

2022 Winter Reliability Forum

November 17, 2022

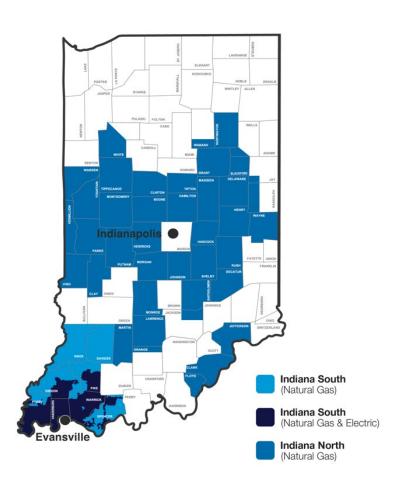
Attendees



- Richard Leger, Senior Vice President, IN Electric
- Wayne Games, Vice President, Power Generation Operations
- Ashley Babcock, Vice President, IN/OH Gas
- Paula Grizzle, Director, Gas Supply
- Brad Spencer, Manager, Gas Supply
- Michelle Quinn, Manager, Regulatory Relations

Indiana Service Territories





Indiana Electric Transmission & Distribution and Power Generation



more than **150,000**

METERED CUSTOMERS

Indiana Natural Gas Distribution



more than

748,000

METERED CUSTOMERS

- CenterPoint Energy Indiana (CEI) South electric consists of legacy 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 Midcontinent Independent System Operator (MISO) and is regulated by the Indiana Utility Regulatory Commission (IURC).
- CEI is 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.



Natural Gas

2022 Gas Supply Plan - Objectives





 Procure natural gas for essential <u>human needs</u> for space heating, cooking and water heating



- Provide supply to customers with <u>varying load</u> conditions
 - Extremely warm weather and severely cold weather

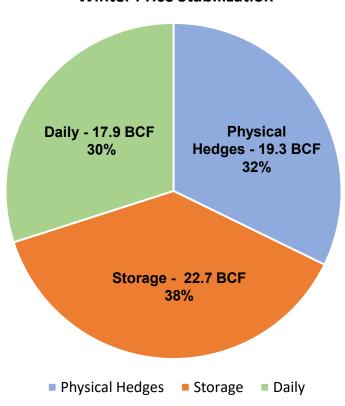


- Supply products that provide a balance for weather forecast errors and weekend varying loads such as:
 - Storage, call options, peaking (Propane)

2022 Gas Supply Plan – Price Stabilization



Winter Price Stabilization



Diverse supply mix

- Multiple pipelines
- Various supply terms & pricing

Asset Manager provides:

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

Total Winter Purchases	59.9 BCF
Total Hedges	42.0 BCF
Price Stabilization %	70%

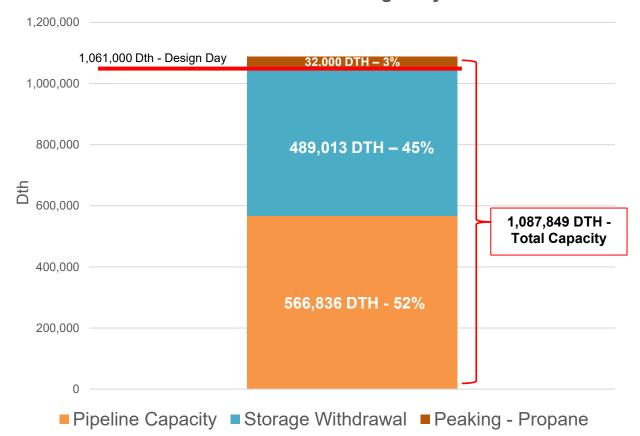
2022 Supply Plan – Design Day



CenterPoint - Indiana Design Day - Jan 2023

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

Total Capacity	1.09 BCF
Design Day	1.06 BCF
Reserve Margin %	2.5%



Winter Bill Projections



 Based on natural gas commodity costs and normal winter weather, customers are expected to see an increase of approximately \$5 per month over the winter heating season (November 2022 and March 2023)

	2021/2022 Heating Season	2022/2023 Heating Season	Difference
CenterPoint Energy Indiana South	\$145	\$150	\$5
CenterPoint Energy Indiana North	\$130	\$135	\$5

