	19,335	19,335	-	-
Total assets	$ 209,743	$ 209,566	$ 177	$ -
Liabilities:				
Interest rate contracts	$ 24,140	$ -	$ 24,140	$ -
Commodity derivatives	10,248	10,248	-	-
Total liabilities	$ 34,388	$ 10,248	$ 24,140	$ -

	Assets at Fair Value as of December 31, 2020			
	Total	Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash equivalents—money market funds	$ 172,032	$ 172,032	$ -	$ -
Restricted investments—deferred compensation:				
Money market funds	1,302	1,302	-	-
Mutual funds:				
Domestic stock funds	4,400	4,400	-	-
Balanced funds	4,928	4,928	-	-
Fixed income funds	2,689	2,689	-	-
International stock funds	1,461	1,461	-	-
Commodity derivatives	12,220	4,548	7,672	-
Total assets	$ 199,032	$ 191,360	$ 7,672	$ -
Liabilities:				
Interest rate contracts	$ 32,420	$ -	$ 32,420	$ -
Commodity derivatives	17,396	14,950	2,446	-
Total liabilities	$ 49,816	$ 14,950	$ 34,866	$ -

For the years ended December 31, 2021 and 2020, there were no significant transfers in or out of Levels 1, 2, or 3.

Money Market Accounts—Fair value is determined using quoted prices in active markets for identical assets.

Mutual Funds—Shares of registered investment companies (mutual funds) are categorized as Level 1. They are valued at quoted market prices available on an active clearing exchange for identical assets.

Interest Rate Contracts—Fair value is determined by comparing the difference between the net present value of the cash flows for the swaps at their initial fixed rate and the current market fixed rate. The initial fixed rate is quoted in the swap agreement and the current market fixed rate is corroborated by observable market data and categorized as Level 2.

Commodity Derivatives—Exchange-traded futures contracts and financial transmission rights are valued at active quoted market prices and are categorized as Level 1. Fair value for forward contracts is determined by comparing the difference between the net present value of the cash flows at the initial price and the current market price. The initial price is quoted in the contract and the market price is corroborated by observable market data. These contracts are categorized as Level 2.

GRE continuously monitors the creditworthiness of the counterparties to its derivative contracts and assesses the counterparties' ability to perform on the transactions set forth in the contracts. Liability positions are generally not adjusted as GRE has the ability and intent to perform under each of the contracts. In the instance of asset positions, GRE considers: general market conditions and the observable financial health and outlook of specific counterparties; forward-looking data, such as credit default swaps, when available; and historical default probabilities from credit rating agencies in evaluating the potential impact of nonperformance risk to derivative positions. Given this assessment, when determining the fair value of derivative assets, the impact of considering credit risk was immaterial to the fair value of derivative assets presented in the consolidated balance sheets.

The estimated fair values of financial instruments carried at cost, other than finance leases, at December 31, 2021 and 2020, are as follows and are provided for disclosure purposes only (in thousands):

	2021		2020	
	Carrying Cost	Fair Value	Carrying Cost	Fair Value
Long-term receivables	$ 2,288	$ 2,394	$ 2,608	$ 2,714
Long-term obligations	2,356,259	2,572,851	2,492,323	2,862,127

The estimated fair values of long-term receivables and long-term obligations, other than finance leases, were based on present value models using current rates available for similar issues with similar credit ratings. These fair value measurements would be characterized as Level 2.

The carrying amounts of remaining financial instruments included in current assets and current liabilities approximate their fair value. For other investments—capital certificate investments, the carrying amount is assumed to approximate fair value as these instruments generally must be held as a condition of financing.

9. INCOME TAXES

GRE is a nonprofit taxable cooperative subject to federal and state income taxation and is allowed a deduction for margins allocated to members as patronage capital.

GRE had no federal income tax expense in 2021, 2020, or 2019 due to the utilization of net operating losses in 2021 and 2020 and a net tax loss position in 2019. For the years ended December 31, 2021 and 2020, GRE had $0.6 million and $2.1 million, respectively, of state tax expense due to state tax laws limiting the utilization of net operating loss carryforwards to fully offset income. The net tax loss position in 2019 was primarily the result of the allocation of margins to members, the retirement of utility plant, and the deduction of certain costs for income tax reporting purposes, which were deferred for financial reporting purposes.

