



# **CHARGING FORWARD**

2021 Annual Report

# 2022 NIPCO Annual Meeting Presenters



## Todd Telesz

*CEO & General Manager • Basin Electric Power Cooperative*

Todd Telesz joined Basin Electric Power Cooperative in 2021. He brought with him more than 25 years of experience in finance and energy. Most recently, Telesz held the position of Senior Vice President of the Power, Energy, and Utilities Division at CoBank, where he had worked for 13 years leading the bank's initiatives across the generation & transmission cooperative, investor-owned utility, and midstream industries.



## Jim Horan

*Executive Director • Mid-West Electric Consumers Association*

Mid-West Electric Consumers Association is a customer group of 310 municipal and cooperative utilities from nine Upper Great Plains and Western States. Prior to joining Mid-West, Jim managed regulatory affairs for NRECA in Washington, D.C. He also served as Director of Government Affairs and General Counsel for the Minnesota Rural Electric Association (statewide).



## Matt Washburn

*Executive Vice President & General Manager • NIPCO*

In Matt's 20-plus year career with NIPCO, Matt has served as the Vice President of Management Services & Chief Financial Officer for the generation and transmission cooperative and held the position of Senior Vice President and Chief Operating Officer before being named to lead NIPCO in 2015. Matt also served as the Chief Operating Officer of NIPCO Development Corporation, a subsidiary of the Cooperative, from 2006 until its operations were merged into the Cooperative in 2011.



## Elaine Johns

*President/CEO • EnerVision, Inc.*

Elaine Johns has over 35 years of consulting experience in areas ranging from strategic planning, power supply planning, utility rates, marketing, and economic analysis. She is one of the founders and current President/CEO of EnerVision, where she heads the company's nationwide consulting and business development efforts. Previously to EnerVision, she was a 13-year employee at Oglethorpe Power Corporation and led the Analytical Team that helped define the landmark restructuring of Oglethorpe Power.

# 2022 NIPCO Annual Meeting Agenda

Tuesday, April 5, 2022

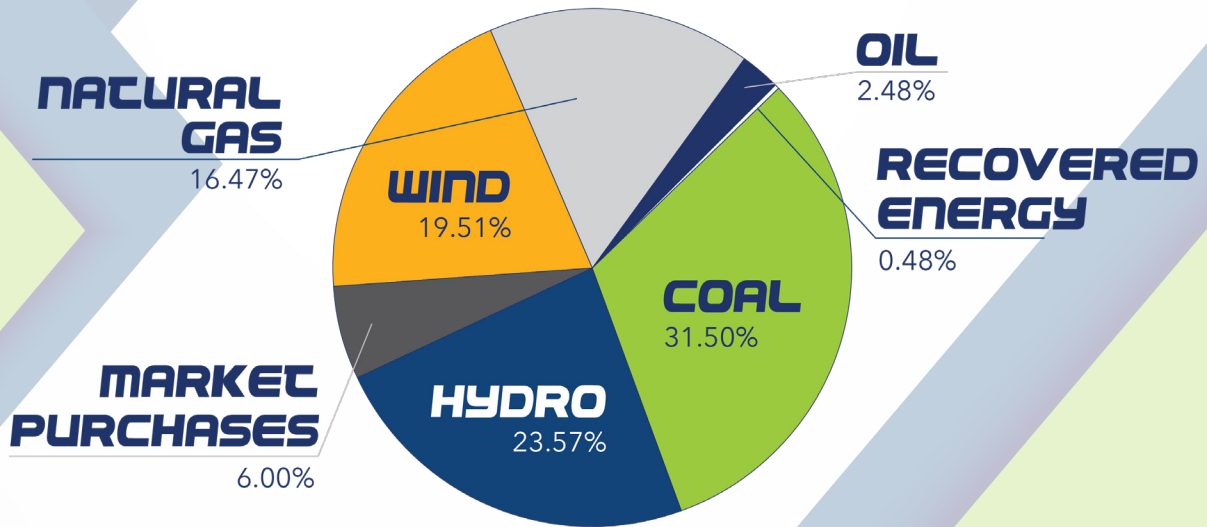
8:00 AM	Continental Breakfast. ....	Salon B
9:00 AM	Business Meeting .....	Salon A
9:30 AM	Basin Electric Power Cooperative Update - Todd Telesz .....	Salon A
10:00 AM	Mid-West Electric Consumers Association Update - Jim Horan .....	Salon A
10:30 AM	BREAK .....	Salon B
10:45 AM	NIPCO Update - Matt Washburn .....	Salon A
11:15 AM	Let's Talk Crypto! - Elaine Johns .....	Salon A
12:00 PM	LUNCH .....	Salons B & C

\*NIPCO Directors will meet in the Dakota Room at Noon for a brief re-organizational meeting.

