



2023 Winter Reliability Forum

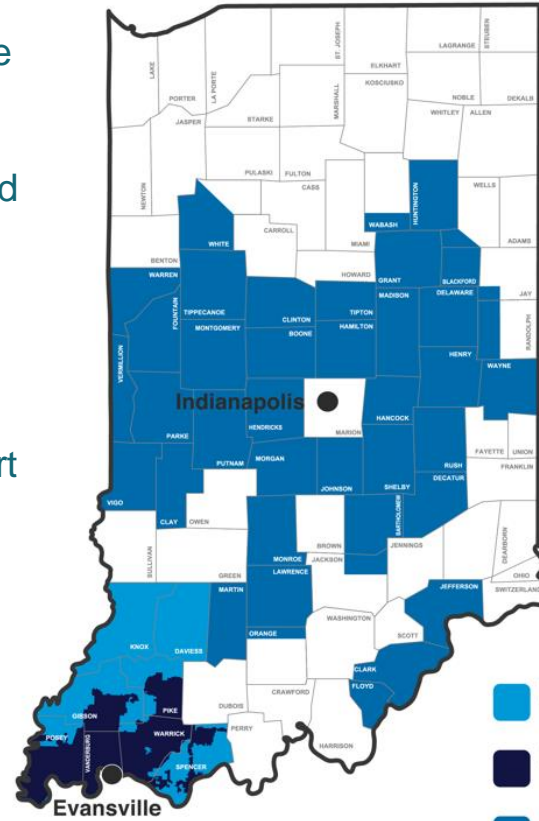
November 27, 2023

Presenters

- Richard Leger | Senior Vice President, IN Electric
- Shane Bradford | Vice President, Power Generation Operations
- Ashley Babcock | Vice President, IN/OH Gas
- Tristie Reeves | Director, Customer Service
- Brad Spencer | Manager, Gas Supply
- Laurie Thornton | Director, Government and Regulatory Relations

Indiana Service Territories

- CenterPoint Energy Indiana (CEI) South electric consists of Southern Indiana Gas and Electric Company's electric transmission and distribution services, including its power generating and wholesale power operations.
- CEI South is a member of the Midcontinent Independent System Operator (MISO) and is regulated by the Indiana Utility Regulatory Commission (IURC) and the Federal Energy Regulatory Commission (FERC)..
- CEI's gas divisions are committed to investing in modernizing its natural gas infrastructure. This commitment includes replacing legacy steel, cast-iron and vintage plastic systems as well as deploying smart meters to improve safety, reliability and customer experience.
 - CEI North: Gas system improvements result in upgrades to portions of the company's **13,000-mile network of distribution mains and transmission pipelines** serving north central, central and southeastern Indiana.
 - CEI South Gas: Gas system improvements result in upgrades to portions of the company's **3,200-mile network of distribution mains and transmission pipelines** which serve nine counties in southwestern Indiana.



-  Indiana South (Natural Gas)
-  Indiana South (Natural Gas & Electric)
-  Indiana North (Natural Gas)

Indiana Electric Transmission & Distribution and Power Generation



more than **150,000**
METERED CUSTOMERS

Indiana Natural Gas Distribution



more than **748,000**
METERED CUSTOMERS

Natural Gas

2023 Gas Supply Plan - Objectives



- Procure natural gas for essential **human needs** for space heating, cooking and water heating



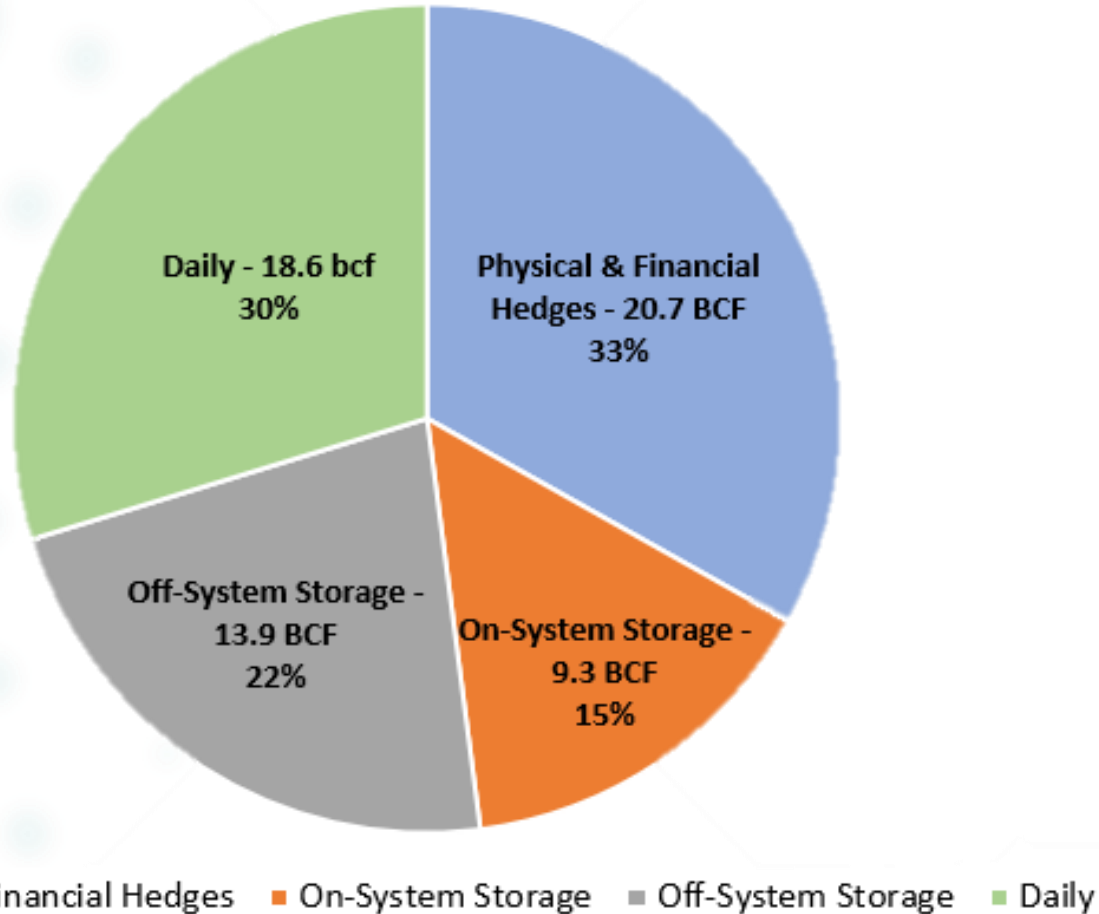
- Provide supply to customers with **varying load conditions**
 - Extremely warm weather and severely cold weather



