

The Central District is pleased to bring you the latest information concerning utility rates, project developments, Public Service

Commission actions and other news you can use. I hope you will find this information to be a useful resource to learn about the Public Service Commission, consumer issues and the continuous work we are doing for the citizens in the Central District and across the state of Mississippi. Thank you again for allowing me to serve you in this capacity.

# Regulators, Utilities, Developers, Analysts and Other Stakeholders Discuss Resource Adequacy

For nearly three days this week, I have been in Saint Louis, Missouri, with several of my Public Utility Commission colleagues, staffs and more to discuss the current challenges facing the electric utility industry as a whole and the potential changes and solutions that need to be considered to maintain a diverse, balanced, forward-looking portfolio of cost-reasonable energy resources. The Organization of MISO States (OMS) Resource Adequacy Summit 2.0 brought together subject matter experts from around the nation to share information on the tools, techniques and policies that helps states, grid operators and the industry collectively maintain system reliability.

Resource adequacy is the ability of a utility's reliable capacity resources (electricity supply) to meet their customers' energy or system loads (demands) at all hours. In the recent past, resource adequacy was achieved simply by having a sufficient base load supply of electricity plus a margin of excess electricity supply to accommodate spikes in demand or make up for the temporary loss of a generation unit.

BREAK 2:30-2:45PM

From left to right: Commissioners Tyler Heubner (WI), Dan Scripps

From left to right: Commissioners Tyler Heubner (WI), Dan Scripps (MI), Lori Cobos (TX), Sarah Freeman (IN), Julie Fedorchak (ND), Brent Bailey (MS), Michael Carrigan (IL).

However, the power supply/ demand equation has become much more complex with the rapid addition of intermitted resources, fuel logistics and security challenges, evolving federal environmental regulations, state decarbonization policy directives, extreme weather events, and generator weatherization costs, just to name a few. Throughout the Summit, panels of speakers discussed their experiences, concerns, ideas and work to develop methods, practices and processes that will provide customers and regulators with confidence that the bulk electric system will remain reliable and resilient in the face of numerous challenges.



Cooperative Energy Celebrates Morrow Repower Project

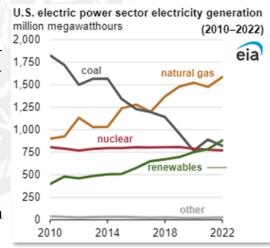
On Monday, May 15, 2023, Cooperative Energy held a ribbon cutting for the <a href="new R.D. Morrow">new R.D. Morrow</a>, Sr. Generating <a href="Station">Station</a> (Morrow Repower Project). The facility recently achieved commercial operation as an advanced-class natural gas unit capable of producing 572 MW of electricity for the benefit of its eleven distribution cooperative members and the 445,000 meters they serve in south and west Mississippi.

The new plant operates on the site of Cooperative Energy's original 1978 coal facility. In 2018, Cooperative Energy announced a 5-year plan to convert the plant from coal to natural gas due to improved efficiency, economic, as well as political factors. Now complete, the plant generates more electricity more economically and provides the operational flexibility necessary to balance the increase in renewable energy sources across the state and country. Cooperative Energy employees collectively spent nearly 300,000 work hours on the Morrow Repower Project, yielding more than \$12 million in project savings. The new plant was completed ahead of schedule and below budget.

### U.S. Electric Generation Capacity Continues to Evolve Over Time

In 2022, electric power generation from renewable sources—wind, solar, hydro, biomass, and geothermal—surpassed coal-fired generation in the electric power sector for the first time. Renewable generation surpassed nuclear generation for the first time in 2021 and continued to provide more electricity than nuclear generation in 2022. Meanwhile, natural gas remained the largest source of U.S. electricity generation.

Natural gas's share of electricity generation increased from a 37% share of U.S. generation in 2021 to 39% in 2022. The share of coal-fired generation decreased from 23% in 2021 to 20% in 2022. The share of nuclear generation decreased from 20% in 2021 to 19% in 2022. Renewable resources stand at 21% of total electricity generation in 2022.