Customer Experience





We understand that the recent combined effects of higher-than-expected natural gas costs and the rate impacts from the first natural gas rate increase in fourteen years have resulted in a difficult situation for our customers. Natural gas commodity prices, like those of nearly all other commodities, have seen a significant increase this year. While we purchase natural gas sheed of the winter season to secure off-season rates, and these costs are the exact costs-customers pay - with no mark up, they are still higher than recent years. In addition, our most recently-approved rate structure introduced rates which are less dependent on fixed charges and more so on the amount of natural gas used, or the volumetric portion, giving customers more control. However, these combined have created francial challenges for many.

We know you have questions and are looking to us for answers. With an increase of over 30% in the number of calls to our custome service contact center, our ability to respond in a timely manner has been challenged. Our staff has worked overtime for months while we continue to add new fearn members and contract agents to ensure we can be evallable when you need us. We also encourage the continued use of our serf-service functionality via our online account access and our automated telephone system to handle most common transactions.

We have extended protection from disconnection for our Southwest Indiana customers through May 31, 2022. As the weather improves, energy usage traditionally slows, giving customers the opportunity to see lower bits and catch up on any past balances. We continue to review options to essist our oustomers and our communities.



Understand your bill (PDF)











Important information for our customers and stakeholders

At CenterPoint Energy, we are committed to delivering high-quality service and value to the southwestern indians community and its

We recognize many factors contributing to increased natural gas bills this winter heating season, including higher natural gas prices



Proactive Communications Plan

Multiple Communication Channels

Priority Topics

Key Messages

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.)



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 highpressure 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





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





Electric

CEI South's Electric Footprint



Customers	150,000
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2021 Retail Sales (GWh) 4,650

Residential	1,420
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- Commercial 1,170
- Industrial 2,040
- Other 20

Transmission System

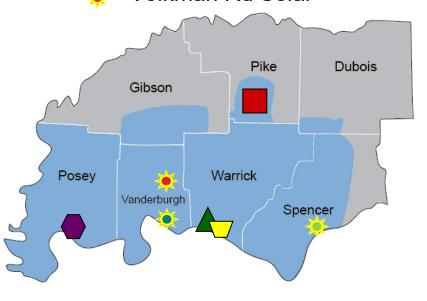
- 1,015 miles of transmission lines
- 33 transmission substations

Distribution System

- More than 4,424 circuit miles of distribution lines
- 31% of distribution underground
- 77 distribution substations

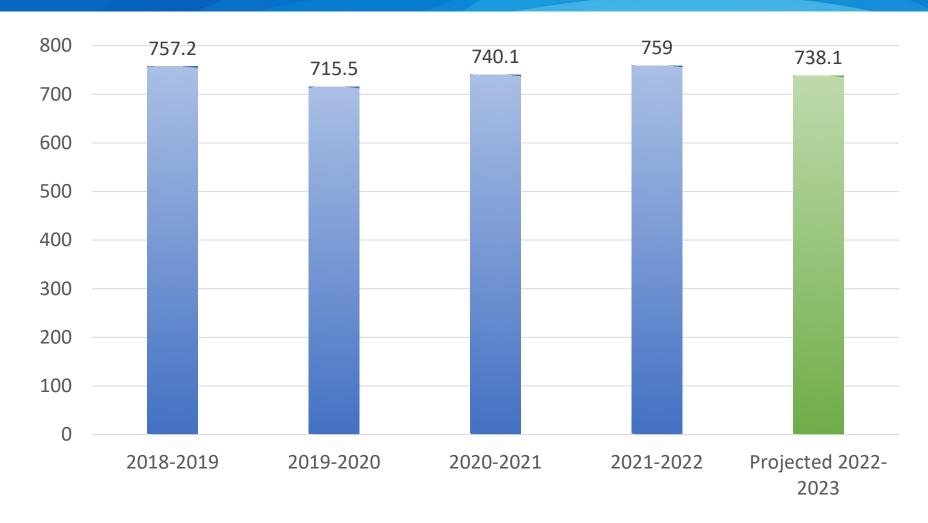
Power plants¹

- AB Brown
- ▲ FB Culley
- Warrick Unit 4
- Blackfoot Clean Energy Plant
- Troy Solar
- Oakhill Solar
- Volkman Rd Solar