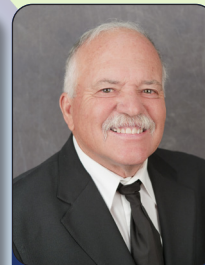
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# 2021 GENERATION PORTFOLIO



**Louis Reed, President**  
Western Iowa Power Cooperative



**Ronald Steinhoff, Vice President**  
Woodbury County REC



**Thomas Wagner, Treasurer**  
Basin Electric Representative  
North West REC



**William Farmer, Secretary**  
Western Iowa Municipal  
Electric Cooperative Association\*



**A. James Sharp**  
Harrison County REC



**Trent Will**  
Iowa Lakes Electric Cooperative



**Bryan Greve**  
Nishnabotna Valley REC



# 2022 NIPCO General Manager Executive Report

The past year provided many challenges and, in many ways, proved to be more challenging than 2020, the initial year of the global pandemic. Throughout 2021, society started and stopped several times to accommodate the evolving pandemic conditions. During all the uncertainty of 2021, the NIPCO membership had a touchstone: its electric supply.

Guiding our operations toward the future of service to our membership was our focus this past year while learning from actions, lessons, and events impacting us now. NIPCO accomplished this due to our involvement and membership in large cooperatives, like Basin Electric Power Cooperative, our primary power provider. Being a member of a large cooperative, like Basin Electric, provides the value of economies of scale and diversifies our risks. NIPCO and its affiliated cooperative network have faced national material supply chain issues, significant energy market fluctuations, and system damages resulting from weather storms without jeopardizing our member owners' reliable electric delivery.

In 2021, NIPCO and its employees ventured down some new paths. Specifically, NIPCO installed a grid-scale battery that

went operational in December. The installation of this battery was the initial application of Basin Electric's "Member Owned Trial Battery Rate". This new use of battery technology will serve the NIPCO membership well from an educational perspective, efficient use of existing power supply, and cost of service benefit. NIPCO also purchased its first electric vehicle (EV) for its commercial fleet. NIPCO will share hands-on experience with EV charging units' consumption and EV electric performance with our membership. National energy policies and public sentiment indicate that the use of EVs will dramatically increase soon. We must be ready to provide our members with information to make informed decisions on this new use of electricity.

As we look to the future, NIPCO and its members are witnessing electric growth in all corners of our service territory. Economic indicators reveal our local economy is waking up from its two-year COVID-related slumber as western Iowa businesses innovate, expand, and



create jobs and opportunities for the communities in the region.

NIPCO will continue to promote an "all-of-the-above" generation portfolio, resulting in reliable, affordable electric supply while continuing its ongoing renewal and replacement of our aging transmission grid, resulting in reliable electric delivery.

NIPCO remains committed to listening to our membership to provide the exceptional service they have come to expect from their wholesale power provider. The cooperative model supports the collaboration of ideas, transparency of leadership, and operational efficiency to benefit the communities we serve.

Learning from each other, working together, and maintaining trust in the systems we have built will keep us charging forward into an energy future that shines bright for NIPCO.

# Charging. Forward.

With a vision for shaping service that will meet the needs of the next generation of cooperative membership, 2021 proved to be a year of preparing for the future. NIPCO staff and directors undertook a strategic planning deep dive, continued its efforts to upgrade and replace fifty-year-old or older infrastructure, launched its innovative battery storage project, and introduced an electric vehicle into its transportation fleet.