The consolidated deferred income taxes as of December 31, 2021 and 2020, are as follows (in thousands):

	2021	2020
GRE		
Deferred tax assets:		
Net operating loss carryforwards	$ 64,682	$ 73,008
Tax credit carryforwards	18,148	13,074
Other	35,969	37,862
Total deferred tax assets	118,799	123,944
Deferred tax liabilities:		
Property related	(102,193)	(108,603)
Deferred regulatory assets	(3,344)	(7,993)
Other	(27,069)	(21,524)
Total deferred tax liabilities	(132,606)	(138,120)
Valuation allowance	(417)	-
Net deferred tax liability	$ (14,224)	$ (14,176)
Falkirk		
Deferred tax assets	$ 32,260	$ 19,249
Deferred tax liabilities	(31,366)	(19,115)
Net deferred tax asset, reported as deferred charges-other	$ 894	$ 134

These deferred income taxes result from differences in the recognition of accounting transactions for tax and financial reporting purposes. The primary temporary differences relate to depreciation, retirement benefits, the sale and leaseback transaction that originated in 1996 and terminated in 2008, deferred charges, and certain financial reserves not deductible for tax purposes until paid.

GRE uses regulatory accounting to account for the difference between the accrual based method of accounting for income taxes and the cash based method of accounting for recognizing income tax expense in the consolidated statements of operations and comprehensive income as member rates include actual income taxes paid (see Note 11).

As of December 31, 2021, GRE had a federal and state net operating loss carryforwards of $226.1 million and $272.4 million, respectively, that will be utilized to offset projected taxable income in the carryforward periods. The federal net operating losses expire in varying amounts from 2029 through 2037 and the state net operating losses expire in varying amounts from 2024 through 2039. GRE also has a federal tax credit carryforward of $18.1 million. The tax credits expire in varying amounts from 2024 through 2040.

In the ordinary course of business, there is inherent uncertainty in quantifying GRE's income tax positions. GRE assesses its income tax positions and records tax benefits for all years subject to examination based upon management's evaluation of the facts, circumstances, and information available at the reporting dates. For those tax positions where it is more likely than not that a tax benefit will be sustained, GRE records the largest amount of tax benefit with a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, no tax benefit has been recognized in the consolidated financial statements. Where applicable, associated interest and penalties will also be recognized as income tax expense.

There are no uncertain tax positions that were material to GRE's results of operations or financial position. GRE has determined that its taxable years ended December 31, 2018 through 2021, are still subject to examination under federal tax statutes. In addition, net operating loss carryforwards dating back to 2009 are subject to review and possible adjustment by taxing authorities. GRE's taxable years ended December 31, 2016 through 2021, are still subject to examination under state tax statutes.

10. PENDING LITIGATION, CONTINGENCIES, AND COMMITMENTS

Midcontinent Independent System Operator (MISO)—GRE is a member of the MISO market, and due to the nature of the market, various disputes and resettlements have taken place and some are still in process. It is the opinion of management that the resolution of the various open MISO disputes and resettlements will not have a material effect on the consolidated financial position, results of operations, or cash flows.

Litigation—GRE is involved in various legal actions arising in the normal course of business. It is the opinion of management that the resolution of such actions will not have a material adverse effect on the consolidated financial position, results of operations, or cash flows.

Future Commitments—GRE is committed to the following estimated expenditures under the various contracts discussed below (in millions):

	2022	2023	2024	2025	2026	THEREAFTER	TOTAL
Wind energy purchases	$ 77.4	$ 103.0	$ 145.9	$ 191.7	$ 192.1	$ 3,428.2	$ 4,138.3
Other purchased power	85.1	62.1	32.6	38.2	27.7	123.3	369.0
	$ 162.5	$ 165.1	$ 178.5	$ 229.9	$ 219.8	$ 3,551.5	$ 4,507.3

Wind Energy Purchases—GRE has long-term agreements for the purchase of wind energy from various power suppliers. The agreements have varying terms, and some have extension options. The longest contract term extends through 2053. Included in wind energy purchases is a project approved subsequent to December 31, 2021 (see Note 15). GRE is obligated to purchase the energy generated from these facilities at fixed prices for the term of the agreements. GRE's expenses for energy purchased under these agreements were $78.6 million, $81.4 million, and $55.4 million for 2021, 2020, and 2019, respectively.

Other Purchased Power—GRE has long-term agreements for the purchase of capacity and energy from various other power suppliers. The agreements have varying terms, with the longest extending to 2045. Other purchased power includes purchases from a third party as described in Note 15. GRE is obligated to purchase energy at either fixed or variable prices for the term of the agreements. GRE's expenses for energy and transmission purchased under these agreements were $6.8 million, $6.4 million, and $12.1 million for 2021, 2020, and 2019, respectively.

