June 29, 2022



FROM THE DESK OF COMMISSIONER **BRENT BAILEY CENTRAL DISTRICT OFFICE**



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. Brent Bailey

Nuclear Energy: Steady, Safe, Emission-Free

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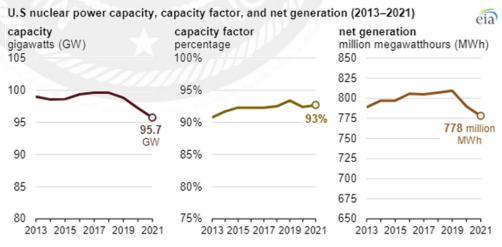
was hoping to write this week's newsletter from Idaho Falls, Idaho, and recap my visit to Idaho National Lab (INL) where I was to tour the latest in nuclear energy reactor technology and other advanced energy systems as part of my participation in the NARUC-DOE Nuclear Energy Partnership. INL is leading the nation's research in advanced nuclear energy technology. However, due to well-known challenges in today's airline transportation industry, my trip ended before it could even begin. Thus, I am taking advantage of some much needed time in the office. However, I do wish to provide a recap of the status of the nation's nuclear generation fleet in this week's newsletter.

As the nation's electricity producers move steadily toward a reduced carbon energy future, nuclear power is believed to be an essential part of the journey. However, for the second consecutive year, U.S. nuclear electricity generation has declined. Six nuclear generating units with a total capacity of 4,736 megawatts (MW) have retired since the end of 2017. Three more reactors with a combined 3,009 MW of capacity are scheduled to retire: Michigan's Palisades retired on May 20, and California's Diablo Canyon is slated to retire one generating unit in 2024 and one in 2025. Financial pressures from competitive wholesale power markets remain the primary cause of nuclear power plant retirements.

Two nuclear generating units now under construction in Georgia (Vogtle Units 3 and 4) plan to come online by the end of 2023. Each unit is rated at 1,114 MW, and they will be the first nuclear units to come online in the United States since Tennessee's Watts Bar Unit 2 came online in mid-2016. Currently, there are 54 commercially operating nuclear power plants with 92 nuclear reactors in 28 U.S. states. Of the currently operating nuclear power plants, 19 plants have one

reactor, 32 plants have two reactors, and 3 plants have three reactors.

Capacity factors measure how much of the time units operate, and nuclear units tend to operate more of the time than almost all other electricity-generating technologies. The U.S. nuclear power fleet has achieved an average annual capacity factor of at least 90% in every year since 2012.



The nuclear capacity factor averaged 93% in 2021.

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DID YOU KNOW? **Everv** morning, each nuclear electricity generator in the United States reports its operating status to the Nuclear Regulatory Commission (NRC). The NRC compiles this information in its Power Reactor Status Report. and the Energy Information Administration (EIA) presents that information in interactive visualizations on its Status of Nuclear Outages page. The page includes two maps showing the capacity and outage status of U.S. nuclear plants.

Nuclear power reactors are typically refueled every 18 to 24 months. Nuclear plant operators generally schedule refueling outages for the fall and spring months when the demand for electricity is usually lowest because demand for heating and cooling is lower. Although the refueling process can be completed in as few as 10 days, outage periods are typically longer because maintenance activities are conducted concurrently with refueling to minimize downtime over the course of the year.

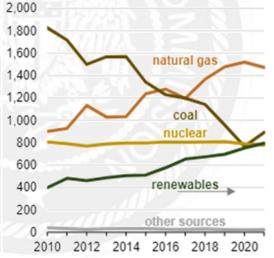
Electric power sector generation from renewable sources totaled 795 million megawatt hours (MWh) in the United States during 2021, surpassing nuclear generation, which totaled 778 million MWh. Renewable generation includes electricity generated from wind, hydropower, solar, biomass, and geothermal sources. Natural gas remained the most prevalent source of energy used in electricity generation in the U. S., accounting for 1,474 million MWh in 2021.

