

August 18, 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

Hydropower has Been a Missed Opportunity in Mississippi

Humans have been harnessing the power of water to perform work for thousands of years. The Greeks used water wheels for grinding wheat into flour more than 2,000 years ago, while the Egyptians used Archimedes water screws for irrigation during the third century B.C. China developed trip hammers powered by water wheels in the second century B.C. However, the evolution of the modern hydropower turbine began in the mid-1700s when a French hydraulic and military engineer wrote the groundbreaking *Architecture Hydraulique*. Since then, more innovations in turbine technology came about with the [Francis turbine](#), the [Pelton wheel](#) and the [Kaplan turbine](#).



The Grand Coulee Dam is the largest hydropower generating complex in the U.S. at 6,809 MW.

Across the U.S. in the 1880's and 1890's, small hydropower plants were popping up around the country to power mills and light some local buildings. Some of the first commercial hydroelectric installations were the Redlands Power Plant in California in 1893 and the

Edward Dean Adams Power Plant built in 1895 at Niagara Falls. Soon after 1900, advances in hydropower facility designs and major policy initiatives, such as the New Deal and creation of the Tennessee Valley Authority, led to the construction of major projects like the Hoover and Grand Coulee dams. Hydropower accounted for 40% of the nation's electricity generation by 1940.

Hydropower was seen as one of the best ways to meet growing energy demand and was often tied to the development of energy-intensive industries such as aluminum smelters and steelworks. However, financial constraints and concerns about the environmental and social impacts of hydropower development halted many projects at the end of the last century.

Some countries are now reassessing hydropower's value and role in national and economic development. Existing practices have been pushed aside with new hydropower developments putting a greater focus on sustainability and affected communities. This shift resulted in a growing appreciation of hydropower's role in combatting greenhouse gas emissions, reducing poverty and boosting prosperity – particularly in Asia and South America. Between 2000 and 2017, nearly 500,000 megawatts (MW) in hydropower capacity were added worldwide. Overall global hydropower installed capacity reached 1,330,000 MW in 2020.



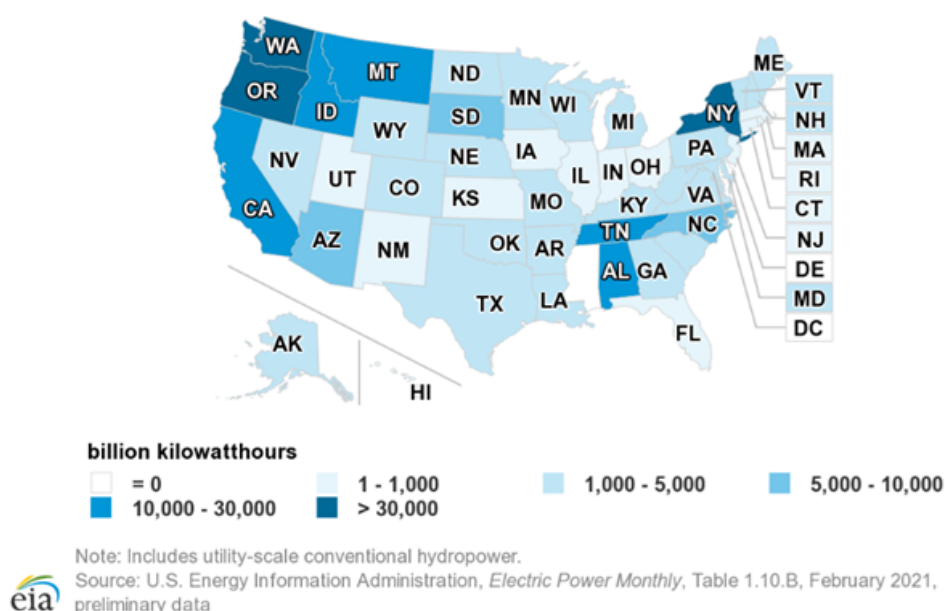
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The United States currently has 102,840 MW of hydroelectric generation capacity consisting of 79,946 MW of conventional hydroelectricity and 22,894 MW of pumped-storage hydroelectric generating capacity. Five states, including Alabama, make up 51% of hydroelectric generation capacity. Precipitation levels can have an impact on annual generation so capacity does not always reflect performance. Five states, including Virginia, South Carolina and Georgia, account for 61% of U.S. pump-storage hydroelectric capacity.

Still, hydroelectric generation capacity could be so much more. There are nearly 90,000 dams in the U.S. Only a small fraction (3%) generate power. The potential hydropower production from these existing impoundments could achieve 12,000 MW.

While there are conventional hydropower/hydroelectric facilities that are in nearly every state, one state sticks out as having zero generation from hydroelectric resources – Mississippi. Despite being surrounded by rivers (the Mississippi and the Tennessee-Tombigbee) and ocean (Gulf of Mexico) and having hundreds of miles of rivers and streams throughout the interior of the state, Mississippi has not facilitated the development of these types of projects. However, that could be changing very soon!