While looking to the future, NIPCO never lost sight of ongoing operations that serve members through reliable power supply and delivery while keeping rates stable. In a year full of unexpected events such as extreme weather, energy shortages, vandalism to transmission infrastructure, and attacks on the cooperative business model, NIPCO and its membership looked to the value of partnerships, efficient operations, conservative fiscal planning, and the cooperative principles to guide decisions made at the board table.

NIPCO continues to strengthen its cybersecurity network, provide education and resources for western Iowa consumer

members, and cultivate a dedicated roster of employees committed to exceeding member expectations.







## Looking to the Future of Service.

In March of 2021, NIPCO member managers, directors, and staff gathered to consider the generation and transmission's future of service by asking: **What does NIPCO look like in five years? In 10 years?**

With so many changes to the energy industry, there is an opportunity for electric cooperatives to re-evaluate strategies that shape service to member-consumers and the rural communities where

they live. NIPCO's strategic plan focuses on strengthening engagement in various regulatory arenas, understanding diverse energy sources, and coordinating member-owned distributed generation. The future of service must consist of advocating for reliable, affordable, and sustainable energy supply and delivery, the adoption of emerging technologies and communications infrastructure, and community and

workforce development.

The future of cooperative service begins with partnerships and innovation that will benefit the next generation of rural, western lowans. NIPCO staff will assess the needs and impacts of these industry challenges and develop goals to address them. As a result of this exercise, NIPCO will be better positioned as the **go-to** energy authority and a resource to promote the growth of rural communities.

## Charging. Forward.... Batteries included.

On December 28, 2021, NIPCO initiated the first discharge of energy from a 975-kilowatt battery connected to a substation. Thanks to the efforts of the NIPCO membership and a policy by NIPCO's primary power provider, Basin Electric Power Cooperative, to support a Trial Battery Rate, Class C members of Basin Electric could employ battery storage technology between a substation and the end-user.

NIPCO, a member of Basin Electric, collaborated with its membership to develop a plan that allows each member to pool its

150kW individual allocation and integrate a 975-kilowatt Tesla® Megapack into the feeder of a single distribution substation.

The grid-scale battery is charged during off-peak hours and then discharged during peak hours, coordinating with NIPCO's existing load management system. Operating the battery storage system reduces the peak power demand charges that ultimately get passed along to member consumers. Avoided purchased power savings generated through the operation of the battery storage units will be socialized across the entire NIPCO membership and, ultimately, benefit all member-consumers within the NIPCO service area.

The stored power from two Tesla Megapack units connected to the Lawton Substation allow NIPCO to avoid purchasing almost 1 megawatt of power (enough to power approximately 100 homes) during peak usage times for up to six hours.

NIPCO shares ongoing performance data with its membership to highlight the battery's ability to reduce member-consumer power costs and use existing generating resources more efficiently. The sharing of operational information will provide the membership with education and insights to support future use of battery storage technology.

***For more on this project, scan to watch the video!***

SCAN ME







## And speaking of batteries...

In May, NIPCO received the green light from its board of directors to purchase an electric vehicle (EV) to better understand and engage with the technology and learn how EV owners navigate the benefits and challenges associated with EV ownership and operation specifically, in the rural US. NIPCO considered several makes and models of EVs before purchasing a 2021 Ford Mustang Mach-E from a local dealership.

NIPCO chose the Ford Mustang Mach-E because of

access to local EV maintenance, its range of distance on a single charge, and to showcase the diversity of makes and models available in the EV market.

To further support the awareness and adoption of electric vehicles, in the latter part of 2021 NIPCO joined the CHARGE™ network. CHARGE is a national EV charging brand that leverages the power of cooperative membership. The CHARGE community of cooperatives partners together to support EV adoption and

promote the benefits of ownership.

NIPCO's experiences with EV maintenance, range performance in various weather conditions, electric costs, and general observations from daily use will better inform members if they are considering an electric vehicle. The EV continues NIPCO's initiative to educate and inform the membership on new technologies and beneficial electrification.





## NIPCO System Upgrade Plan

NIPCO's ongoing, multi-year construction plan addresses immediate and long-term needs facing NIPCO's aging infrastructure. The three-year Federal Emergency Management Agency (FEMA) hazard mitigation project, which retrofitted 151 miles of NIPCO's oldest transmission lines, was completed in 2014. Two years later, NIPCO received the board of directors' approval to continue upgrade efforts across the system. The plan focuses on modernizing transmission infrastructure over 50 years old and was part of NIPCO's original build.