- **Supply products** that provide a balance for weather forecast errors and weekend varying loads such as:
 - Off-System Storage & On-System Storage, price protected baseload supply, propane-air peak shaving

2023 Gas Supply Plan – Price Stabilization

Residential & Commercial



Diverse supply mix

- Multiple pipelines
- Various supply terms & pricing

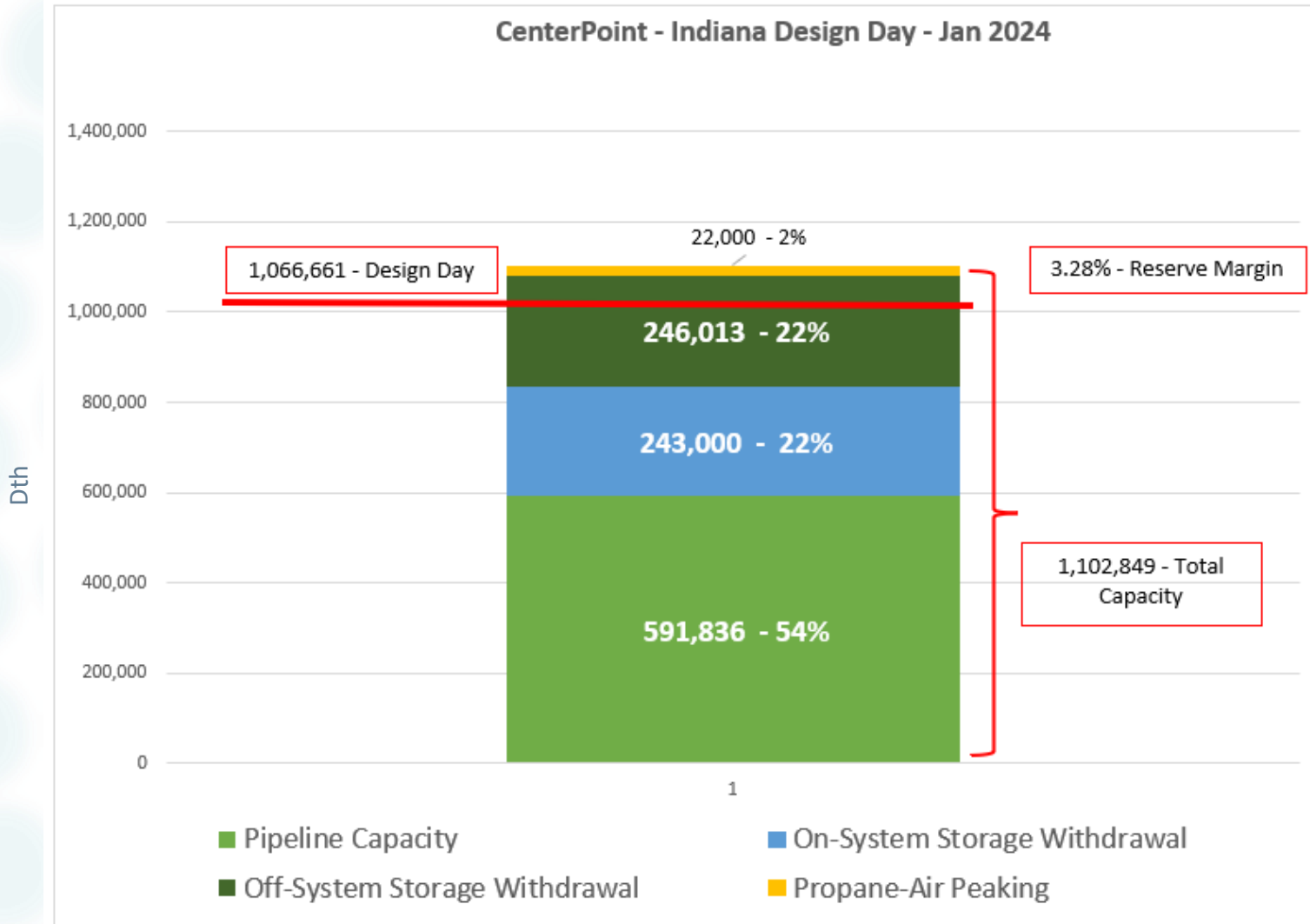
Asset Manager provides:

