

**WELCOME  
TO THE  
2024 ANNUAL  
MEETING**



**KANDIYOHI POWER**  
— COOPERATIVE —

# GRE Power Supply and Plan

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Zac Ruzycki

# Portfolio Overview

COMPETITIVE



## Strong capacity position

- 1,400 MW peaking resources
- 328 MW Rainbow power purchase agreement
- 200 MW Manitoba Hydro



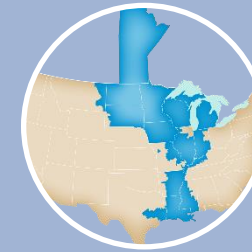
## Energy supply

- Up to 1,800 MW wind resources by 2025
- 400 MW in North Dakota, delivered on the DC line
- 500 MW Rainbow energy purchase agreement
- Natural gas hedges



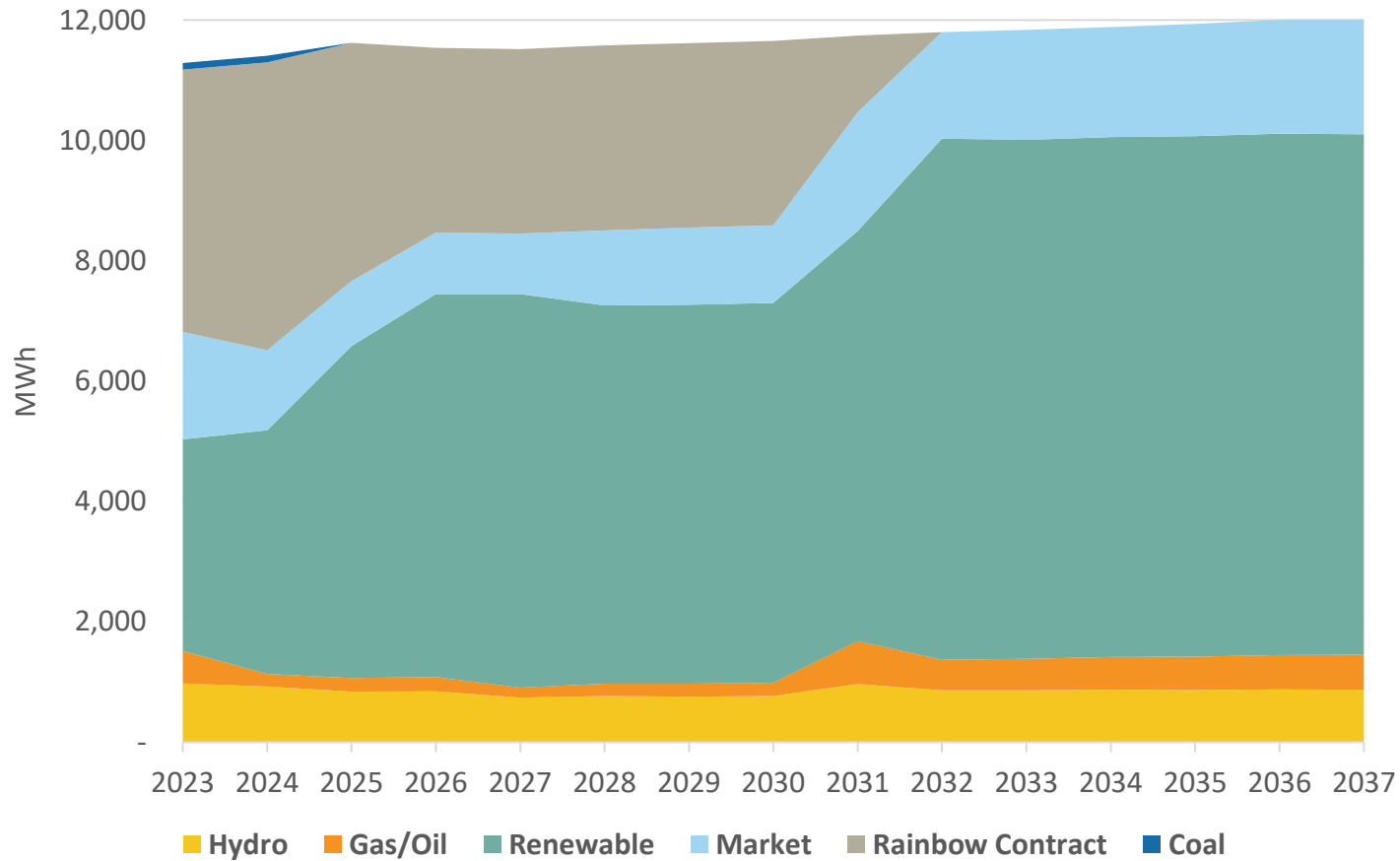
## Member resources

- Renewable member resource option
- Demand side management



## Market as battery

# Preferred plan energy



Data as of 2/20/23

# GRE resource plan takeaways



Tracking for compliance with the new carbon free standard and renewable energy standard



Received a good reception to our plan with respect to other utilities in the state, stable rate trajectory



GRE remains extremely well positioned with the portfolio actions taken in the past decade



Buildout of wind portfolio at advantageous pricing is an asset to the membership, even with current challenges

# GRE preferred plan



Preferred Resource Plan 2023-2037			
	Year	MW	Type
Planning Period	2023	105	Buffalo Ridge Wind
	2023	-500	Rainbow Energy, LLC PPA Reduction
		200	Deuel Harvest Wind
	2024	259	Dodge County Wind
		207	Three Waters Wind
		1.5	Form Energy Battery Storage
	2025	400	ND Wind
		-200	Rainbow Energy, LLC PPA Reduction
	2030	200	Storage Resource
	2031	-350	Rainbow Energy, LLC PPA Reduction
		200	Solar Resource
	2032	400	Wind Resource



# Carbon-free standard

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- ▶ Stepwise carbon-free standard (CFS)
  - 80% or 60% (for cooperatives) by 2030
  - 90% by 2035
  - 100% by 2040
- ▶ Carbon-free: “technology that generates electricity without emitting carbon dioxide.”
- ▶ Renewable energy standard (RES) increased to 55% by 2035

# GRE position

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- ▶ GRE is well positioned for compliance with minimal actions
- ▶ Decisions that GRE and members have made since 2010 have planned for a carbon constrained policy landscape
- ▶ What is GRE adding in the future and how it fits with the CFS / RES?



# Renewable energy and GRE

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- ▶ GRE's move to a renewable heavy portfolio has been driven by cost benefits and policy risk mitigation
- ▶ Renewable Member Resource options for membership
- ▶ Challenging current environment underscores importance of early action taken by GRE and members
  - Permitting
  - Supply chain challenges
  - Inflationary pressures

# Industry challenges



- ▶ Continue to see pressures in costs
- ▶ Aggressively driving up the price of renewable energy during this time of mandates
- ▶ GRE is well-positioned to deal with this with funding opportunities and previous actions

## Inflation

- Turbines, equipment, commodities, land, labor
- Private industry cost of labor up 13% from Q2 2020 to Q2 2023

## Interest rates

- U.S. 10-year Treasury Rate has increased nearly 100% over the last two years

## Wind industry cost trends

- Equipment costs increases of 33%+ since Q1 2021
  - Turbines, GSU
- NYSE US Steel Index is up 50% from EOY 2021