Nuclear power generation has remained relatively steady in the U. S. during the past decade because uprates at existing facilities have offset the lost capacity due to retirement of other reactors. Despite a slight increase in the capacity factor of the U.S. nuclear fleet in 2021, U.S.

nuclear electricity generation fell to its lowest level since 2012.

The Infrastructure Investment and Jobs Act of 2021 included the allocation of \$6 billion to prevent the premature retirement of existing nuclear power plants. The funding will be made available to nuclear power plants that might otherwise retire due to financial constraints but are certified by the Nuclear Regulatory Commission as safe to continue operations. The Civil Nuclear Credit (CNC) Program was created to support the continued operation of U.S. nuclear reactors most at risk of premature closure due to economic hardship. The deadline to submit applications for the first CNC award cycle is July 5, 2022.

U.S. electric power sector electricity generation (2010–2021) million megawatthours



The nuclear energy industry is pursuing a wide range of new systems that will be demonstrated within the next decade. These reactors use materials and technologies that allow for the reactors to be smaller and more flexible and operate at higher temperatures. These higher temperatures result in more efficient electricity generation and heat for industrial processes, along with reduced costs. Nuclear energy can work in harmony with other energy sources, including renewables. It can provide primary or emergency power generation to fill production gaps left by solar or wind energy generation. Nuclear can also provide energy for other purposes such as hydrogen production, water purification and heat for industries.

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I am disappointed that I was not able to visit INL and see the Advanced Test Reactor, Materials and Fuels Complex, Cybercore Integration Center and so much more. Perhaps there will be another opportunity in the future. I do plan to focus future newsletters on other aspects of nuclear energy such as small modular reactors and the future of spent nuclear fuel in the U.S.

New Reports of Interest to Energy Stakeholders

Regulation and Electric Utility Industry Monopoly Status Focus of NRRI Paper

The National Regulatory Research Institute has released a new Insights paper on the growing importance of public utility commission oversight of anti-competitive behavior by electric distribution utilities as they transform from simple providers of distribution services to integrators and gatekeepers of new service opportunities. "<u>Regulation and the Monopoly Status of the Electric Distribution Utility</u>" examines this transformation and the growing role of state public utility commissions in determining what economic

NRRInsights Practical perspectives on critical policy issues.

Regulation and the Monopoly Status of the Electric Distribution Utility Carl Pechman. PhD

This paper addresses the growing risk of anti-competitive behavior by electric distribution utilities as a result of their transformation from a single provider of homogeneous distribution services to an integrator and gatekeper of new service opportunities. Given this transformation, state public utility commissions (PUC) will have a growing role in determining what economic functions are provided by franchised monopoly companies or by competitive markets.

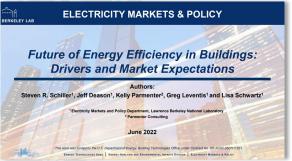
"Regulatory Compact," the relationship between a regulated monopoly provider and the price that it charges:

If the king or subject have a public wharf unto which all persons that come to that port must come as for the purpose to unlade or lade their goods, because they are the wharfs only licensed by the queen, ... there cannot be undertaken arbitrary and excessive duties or cranage, wharf-

functions are best provided by franchised monopoly companies or by competitive markets.

DOE Explores Future Building Efficiency Improvement Pathways

A new report, *Future of Energy Efficiency in Buildings: Drivers and Market Expectations*, summarizes identified drivers and insights about likely future attributes of building efficiency markets. Researchers found that the most important drivers for efficiency investments in buildings are (1) public policies and regulations, particularly related to decarbonization, and (2) the cost of energy, relative to the cost of energy efficiency. Other important drivers are efficiency technologies, economic



conditions, societal priorities, and business practices of utilities and other efficiency service providers.

Solar's Impact on Agricultural Land

A new report, *North Carolina Solar Land Use and Agriculture*, finds more than two-thirds of large-scale solar farms in North Carolina sit on land previously used for agriculture, but take up just 0.27% of the state's 11 million acres of farmland or 0.12% of all land area in North Carolina. Meanwhile, parks, golf courses and single-family residential developments account for more than 10% of former agricultural land conversion. At the end of 2021, North Carolina ranked 4th in the nation in installed solar capacity. By comparison, Mississippi has 10.4 million acres of farmland and ranked 49th in installed solar capacity at the end of 2021.