- Flexibility & risk mitigation
- Ensures reliability during high demand days

Total Winter Purchases	62.5 BCF
Total Hedges	44.0 BCF
Price Stabilization %	70%

2023 Gas Supply Plan – Design Day

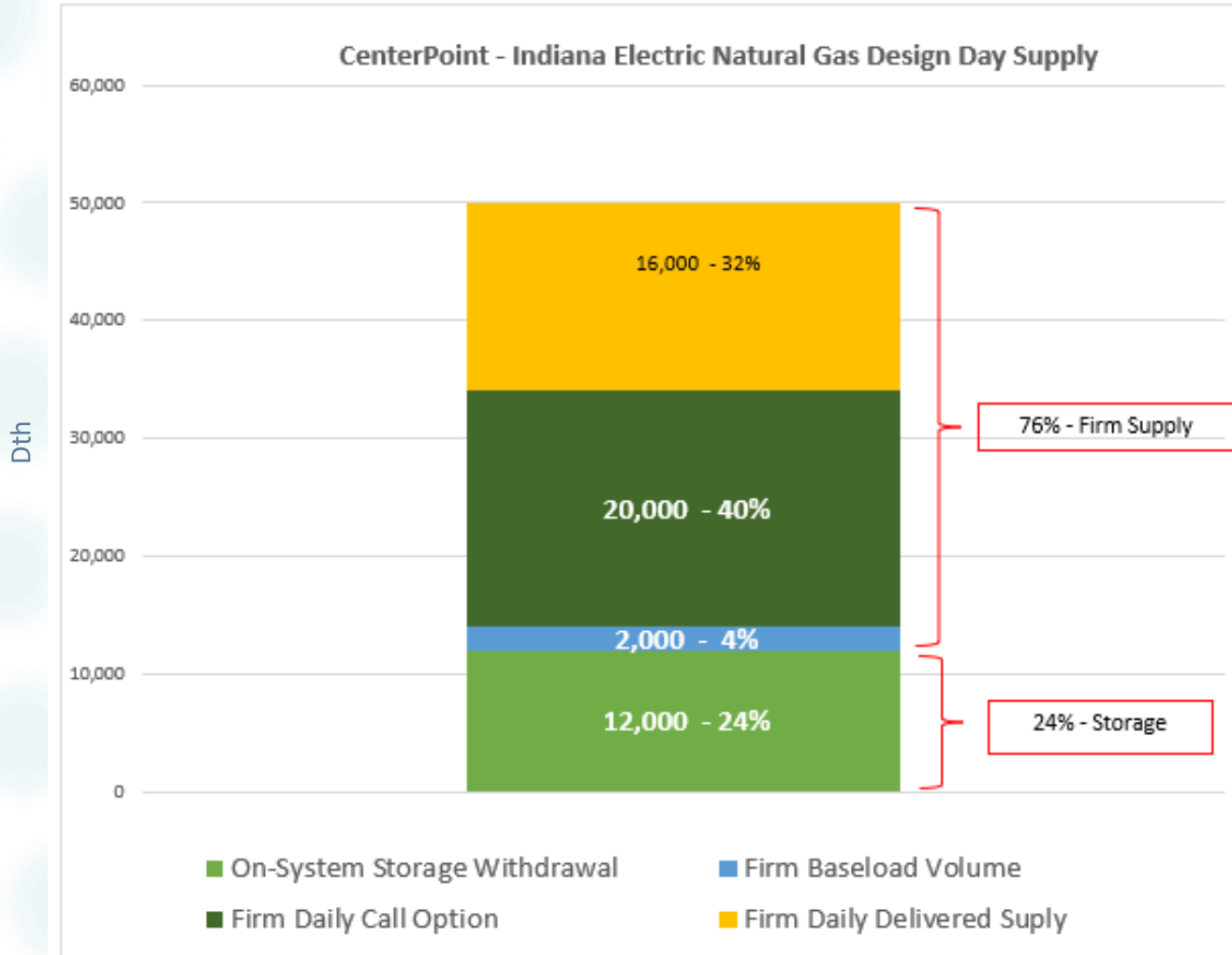
CenterPoint - Indiana Design Day - Jan 2024



Pipeline & Storage capacity are under long-term firm contracts.

Total Capacity	1.1 BCF
Design Day	1.06 BCF
Reserve Margin %	3.28%

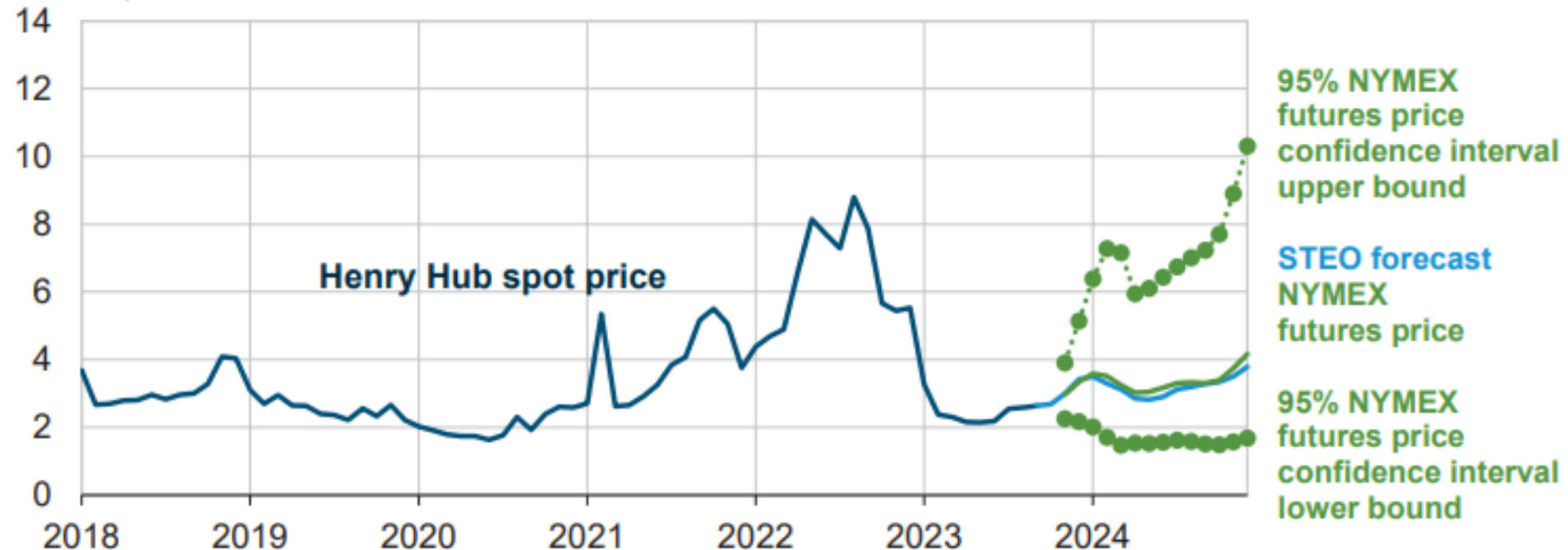
2023 Gas Supply Plan - Gas Turbines Design Day



On-System storage provides operational flexibility for nominations and ratable gas takes.

