

August 25, 2021



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*

## Grid Reliability was Tested in 2020, but the System Performed Well

**B**ack in January, this newsletter covered the role of the [North American Electric Reliability Corporation](#) (NERC) and its mission to assure the effective and efficient reduction of risks that may impact the reliability and security of the grid. NERC develops and enforces Reliability Standards; monitors the bulk power system through system awareness; and educates, trains, and certifies industry personnel.

NERC also annually assesses seasonal and long-term reliability of the bulk power system. Last week, NERC released its [2021 State of Reliability Report: An Assessment of 2020 Bulk Power System Performance](#). The report recognized that the North American bulk power system faced numerous challenges in 2020, including extreme weather, cyber and physical threats, and a rapidly changing generation resource mix, all within the context of a global pandemic. Furthermore, the report found that the overall grid continued to perform well, while highlighting key concerns for managing an evolving system, including energy adequacy, sensitivities to weather events, supply chain issues and a surge in cyber security attacks.

Extreme weather events impacted each Interconnection region and all levels of the bulk power system. A record 30 named storms formed during the 2020 hurricane season in the Atlantic with 13 becoming hurricanes and 6 becoming major hurricanes—Category 3 or higher. The most notable were Hurricanes Isaias, Laura and Zeta. Collectively, the 2020 hurricanes caused \$60–65 billion dollars of physical and economic damage. A brutal Nor'easter lashed the Northeast. A powerful derecho swept across the Midwestern states. An ice storm moved across northern Texas resulting in widespread outages. The western U.S. endured an intense and prolonged heat wave that caused a record peak demand. Wildfires in the western U.S. and changes in operating protocols caused some transmission to be temporarily taken offline. Over the past five years, four of the top 10 Severe Risk Index (SRI) Days occurred in 2020.

| Table 4.3: 2016-2020 Top 10 SRI Days |                    |                             |                        |                          |                       |   |                               |
|--------------------------------------|--------------------|-----------------------------|------------------------|--------------------------|-----------------------|---|-------------------------------|
| Rank                                 | Date               | SRI and Weighted Components |                        |                          |                       | Event Type<br>(*Weather Influenced)           | Regional<br>Entity            |
|                                      |                    | SRI                         | Weighted<br>Generation | Weighted<br>Transmission | Weighted<br>Load Loss |   |                               |
| 1                                    | September 14, 2018 | 4.33                        | 1.34                   | 0.46                     | 2.53                  | Hurricane Florence*                           | SERC                          |
| 2                                    | March 2, 2018      | 4.22                        | 0.90                   | 0.41                     | 2.90                  | Winter Storm Riley*                           | NPCC                          |
| 3                                    | January 2, 2018    | 4.06                        | 3.81                   | 0.15                     | 0.10                  | Winter Storm Grayson*                         | SERC, RF, MRO, NPCC, Texas RE |
| 4                                    | November 15, 2018  | 4.05                        | 1.85                   | 0.25                     | 1.95                  | Winter Storm Avery*                           | RF, NPCC                      |
| 5                                    | October 28, 2020   | 3.98                        | 1.22                   | 2.06                     | 0.71                  | Ice Storm* and Hurricane Zeta*                | Texas RE, MRO, SERC           |
| 6                                    | August 4, 2020     | 3.72                        | 1.22                   | 0.77                     | 1.73                  | Hurricane Isaias*                             | SERC, RF, NPCC                |
| 7                                    | October 11, 2018   | 3.70                        | 0.98                   | 0.53                     | 2.19                  | Hurricane Michael*                            | SERC                          |
| 8                                    | August 27, 2020    | 3.63                        | 1.52                   | 0.51                     | 1.60                  | Hurricane Laura*                              | MRO, SERC, Texas RE           |
| 9                                    | May 1, 2017        | 3.59                        | 1.76                   | 0.31                     | 1.53                  | Unrelated coincidental generator outages      | SERC, RF                      |
| 10                                   | January 12, 2020   | 3.59                        | 0.63                   | 0.92                     | 2.04                  | Arctic outbreak and extreme cold* Nor'easter* | WECC NPCC, RF, SERC           |



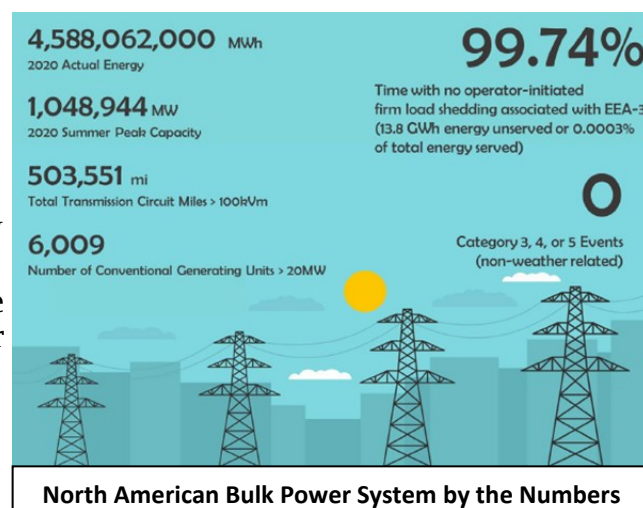
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The threat of a cybersecurity incursion culminated with the news of the cyber-attack leveraged through the SolarWind's Orion software by a capable nation-state adversary. NERC determined that 25% of electric utilities had downloaded the malicious software. The lessons learned from this discovery and knowing that adversaries will continue to adopt and launch new tactics means that the energy sector must put cyber security at the forefront of resilience planning going forward.

