October 14, 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.

Brent Bailey

Entergy Mississippi Customers: Where Does Your Electricity Come From?

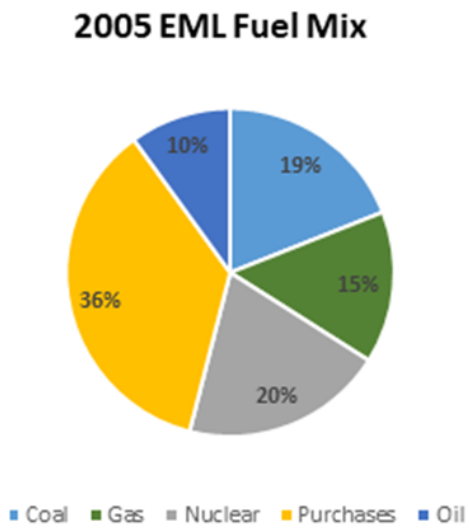
Over the next several weeks, we will explore the various generation assets currently utilized by utilities across the state of Mississippi. A thorough review of any power generation portfolio informs decisions about generation mix, operational efficiency, fuel costs, future electricity demand, customer benefits and plant profitability. This week we will review Entergy Mississippi's generation fleet.

Mississippians have become accustomed to reliable, accessible, reasonably priced electricity. When we flip a light switch, push a power button, set a timer on an appliance or turn on a computer, we almost never question the end result: something powers up. It is because of that confidence in the electrical system that we can plan for and accommodate growth, invest in homes, businesses and industries, and live our everyday lives without worry of food spoiling or going without air conditioning in August!

The electric grid consists of four major components: Electric Generation; Transmission Lines; Distribution Network; Customer Demand. The electric grid is complex and dynamic and ever-changing with different sources of electricity being deployed to satisfy customer demand at the least cost possible.

Entergy Mississippi, LLC (EML) serves approximately 451,000 customers in 45 of Mississippi's 82 counties. EML utilizes a variety of facility types and fuels to generate electricity, including natural gas, coal, nuclear and solar. The generation plants are located throughout the state (even outside the state) and each is used differently on the power grid. Some power plants, such as nuclear and coal, run constantly and produce what is called baseload power. Natural gas fired plants can be ramped up quickly and are often used to meet short-term increases or peaks in demand. However, we are seeing more use of natural gas to meet baseload demands across the nation, including in Mississippi. Other technologies, such as renewables from wind and solar, are used whenever available because of their intermittency. However, battery storage technologies could prove to be a game-changer in the coming years.

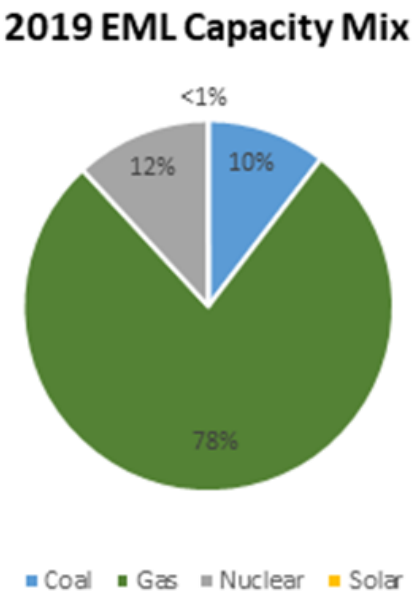
Continued...



EML's fuel mix has change considerably over the past 15 years. In 2005, EML obtained over one-third of its electricity from other producers through power purchases from affiliated companies. Nuclear accounted for 20% of the energy produced while coal provided 19%, natural gas 15% and oil was used to fuel 10% of the power generated for EML customers.

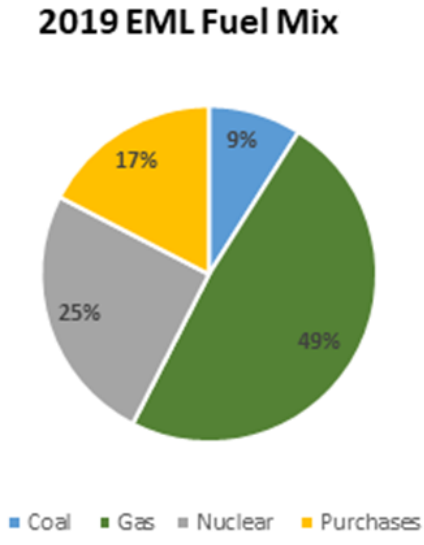
However, EML's fuel mix and capacity mix soon began to change with the purchase of the natural-gas fired 551 MW Attala Energy Facility near Kosciusko, MS in 2006 and the 551 MW Hinds Energy Facility in Jackson, MS in 2011. Finally, EML bought the Choctaw Generation Station, an 899 MW natural gas combined cycle unit in 2019.

EML currently controls about 3,500 MW of electric generation capacity through either direct ownership or through contracts with affiliated companies. The capacity mix reflects EML's owned and purchased shares of generation capacity. In 2019, natural gas-fueled combined cycle turbines, combustion turbines and other systems accounted for 78% of EML's generation capacity. Nuclear is 12% (EML's share of Grand Gulf Nuclear Station) of generation capacity and coal is 10% (EML's share of Independence Steam Electric Station) of generation capacity. Meanwhile, solar and other renewables make up less than 1% of generation capacity.



However, generation capacity does not necessarily reflect the actual ratio of fuels used to generate the electricity once production begins and demand levels rise and fall throughout the day and over a year.