Reclamation Guarantee—Falkirk is required by the North Dakota Public Service Commission (PSC) to carry bonds to cover reclamation of mined lands in the event the surface mining and reclamation permit is revoked. These bonds are released by the PSC after a period of time, generally at least 10 years after final reclamation is complete, and it has been determined that the land has been returned to its approved postmining use. Under the PSC's self-bond program, GRE provides a guarantee for the majority of Falkirk's reclamation obligation. As of December 31, 2021, the aggregated value of this guarantee is $79.8 million. No liability has been recorded in the consolidated financial statements related to this guarantee as of December 31, 2021 and 2020. Falkirk has recorded an asset retirement obligation for the costs to cover final reclamation (see Note 14).

Letters of Credit—GRE has issued a letter of credit for $8.3 million to MISO in connection with its commodity derivatives, two letters of credit totaling $11.0 million related to Spiritwood Station water and infrastructure agreements, and letters of credit totaling $2.6 million for transmission construction projects. No amounts are outstanding as of December 31, 2021 and 2020.

11. DEFERRED CHARGES AND REGULATORY LIABILITIES

Deferred charges as of December 31, 2021 and 2020, are as follows (in thousands):

	2021	2020
Regulatory assets:		
Premiums on refinanced long-term debt	$ 5,647	$ 5,988
Interest rate derivatives	25,813	32,494
Settled interest rate hedging instruments	91,420	97,732
Purchased power contract settlement	5,900	5,000
Plant retirements	735,862	168,243
Postretirement benefit plans	9,227	15,901
Settled postretirement benefit plan	4,810	5,295
Interest and plant costs	5,727	5,965
Scheduled major outage maintenance	6,121	22,491
Deferred income taxes	14,224	14,176
Other	508	579
Total regulatory assets	905,259	373,864
Other deferred charges	894	134
Total deferred charges	$ 906,153	$ 373,998
Reported as:		
Deferred charges:		
Financing related	$ 122,880	$ 136,214
Contract settlement	5,900	5,000
Plant retirements	735,862	168,243
Other	41,511	64,541
Total deferred charges	$ 906,153	$ 373,998

Regulatory liabilities as of December 31, 2021 and 2020, are as follows (in thousands):

	2021	2020
Regulatory liabilities:		
Incentive-based rate treatment	$ 14,340	$ 14,827
Deferred revenue	16,284	20,684
Other	20,297	1,874
Total regulatory liabilities	$ 50,921	$ 37,385

Premiums on Refinanced Long-Term Debt—GRE has refinanced various issues of long-term debt, which resulted in the payment of premiums. This amount will be fully amortized by 2038, the maturity date of the 2007A bonds.

Interest Rate Derivatives—GRE has interest rate swaps that have not been settled as of December 31, 2021 and 2020. A regulatory asset or liability is recorded offsetting the fair value liability or asset, respectively. Once these interest rate derivatives are settled, any deferred regulatory asset or liability will be amortized over the life of the related debt, unless there is no related debt issuance, in which case the amortization period will be determined by the board of directors under regulatory accounting.

Settled Interest Rate Hedging Instruments—GRE settled interest rate swaps related to bond issuances, resulting in payments to the swap counterparties. These settled swaps are amortized over the life of the related debt and the amortization is included in interest expense in the consolidated statements of operations and comprehensive income.

Purchased Power Contract Settlement—GRE had a power agreement with Dairyland Power Cooperative (DPC) to share costs and benefits of a 379 megawatt generating unit (Genoa 3) located near Genoa, Wisconsin. GRE's obligation to purchase energy and capacity through this agreement was terminated through an amendment in 2015 for a cash payment of $83.5 million. GRE recognized this payment as a regulatory asset of which a portion related to the termination of GRE's obligation to purchase energy and capacity, and another portion related to the settlement of GRE's share of the estimated future costs for the plant decommissioning and demolition.

In 2021, DPC retired Genoa 3, implemented an employee severance plan, and began decommissioning and demolition activities, which are expected to continue through 2023. GRE remains obligated for its share of the plant decommissioning and demolition costs as well as its share of the employee severance costs and has recorded an estimate of its share of the final costs as a current liability in other accrued liabilities and notes payable in the consolidated balance sheets. Amortization of the regulatory asset will commence in 2022 and will continue through 2029.

Plant Retirements—GRE retired Stanton Station in 2017. Regulatory accounting was approved for the remaining undepreciated net plant value and plant closure costs. Decommissioning and demolition activities were completed in 2020. The regulatory asset is being amortized through 2028.