For NIPCO, construction projects focus primarily on rebuilding substations, transmission lines, and switches to incorporate newer technologies that improve capacity and physical strength and improve remote capabilities.

Transmission lines are being rebuilt to address sections of the grid that have reached end-of-service life, to increase power flow capacity and improve ice and wind loading resiliency. In some cases, switches and spans of line are being relocated to allow ease of access for line crews and minimize impact to landowners.

Since the Renewal and Replacement Project began in 2017, 179 miles of transmission line, 38 switch stations, and 35 substations have been improved. Approximately 29 miles of transmission line, seven switch stations, and four substations received upgrades in 2021, with one new substation being added to NIPCO's electric transmission system. At the end of 2021, remaining facilities over 50 years old and yet requiring upgrades are 325 miles of 69kV transmission line, seven switch stations, and 35 substations.



## 2021 Presents Challenges, Opportunities Winter Storm Uri/Energy Alerts

In mid-February, Winter Storm Uri's prolonged Arctic weather across the central and southern US created record electric load demand resulting in Energy Emergency declarations by Southwest Power Pool (SPP), NIPCO's regional transmission operator.

During the extreme weather events of February 14-18, 2021, the amount of electricity usage in the SPP service footprint exceeded the amount of available generation. During this time, NIPCO's power providers, Basin Electric Power Cooperative and Western Area Power Administration (WAPA) were exposed to extraordinarily high market prices.

Deemed a "Grid Emergency," SPP directed its member utilities to shed electric load to prevent a damaging, system-wide blackout that could have taken days to restore. NIPCO's mature and proven load management system,

known as Switch Makes Cents, proved valuable as it prevented such occurrences to its members in western Iowa.

Load control of equipment such as water heaters and generators reduced 16 MW of load during high-demand periods. NIPCO was directed by WAPA to reduce its electric load further and, for the first time in NIPCO's 38-year load management history, interrupted operation of electric heating systems (an additional 15 MW reduction) during the winter season. Further, NIPCO was able to transfer load from the NIPCO/SPP system to the MidAmerican/MISO system since NIPCO has an interconnection agreement with MidAmerican allowing these types of transfers as or when needed. Except for the rare February heat control activation, NIPCO's load-shed curtailment directives were satisfied through the regular

operation of the Switch Makes Cents load management program.

NIPCO's system proved strong, and much was learned from the experience. NIPCO worked with members and industry partners to improve its response protocols should another Grid Emergency occur. NIPCO reinforced its load-shed strategy with its members, prioritizing what equipment will be controlled and for how long and identifying substations that serve critical loads such as hospitals, schools, and nursing homes.

NIPCO promotes the benefits of long-term wholesale purchase power agreements contracted between NIPCO and its power providers and corporate utility neighbors. These long-term agreements enable participants, such as NIPCO and its membership, to share risk over time and protect against paying high market prices during extreme weather events.





## Copper Theft

In August, NIPCO and its member distribution cooperative, Western Iowa Power Cooperative (WIPCO), were victims of a significant copper theft incident. Four distribution substations and one transmission switching station in Monona County were vandalized. In each case, vandals cut through locked gates and fencing to access substation equipment. Copper grounding wire was stripped, causing electrical arcing and fires that burned so hot it melted cement into glass. The vandalism these thieves performed became evident on the evening of

August 21 and during the early morning hours of August 22.

Thanks to an electric transmission system that is looped, electric power was able to be re-routed to minimize outages to member-consumers of WIPCO. All sites required extensive repair to restore normal operations. Two substation sites received major damage which necessitated electric cooperative crews more time to assess and repair. No personal injuries occurred to any member of the public, WIPCO, or NIPCO personnel. The copper thieves were apprehended, charged, and convicted for their

criminal activity.

Following the copper theft incident, NIPCO's safety committee developed a safety campaign that reminds emergency personnel how to safely respond to an electric substation fire or any incident involving electric infrastructure. The campaign, which provided educational kits to western Iowa emergency personnel, promotes "NIPCO's 5 to Stay Alive". These five safety protocols, part of NIPCO's already established fire response procedures, ensure the safety of western Iowa first responders and the public.