# Wind additions

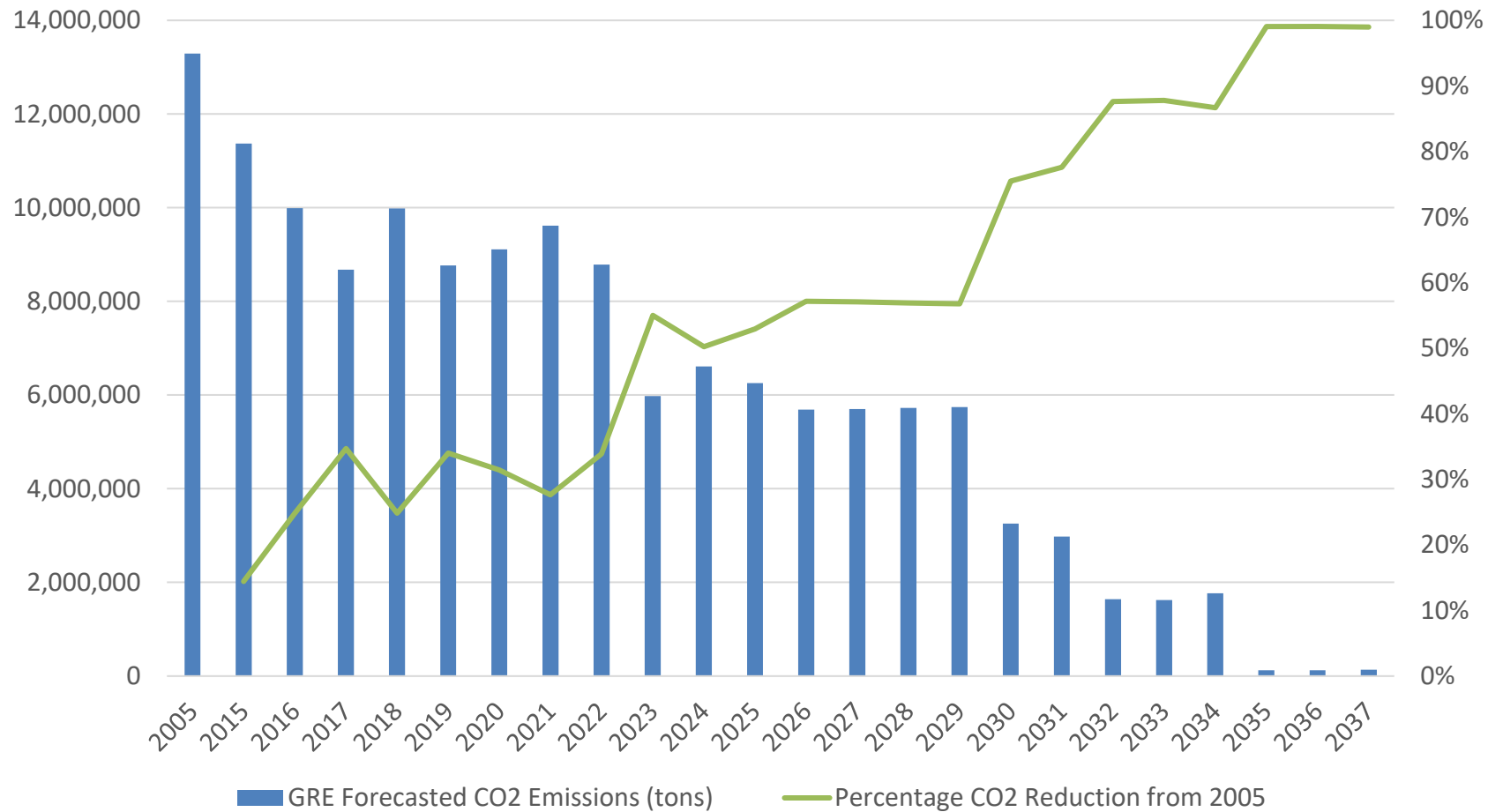
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Wind will continue to serve as the major energy resource in GRE's portfolio providing fixed price, low-cost energy in long-term contracts over the next 20 years

Surplus interconnection projects

GRE is well positioned to meet new Minnesota carbon-free standard

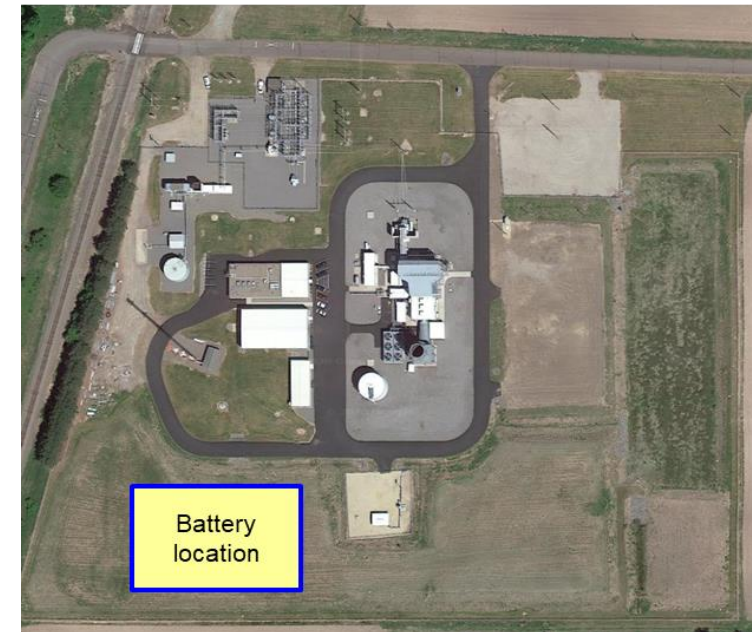
# GRE decarbonization plan



# Form Energy storage project



- ▶ Long duration storage pilot project
  - Owned by GRE
  - Developed by Form Energy
  - 1.5MW / 150MWh multi-day storage system
  - Fall 2024 commercial operation
  - Located at GRE Cambridge Peaking Station
- ▶ Goals
  - Experience with long duration storage
  - Prove & improve iron-air technology to support 100+ MW capability ~2030

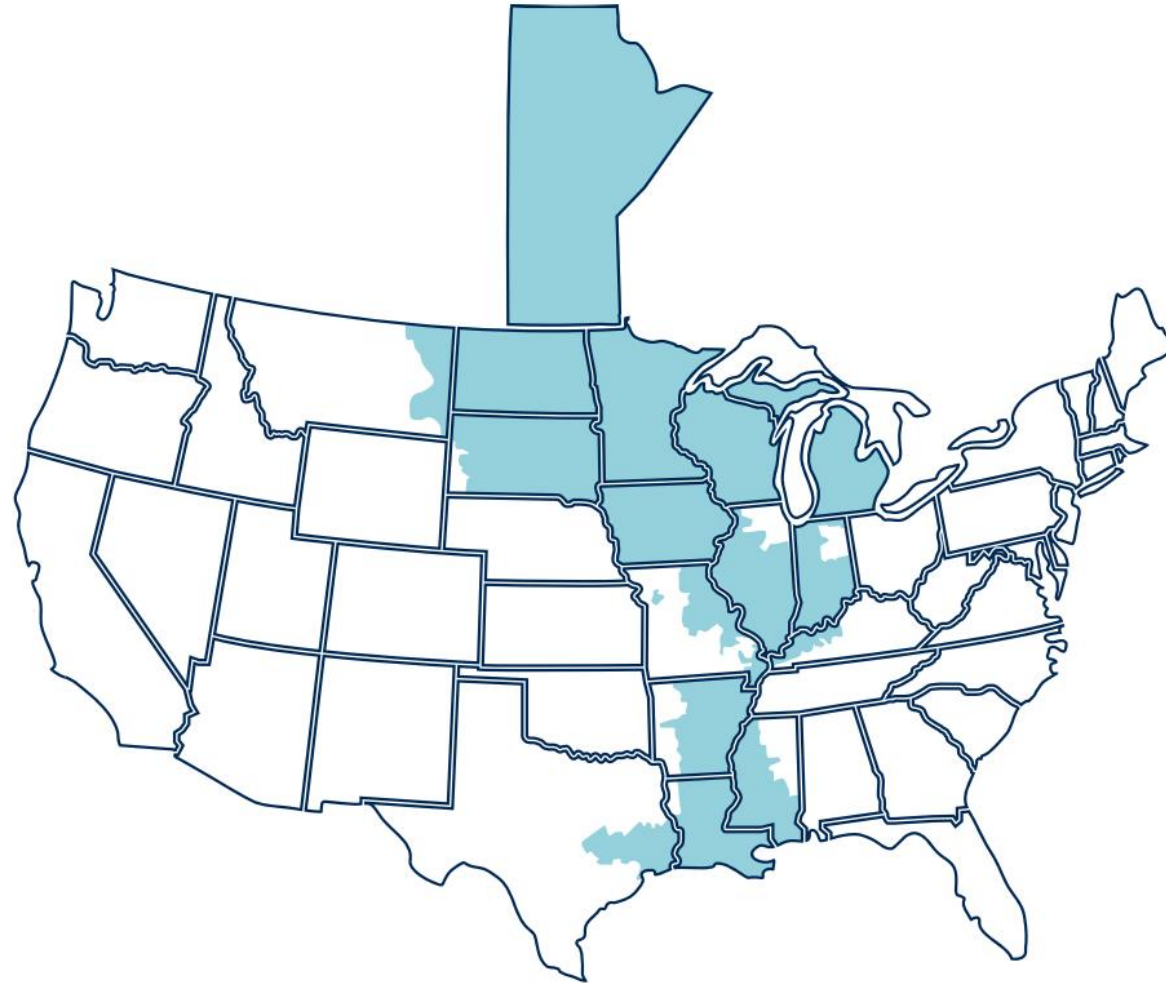


# Form Energy

COMPETITIVE



# MISO membership



# Empowering Rural America (New ERA)



USDA (RUS) program created by the Inflation Reduction Act (IRA) for current or former RUS borrowers