GRE retired Elk River Station in 2019. Regulatory accounting was approved for the remaining undepreciated net plant value and plant closure costs. Decommissioning and demolition activities were completed in 2021. The regulatory asset is being amortized through 2038.

During 2020, GRE announced plans to sell Coal Creek Station or retire it in 2022. During 2021, GRE announced it had negotiated a transaction to sell Coal Creek Station and the HVDC system. As part of its transaction approval, the board of directors authorized regulatory accounting for transaction-related costs, certain contract termination payments, and the financial impacts of assets transferred in the transaction. As of December 31, 2021, GRE has deferred costs for human resource and employee severance costs, Falkirk accelerated depreciation and amortization expenses, and legal and other transaction costs and accruals. In addition, and as discussed in Note 2, GRE deferred the $495.2 million loss on disposal of the Coal Creek Station and HVDC system assets. Amortization of the regulatory asset will commence upon closing of the transaction, which is expected in 2022, and will continue until no later than 2042.

Postretirement Benefit Plans—GRE and Falkirk have defined benefit pension plans and postretirement medical plans for certain employees. GRE records regulatory assets for the amounts that are normally reported as accumulated other comprehensive income as these amounts will be recovered in future rates. A regulatory asset has been recorded for GRE's plans of $3.2 million and $3.4 million, and Falkirk's plans of $6.0 million and $12.5 million at December 31, 2021 and 2020, respectively. These amounts are adjusted each year as a result of the actuarial remeasurement of the obligations related to these plans.

Settled Postretirement Benefit Plans—During 2016, GRE settled its qualified defined benefit plan, which would have required the recognition of the unamortized actuarial loss as pension expense. GRE recorded a regulatory asset related to the settlement and it is being amortized over a period not to exceed 15 years and included in operation and maintenance expense in the consolidated statements of operations and comprehensive income.

Interest and Plant Costs—During 2010 and 2011, GRE deferred facility costs for interest, maintenance, and other costs associated with Spiritwood Station. This amount is being amortized over the useful life of the facility.

Scheduled Major Outage Maintenance—GRE defers scheduled major outage maintenance costs for Coal Creek Station and amortizes these costs over the maintenance cycle period, which is three years. The amortization is included in operation and maintenance expense in the consolidated statements of operations and comprehensive income.

Deferred Income Taxes—GRE records income tax expense as income taxes are paid; a regulatory asset is recorded for the difference between deferred tax assets and liabilities. The regulatory asset is adjusted each year for changes in income tax timing differences.

Other Regulatory Assets—Other regulatory assets primarily include the unamortized discount on notes receivable.

Other Deferred Charges—Other deferred charges represent Falkirk's net deferred tax asset.

Incentive-Based Rate Treatment—GRE received approval from the Federal Energy Regulatory Commission for incentive-based rate treatment for the CapX2020 transmission projects and collected a return on investment from MISO while these projects were under construction. GRE recorded amortization expense in an amount equal to the interest capitalized to the project and recorded an offsetting regulatory liability. Now that the projects are complete, the regulatory liability is being amortized over the useful life of the underlying assets and recorded as a reduction to depreciation and amortization expense in the consolidated statements of operations and comprehensive income.

Deferred Revenue—GRE recognized $4.4 million, $12.1 million, and $15.4 million as member electric revenue for the years ended December 31, 2021, 2020, and 2019, respectively, in accordance with regulatory accounting requirements. The remaining deferred revenue will be recognized in member electric revenue in the future as determined by the board of directors.

Other Regulatory Liabilities—Other regulatory liabilities include the unamortized bond discount on certain borrowings as well as the liability offset to the fair value determination of certain interest rate derivatives and certain commodity contracts recorded as derivative instruments.

The regulatory assets and regulatory liabilities are recorded in accordance with regulatory accounting requirements and have all been approved by the board of directors.

12. EMPLOYEE BENEFIT PLANS

GRE offers various benefit plans to its employees, including health/welfare and retirement plans. Approximately 20% of total employees eligible for these benefit plans are represented by two labor unions under two collective bargaining agreements. One agreement expires at the end of 2022 and the second expires at the end of 2023.

Defined Benefit Plans—GRE has a nonqualified supplemental defined benefit plan covering certain former employees and retirees that is frozen, a qualified defined contribution retirement plan for all employees, and a nonqualified defined contribution plan for certain employees.