CEI South Historical and Projected Winter¹ Peak Load (MW)



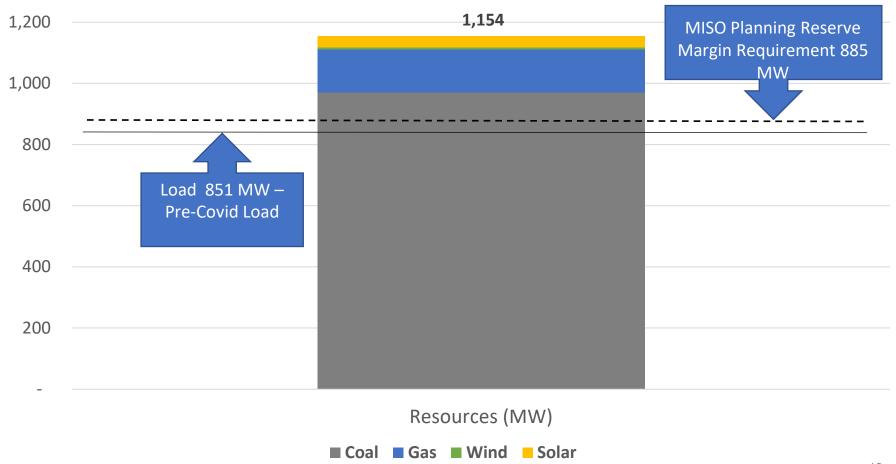


¹ December 2022-February 2023, based on most recent IRP load forecast

CEI South Capacity Resources for 2022 – 2023 Winter Season



Even before updating the load forecast as part of the current IRP, CEI South's supply exceeds MISO requirements by approximately 270 MWs in the winter



MISO Seasonal Construct

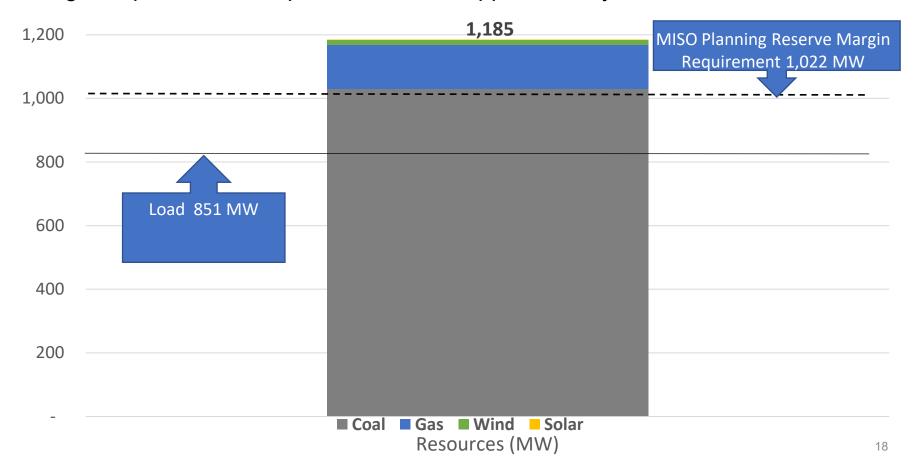


- CEI South has been planning for MISO's seasonal construct since 2019
 - 2019/2020 IRP considered summer and winter needs when selecting the preferred portfolio
 - Updated modeling will allow for optimizations over four seasons
- CEI South is pleased with MISO's FERC approval of the seasonal resource adequacy construct to help ensure reliability of the system
 - Winter December, January, February
 - Spring March, April, May
 - Summer June, July, August
 - Fall September, October, November
- Implementation beginning in MISO Planning Year 2023/24

CEI South Capacity Resources for 2022 – 2023 Winter Season



Had the seasonal construct been approved for the 2022-2023 winter season, CEl South's relative position would have been similar. While solar accreditation goes down, accreditation of other resources would have been higher. The reserve margin requirement is expected to rise to approximately 25%.