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Actions at the Federal Energy Regulatory Commission (FERC)

The FERC held its monthly public meeting on June 16, 2022. FERC issued at least three proposed rules that focused on improving the reliability of the bulk power system against the threats of extreme weather, understanding of how transmission providers identify and mitigate risks to transmission assets and operations caused by extreme weather events, and expediting the current process for connecting new electric generation facilities to the grid.

<u>First</u>, the FERC proposes to require the North American Electric Reliability Corporation (NERC) to develop reliability standard modifications to require that:

- NERC develop benchmark planning cases based on information such as major prior extreme heat and cold weather events or future meteorological projections;
- Transmission providers conduct studies of extreme heat and cold conditions including the expected resource mix's availability during such extreme conditions; and
- Transmission providers develop corrective action plans for any instances where performance requirements for extreme heat and cold events are not met.

<u>Second</u>, the FERC proposes to direct transmission providers to submit one-time reports describing their policies and processes for conducting extreme weather vulnerability assessments and identifying mitigation strategies.

<u>Third</u>, the FERC to address significant current backlogs in the interconnection queues by improving interconnection procedures, providing greater certainty and preventing undue discrimination against new generation. The proposed rule includes several reforms:

- Implement a first-ready, first-served cluster study process.
- Improve interconnection queue processing speed.
- Incorporate technological advancements into the interconnection process.
- Update modeling and performance requirements for system reliability.

MPSC staff will be evaluating these proposed rules and will respond accordingly.

Last Week at the MPSC

☞ The Mississippi Public Service Commission entered an Order for the purposes of entering into a Partial Settlement Agreement and Offer of Settlement with Entergy Mississippi and other parties. Please see last week's <u>newsletter</u> to get all the details surrounding the \$300 million Settlement.

- The Mississippi Public Service Commission entered an Order approving the annual redetermination of the Total Benefits of Distributed Generation under Entergy Mississippi's Net Energy Metering Rider Schedule NEM-1.
- ☞ The Mississippi Public Service Commission entered an Order approving CenterPoint Energy's continuation of its Small Commercial Redevelopment Rider SC-1.
- The Mississippi Public Service Commission Northern District entered a <u>Recommended Order</u> <u>Granting Facilities Certificate</u> for City of Grenada to construct certain improvements to its water system.
- The Mississippi Public Service Commission Hearing Examiner entered a <u>Recommended Order</u> <u>Approving Sale & Transfer of CPCN</u> of Cedar Grove-Harmony Water Assoc. to Bunker Hill Water Assoc.
- ▷ The Chickasawhay Natural Gas District submitted an <u>Application for CPCN</u> to enlarge its service area in Clarke County, MS.

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CENTRAL DISTRICT SNAPS





The MPSC's July Regular Docket Meeting will be held at 10:00 am on Tuesday, July 12. The meeting is open to the public and will be streamed online. We were back on the Mississippi Gulf Coast this week for the Mississippi Municipal League Annual Conference! We hope you had the opportunity to stop by our booth to visit with Davis, our Legal and Policy Advisor, and Tina, the Director of our Consumer Complaint Division! Looking forward to next year!

Happy 4th of July!

The Central District wishes everyone a fun and safe holiday weekend celebrating America's 247th anniversary!





Last week, our Consumer Complaint Specialists handled a total of 28 complaints in the Central District.

Electric Companies24Telecommunications2Natural Gas1Water/Sewer1

Last week, the Central District received a total of 154 complaints from consumers against potential telemarketers through our no call app, website and mail-ins. We encourage consumers to file telemarketing complaints with the Federal Trade Commission at <u>http://</u> <u>www.donotcall.gov/</u> in addition to filing complaints with the Mississippi Public Service Commission.