Falkirk has a defined benefit plan that covers employees hired before January 1, 2000, and a defined contribution plan for other employees. With GRE's announcement to sell or retire Coal Creek Station in 2022, Falkirk remeasured its pension obligation and recorded a $0.9 million curtailment loss in 2020.

Changes in benefit obligations and plan assets for the years ended December 31, 2021 and 2020, and the amounts recognized in the consolidated balance sheets as of December 31, 2021 and 2020, are as follows (in thousands):

	FALKIRK		GRE	
	2021	2020	2021	2020
Change in benefit obligation:				
Benefit obligation—beginning of year	$ 73,618	$ 68,409	$ 3,884	$ 4,143
Interest cost	1,684	2,008	147	157
Actuarial (gain) loss	(2,464)	6,148	-	-
Curtailment loss	-	856	-	-
Benefits paid	(3,945)	(3,803)	(400)	(416)
Benefit obligation—end of year	68,893	73,618	3,631	3,884
Change in plan assets:				
Fair value of plan assets—beginning of year	80,642	73,297	-	-
Actual return on assets	8,564	11,148	-	-
Benefits paid	(3,945)	(3,803)	-	-
Fair value of plan assets—end of year	85,261	80,642	-	-
Funded status—end of year and amount recognized in other long-term assets (other noncurrent liabilities)	$ 16,368	$ 7,024	$ (3,631)	$ (3,884)

Amounts not yet recognized as components of net periodic cost as of December 31, 2021 and 2020, are as follows (in thousands):

	FALKIRK		GRE	
	2021	2020	2021	2020
Accumulated loss	$ 2,323	$ 8,769	$ 2,207	$ 2,370

The accumulated benefit obligation for the GRE defined benefit pension plans reflected above was $3.6 million and $3.9 million as of December 31, 2021 and 2020, respectively. The accumulated benefit obligation for the Falkirk defined benefit pension plan was $68.9 million and $73.6 million as of December 31, 2021 and 2020, respectively.

Components of net periodic benefit or cost as of December 31, 2021, 2020, and 2019, are as follows (in thousands):

	FALKIRK			GRE		
	2021	2020	2019	2021	2020	2019
Interest cost	$ 1,684	$ 2,008	$ 2,533	$ 147	$ 157	$ 167
Expected return on assets	(5,045)	(4,784)	(4,875)	-	-	-
Recognized net actuarial loss	462	425	32	163	176	181
Curtailment loss	-	856	-	-	-	-
Net periodic (benefit) cost	$ (2,899)	$ (1,495)	$ (2,310)	$ 310	$ 333	$ 348

The estimated amounts to be amortized from deferred charges related to the benefit obligation into net periodic benefit cost in 2022 are $0.2 million for GRE and $0.1 million for Falkirk.

Weighted-average assumptions used to determine benefit obligations as of December 31, 2021 and 2020, are as follows:

	FALKIRK		GRE	
	2021	2020	2021	2020
Discount rate	2.77%	2.35%	4.00%	4.00%

Weighted-average assumptions used to determine periodic benefit or cost as of December 31, 2021, 2020, and 2019, are as follows:

	FALKIRK			GRE		
	2021	2020	2019	2021	2020	2019
Discount rate	2.35%	3.20% / 2.77%	4.20%	4.00%	4.00%	4.00%
Expected return on assets	2.75%	7.00%	7.50%	N/A	N/A	N/A

The Falkirk plan maintains an investment policy that, among other things, establishes a portfolio asset allocation methodology with percentage allocation bands for individual asset classes. This investment policy sets target allocations for the plan assets ranging from approximately 90% to 100% in fixed-income securities, and 0% to 10% in money market funds. The investment policy further divides investments in equity securities among U.S. and non-U.S. companies. The investment policy provides that investments be reallocated between classes as balances exceed or fall below the appropriate allocation bands.

Falkirk's defined benefit plan investments at December 31, 2021 and 2020, are as follows (in thousands):

	2021	2020
Domestic equity securities	$ -	$ 36,594
International equity securities	-	16,367
Fixed income securities	84,922	27,361
Money market funds	338	319
	$ 85,260	$ 80,641

The invested funds are stated at fair value using quoted market prices in active markets for identical assets as the fair value measurement (Level 1). For the years ended December 31, 2021 and 2020, there were no significant transfers into or out of Levels 1, 2, or 3.

To develop the expected long-term rate of return on asset assumptions, Falkirk considered the historical returns and the future expectations for returns on each asset class, as well as target allocation of the pension portfolio.