Key Observations – Future Prices

Henry Hub natural gas price and NYMEX confidence intervals
dollars per million British thermal units



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2023, CME Group, and Refinitiv an LSEG Business

Note: Confidence interval derived from options market information for the five trading days ending October 5, 2023. Intervals not calculated for months with sparse trading in near-the-money options contracts.



Stable Pricing Indicated Through Next 12 Months

Winter Bill Projections

	2022/2023 Heating Season	2023/2024 Heating Season	Difference
CenterPoint Energy Indiana South Gas ¹	\$150	\$115	\$(35)
CenterPoint Energy Indiana North Gas ²	\$125	\$100	\$(25)
CenterPoint Energy Indiana South Electric (standard) ^{3,4}	\$121	\$137	\$16
Combined Gas and Electric Bill	\$271	\$252	\$(19)
CenterPoint Energy Indiana South Electric (transitional electric heat) ^{3,5}	\$224	\$257	\$33

- Based on natural gas commodity costs and normal winter weather, natural gas customers are expected to see a decrease of **approximately \$25-35** per month over the winter heating season (November 2023 and March 2024)
- CEI South electric bills for standard residential customers are expected to increase by approximately \$16 per month compared to last heating season and transitional electric heat customers are expected to see an increase of approximately \$33 per month

¹ Projected AUPC is 110 therms per month

² Projected AUPC is 121 therms per month

³ Assumes pending filings DSMA, ECA, MCRA, RCRA and TDSIC are approved as filed. FAC rate for February and March 2024 is estimated.

⁴ Projected AUPC is 719 kWh per month

⁵ Projected AUPC is 1,637 kWh per month

Natural Gas Winterization

To prepare for extreme cold weather events (including the week before):

- Ensure critical system components (pipeline heaters, odorizers, filter separators, etc.) are operational
- Modify shifts to staff critical facilities early in the gas day during projected peak hour demand
- Communicate regularly with Gas Control, Gas Supply, Forecasting, Transmission Operations, System Planning, and Storage
 - Review gas supply plan, supplemental gas plan, areas of concern/recent pressure alarms, review of system charts, etc.
 - Gas control monitors weather forecasts daily for updates to the severity and timing of any frontal systems
 - Increase the frequency of meetings from 2 to 3 times per week to daily if needed



Natural Gas Winterization (cont.)

- Stop planned work to allow the workforce to monitor the system/equipment
- Construction crews have heightened awareness of the effects of cold weather on polyethylene pipe during construction and make sure steel plates are removed or secured
- Pump drips, as necessary
- Ensure vehicles, technicians, and facilities are staged and equipped appropriately to support operations
- Verify cold weather Personal Protective Equipment (PPE) is distributed and stocked



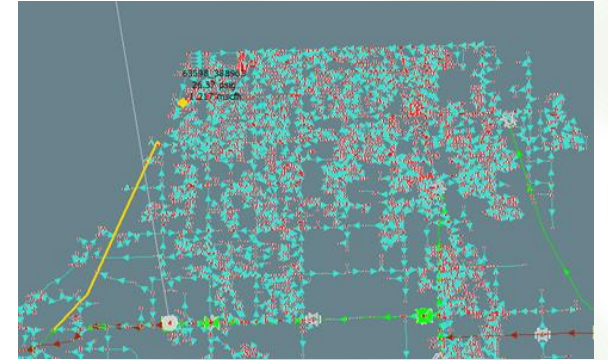
Natural Gas Winterization (cont.)

Planning Meetings:

- Gas System Planning (GSP) facilitates an annual meeting to review:
 - Known areas of concern, remediation projects planned, and solicit operation's feedback
 - System changes from the past years' Modernization (BSCI and other) projects and load growth
 - Chart systems to provide critical information that will confirm load

Winterization activities that differ by type of facility:

- Regulator stations feeding medium and high-pressure systems will likely remain at **normal** setpoints, low-pressure stations are usually set at a temporary **increased** setting that is closer to MAOP
- Systems considered at an increased risk may be physically staffed 24/7



Customer Experience










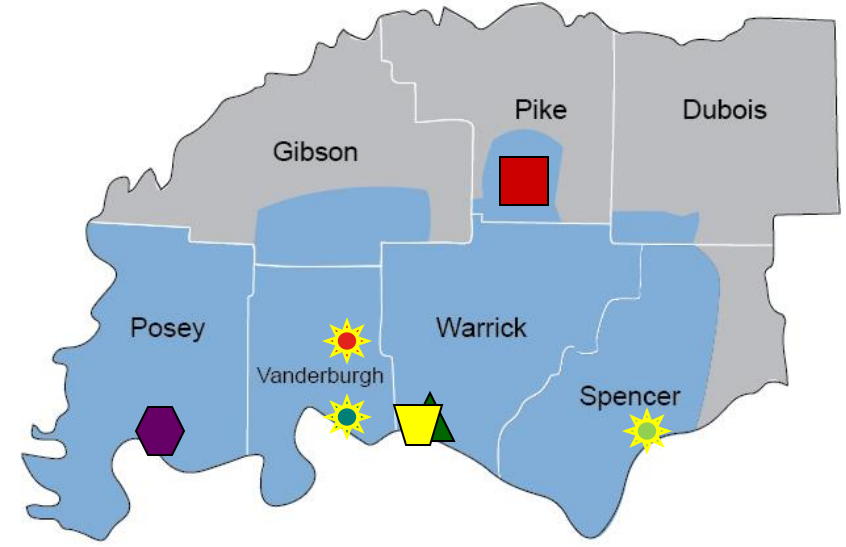
Electric

CEI South's Electric Footprint

2022 Retail Sales (GWh) 4,570

- Residential – 1,430
- Commercial – 1,180
- Industrial – 1,940
- Other – 20

- Power plants¹
-  AB Brown (Gas Turbines)²
 -  FB Culley
 -  Warrick Unit 4³
 -  Blackfoot Clean Energy Plant
 -  Troy Solar
 -  Oakhill Solar
 -  Volkman Rd Solar



