September 2, 2020



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. Brut Bailey

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Energy Storage as an Energy Resource

Consumers are very familiar with the traditional energy resources of fossil fuels, nuclear and large hydropower. Even renewable energy resources such as wind, solar and geothermal are becoming more visible and recognizable in utility energy portfolios. Even though the demand for electricity rises and falls throughout the day, the amount of electricity that can be



generated generally cannot be quickly ramped up or down and therefore is relatively fixed over certain periods of time. *What if this excess electricity could be captured and stored for later use?*

As costs have fallen and performance and reliability have increased, competitive markets participants and vertically-integrated electricity providers are beginning to recognize the potential and unique nature of energy storage. Energy storage can smooth the intermittency of solar and wind power; it can respond to fluctuations in system demand and make the grid more responsive; and it can reduce the need to build backup power plants. This is an important attribute as energy storage can help meet electricity demand during high-cost, peak times and then recharge during off-peak when energy is cheaper.

Energy storage is not new. Batteries have been around in some form or fashion since the early 1800's. Pumped-storage hydro has been operating in the U.S. since the 1920's. Other forms of energy storage include <u>compressed air</u>, <u>flywheels</u> and thermal energy storage (for example, using <u>excess electricity to produce ice</u> that is later used for cooling). In addition to these forms of energy storage devices, new technologies are under development such as <u>flow batteries</u>, <u>super capacitors</u>, and <u>superconducting magnetic</u> <u>energy storage</u>.

Pumped-storage hydropower comprises 89 percent of all installed energy storage capacity in the U.S. at nearly 24 gigawatts. In Bath County, Virginia, the largest pumped-hydro storage facility in the world supplies energy to about 750,000 homes. It was built in 1985 and has an output of approximately 3 GW of energy.

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Meanwhile, lithium-ion battery technologies is dominating today's storage market and is responsible for driving the growth in energy storage deployment. In the past seven years, deployed battery storage capacity has increased eightfold, from just under 200 MW in 2013 to 1,597 MW in 2019. Forecasts predict that, by 2025, total installed battery storage capacity will increase to 7,317 MW – a \$7 billion annual market.



Some recent notable battery projects include: The largest lithium-ion battery storage system in North Carolina went online last week. The \$15 million, 9-MWh system is operating next to a Duke Energy substation near Asheville, N.C. Construction on a 100MW lithium-ion battery energy storage project in Fort Worth, Texas has begun and is scheduled to begin operations in mid-2021. The world's largest battery storage project, the 250MW Gateway Energy Storage facility, was unveiled in San Diego, California in early August.

Costs are declining for both lithium-ion and flow battery technologies, and it is difficult to predict where and when the prices will settle. But a recognition and deeper appreciation of energy storage's value and benefits will likely be a key factor in its growth. Among these benefits are:

- Improved power quality and the reliable delivery of electricity to customers;
- Improved stability and reliability of transmission and distribution systems;
- Increased use of existing equipment, thereby deferring or eliminating costly upgrades;
- Improved availability and increased market value of distributed generation sources;
- Improved value of renewable energy generation; and
- Cost reductions through capacity and transmission payment deferral.

A search of the <u>DOE Global Energy Storage Database</u> found no operational energy storage projects in Mississippi. However, three operational energy storage projects were found in Alabama: A 110,000 kW compressed air energy storage facility; a 215 kW flywheel; and a 300 kW lithium-ion battery paired with solar.

Researchers continue working to determine the best methods for storing energy while finding ways to drive down the costs. But we must also provide a policy and business environment that invites private-sector investments in energy storage technologies. Does this include adopting state or utility clean energy goals or carve-outs for energy storage systems? Or further clarifying the value of energy storage in regards to flexibility, resiliency and renewable energy shifting? Regardless of the direction taken, energy storage is proving itself to be a "game changer" and will no doubt play an important role as an energy resource in the near future.