- ▶ \$9.7B appropriation, capped at \$970M per entity with awards disbursed as
  - Grants (25% of project)
  - Low-interest loans (2% - treasury)
  - Grant + loan combinations for new clean energy projects
  - Zero-interest loans for stranded asset refinancing





# New ERA summary

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- ▶ New ERA is largest program in IRA for electric cooperatives. Seeks maximum GHG emission reductions through RUS grants and loans
- ▶ Focus on community development and benefits
- ▶ GRE requesting the maximum amount of available funding from USDA and advancing proposals for all member-owner projects
- ▶ Process has entailed extensive work with member-owners, GRE divisions, developers, and external parties
- ▶ Letter of Interest submitted September 14



# New ERA next steps

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- ▶ GRE submitted consortium LOI on September 14
  - Ongoing work will continue to advance many projects
- ▶ USDA will invite GRE to submit a full application
  - Triggers 60-day application window
- ▶ GRE and member owners individually prepare full applications, anticipated to be due end of 2023
- ▶ Funded projects must be operational by September 2031, otherwise forfeit eligibility
- ▶ Grants received upon project completion

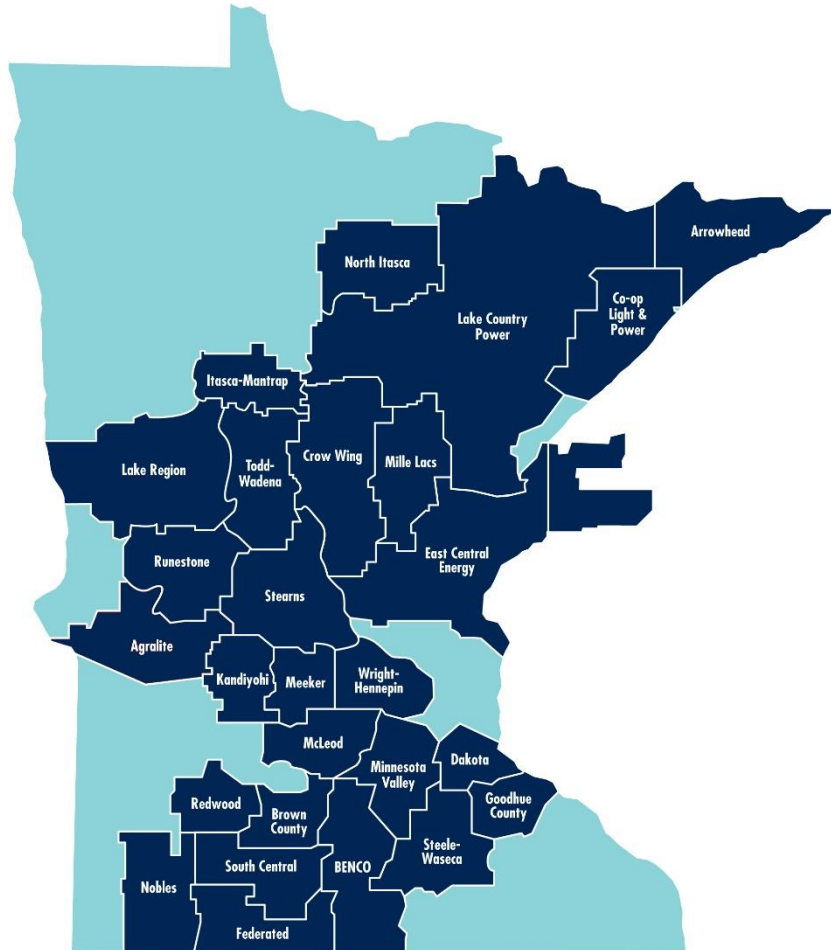
# Portfolio takeaways

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- ▶ What to take away from today about the plan
  - Portfolio is a highly competitive carbon-free generation mix by the end of the planning period
  - Renewable energy tracking for RES compliance
  - GRE anticipates meeting 2030 carbon free standard interim 60% goal with no problems
  - 2035 goal looks very attainable with current mix in preferred plan
  - Low-risk, low-cost portfolio while ensuring reliability

# Our collective strength



- ▶ Diversified, innovative membership
- ▶ Excellent power supply assets
- ▶ Reliable transmission system
- ▶ Access to capital and energy markets



**KPC**

**KANDIYOHI POWER**  
— COOPERATIVE —

# 2023 BY THE NUMBERS

**\$56,905.50 saved  
by members using  
rebates**

**8,452 members  
assisted over the  
phone by Member  
Services**

**23 water heaters  
sold**

**3,139 households  
on a load  
management  
program**

**24 full-time  
employees**

**7,493 member-  
owners**

**9,019 services**

**4,115 miles of  
wire**

**5.5 members per  
mile of line**

# DISTRIBUTED ENERGY RESOURCES

## APPLICATIONS

- 7 renewable applications were filed in 2023.
- Proposed 90.788 kW in generation.
- All of these applications were for solar.

## COMPLETED

- 8 renewable systems were completed in 2023.
- Resulting in 137.828 kW of connected generation.

## COMMUNITY SOLAR

- Member-owners can purchase panel output from KPC's Community Solar Array.
- 69,909 kWh were produced on our Community Solar in 2023.

**Pole top and bucket rescue**

**Multiple safety trainings yearly**

**Attend Safety conferences**

**Staying up to date company  
wide on annual compliance  
trainings**



# **SAFETY TRAINING**



# OPERATIONS HIGHLIGHTS

New Services – 94

Retired & Removed Services – 13

ASAI (Average Service Availability Index) – 99.964%

Number of Service Orders Processed – 1,583

Miles of Line Installed – 31 Miles







# OPERATIONS HIGHLIGHTS

Total poles inspected – 1,525 (7.8)

Total poles rejected and in need of replacing in 2024 – 50

Rejection rate – 3.28%

One major storm event occurring on July 25 with wind and broken poles being the main reason for sustained outages



# JULY 25TH STORM

Total number of members  
affected with a power interruption  
4902

Total broken poles 16

Multiple conductors down system  
wide

Maximum outage duration 60  
hours and 30 minutes



# INFORMATION TECHNOLOGY

## CYBERSECURITY

- Firewalls
- Endpoint Detection and Response
- Email Security
- Employee Awareness
- Security Information and Event Management
- Data Encryption
- Multifactor Authentication
- Cyber Threat Trends
- Tabletop Exercises





# INFORMATION TECHNOLOGY



## INFRASTRUCTURE

- Hardware and Software
- Networks and Connectivity
- Data Centers
- Phone System
- Radio System
- Backups
- AMI



## APPLICATIONS

- Customer Billing and Management
- Accounting and Business Solutions
- Geographic Information System
- Engineering and Staking
- Outage Management
- Fleet Tracking
- MDMS

# GRANT OPPORTUNITIES FOR KPC

## NEW ERA (USDA)

- Federal grant program specifically for Electric Cooperatives, grant provides 25% of total project cost.
- KPC applied and has been allotted grant dollars for 3 projects in New ERA:
  - Solar Array to self produce 10% of energy
  - Large Battery System
  - Load Controller change out
- Staff is still assessing long term impacts of cost and benefit of projects.
- Grants have many off ramps if leadership chooses to pass on funding.