# Serial Derecho

During the afternoon and evening hours of December 15, a storm system swept through the upper Midwest, bringing widespread strong winds and tornadic activity, damaging

numerous trees, structures, and powerlines.

It was later categorized by the National Weather Service as a Serial Derecho, the second one to pummel Iowans in less than eighteen months. According to the Des Moines Weather Service, the event produced an unprecedented 61 tornadoes in a single day across Iowa alone, including eight in NIPCO's service territory (Aurelia, Sergeant Bluff, Lawton,

Kingsley, Battle Creek, Alta, Larrabee, and Salix).

Damage to NIPCO infrastructure was reported in six of ten counties within the NIPCO system. The damage included 11 separate sites, which yielded 30 downed structures, six broken anchor guys, and fourteen leaning structures. At its peak, nearly 2,200 member-consumers within the NIPCO service territory were out of power.





## Financially Strong

With so many projects and events impacting operations, year-end financials remain strong. NIPCO's rate remained unchanged from 2020 to 2021 and efficient planning and streamlined operations allowed NIPCO to return margins to its members.

The cooperative network withstood extreme electric market conditions during Winter Storm Uri in February 2021. The continued downturn in the economy due to the global pandemic continues to impact operations at cooperatives across the country.

For NIPCO, 2021 has been an incredibly productive year. Construction projects continue thanks to careful attention to resource planning alongside streamlined and efficient operations by dedicated staff who work hard every day.

Keeping rates stable and returning excess operating margins through member bill credits in 2021 is a tremendous story to tell. The power of being a member of an electric cooperative spreads negative risks over many entities and allows for the sharing of strong financial results.

NIPCO was able to provide a total of \$11 million in bill credits

to its membership because of several factors: Membership in Southwest Power Pool, membership in Basin Electric Power Cooperative, and prudent rate setting practices by the NIPCO Board of Directors.

When NIPCO joined SPP in October 2015, it had to gain approval by FERC (Federal Energy Regulatory Commission) on how NIPCO's annual transmission costs reimbursement would be calculated. During this approval process, the NIPCO Board decided to withhold a portion of the annual SPP reimbursements as a "rainy-day" fund to insulate the NIPCO membership from any potential rate increases resulting from the Federal reimbursement approval process. The reimbursement approval took over five years to be completed. NIPCO had accumulated \$3.75 million in unused reimbursements from SPP for the years 2016-2020. During 2021, NIPCO had an additional \$2.5 million in SPP reimbursements that had not been incorporated into the NIPCO rates. Because the uncertainty of the Federal approval process had been resolved in early 2021, the NIPCO Board forwarded the \$6.25 million of unused

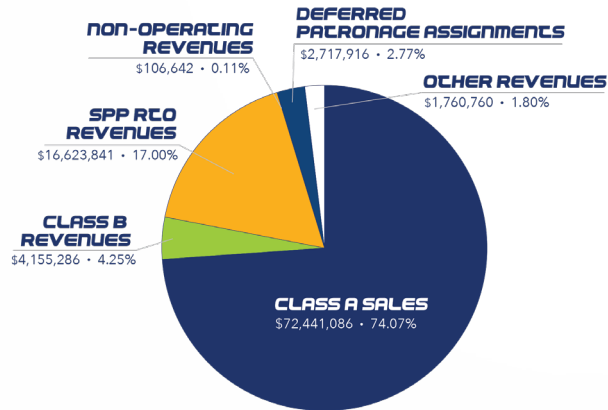
SPP reimbursement onto the membership.

2021 saw Basin Electric take advantage of high commodity prices with sales of fertilizer and by-products from its wholly owned subsidiary, Dakota Gasification Company, and continued operational efficiencies to post very strong operating margins. Basin Electric's Board of Directors authorized a \$30 million bill credit to its Class A members at its December 2021 meeting. NIPCO's portion of this bill credit was in excess of \$1 million. Basin Electric also marketed and sold NIPCO's unused renewable energy credits (RECs) for 2021. These sales of RECs netted NIPCO approximately \$670,000 in unbudgeted revenues. The approximately \$1.67 million in financial windfalls were forwarded to the NIPCO membership.