Transmission System

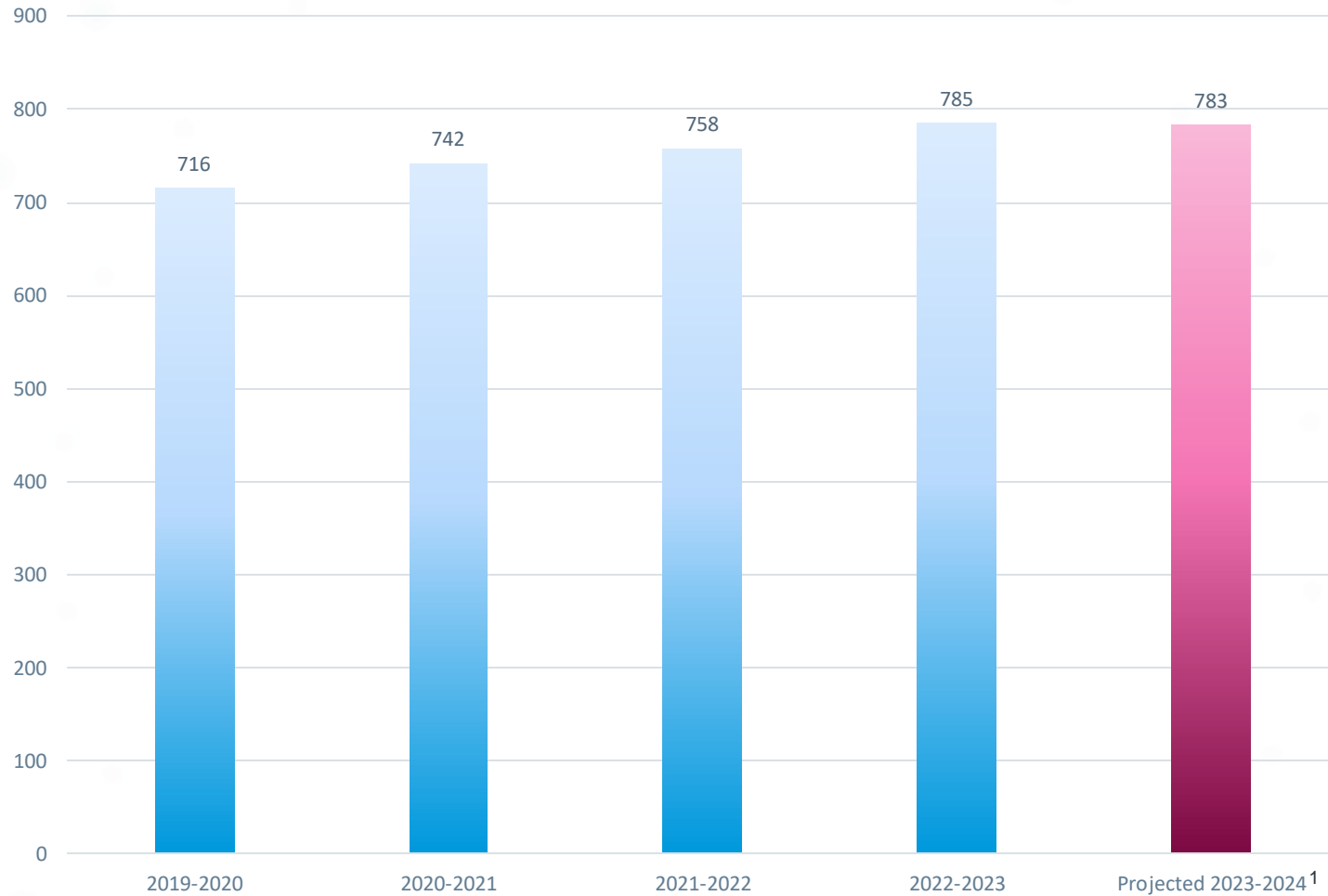
- 1,046 miles of transmission lines
- 34 transmission substations

Distribution System

- Approximately 4,600 circuit miles of overhead distribution lines
- Approximately 2,600 circuit miles of underground distribution lines
- 36% of distribution underground
- 78 distribution substations

¹Fowler Ridge & Benton County Wind Farms not shown.
²ABB coal-fired Units #1 & #2 ceased operations in mid-October.
³CEI South plans to exit out of Warrick Unit #4 by yearend.