The speed at which the energy resource mix is changing varies significantly across different part of the U.S. Notably, the on-peak capacity of coal had decreased by 56,000 megawatts (MW) over the last 10 years. During that time, natural gas added 29,500 MW, wind added 7,700 MW, and solar added 21,400 MW. Renewable resources are variable by nature and performance is dependent on weather conditions.

Finally, the global COVID-19 pandemic resulted in work force and process changes that were unprecedented. Thankfully, regular industry-wide tabletop planning exercises anticipated the impacts of pandemic-like events years ago and these procedures were fully deployed. Because of this preparedness, there were few or no reported infections among control room or transmission operating crews.

While 2020 was an exceptional year, the number of level 3 energy emergency alerts were lower than 2019. There was no category 3, 4 or 5 events in 2020 — unintended loss of load or generation of 2,000 MW or more — and only 118 qualified events overall, compared with 151 in 2019 and 180 in 2018. Despite the drop in key indicators, the total hours of operator-initiated firm load shed was 22.4 hours, the highest level in five years. This load loss was attributed to Hurricane Laura and the western heat wave. All in all, the bulk power system did not experience any cascading or uncontrollable outages and data indicates that day-to-day reliability operations are improving and systems are being restored faster where outages do occur. However, the metrics in next year's report will likely be worse when factoring in the impact of February's winter storms that left millions without power for days.



NERC also provides a forward-looking view of projected risks to the bulk power system via its [2021 ERO Reliability Risk Priorities Report](#). The report examines industry views on risks to the North American grid and helps inform activities and analysis. The Reliability Issues Steering Committee (RISC) researched interviewed and surveyed electric reliability stakeholders. Respondents identified 11 risks and ranked them. From the highest to lowest, the identified risks to reliability are: Changing Resource Mix; Cybersecurity Vulnerabilities; Resource Adequacy and Performance; Critical Infrastructure Interdependencies; Loss of Situational Awareness; Extreme Natural Events; Physical Security Vulnerabilities; Bulk Power System Planning; Control and Protection Systems Complexity; Human Performance and Skilled Workforce; Electromagnetic Pulse.

I find it interesting that “Changing Resource Mix” is considered the highest risk threat to reliability of the bulk power system. Respondents refer to aggressive decarbonization goals, additions of natural gas, renewables and battery storage technologies, aggregation of demand side resources, and the shift from centralized generation as drivers of grid transformation. The big questions are can grid infrastructure keep up as it ages and what are the costs to ensure the system can adequately deliver during times of stress? Regulators must continue to work with industry and consumers to stay in front of known risks and be ready for any new risks that may emerge.







## Other News

### White House Says Solar Can Provide 40% of U.S. Power by 2035

Solar power in the U.S. has grown 4,000% percent over the last decade, but it still only accounts for 3% of electricity generation. However, the Biden Administration wants to change that. The Department of Energy claims that solar could provide 40% of the country's electricity by 2035 — if the government enacts supportive policies. To meet this target, solar's growth rate will need to triple — or even quadruple — by 2030. That means costs will have to keep dropping. Solar's levelized cost of energy, which allows it to be compared to other forms of power generation, has fallen more than 70% over the last decade. The Department of Energy's goal is for the levelized cost of energy for a solar residential system to reach 5 cents per kilowatt hour by 2030. The U.S. currently has 97,000 MW of total solar capacity installed, enough to power roughly 17.7 million homes.

## Last Week at the MPSC

-  The following have filed comments to **Entergy MS, LLC's** Notice of Integrated Resource Plan Cycle pursuant to Commission Rule 29: [Sierra Club](#); [Flora Real Estate & Development](#)
-  **Great River Utility Operating Co., LLC** filed the [evidence](#) of closing the sale and transfers of several water systems as required by the Post-Order Water Compliance Docket No. 2021-AD-115, as well as the [evidence](#) of closing the sale and transfers of several sewer systems as required by the Post-Order Sewer Compliance Docket No. 2021-AD-116. **Great River Utility Operating Co., LLC** also filed Notice of the Company's Wastewater System Rehabilitation Project for several sites, including [Fairways Subdivision](#) in **Warren County** and [Red River](#) in **Hinds County**.
-  The **Commission** issued Orders Allowing Withdrawal of Notice Filings in regard to the Notices of **Town of Flora's** intent to establish rates for its [water](#) and [sewer](#) services in its certificated area in **Madison County**.
-  The Commission issued a [Report and Recommendation on Order of the Hearing Examiner](#) approving the joint petition of **T & J Utility Company, Inc., Quality Utilities Inc.,** and **Steve Womack** for approval of transfer of stock and change of control. [T&J Utilities](#) and [Quality Utilities, Inc.](#), which provides wastewater treatment services to residents of **Warren County**, each filed its Assignment of Stock.



Last week, our Consumer Complaint Specialists handled a total of **36** complaints in the Central District.

|                    |    |
|--------------------|----|
| Electric Companies | 25 |
| Telecommunications | 6  |
| Water/Sewer        | 4  |
| Natural Gas        | 1  |

Last week, the Central District received a total of **236** 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 <http://www.donotcall.gov/> in addition to filing complaints with the Mississippi Public Service Commission.*