## GRIP (DOE)

- The GRIP grant program is designed for increasing the resiliency of the grid. It provides 50-75% funding of a project.
- KPC applied for replacement of traditional reclosers to electronic reclosers in this funding round.
- Replacing this infrastructure will reduce truck calls, allow staff to do switching from network, and provide a new established technology that's cleaner, safer, and more reliable in the field.

## STATE COMPETITIVENESS FUND (MN DEPT OF COMMERCE)

- Newly established fund from the State of Minnesota to help ensure that MN will receive a fair share of federal funding dollars.
- Provides funds from the state to offset matching requirements of Federal grants.
- KPC has been awarded over 1 million dollars from SCF for projects in the New ERA, and GRIP programs.

## Heating and Cooling Rebates

**Rebate program is subject to change or cancellation without notice. Completed rebate form and a copy of the original sales receipt within 90 days of purchase date required.**

- A/C & ASHP Tune UP.....\$25.00
- ASHP - Ductless  $\geq 1$  ton &  $\geq 14.3$  SEER2 &  $\geq 7.5$  HSPF2  
Primary Heat is Delivered Fuels.....\$300.00  
Primary Heat is Electric.....\$500.00
- ASHP  $\leq 5$  ton & QI (Quality Installation Required)  
 $\geq 14.3$  SEER2 &  $\geq 7.5$  HSPF2 .....\$500.00  
 $\geq 15.2$  SEER2 &  $\geq 8.1$  HSPF2 .....\$800.00
- Electronically Commutated Motor (ECM)  
Replacement Only (Energy Star).....\$50.00
- GSHP - per ton (Energy Star).....\$250.00
- Smart Thermostat.....\$25.00
- ETS Space Heating - per Kw  
(Load Management Required).....\$25.00

## Limited Time ASHP Promotion

**Promotional rebate program is subject to change or cancellation without notice. Completed rebate form and a copy of the original sales receipt within 90 days of purchase date required.**

- ASHP - Ductless  $\geq 1$  ton &  $\geq 14.3$  SEER2 &  $\geq 7.5$  HSPF2  
Primary Heat is Delivered Fuels.....\$400.00  
Primary Heat is Electric.....\$600.00
- ASHP  $\leq 5$  ton & QI (Quality Installation Required)  
 $\geq 14.3$  SEER2 &  $\geq 7.5$  HSPF2 .....\$600.00  
 $\geq 15.2$  SEER2 &  $\geq 8.1$  HSPF2 .....\$900.00
- Promotion runs May through August - must be purchased and installed no later than August 31, 2024.



# SMARTHUB AND AUTO PAY

3,115 member-owners have  
signed up for SmartHub

5,484 member-owners are on  
auto pay







# COMMUNITY

From hanging flags to driving in parades. From classroom education to Toys for Tots collection. We do it all for our local community because we are your neighbors.



# **YOUTH TOUR 2023 DELEGATE: HUNTER**





# MEMBER EVENTS

# **ATTEND A KPC GATHERING**

- **Meet KPC Employees and Directors**
- **Share your ideas and feedback**
- **Learn about our products and services**
- **Meet your neighbors**
- **Communicate with your fellow member-owners**
- **Contribute to strategic initiatives**
- **In 2024, a gathering of KPC member-owners in the City of Kandyohi is being planned**



# PARTNERS FOR EV TRAINING

**Industry generosity ignites new electric vehicle service course at Ridgewater College.**

**KPC and Great River Energy joined forces with Ridewater's Automotive Service Technology program to expand EV training.**

**Donations from KPC's unclaimed Capital Credits and Great River Energy were instrumental in obtaining the EV training simulator and its software for the new course.**



# NRECA'S RE MAGAZINE FEATURES

DECEMBER 2023

## BEHIND THE SCENES



### PERFECT PITCH

Minnesota co-op powers concert with F-150 Lightning to educate members about EVs

By Erin Kelly

On a crisp fall day in an apple orchard in central Minnesota, people gathered to listen to The Goodtime Gals and the Mississippi Hot Club bands perform at a harvest festival.

But what the 200 or so festivalgoers weren't expecting was that the sound coming through the speakers was being brought to them courtesy of the battery power of an electric pickup truck owned by their local electric cooperative.

In what just may be the most creative public demonstration by an electric co-op of what an EV can do, Spicer-based Kandiyo Power Cooperative brought its Ford F-150 Lightning to power the band's speakers, amplifiers, LED lights, mixing console and other equipment. Electrical cords stretched out straight from the stage to the pickup, which has outlets in the cab, the truck bed and in the "frunk" (front trunk).

For the next six hours, the truck's Pro Power Onboard, which turns the vehicle into a big power bank on wheels, provided electricity to the concert in both daylight and darkness without a hitch. It also attracted interest from concertgoers, who were informed by the bands that the co-op's EV was powering the event.

People were surprised to learn that the concert used only about 6% of the pickup's capacity of 151 kilowatt-hours, says co-op data analyst Christopher Radel,

**"We're trying to learn as much as we can and use our own experiences to provide advice to those who are interested, allowing them to make informed decisions."**

— Ryan Nelson, CEO, Kandiyo Power Cooperative

MARCH 2024

## TRAINING EV TECHS



By Reed Karaim

Electric vehicles are gaining in popularity, but as the EV fleet expands, so does the need for trained EV technicians when maintenance or repair needs arise. Kandiyo Power Cooperative, based in Spicer, Minnesota, and its G&T, Great River Energy, headquartered in Maple Grove, Minnesota, are working with a local community college to meet the need for qualified EV techs.

Representatives from Kandiyo Power Co-op, Great River Energy and Ridgewater College with an EV training system

KPC donated \$73,408 in unclaimed capital credits and Great River Energy contributed \$12,000 toward the purchase of an EV training simulator along with associated course materials at Ridgewater College in Willmar, Minnesota.

For KPC, says CEO Ryan Nelson, supporting the effort is part of the co-op commitment to members and community. One concern about EV ownership the co-op has heard from members, he notes, is whether someone qualified will be available to work on their EV when necessary.

"Workforce development is a critical but often-overlooked piece of the electric vehicle transition," Nelson says. "If the dollars we donate alleviate some of these concerns and help students in our community, I consider that a good investment."

Ridgewater College's curriculum already offers some EV safety and operations instruction, but the new simulator will provide students important hands-on experience in troubleshooting hybrid, plug-in electric and even fuel cell vehicles, says Jon Friton, Ridgewater automotive service instructor.

The donation will also be used for instructor training, battery packs and electric motors students can work on in a new course that began in February. The class allows students "to dive deeper into the exciting and advanced world of electric vehicles," Friton says. He adds that nearly half the program's current students plan to take the training.

Rodney De Fouv, Great River Energy member electrification strategist, says supporting the effort is an example of how the G&T and other co-ops are working to make sure members and their communities are prepared "when it comes to the ramifications of emerging technologies."