The expected future benefits to be paid as of December 31, 2021, are as follows (in thousands):

DECEMBER 31	FALKIRK	GRE
2022	$ 4,240	$ 383
2023	4,446	366
2024	4,393	348
2025	4,373	330
2026	4,327	313
2027-2031	20,489	1,311

GRE expects to make a contribution of approximately $0.4 million to the nonqualified supplemental defined benefit plan in 2022 and Falkirk does not expect to make any pension contributions in 2022.

Defined Contribution Plans—GRE makes defined contributions to all employees and matching contributions to all eligible employees under a defined contribution retirement plan. GRE made savings and matching contributions to its defined contribution retirement plan of $11.7 million, $11.9 million, and $11.3 million in 2021, 2020, and 2019, respectively. Falkirk's contributions to its defined contribution pension and defined contribution savings plans were $5.1 million, $5.5 million, and $5.4 million for 2021, 2020, and 2019, respectively.

Postretirement Medical Benefits—Under a previously offered postretirement benefit plan, certain employees are entitled to participate in the GRE medical insurance plan until they reach age 65. Benefits to the retirees are in the form of monthly payments to cover a portion of the premium charged for participation in the program. Employees retiring from Falkirk also are eligible to participate in Falkirk's medical insurance plan with the benefit in the form of a supplement to the premium.

Costs for the unfunded postretirement medical plan are recognized in the year the employees render service.

Changes in benefit obligations for the years ended December 31, 2021 and 2020, are as follows (in thousands):

	FALKIRK		GRE	
	2021	2020	2021	2020
Change in benefit obligation:				
Benefit obligation—beginning of year	$ 2,057	$ 2,269	$ 1,589	$ 1,702
Service cost	16	20	1	1
Interest cost	26	52	60	64
Actuarial gain	(313)	(594)	-	-
Curtailment loss	-	402	-	-
Benefits paid	(183)	(92)	(171)	(178)
Benefit obligations—end of year	$ 1,603	$ 2,057	$ 1,479	$ 1,589

Amounts recognized in the consolidated balance sheets as of December 31, 2021 and 2020, are as follows (in thousands):

	FALKIRK		GRE	
	2021	2020	2021	2020
Current liabilities	$ 265	$ 304	$ 164	$ 171
Other noncurrent liabilities	1,338	1,753	1,315	1,418
	$ 1,603	$ 2,057	$ 1,479	$ 1,589

Amounts not yet recognized as components of net periodic cost as of December 31, 2021 and 2020, are as follows (in thousands):

	FALKIRK		GRE	
	2021	2020	2021	2020
Accumulated (gain) loss	$ (1,134)	$ (2,065)	$ 971	$ 1,036
Prior service credit	(64)	(103)	-	-
	$ (1,198)	$ (2,168)	$ 971	$ 1,036

Components of net periodic benefit or cost as of December 31, 2021, 2020, and 2019, are as follows (in thousands):

	FALKIRK			GRE		
	2021	2020	2019	2021	2020	2019
Service cost	$ 16	$ 20	$ 20	$ 1	$ 1	$ 1
Interest cost	26	52	89	60	64	69
Amortization of credit	(43)	(67)	(114)	-	-	-
Curtailment gain	-	(222)	-	-	-	-
Recognized net actuarial (gain) loss	(1,365)	(865)	(608)	65	69	71
Net periodic (benefit) cost	$ (1,366)	$ (1,082)	$ (613)	$ 126	$ 134	$ 141

The estimated amounts to be amortized from deferred charges into net periodic benefit or cost in 2022 are a net cost of less than $0.1 million for GRE and a net benefit of $1.0 million for Falkirk.

The discount rates used as of December 31, 2021, 2020, and 2019, are as follows:

	FALKIRK			GRE		
	2021	2020	2019	2021	2020	2019
Discount rate used to determine benefit obligations	2.12%	1.37%	2.65%	4.00%	4.00%	4.00%
Discount rate used to determine net periodic benefit cost	1.37%	2.65% / 2.09%	3.80%	4.00%	4.00%	4.00%

The expected future benefit payments to be paid as of December 31, 2021, are as follows (in thousands):

DECEMBER 31	FALKIRK	GRE
2022	$ 268	$ 164
2023	327	151
2024	276	138
2025	225	132
2026	186	126
2027-2031	432	538

The effect of a one percentage point change in health care cost trend rates on service and interest costs is not material in relation to the consolidated financial statements taken as a whole.