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)	Actual Inventory (Tons) through October	Current Delivery Method
Brown	150- 225K	92,123	Rail & Truck
Culley	120-180K	143,967	Truck
Warrick	50-75K	95,050	Rail
Total	320-480K	331,140	

Coal Mine production has increased in recent months

Truck transportation continues to be challenging as companies compete for drivers

Two trucking companies have been added but each has limited drivers available
 Rail is still trying to recover from staffing and equipment issues that began during
 COVID

Electric Winterization Activities



- The majority of CEI South generation equipment such as turbines, generators, flu gas desulfurization (FGD), compressors and other equipment sensitive to cold weather are contained inside buildings
- CEI South generation facilities have standing winterization work orders that are automatically issued in the fall to be 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, plans are made to inspect critical equipment to ensure reliability
 - Operator rounds are altered to spend more time and attention monitoring equipment and processes that could be sensitive to extreme cold weather
- Ensure employees have adequate clothing and ice cleats so they can safely monitor equipment and properly address any issues before they become major problems

Winter Bill Projections¹



 CEI South electric bills are expected remain largely flat compared last heating season, assuming monthly average customer use per month during the winter heating season, November through March.

	2021/2022 Heating Season	2022/2023 Heating Season	Difference
CenterPoint Energy Indiana South Gas	\$145	\$150	\$5
CenterPoint Energy Indiana South Electric (standard) ²	\$123	\$124	\$1
Combined Gas and Electric Bill	\$268	\$274	\$6
CenterPoint Energy Indiana South Electric (transitional electric heat) ³	\$218	\$221	\$2

¹ Projected increase in FAC 137 Feb. & Mar. variance included; it is largely offset by a credit in RCRA rider

² Projected AUPC is 693 kWh per month

³ Projected AUPC is 1,681 kWh per month



APPENDIX

2022 Capacity & Supply Plan Overview



2022 Plan Year April 2022 – March 2023

North	South	IN Total	Description
65.0 (Bcf)	10.5 (Bcf)	75.5 (Bcf)	Forecast Annual Purchases (excludes transport customers)
909,000 (Dth)	152,000 (Dth)	1.061 (Bcf)	Design Day (January 2023)
513,448 (Dth)	53,388 (Dth)	566,836 (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)
32,000 (Dth)	N/A	32,000 (Dth)	Propane Daily Withdrawals (Dth/day)

2022 Supply Plan – Price Stabilization Winter Volumes (Dth)



North Vols	%	South Vols	%
16,965,000	33%	2,352,250	27%
19,000,000	37%	3,675,000	42%
15,195,000	30%	2,757,750	31%
51,160,000	100%	8,785,000	100%
35,965,000	70%	6,027,250	69%
	19,000,000 15,195,000 51,160,000	19,000,000 37% 15,195,000 30% 51,160,000 100%	19,000,000 37% 3,675,000 15,195,000 30% 2,757,750 51,160,000 100% 8,785,000

Key Observations – Winter 2022-23



Challenges

- Natural gas prices are the highest since 2008 increased volatility
- Lack of infrastructure may limit connectiveness and growth
- · Supply growth has lagged demand

Strengths

- Weather and economic growth have spurred demand growth
- Production expected to grow at least through 2023
- Abundant US natural gas supply potential remains
- Current market indicates prices easing after winter

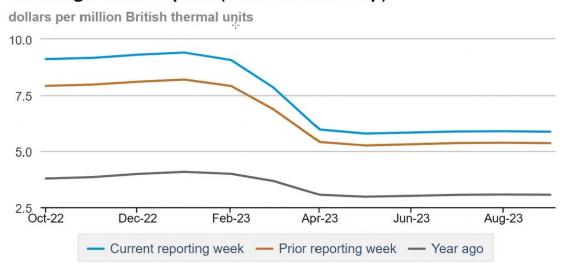
Customers will continue to be served with a balance of reliability, reduced price volatility and price protection.