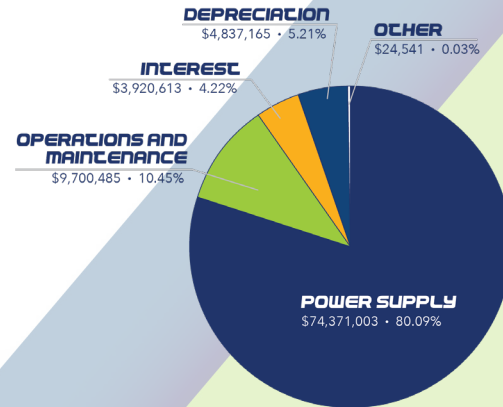
Last, but not least, the remaining \$3 million in bill credits was due to NIPCO's operational costs being much less than anticipated for 2021. These lower costs were related to efficient use and purchase of power from Basin Electric, lower than expected NIPCO operation and maintenance expenses and lower than expected depreciation and interest expenses.



## 2021 INCOME

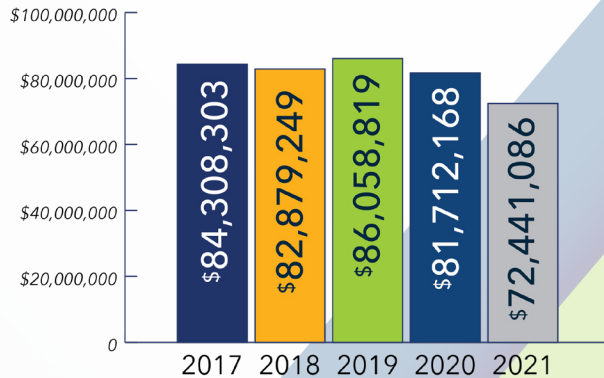