13. MEMBER RELATED-PARTY TRANSACTIONS

GRE provides electric and other services to its members. GRE received revenue of $899.1 million, $871.8 million, and $861.8 million in 2021, 2020, and 2019, respectively, for these services. GRE received 38.2%, 37.8%, and 37.5% of total member revenue from two members for the years ended December 31, 2021, 2020, and 2019, respectively. GRE had accounts receivable from its members of $154.2 million and $144.6 million at December 31, 2021 and 2020, respectively.

GRE also received various services from the members and paid $6.0 million, $10.8 million, and $7.3 million for these services in 2021, 2020, and 2019, respectively. GRE had accounts payable to the members of $2.3 million and $2.0 million at December 31, 2021 and 2020, respectively.

GRE had notes payable to the members of $51.2 million and $50.8 million at December 31, 2021 and 2020, respectively. These notes relate to funds invested with GRE by the members under a member investment program. These funds are used by GRE to reduce short-term borrowings. The members receive investment earnings based on GRE's blended rate of return for specified investments, adjusted for administrative costs.

14. ASSET RETIREMENT OBLIGATIONS

GAAP requires the recording of liabilities related to asset retirement obligations. An asset retirement obligation is the result of legal or contractual obligations associated with the retirement of a tangible long-lived asset that result from the acquisition, construction, or development and/or the normal operation of a long-lived asset. GRE determines these obligations based on an estimated asset retirement cost adjusted for inflation and projected to the estimated settlement dates, and discounted using a credit-adjusted, risk-free interest rate. GRE allocates the amortization for the offsetting capitalized asset retirement cost to expense using the straight-line method over the remaining useful life of the related long-lived asset being retired.

GRE has recorded obligations related to capping and reclamation of ash disposal sites for certain power plants.

The EPA regulation of coal combustion residuals (CCRs) requires increased groundwater monitoring, reporting, recordkeeping, and posting related information to the internet. The rule also established requirements related to CCR management, impoundments, landfills, and storage. The rule does allow GRE to continue its byproduct beneficial use program.

Falkirk has recorded an obligation related to the final costs to close its surface mines and reclaim the land disturbed as a result of normal mining operations. In 2020, Falkirk recorded an increase to the obligation of $147.0 million as a change in the timing and amount of estimated cash flows. There are no assets legally restricted for purpose of settling these obligations.

GRE also has an obligation to retire its HVDC transmission line upon abandonment. This line transmits the energy from Coal Creek Station in North Dakota to the GRE service territory in Minnesota. GRE has not recorded a liability related to this obligation because the fair value cannot be reasonably estimated due to the retirement date being indefinite at this time and GRE expecting to sell the line in 2022 (see Note 15).

A reconciliation of the beginning and ending aggregate carrying amount of the obligations as of December 31, 2021 and 2020, is as follows (in thousands):

	2021	2020
Balance—beginning of year	$ 278,902	$ 125,506
Obligations recorded as a result of changes in estimated cash flows	695	147,064
Accretion expense	11,409	9,068
Obligations settled	(2,803)	(2,736)
Balance—end of year	$ 288,203	$ 278,902

These obligations are recorded in other noncurrent liabilities in the consolidated balance sheets with the exception of retired plant obligations expected to be incurred in the upcoming year. Closure of the ash landfill associated with Elk River Station was completed in 2021 and the Stanton Station ash disposal site was completed during 2020. The obligations settled are the only transactions recognized as a use of cash in the consolidated statements of cash flows.

15. SALE TRANSACTION

During 2021, GRE announced it had negotiated a transaction to sell Coal Creek Station and the HVDC system to a third party. The HVDC system transmits the energy from Coal Creek Station in North Dakota to the GRE service territory in Minnesota. The transaction also includes entry into a purchase power agreement with the third party and entry into a separate agreement whereby GRE will operate and maintain the HVDC system for the third party. Additionally, as part of the transaction, GRE and Falkirk have agreed to terminate the coal supply agreement. As of December 31, 2021, the transaction was subject to member and regulatory approval. GRE expects to close the transaction in 2022. In conjunction with the transaction, GRE negotiated a purchase power agreement for a wind project to be constructed in North Dakota and delivered to GRE's service territory via the HVDC system. As of December 31, 2021, this purchase power agreement was subject to member approval and final contract execution with the wind project developer.

On January 6, 2022, the Minnesota Public Utilities Commission (PUC) approved the transfer of the original construction permit for the HVDC system from GRE to the third party in the transaction discussed above. On March 3, 2022, the PUC issued the final order approving the permit transfer.