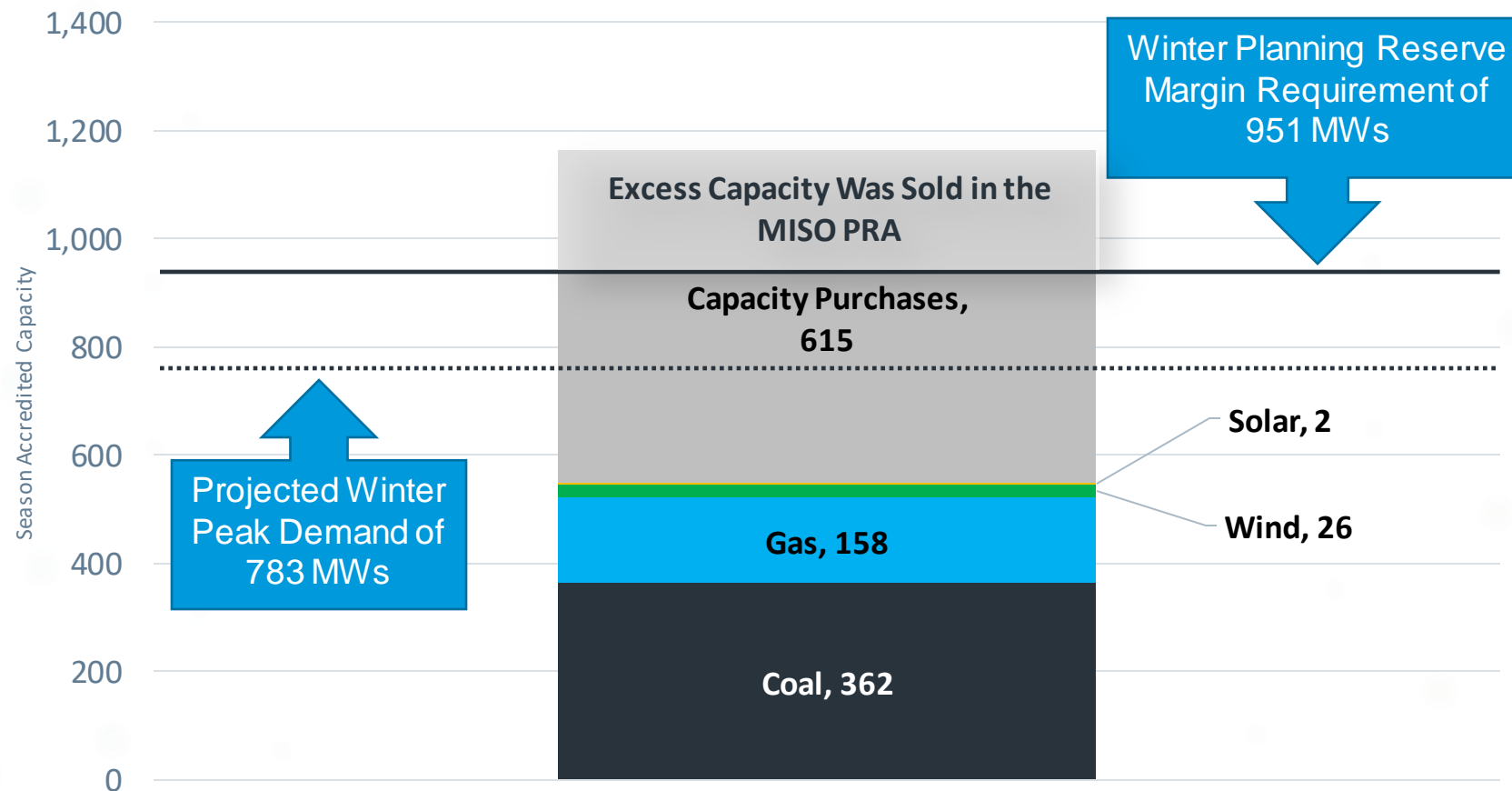
CEI South Historical and Projected Winter Season Peak Load (MW)



¹ December 2023-February 2024, based on load forecast for the 2023-2024 MISO planning year

CEI South Capacity Resources for 2023–2024 Winter Season

- CEI South has sufficient capacity to meet customer demand and MISO planning reserve margin requirements (PRMR) for the winter season
- Capacity purchases were secured to meet the PRMR for the 2023-2024 planning year
- 72% of CEI South’s generators have onsite fuel storage or firm capacity for this winter



Fuel Supply – Coal

Coal plants target 30-45 days of inventory with units operating at maximum output to hedge against risk of mine and/or transportation issues.

Coal Facility	Target Inventory (Tons)	Projected Inventory (Tons) through November	Current Delivery Method
Culley	120 – 180K	≈309,000	Truck
Warrick ¹	50 – 75K	≈24,000	Rail
Total	170 – 255K	≈333,000	
¹ CEI South plans to exit out of Warrick Unit #4 by year end.			