For 2023, the U.S. Energy Information Administration predicts that electricity generation from renewables will increase, natural gas will remain the same, coal will decrease due to plant retirements, and nuclear will increase with the addition of the Vogtle 3 unit in Georgia.

So where do we go from here towards 2050? The EIA's Annual Energy Outlook projects growth in overall energy consumption due to the effects of economic growth, population growth and increased travel. The growth in energy consumption is predicted to outpace improvements in energy efficiency. The share of U.S. electricity consumed in the residential and transportation sectors is predicted to increase the most as demand for space cooling increases and electric vehicles gain a larger market share.

#### IEEFA Report: Coal Use Decreases as Coal Plants Face Wave of Retirements

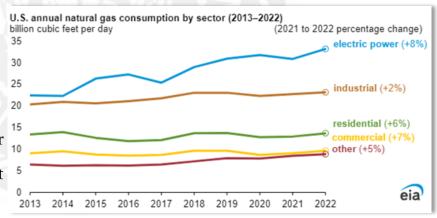
By 2026, the Institute for Energy Economics and Financial Analysis (IEFFA) projects the U.S. coal-fired fleet will be down to 159 GW, as gas, wind and solar power supplant it. Furthermore, they predict coal-fired generation will be down to 116 GW by 2030. Coal-fired power production peaked in the U.S. at 318 GW in 2011. The IEFFA report, "U.S. on Track to Close Half of Coal Capacity by 2026" also found that the remaining coal plants now burn less than half as much coal and produce less than half as much electricity as they did in 2011.

Coal generation and capacity may continue to fall faster, as aging units face higher operation and maintenance costs, federal environmental regulations become more stringent, and utilities increasingly favor the responsiveness of gas generation and battery storage to complement the variable output from solar and wind, both of which continue to be built at a rapid clip. Reduced generation means reduced demand for coal as a fuel. This could result in mine closures, layoffs, and falling tax and royalty payments in coal-producing states.

Overall, the closures are widespread. The 173 coal-fired units closing between now and 2030 are located in 33 states. The majority of units will be more than 50 years old when they are closed. For utilities, the rising cost of maintaining and operating these units, especially when cheaper, more flexible, and far more technologically advanced generation alternatives are available, makes retirement an increasingly attractive option. By the end of 2022, U.S. coal-fired capacity fell below 200 GW.

### U.S. Natural Gas Consumption Hit Annual Record in 2022

In 2022, U.S. natural gas consumption averaged a record 88.5 billion cubic feet per day (Bcf/d)—the highest annual natural gas consumption according to records beginning in 1949. U.S. natural gas consumption in 2022 increased 5% (4.5 Bcf/d) from 2021, the second-fastest year-over-year growth since 2013. Furthermore, natural gas consumption in the U.S. set monthly records in 9 of 12 months in 2022!



Natural gas consumption generally peaks twice a year in the U.S.: during the winter for primarily heating and during the summer for primarily electric power generation. In winter, most natural gas consumption is driven by the residential and commercial sectors when demand for space heating peaks. In summer, most natural gas is consumed in July or August by the electric power generation sector to meet air-conditioning demand. In fact, summer 2022 was the third-warmest on record in the U.S. Lower 48 states, leading to strong demand for air conditioning and resulting in new daily records for electricity generation in July. As a result, more natural gas was consumed in the electric power sector. Then Winter Storm Elliott hit in December 2022 which again led to another monthly record for natural gas consumption as demand for heat and electricity jumped.

What goes up must come down, correct? Natural gas consumption in the first two months of 2023 did just that!



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The EIA reported that domestic consumption of natural gas fell to a six-year low in January and to a five-year low in February. Natural gas inventories were 19% higher than the five-year average at the end of March. Even with Winter Storm Elliott, less natural gas was withdrawn from storage the past winter than in the previous seven winters.

U.S. natural gas production grew by 4% (4.9 Bcf/d) in 2022, averaging 119 Bcf/d. U.S. natural gas production increased 5.5% (5.2 Bcf per day) during the winter months. The growth in U.S. natural gas production and reduced space heating consumption due to relatively mild winter temperatures accounted for less overall natural gas withdrawn this winter—despite increased use in electric generation and a steady LNG export market. These factors result in the EIA Natural Gas Dashboard to forecast natural gas prices to remain below \$4.00 per MMBtu through the next winter heating season and into the spring of 2024. As of May 15, prices at the Henry Hub were trading below \$2.40 per MMBtu.