Key Observations – Future Prices



Natural gas futures prices decline by end of winter

Natural gas futures price (twelve-month strip)



Source: U.S. Energy Information Administration Natural Gas Storage Dashboard, September 15, 2022



Electric Winterization Activities



- Verify all permanent 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.
- Ensure small propane heaters are available for employees to use to thaw out any instrument control lines that are showing signs of beginning to freeze.
- Cooling towers at Brown have an automatic de-icing program that cycles fans in reverse to melt any ice build-up on baffles to prevent a tower collapse. The water temperature setpoints are raised in extreme cold temps to help prevent icing as well.
- Some critical auxiliaries such as small cooling towers for soot-blowing compressors have a 'winter mode' of operation to prevent freezing as well.
- There is a winter shutdown procedure in case of a unit trip to get critical equipment drained to prevent damage in prep for restarting, bypassing the cooling towers as well.
- Ash systems are rotated between bottom ash and fly ash every two to three hours to prevent the ash pipes going to the ash pond from freezing up as these are above ground.

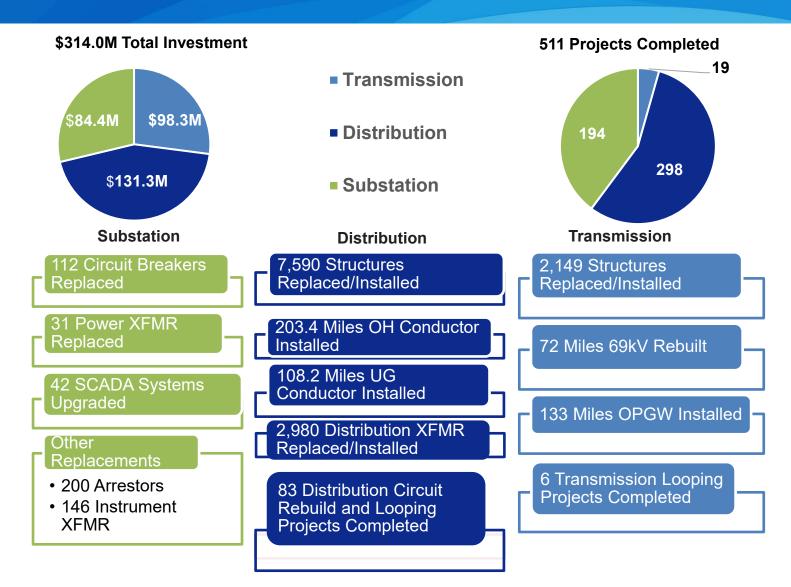
Electric Winterization Activities



- The Scrubber belt filters are left on during temperatures below 32 degrees to prevent icing/mechanical issues.
- Placing additional insulation around windows and in buildings that contain equipment and processes that require water to operate. An example is the FGD buildings.
- Ensure portable heaters and plenty of fuel is available if needed to maintain adequate temperatures in any out-buildings
- The AB Brown plant has one combustion turbine that can be started and operated on fuel oil and used to black start other units at the Brown site to help bring the grid back if needed. This process is tested periodically.
- 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.

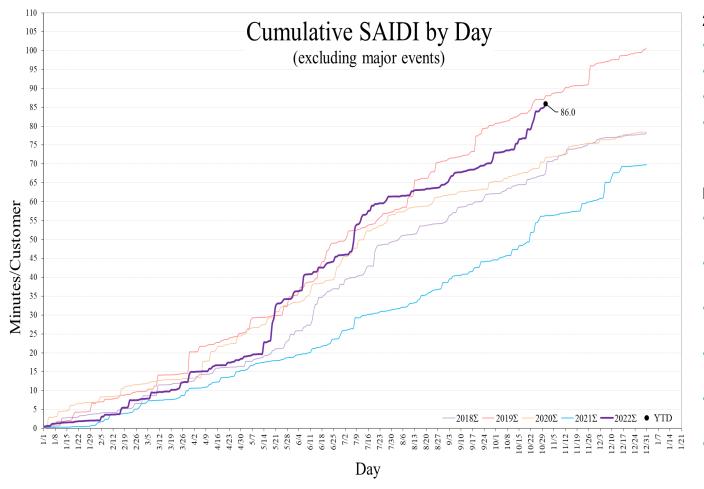
2017-2021 TDSIC Investments





Commitment to Customer Reliability





2022 Reliability - Oct. 31

- SAIDI 86.0 minutes
- SAIFI 0.87 interruptions
- CAIDI 99.4 minutes
- Challenging October –
 5 complete substation outages in less than a week

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
- Started Electric TDSIC in 2017