Hydroelectricity generation by state in 2020



Rye Development in conjunction with a funding partner is a developer of 22 run-of-river hydropower projects and holds 13 Federal Energy Regulatory Commission (FERC) licenses on existing dams in six states, [including four FERC licenses in Mississippi](#). These projects are located in the Yazoo River Basin on the four flood control dams owned and operated by the U.S. Army Corps of Engineers. The lakes are the Arkabutla, Enid, Grenada and Sardis. Ranging in capacity from 4.6 MW to 14.6 MW with a total capacity of 33.3 MW, the annual expected generation of 119,400 MWh will provide a valuable addition to the state's generation mix and can power up to 11,000 homes. Building these projects will create 150+ jobs and cost approximately \$80 million. With an expected lifespan of 80 years, these projects can contribute to the local economies for several generations.

Rye has also proposed constructing a hydropower facility at the Ross Barnett Reservoir near the Spillway. Analysis indicates that three 7-MW Kaplan turbines could generate 50,000 MWh annually. Three 14-foot diameter penstocks could be tunneled through the existing dam. This is a preliminary assessment and much work would need to be done to bring this to fruition.

Does hydropower have a future in Mississippi?

Time will tell. I know that I am excited about the opportunities for hydropower technology, whether it is run-of-river, wave power, tidal power, pumped-storage or other. I wish Rye Development and other innovators the best as they bring new clean energy resources to market.



Last Week at the MPSC

-  **Entergy Mississippi, LLC** filed its [Application](#) for approval of an Agreement to Provide Resiliency Service to the U.S. Army Corps of Engineers in Warren County.
-  **The Public Utilities Staff** filed **Great River Utility Operating Co., LLC's** approved Tariff Pages for the following subdivisions in the following counties: [Leland Pointe \(Warren\)](#); [Pine Woods \(Warren\)](#); [Pecan Village \(Warren\)](#); [Trace \(Warren\)](#); [Evening Shade \(DeSoto\)](#); [Center Hill \(Desoto\)](#); [Cedar Lane \(Adams\)](#); [Business Park \(Lamar\)](#)
-  **Aristotle Unified Communications, LLC** filed its [Motion](#) to supplement the June 7th order issued in Docket 2018-UA-224 expanding its Designated Service Area as an Eligible Telecommunications Carrier with an additional exhibit.
-  **Mississippi Power Company** filed its [Notice](#) of Intent of its filing of Regulatory Tax Recovery Clause Assessments for 2021.
-  **Entergy Mississippi, LLC** filed its [Joint Stipulation](#) with **Hernando Ventures** in regards to **Entergy Mississippi, LLC's** petition for a Certificate of Public Convenience and Necessity to acquire construct, own, operate and maintain a substation and related transmission and distribution lines and other facilities in **Desoto County**. In the same docket, the **Commission** issued a [Recommended Order of Hearing Examiner](#) on the petition for Certificate of Public Convenience and Necessity filed by **Entergy Mississippi, LLC** to acquire, construct, own, operate, and maintain a substation related to transmission and distribution lines and other facilities in **Desoto County**. The total estimated cost of the project is \$56.3 million.
-  **Entergy Mississippi, LLC** also filed its [Notice of Intent](#) to change rates that apply to qualifying cogeneration and small power production facilities. **Entergy Mississippi recommends** an all-hours option of 2.983 cents/kWh.
-  **South Central Water Association Inc.** filed its [Application for a Supplemental Certificate of Public Convenience and Necessity](#) authorizing it to construct, operate and maintain a Water System in a Specified area in **Hinds County** at the John Bell Williams Airport.
-  **Cooperative Energy** filed its [Joint Petition](#) with **Southern Pine Electric Cooperative** for a Certificate of Public Convenience and Necessity authorizing them to acquire, construct, own, and operate electrical transmission lines and substation facilities in **Rankin County**.
-  **Town of Flora** requested to withdraw the Notice of Intent to Establish Rates for water service in Docket No. [2021-UN-129](#) and sewer service in Docket No. [2021-UN-130](#) for its certificated area in **Madison County**.
-  **Southern Renewable Energy Association (SREA)** filed its [comments](#) regarding **Entergy Mississippi, LLC's** Integrated Resource Planning (IRP).
-  **Wildflower Solar LLC** has filed a [Petition for a Certificate of Public Convenience and Necessity](#) to acquire, construct, own, and operate a 100 MWac solar electric generating facility in DeSoto County. The project will consist of 318,000 solar panels across 550 acres at a cost of \$90 million.



Last week, our Consumer Complaint Specialists handled a total of **22** complaints in the Central District.

Electric Companies	13
Telecommunications	5
Water/Sewer	2
Natural Gas	2

Last week, the Central District received a total of **314** 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.