On February 9, 2022, GRE's member-owner cooperatives approved the transaction and the wind purchase power agreement described above. On March 3, 2022, final execution of the purchase power agreement was completed with the wind project developer.

16. SUBSEQUENT EVENTS

On February 16, 2022, GRE announced it had reached an agreement in principle with its largest member-owner cooperative to transition from a member-owner to a customer. The member-owner represents 20.6% of total member electric revenue for the year ended December 31, 2021. The new customer contract would establish cost responsibility for both power supply and transmission obligations and would extend through 2045. The withdrawal of the member-owner from GRE and the approval of the new customer contract is subject to GRE board and membership approval.

* * *

Management and board of directors

2021

Great River Energy senior staff

David Saggau
president and CEO

Jon Brekke
vice president and chief power supply officer

Mark Fagan
vice president and chief corporate and member services officer

Jim Jones
vice president and chief information officer

Priti Patel
vice president and chief transmission officer

Eric Olsen
vice president and general counsel

Michelle Strobel
vice president and chief financial officer

Louy Theeuwen
director, executive division

Great River Energy board of directors

Chair Bob Bruckbauer
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Gary Stenzel
BENCO Electric

Bill Berg
Brown County Rural Electrical Association

Fran Bator
Connexus Energy

Mark Ethen
Connexus Energy

Scott Veitenheimer
Cooperative Light & Power

Margaret Schreiner
Dakota Electric Association

Clay Van De Bogart
Dakota Electric Association

Lonnie Johnson
East Central Energy

Joe Morley
East Central Energy

David Hernke
Goodhue County Cooperative Electric Association

Nancy Utke
Itasca-Mantrap Cooperative Electrical Association

Craig Olson
Lake Country Power

Mike Brasel
Lake Region Electric Cooperative

Randy Hlavka
McLeod Cooperative Power Association

Harold Harms
Mille Lacs Energy Cooperative

Bruce Leino
North Itasca Electric Cooperative, Inc.

Greg Blaine
Stearns Electric Association

Gary Wilson
Steele-Waseca Cooperative Electric

Michael Thorson
Todd-Wadena Electric Cooperative

Member-owner cooperative CEOs

Agralite Electric Cooperative
Benson
Kory Johnson, *general manager*

Arrowhead Cooperative, Inc.
Lutsen
John Twiest, *general manager and CEO*

BENCO Electric
Mankato
Dave Sunderman, *CEO*

Brown County Rural Electrical Association
Sleepy Eye
Mike Heidemann, *CEO*

Connexus Energy
Ramsey
Greg Ridderbusch, *president and CEO*

Cooperative Light & Power
Two Harbors
Hal Halpern, *general manager and CEO*

Crow Wing Power
Brainerd
Bruce Kraemer, *CEO*

Dakota Electric Association
Farmington
Greg Miller, *president and CEO*

East Central Energy
Braham
Justin Jahnz, *president and CEO*

Federated Rural Electric Association
Jackson
Scott Reimer, *general manager*

Goodhue County Cooperative Electric Association
Zumbrota
Kelly Hovel, *general manager*

Itasca-Mantrap Cooperative Electrical Association
Park Rapids
Christine Fox, *president and CEO*

Kandiyohi Power Cooperative
Spicer
Ryan Nelson, *CEO*

Lake Country Power
Cohasset
Mark Bakk, *general manager*

Lake Region Electric Cooperative
Pelican Rapids
Tim Thompson, *CEO*

McLeod Cooperative Power Association
Glencoe
Ron Meier, *general manager*

Meeker Cooperative Light and Power Association
Litchfield
Tim Mergen, *general manager and CEO*

Mille Lacs Energy Cooperative
Aitkin
Sarah Cron, *general manager*

Minnesota Valley Electric Cooperative
Jordan
Ryan Hentges, *CEO*

Nobles Cooperative Electric
Worthington
Adam Tromblay, *general manager*

North Itasca Electric Cooperative, Inc.
Bigfork
Brad Dolinski, *CEO*

Redwood Electric Cooperative
Clements
Ron Horman, *general manager*

Runestone Electric Association
Alexandria
Al Haman, *CEO*

South Central Electric Association
St. James
Ron Horman, *general manager*

Stearns Electric Association
Melrose
Robin Doege, *CEO*

Steele-Waseca Cooperative Electric
Owatonna
Syd Briggs, *general manager*

Todd-Wadena Electric Cooperative
Wadena
Daniel Carlisle, *president and CEO*

Wright-Hennepin Cooperative Electric Association
Rockford
Tim Sullivan, *president and CEO*

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