Electric Winterization Activities – Power Supply

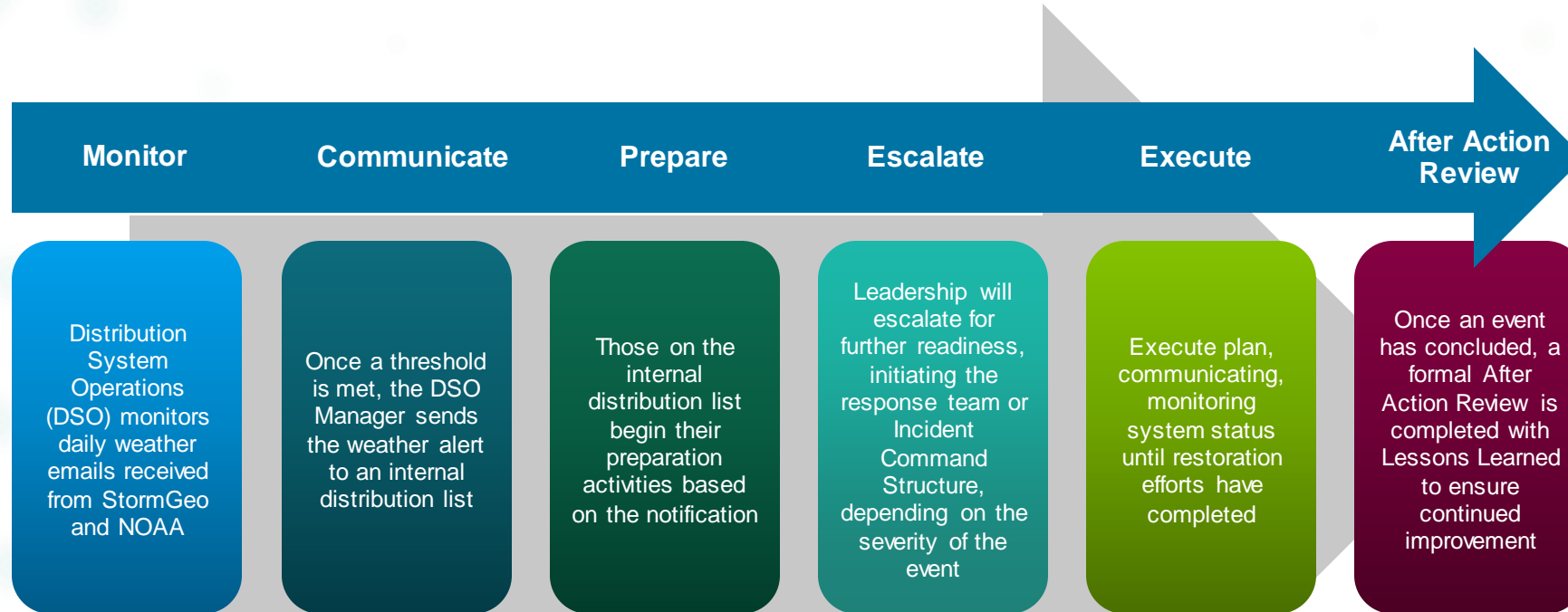
- The majority of CEI South generation equipment such as turbines, generators, flue gas desulfurization (FGD), compressors and other equipment sensitive to cold weather are contained inside enclosures
- CEI South generation facilities have standing winterization work orders that were completed prior to the winter season (*see Appendix for a list of activities completed pursuant to the winterization work order activities*)
- Prior to an extreme cold weather event, preparations are made to increase protection of critical equipment as well as review additional support needs
 - Operator rounds are altered to spend more time and attention monitoring equipment and processes that could be sensitive to extreme cold weather
 - Stage portable heaters in areas with critical equipment, all fixed remote heaters and heat tracing are reinspected to ensure proper operation
 - Additional support, operators, maintenance personnel, and management are scheduled as required to ensure a safe and reliable operation during these events.
 - Critical systems that are usually cycled on and off are left running to ensure they are available when needed (e.g. coal belts, ash systems, gas turbine cooling and oil systems)
- In addition to winter prep, CEI South added heat trace to critical level transmitter sensing lines that are inside enclosures for additional protection – action item derived from Winter Storm Elliott

Electric Winterization Activities – T&D

- Ensure employees have adequate clothing and ice cleats so they can safely monitor equipment and properly address any issues before they become major problems.
- Standing work orders are completed, including routine inspections, over the course of the year to support readiness for peak summer conditions and winter conditions.
- We monitor StormGeo, NOAA, and local meteorologists in anticipation of a significant weather events.

Electric Winterization Activities – T&D

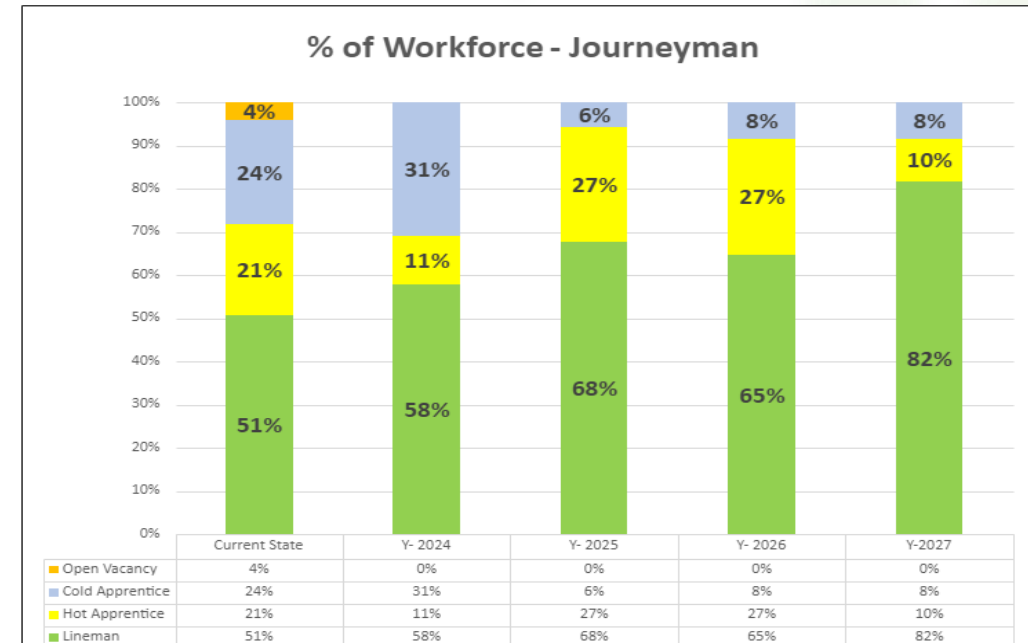
When impacted by severe weather event, we execute our storm response plan.



Skilled Line Crews Workforce

Given the issues of aging workforce, are the companies facing any problems with maintaining appropriate levels of staffing and experience for skilled line crews? Have the companies increased reliance on outside contractors for line work? How is technology changing the need for skilled linemen and the skills they need to work most effectively?

- CEI South distribution crews are made up of given ratios.
- 2024 will be our peak year for number of internal non-qualified gloving members.
- With the increase in capital improvement initiatives, we have increased our reliance on contractors.
- The current workload requires the company to combine contractors with inhouse crews to meet customer and company needs.
- We have identified equipment & vehicle needs beginning in 2025 to maximize inhouse crew capabilities, considering the number of forecasted qualified gloving linemen/apprentices.
- Training for new outage management system, work management system, automated equipment such as reclosers and AMI meters are incorporated into our core training curriculum.