**"WORKFORCE DEVELOPMENT IS A CRITICAL BUT OFTEN-OVERLOOKED PIECE OF THE ELECTRIC VEHICLE TRANSITION."**

— Ryan Nelson, CEO, Kandiyo Power Cooperative





# AWARDS AND RECOGNITION

Recipient of the First Annual Impact Award from Ridgewater College

Minnesota Governor's Work Safety Award

MRET Leroy Vanderpool Award

Battle of the Businesses 1st Place Curling





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— COOPERATIVE —







*Thanks for coming!*

**KPC** KANDIYOHI POWER  
COOPERATIVE

KPCC

KANDIYOHI POWER  
— COOPERATIVE —

*2023 Year in Review*



# **FINANCIAL REVIEW**

## **2023**

**Patrick Krueger**  
**Chief Financial Officer**

# BALANCE SHEET

## 2023 Highlights

Total Assets = \$74,936,440

**Kandiyohi Power Cooperative** experienced **year-over-year growth** in total utility plant assets of **3.31%**.

**\$1,256,194** in capital credits were retired **back to our members** during the year.

Electric Plant  
(Net of Depreciation)

\$53.5 Million

Extension & Replacement  
of Electric Plant

\$3.5 Million

Great River Energy:  
Capital Credits *Allocated*\*

\$722,397

Great River Energy:  
Capital Credits *Retired*\*

\$488,413

Kandiyohi Power:  
Capital Credits *Retired*\*

\$767,781

Equity Ratio:  
As a % of Total Assets

48.0%

*As of December 31, 2023, KPC has retired \$22,450,598 back to our members.*

# OPERATING STATEMENT

## 2023 Highlights

**Total Margins = \$2,631,637**

**Kandiyohi Power Cooperative**  
provided **Sales of Electric Energy**  
totaling **\$23,071,989** in revenue.

Total # of Services Provided: **9,019**

Total # of kWh Sold: **167,950,943**

Operating Expenses

**\$21,872,941**

Operating Margin  
before Capital Credits

**\$1,199,048**

Capital Credits Allocated  
from Associated Organizations

**\$855,733**

Operating Margins

**\$2,054,781**

Non-Operating  
Margins

**\$576,856**

Net Margins  
**\$2,631,637**

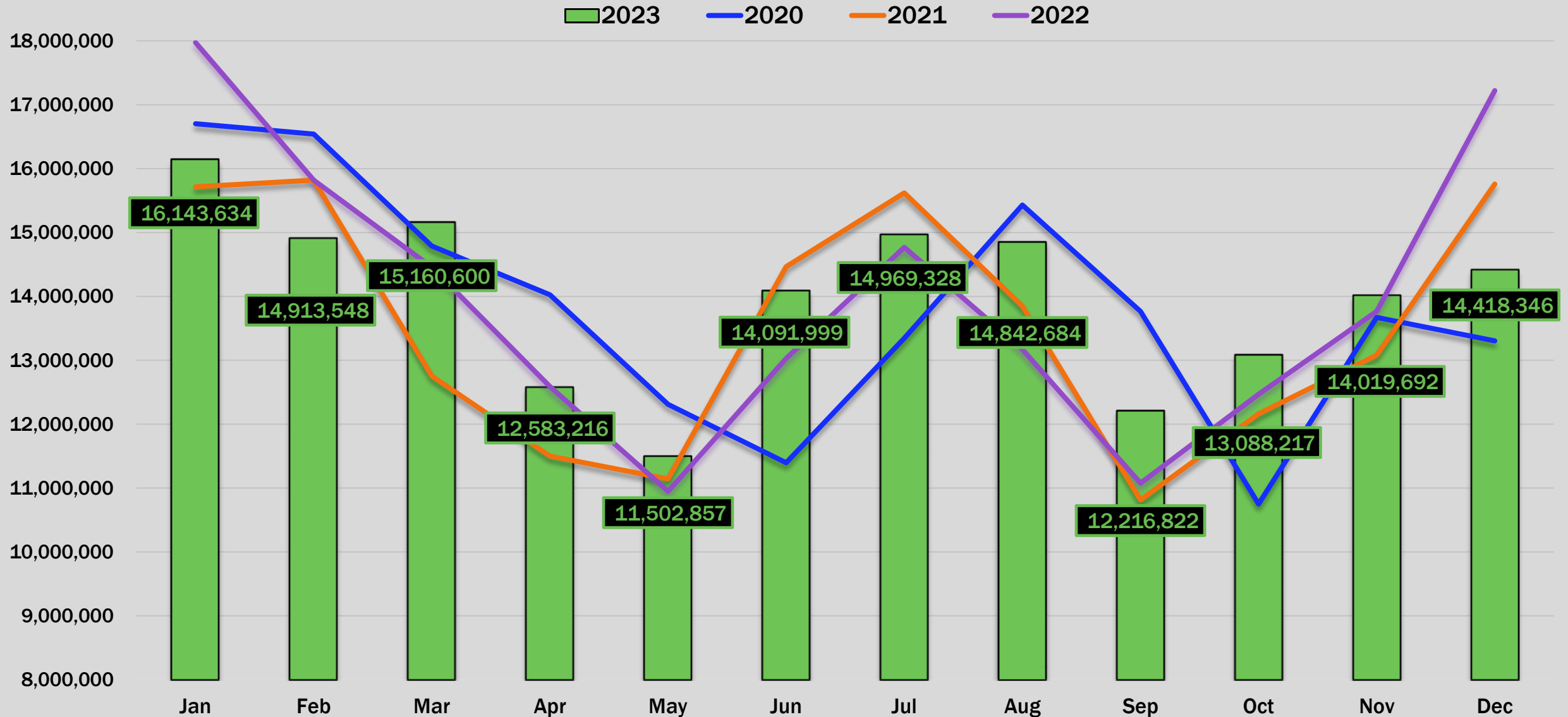
Patronage Allocated  
**\$2,358,499**

*KPC has allocated 89.6% of 2023 margins  
back to our cooperative's member-owners.*