#### Last Week at the MPSC

- Atmos Energy Corporation filed its <u>Rule 7.103 Construction Notice</u> for the Durant Lumber Mill project in **Holmes County**. This Supplemental Growth project will install 446 feet of 4-inch steel and 10,846 feet of 4-inch High-Density Polyethylene main along Highway 51 to provide gas for a new lumber yard in Durant. The estimated cost of the project is \$1,312,705.14.
- Atmos Energy Corporation filed another <u>Rule 7.103 Construction Notice</u> for a project in Carroll County. This System Integrity project will replace approximately 16,000 feet of 6-inch invasion tubing pipe on the Greenwood-Grenada Line near CR106. The estimated cost of the project is \$3,326,290.
- The Public Utilities Staff prepared and filed the monthly Purchased Gas Adjustments (PGA) Audit Reports for the following entities: <a href="Maintenance-Atmos Energy">Atmos Energy</a>; <a href="CenterPoint Energy">CenterPoint Energy</a>; <a href="Spire Mississippi">Spire Mississippi</a> <a href="Inc.">Inc.</a>
- Entergy Mississippi, LLC filed its Notice of Integrated Resource Planning (IRP) 2024 IRP Cycle for 2024 IRP. The IRP Rule establishes resource planning reporting requirements and deadlines for electric utilities. Rule 29 provides that each IRP cycle begins with an electric utility filing a Notice of IRP Cycle. The Notice of IRP Cycle triggers additional deadlines, including a public workshop which is supposed to occur within 30 days of the electric utility filing its Notice of IRP Cycle. Entergy Mississippi, LLC is requesting a two-month extension so that its public workshop can take place on August 15, 2023, and so that its 2024 IRP can be filed on August 15, 2024. Entergy Mississippi, LLC desires to provide stakeholders with a 2024 IRP that is based on the most current factors, data and resource assumptions.



#### Continued...

The Commission issued its Report and Recommendation of the Hearing Examiner in regard to the Petition of Ragsdale Solar, LLC, for a Certificate of Public Convenience and Necessity Authorizing the Construction and Operation of a 100 MWac Solar Electric Generating Facility in Madison County. The Facility will be located on an approximate 1,400 acres, which Ragsdale has a portion under lease and the remainder under options to purchase. Ragsdale has entered into



a Virtual Power Purchase Agreement (VPPA) with a company that seeks to obtain renewable energy credits for one or more of its facilities without directly purchasing energy from **Ragsdale**. Under the VPPA structure, **Ragsdale** will sell the entire electric generation output of the Facility, at wholesale, into the **Midcontinent Independent System Operator** (**MISO**) energy market through an interconnection with **Entergy Mississippi**. The capital investment is estimated to be in excess of \$160,000,000 resulting in significant ad valorem tax revenue to Madison County and the local school district. A generator interconnection agreement has been executed between **Ragsdale**, **Entergy Mississippi**, and **MISO**. Facility construction will create up to 200 full-time equivalent construction jobs at its peak. The planned commercial operation date of the Facility is October 31, 2024.

















We enjoyed reconnecting with utility representatives and media at the 3rd Annual Joint Electric Cooperatives Media Day at Southern Pine Electric's Headquarters in Taylorsville last week. We appreciate the opportunity to speak on the collaborative efforts of the Commission, the co-ops and the media to protect the public before, during and after extreme weather events. We thank Jan Collins and her team for always hosting such a highly informative event! Looking forward to next year!



Last week, our **Consumer Complaint** Specialists handled a total of 30 complaints in the Central District.

**Electric Companies** 27 **Natural Gas** Water/Sewer 2

Last week, the Central District received a total of 166 complaints from consumers against potential telemarketers through our no call app, website and mailins. We encourage consumers to file telemarketing complaints with the Federal Trade Commission at http:// www.donotcall.gov/ in addition to filing complaints with the Mississippi Public Service Commission.