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Highlights from the September 1 Docket Meeting

☑ The Commission **approved the sale and transfer** of Southeast Utilities LLC from Cynthia Bush to C&M Gas Holdings LLC. Southeast Utilities service approx. 540 customers in Walthall County.

 \square The Commission **approved a Certificate** for Cooperative Energy to construct and operate 3.2 miles of 69 kV transmission line in Magee, Simpson County.

☑ The Commission <u>approved the sale and transfer</u> of 3CM Southeast Gas Holdings LLC to Project Tarpon Holdco LLC. 3CM has a 13-mile, 6-inch gas pipeline and serves only one industrial customer.

 \square The Commission <u>approved</u> a 2-cent per residential customer per month reduction in Mississippi Power Co.'s regulatory tax recover (RTR) rate schedule. The reduction in the rate reflects the reduction in annual legislative appropriation. The MS Dept. of Revenue levies this annual tax to fund the necessary expenses of the MPSC and MPUS.

☑ The Commission **approved** Q Link Wireless for designation as an eligible telecommunications carrier (ETC) for the purpose of receiving federal universal service Lifeline support.

☑ The Commission voted to table Frontier Communication's application for transfer of control per The Joint Plan of Reorganization Pursuant to Chapter 11.

 \square The Commission <u>approved an Acquisition of Equity</u> of Windstream Holdings pursuant to a restructuring plan. In a related matter, the Commission <u>approved</u> a transfer of certain assets to Uniti Group.

 \square The Commission voted to table the application of transfer of Fiberlight LCC until the FCC publishes a public notice on this matter.

 \square The Commission issued an <u>Order</u> referring a matter involving the Town of Utica for hearing, report and recommendation. The Commission also considered and referred matters regarding the Town of Belmont and McGill Wellworks.



Last week at the MPSC

^C Mississippi Power Co. <u>notified</u> the Commission that it will be offering a 50W LED Area Fixture outdoor lighting option for a monthly charge of \$7.62.

The Monthly Purchased Gas Audit Reports through May 31, 2020, were prepared by Staff and submitted to the Commission: <u>Atmos Energy</u>; <u>CenterPoint Energy</u>; <u>Spire Mississippi</u>

The Public Utilities Staff requested addition information from Waste Water Solutions LLS regarding he <u>purchase of assets</u> of Mississippi Natural in Lamar, Lauderdale and Rankin Counties, and regarding the <u>purchase and transfer</u> of Developer's Inc. in Lauderdale County.

Entergy Mississippi filed a <u>Construction Notice</u> to install a 1200 Amp feeder breaker and associated circuit distribution line at its Gloster Substation in support of an industrial bioenergy customer to facilitate expansion and enhanced reliability for 2,011 other customers.

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Last week, our Consumer Complaint Specialists handled a total of 20 complaints in the Central District.

Electric Companies Telecommunications Water/Sewage 11 7 2

Our Pipeline Safety Division completed 5 construction inspections in the Central District during the month of August.

The total amount of construction notices that were received by the Commission in the Central District during the month of August is approximately \$2,225,592.

"Reporting of Construction Work"- The rule is found in Chapter 57.1: All Construction work involving gas facilities in which the estimated cost of proposed facilities is in excess of eight thousand dollars are related facilities that would be governed by the Federal Minimum Safety Requirements, will be reported in writing, or via telephone to the MS Public Service Commission prior to starting date of such construction. (There are exceptions for emergencies.)

The Commission encourages all intra-state natural gas operators to comply with the rule.

Last week, the Central District received a total of 206 complaints from consumers against potential telemarketers through our no call app, website and mail-ins. The top three general issues reported by consumers are related to financial/loans/ consolidating debt, health products/prescription drugs, and insurance.

We encourage consumers to file telemarketing complaints with the Federal Trade Commission at <u>http://www.donotcall.gov/</u> in addition to filing complaints with the Mississippi Public Service Commission.

Mississippi Public Service Commission • (601) 961-5430 • Toll-Free: (800) 356-6430 • <u>www.psc.ms.gov</u>