# KWH SALES

kWh Sold: 167,950,943

Electric Revenue: \$23,071,989

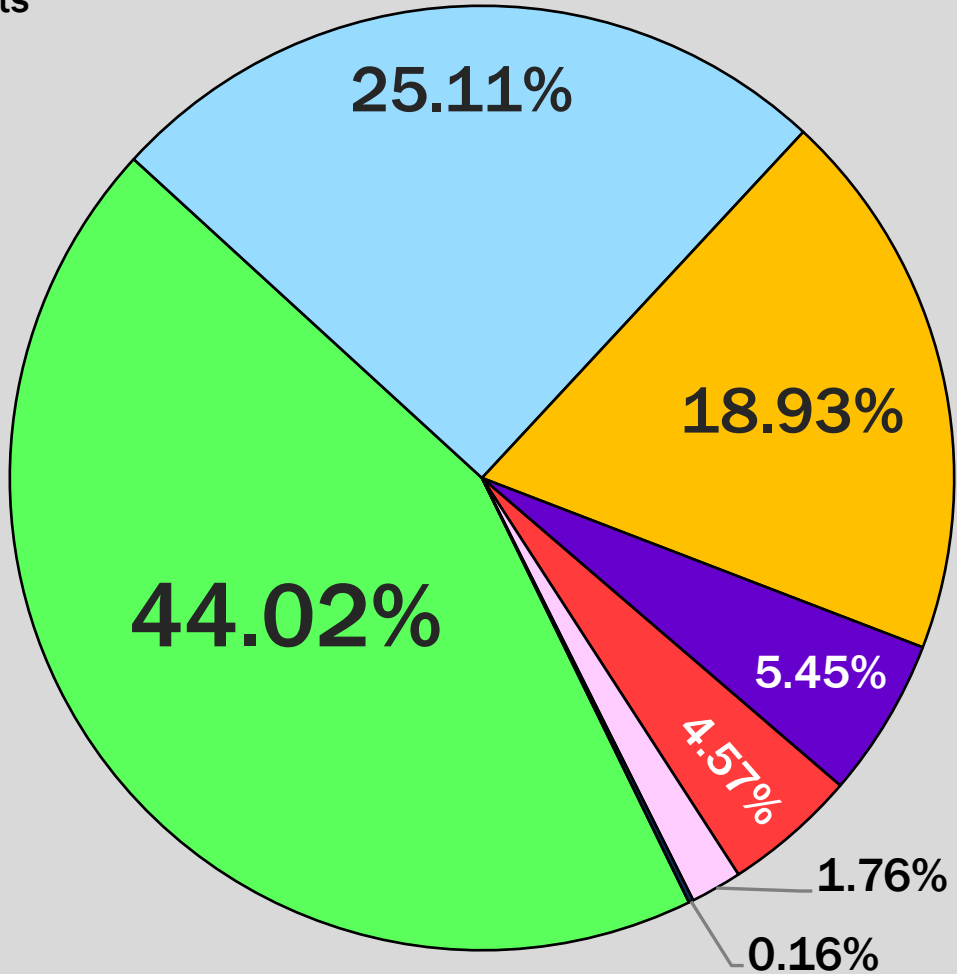




*Where the dollars came from...*

## ENERGY SALES BY RATE CLASS

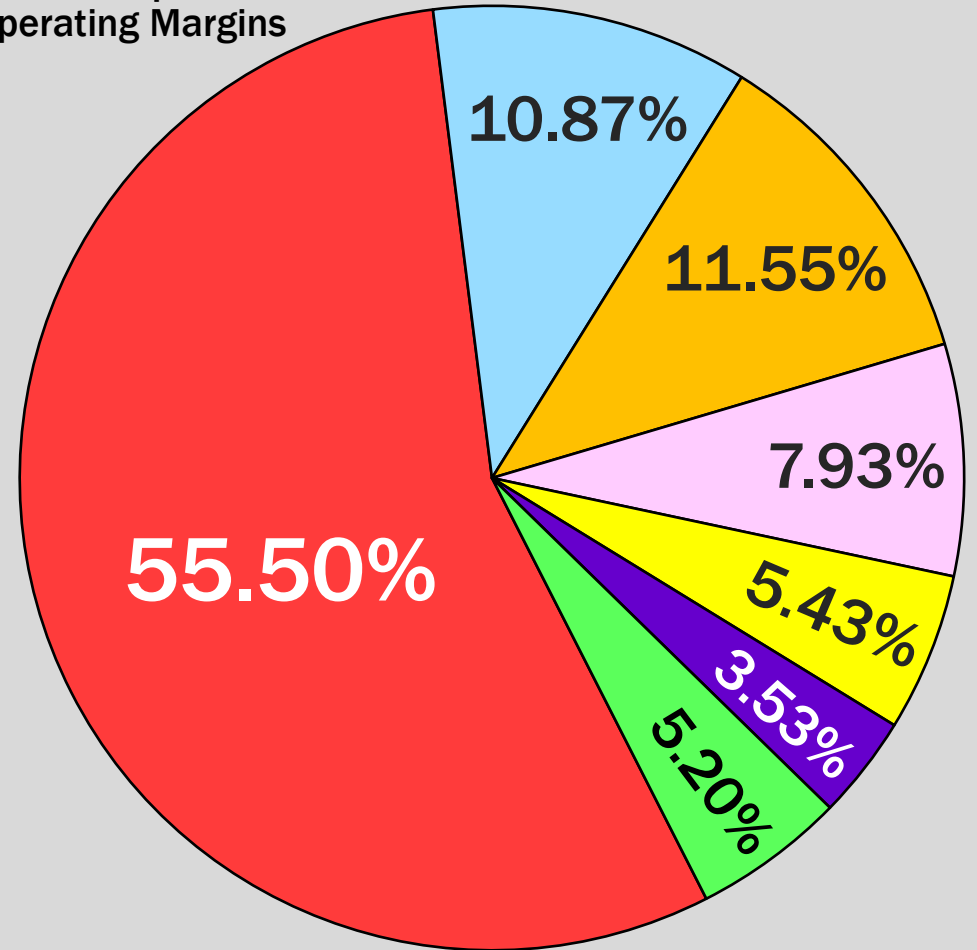
- Residential
- Small Commercial
- Farm
- Seasonal
- Large Commercial
- Irrigation
- Lights