## 2021 OPERATING EXPENSES



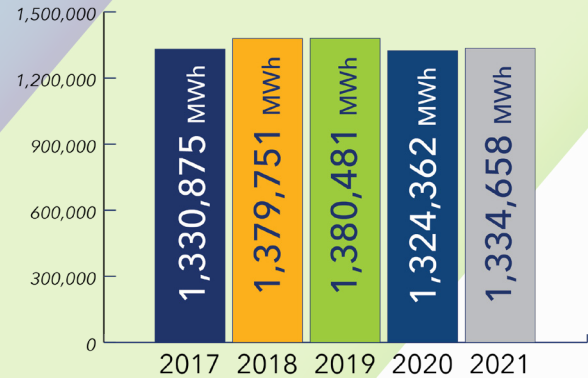
## 2017-2021 CLASS A SALES

Dollar Value

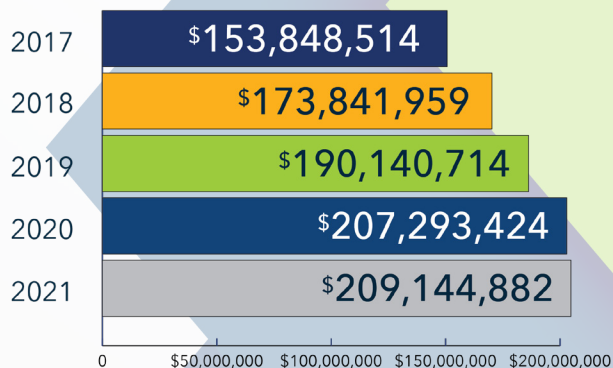


## 2017-2021 CLASS A SALES

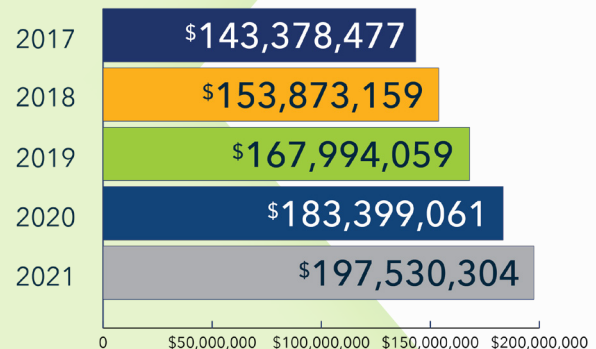
MWh



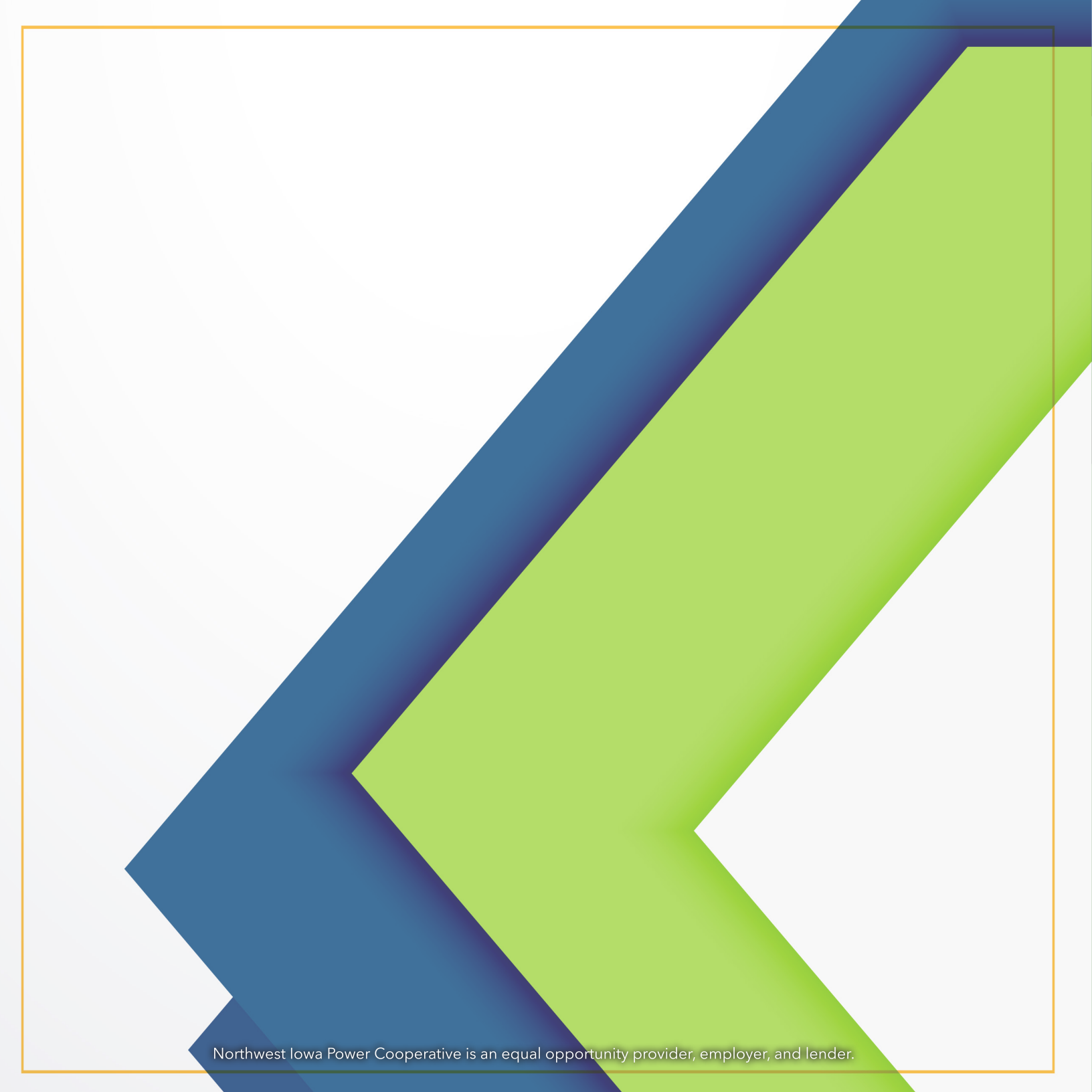
## 2017-2021 TOTAL ASSETS



## 2017-2021 TOTAL UTILITY PLANT (GROSS)



\*Subsequent pages contain the Independent Auditor's Report.



Northwest Iowa Power Cooperative is an equal opportunity provider, employer, and lender.