Cold Apprentice (non-qualified) - An apprentice in first 2 years is only allowed to work live secondary voltage up to 600 volts in the presence of a Journeyman.

Hot Apprentice (qualified) - An apprentice in his 5th six months that has went through gloving school can glove 7200 volts under the supervision of a Journeyman, whom must be in air or in span of control with apprentice.

Appendix

2023 Supply Plan – Price Stabilization Winter Volumes (BCF)

Product	North Vols	%	South Vols	%
Baseload-Hedged	20.0	37%	2.4	29%
Storage	18.0	33%	3.5	42%
Daily/Swing	15.9	29%	2.5	30%
Total System Deliveries	54.0	100%	8.4	100%
Total Price Stabilization	38.1	71%	5.9	70%

2023 Capacity & Supply Plan Overview

2023 Plan Year April 2023 – March 2024			
North	South	IN Total	Description
67.9 (Bcf)	10.4(Bcf)	78.3 (Bcf)	Forecast Annual Purchases (excludes transport customers)
915,648 (Dth)	151,013 (Dth)	1.066 (Bcf)	Design Day (January 2024)
533,448 (Dth)	58,388 (Dth)	591,836 (Dth)	Pipeline Transportation Dth/day
21.3 (Bcf)	4.9 (Bcf)	26.2 (Bcf)	Storage Capacity
382,201 (Dth)	106,812 (Dth)	489,013 (Dth)	Storage Daily Withdrawals (Dth/day)
22,000 (Dth)	N/A	22,000 (Dth)	Propane Daily Withdrawals (Dth/day)

Key Observations – Winter 2023-24

Challenges

- LNG Exports and power generation have spurred energy demand growth
- Lack of infrastructure *may* limit connectiveness and growth
- Investment into U.S. manufacturing over last few years should lead to greater demand for natural gas

Strengths

- Natural gas prices are sharply lower and more stable than last year
- Production expected to grow at least through 2024
- Abundant US natural gas supply potential remains
- Current market indicates continued stability

Customers will continue to be served with a balance of reliability, reduced price volatility and price protection.

Electric Winterization Activities

Coal-fired Units

- Verify all permanent enclosure electric or steam heaters are in operation around critical instrumentation in remote locations.
- Verify operation or replace heat trace wiring on all instrument and process control lines to ensure any moisture in the lines does not freeze, provide false readings, or cause blockage that put units at risk. *(Please note CEI South added heat trace to additional level transmitter sensing line based on Winter Storm Elliott lessons learned)*
- Close all enclosure vents louvers and insulate to ensure areas stay warm.
- Inspect building penetrations (e.g. windows) for adequate insulation to prevent cold air infiltrating into buildings that contain equipment and processes that require water to operate.
- Instrument air dryer operation verification.
- Ensure small propane heaters are available and staged for employees to use to thaw out any instrument control lines that are showing signs of beginning to freeze.
- Refill large kerosene tanks and make sure all spare propane tanks are full.
- The Scrubber belt filters are left on during temperatures below 32 degrees to prevent icing/mechanical issues.

Electric Winterization Activities

Coal-fired Units cont.

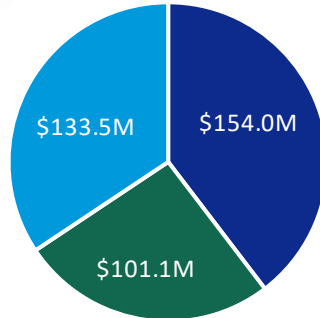
- An adequate supply of chemicals to support environmental compliance is kept on-site and arrangements made for additional deliveries if needed.
- The coal mines spray the coal trains with a product to prevent the coal from clinging to the side of the rail cars before they are loaded when temps are below freezing.
- When the temperature drops below 32 degrees employees turn on all coal belts and leave them running all the time to ensure we can run coal.
- If a unit should trip offline, implement winter shutdown procedure to get critical equipment drained to prevent damage in prep for restarting.

Gas Turbines

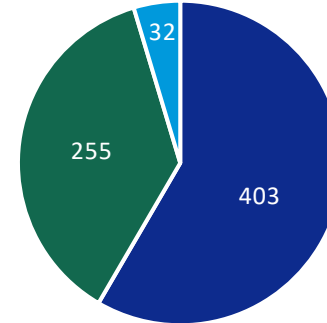
- Place portable heater in water injection pump room (Brown 3), place turbines (B3 and B4) on ratchet (turning gear) which will put the oil system in service.
- Operate cooling systems continuously to prevent freezing.
- Instrument air dryer operation verification.
- One gas turbine can be started and operated on fuel oil and used to black start Brown 4 gas turbine to help bring the grid back if needed. This process is tested periodically.

2017-2022 TDSIC Investments

\$388.6M Total Investment



690 Projects Completed



- Distribution
- Substation
- Transmission

Substation

135 Circuit Breakers Replaced

36 Power XFMR Replaced

51 SCADA Systems Upgraded

Other Replacements

- 290 Arrestors
- 173 Instrument XFMR

Distribution

8,671 Structures Replaced/Installed

223.3 Miles OH Conductor Installed

124.1 Miles UG Conductor Installed

3,275 Distribution XFMR Replaced/Installed

Transmission

2,637 Structures Replaced/Installed

75.6 Miles 69kV Rebuilt

163.2 Miles OPGW Installed

58 Miles 138kV Rebuilt/New

Commitment to Customer Reliability

2023 Reliability – November 6th

- SAIDI 75.5 minutes
- SAIFI 0.78 interruptions
- CAIDI 96.92 minutes
- Strong wind storms in first quarter but improved performance since

Notable Reliability Initiatives

- 10-year cycle wood pole inspection program
- Quarterly CEMI reports with remediation efforts
- Worst performing circuit program
- Performance based vegetation management
- Continue distribution automation program