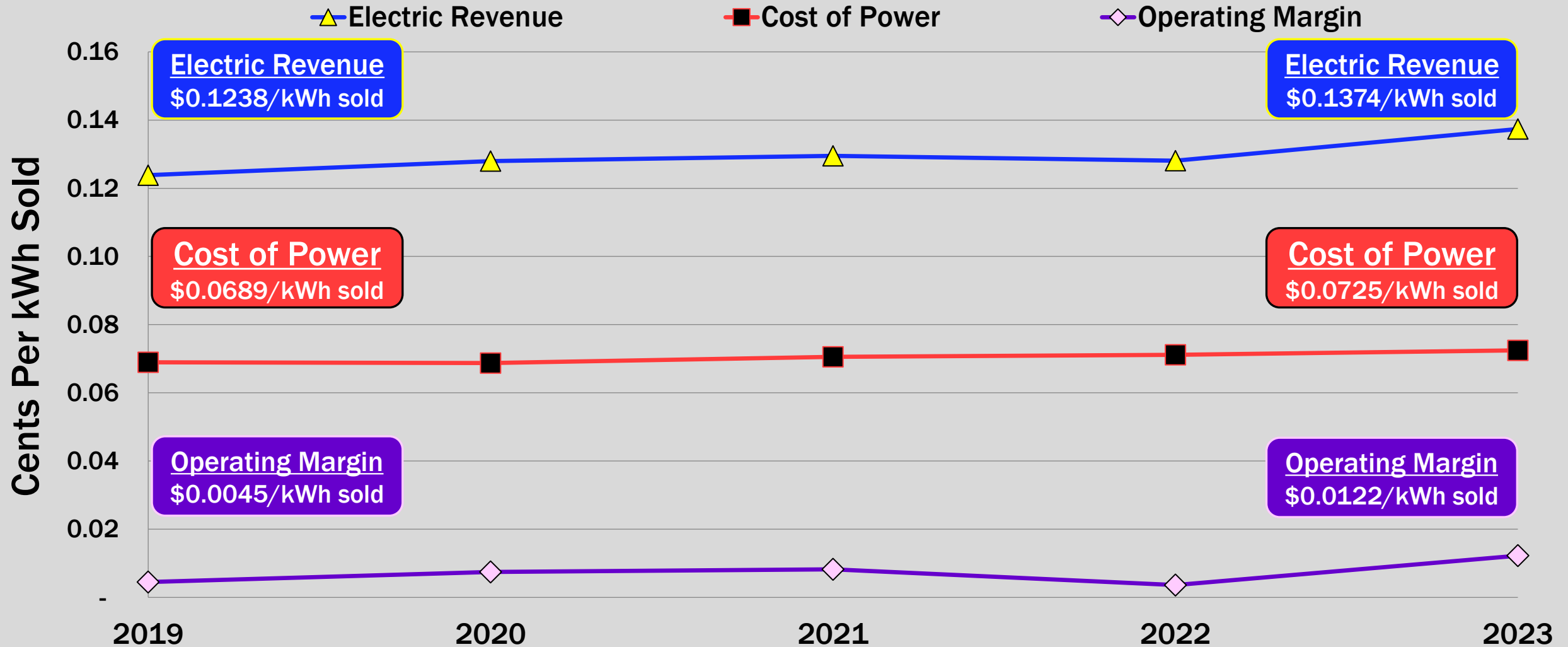
## COST OF ELECTRIC SERVICE

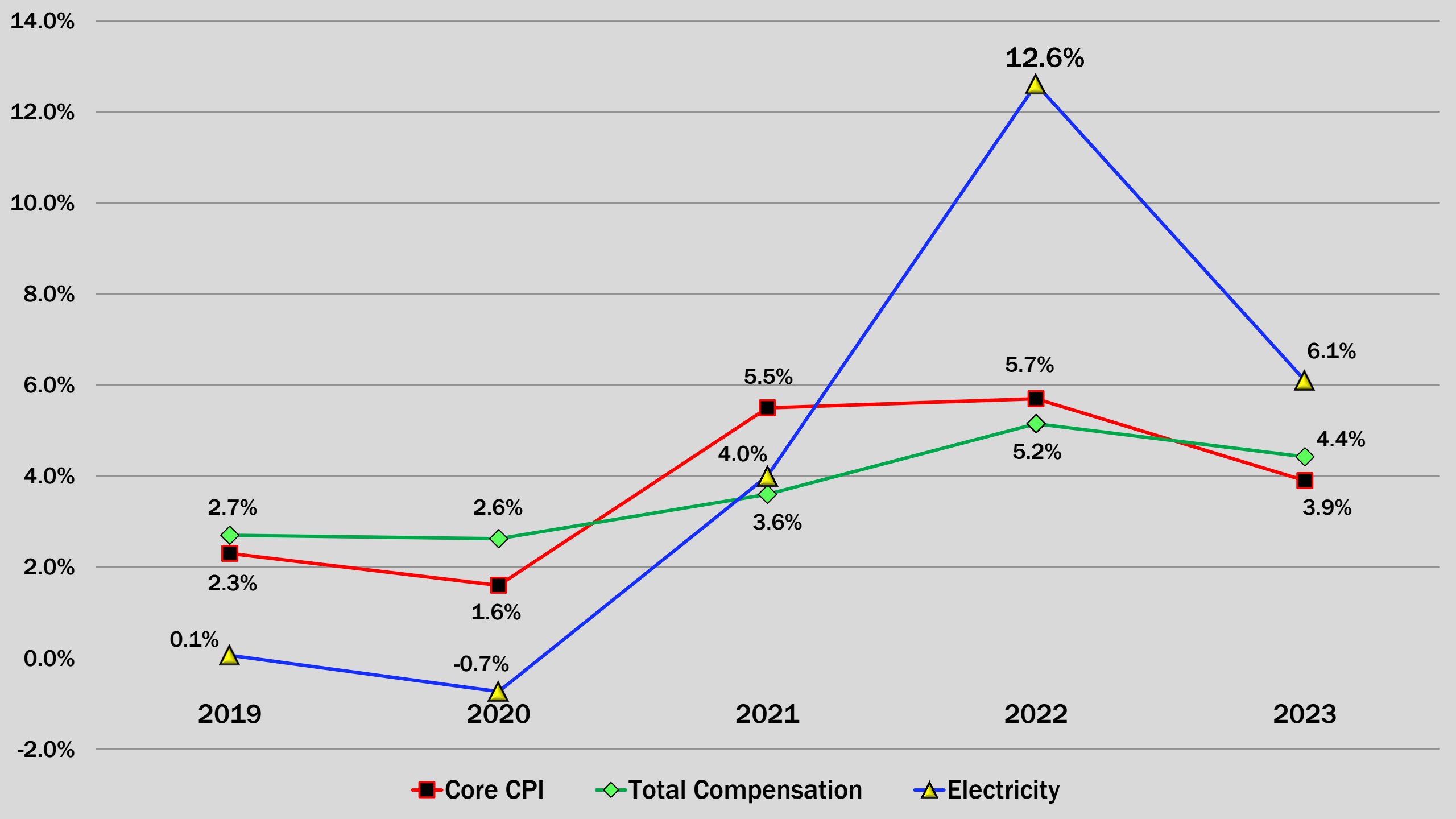
*Where the dollars went...*

- Power Cost
- Operations & Maintenance
- Interest Expense
- Operating Margins
- Depreciation
- Administrative & General
- Customer Service



# OPERATING MARGIN PER KWH SOLD





# POWER COST ADJUSTMENT (PCA)

\$195.00

Effective 2023 Energy Charge Decrease = 5.28%

Reading Date: July 31, 2023 to August 31, 2023

Energy Charge 1102 KWH @ 0.12826 \$141.34

Access Charge \$48.00

Wholesale Power Cost Adjustment \$8.12CR

\$145.00

\$95.00

\$45.00

\$(5.00)

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

■ Reduced Energy Charge ■ PCA

\$31.19

\$8.12

\$5.70

\$1.71

\$0.74

\$0.92

\$(2.14)

\$4.10

\$6.67

\$6.35

\$4.22

\$2.60

Established by Great River Energy in 2000 in response to the purchase power price shock in 1999.

Monthly true-up to protect GRE's bottom line from some budget variances, including:

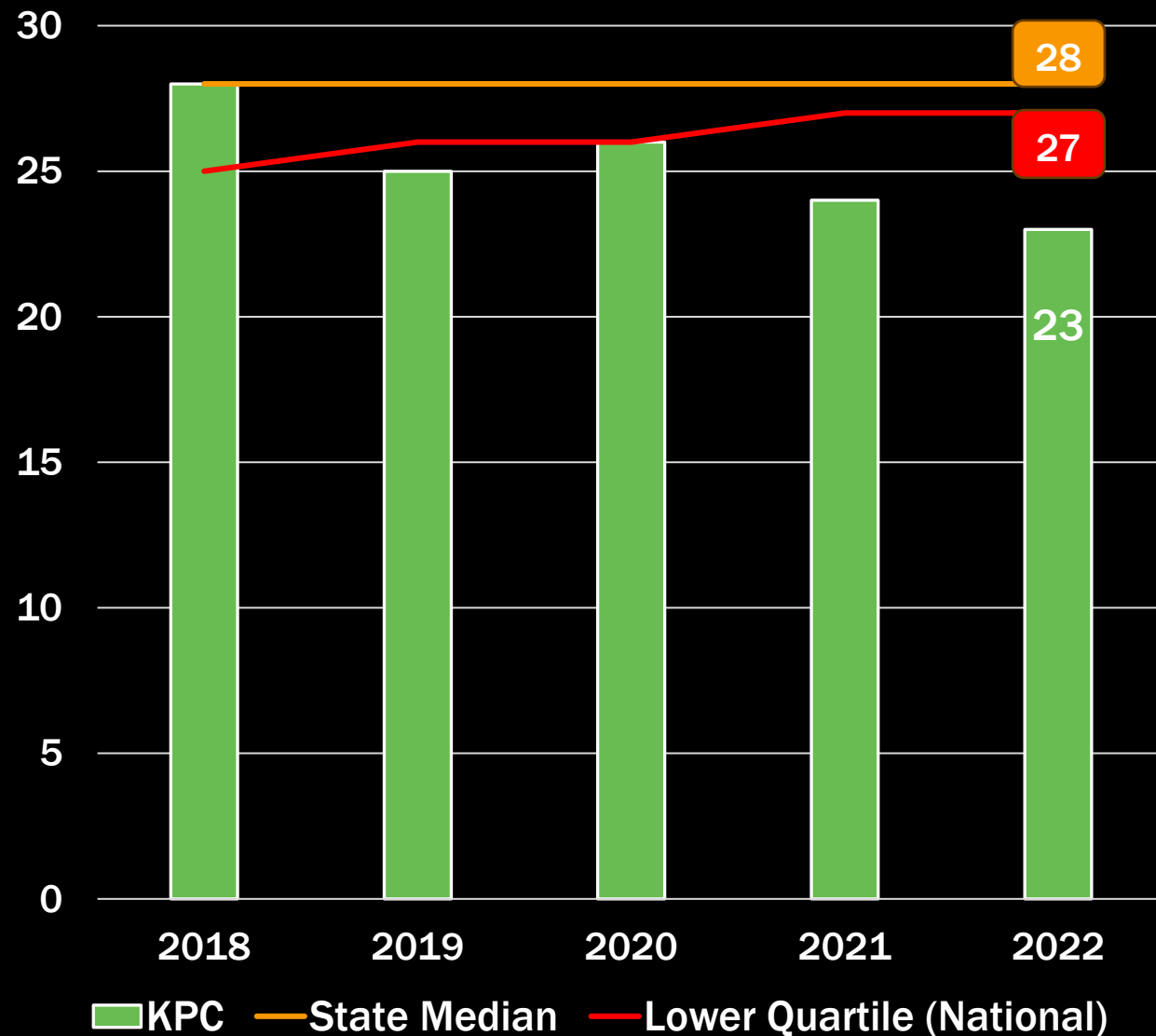
- Fuel
- Power contracts
- Market activity

Credit in 11 of 12 months in 2023.

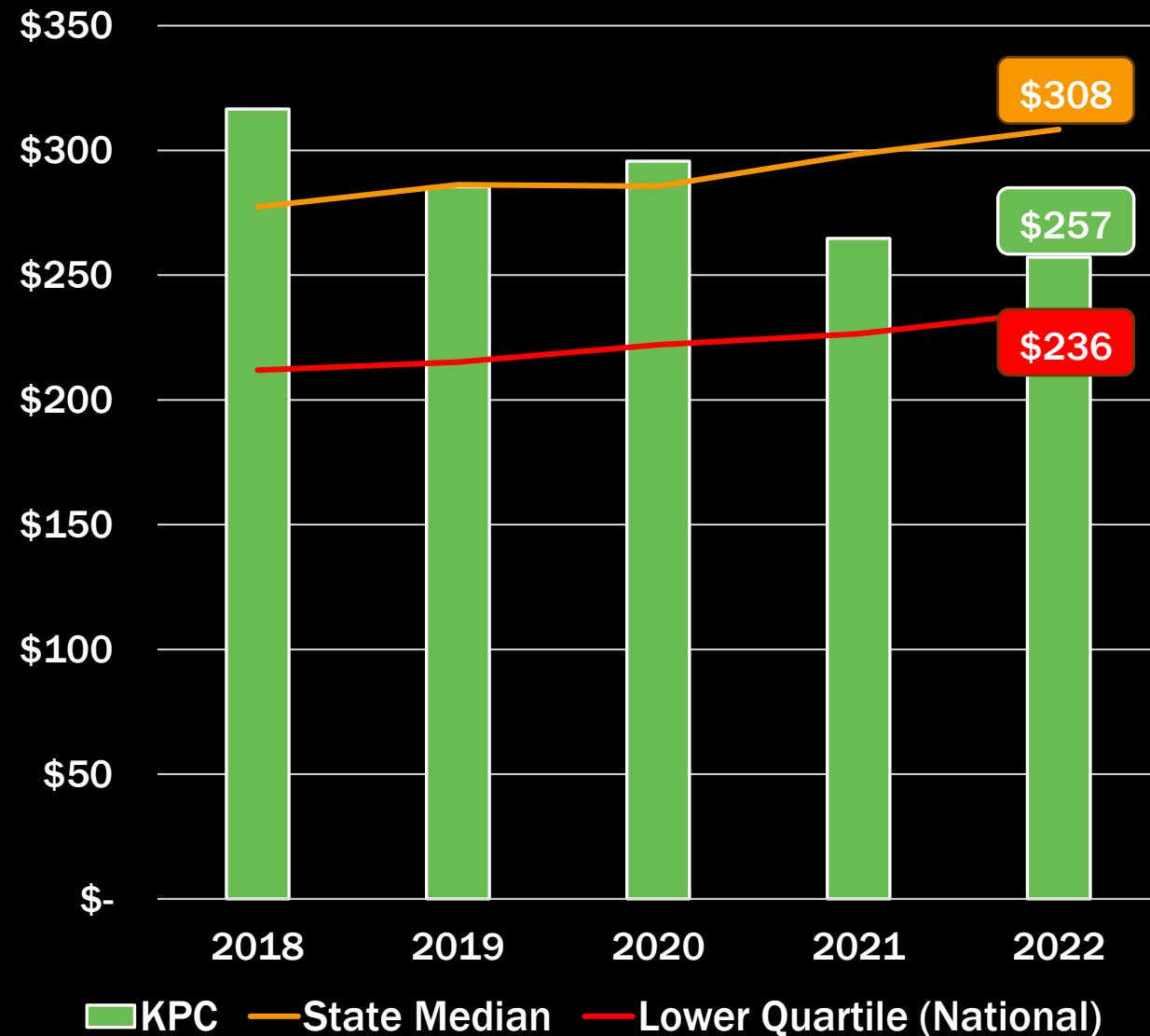
KPC passed through net PCA credits of \$939,380 to members in 2023.

# The Right Team: Employee Efficiencies

## KRTA # 4 - Total # of Employees



## KRTA # 110 - Total Wages/Consumer





*... and here we go again!*

7/25/2023 Storm

\$128,804  
Total Damages







*Thanks to  
folks like this...*

- 4,902 member outages were restored in under 60 hours



- \$96,603 in damages recovered (MN HSEM Public Assistance)



# COMMUNITY IMPACT

KPC Donations	\$ 11,217
Unclaimed CC	9,830
Sharing Success	2,500
	<u>\$ 23,547</u>

KPC \$2,500  
 Kandiyohi County YMCA  
 CoBank \$2,500

Ridgewater EV Program

Operation Round Up



Unclaimed Capital Credits



*Vera  
May  
Krueger*



*6.26.2023*

*This concludes the 2023 Financial Review.*

If you would like additional information related to today's presentation, a full copy of the 2023 financial statements and an article explaining the details of the 2023 patronage allocation can be found in the April edition of *The Kilowatt*.



KANDIYOHI POWER  
COOPERATIVE

Thank you for being a Kandiyo Power Cooperative member-owner.



# OPERATION ROUND UP

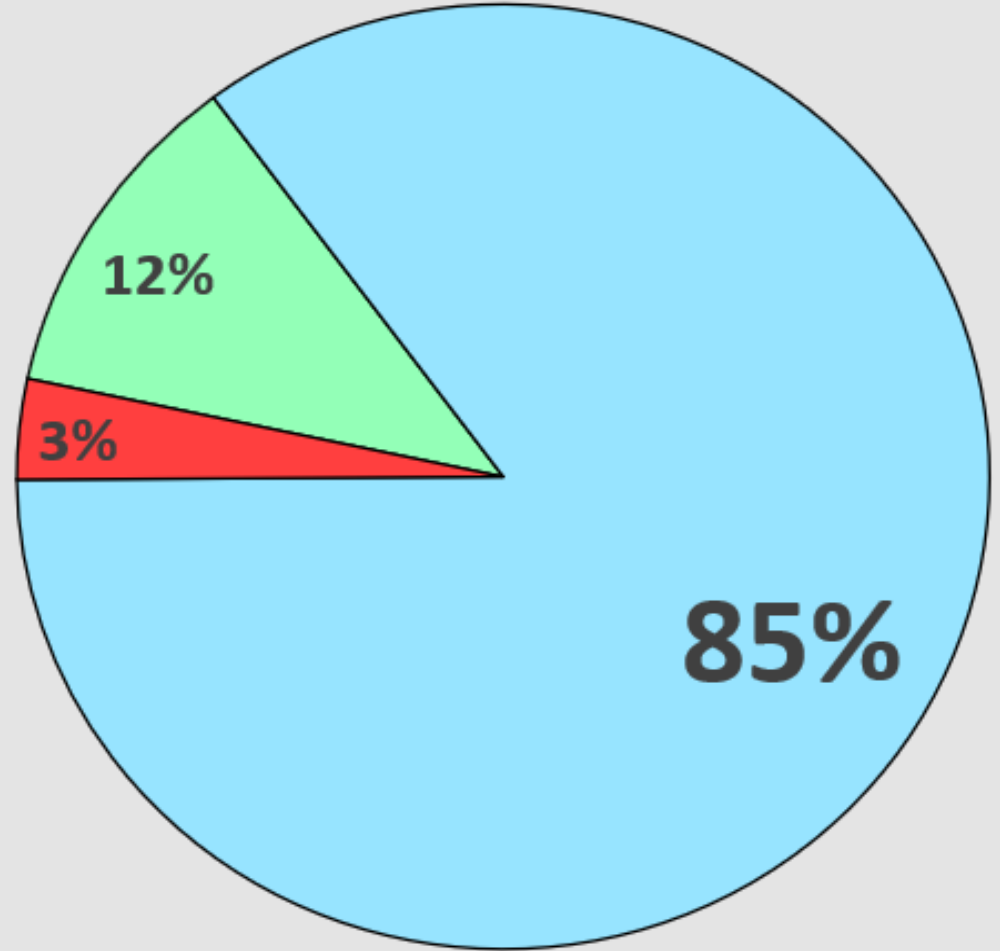


## Operation RoundUp

For the Year Ended December 31, 2023

Cash Balance at 01/01/2023		\$47,465.74
Contributions Received		46,489.66
Interest Earned		98.82
<b>Donations Made:</b>		
Education/Youth	6,700.00	
Community Service	49,550.00	
Emergency Relief	2,000.00	
<b>Total Donations</b>		<u>(58,250.00)</u>
Miscellaneous Expense		<u>(325.54)</u>
<b>Current Cash Balance</b>		<u>\$35,478.68</u>

*Over \$58,000 in donations to 49 local organizations!*



Education/Youth    Community Service    Emergency Relief

*Thank you for attending the 2024 Annual Meeting.  
See you next year!*