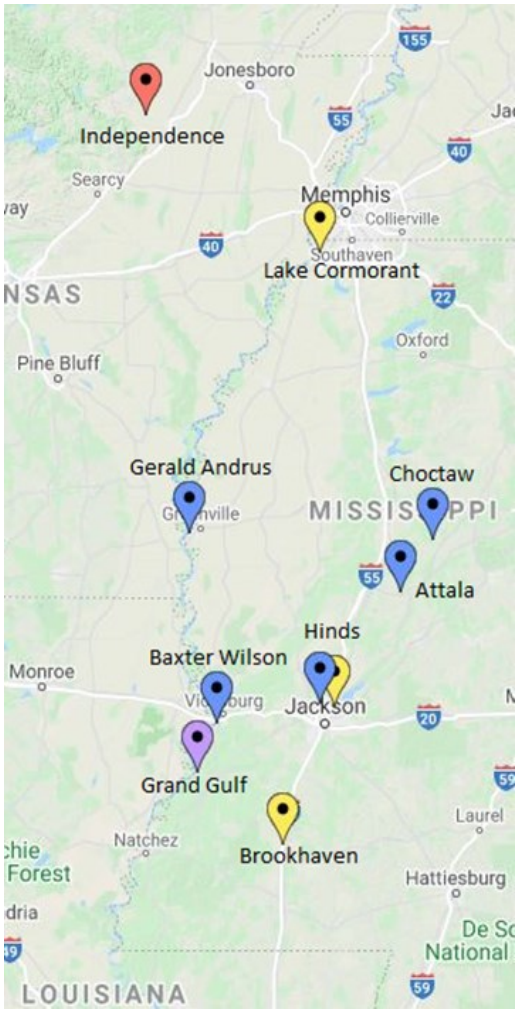
Whereas natural gas made up 15% of the electric generation fuel mix in 2005, natural gas was used to generate 49% of the electricity that was delivered to EML's residential, commercial and industrial customers in 2019. That is reflective of the persistently low prices and adequate volumes of natural gas in the U.S. Nuclear energy generated 25% of the electricity distributed through the Mississippi service area and coal fueled 9% of production. Unfortunately, solar production barely records a blip at this time, but that could change when EML's first 100 MW utility-scale solar project goes online in early 2022. Meanwhile, EML purchased 17% of its electricity needs from the market. EML monitors and compares market-based Locational Marginal Pricing costs to the costs of what it would take to generate power from its lowest cost generator. If it is cheaper to purchase power on the open market and provide that lower cost electricity to consumers rather than fire up a legacy generator, then that is the option that regulators prefer and EML executes. However, it is difficult to determine exactly what fuel was used to generate the market-based power as electricity, once on the grid, is fungible and you cannot differentiate an electron generated with natural gas from an electron generated from wind.



Continued...

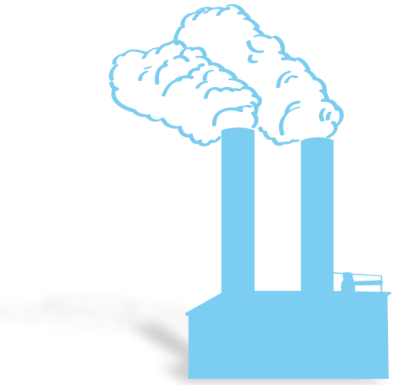
EML's current generation portfolio includes the following sites (from oldest to newest):

- ***The Baxter Wilson Power Plant*** in Vicksburg, MS, is a 545 MW natural gas-fired steam turbine unit that can also burn residual and distillate fuel oil. The plant was put into service in 1967 and had a 32.24% capacity factor for the 2019 calendar year. *[Capacity factor is expressed as a percentage and is calculated by dividing the actual unit electricity output by the maximum possible output. This ratio indicates how fully a unit's generation capacity is used.]*



- ***The Gerald Andrus Power Plant*** in Greenville, MS, is a 781 MW natural gas-fired steam turbine unit that can also burn residual and distillate fuel oil. The plant was put into service in 1975 and had a 7.81% capacity factor for the 2019 calendar year.
- ***The Independence Steam Electric Station*** is an 1,800 MW coal fired power plant located in Newark, AR. EML owns 25% of the production from Unit 1 and 25% of the production from Unit 2 for a total of 450 MW. Unit 1 was put into service in 1983 and Unit 2 in 1984. The facility as a whole had a capacity factor of 35.87% for the 2019 calendar year. Entergy AR has announced that it will end coal-fired operations at Independence by 2030.
- ***Grand Gulf Nuclear Station*** near Port Gibson, MS, is the nation's largest single unit nuclear reactor at 1440 MW. The facility was put into service in 1985 and recently received a license to continue operations through 2044. From 2016 to 2018, Grand Gulf experienced frequent outages which resulted in a capacity factor below the national nuclear plant average of 92%. Grand Gulf bounced back had a capacity factor of 87.46% in the 2019 calendar year.
- ***The Attala Energy Facility*** near Sallis, MS, is a 551 MW natural gas combined cycle unit that was put into service in 2001 and purchased by EML in 2006. Attala had a 34.35% capacity factor for the 2019 calendar year.
- ***The Hinds Energy Facility*** in Jackson, MS, is a 584 MW natural gas combined cycle unit that was put into service in 2001 and purchased by EML in 2011. The Hinds Energy Facility had a capacity factor of 65.76% for the 2019 calendar year. A 32.5 MW natural gas combustion turbine peaker unit was added at the Hinds Energy Facility and was put into operation in 2020.
- ***The Choctaw Generation Station*** is an 899 MW natural gas combined cycle unit located in French Camp, MS. The facility was put into service in 2003 and acquired by EML in 2019. In 2019, Choctaw had a capacity factor of 57.78%.
- EML placed ***1.5 MW of solar pilot projects (500 kW each in Brookhaven, Jackson, Lake Cormorant)*** in production in 2015. These pilot projects had capacity factors ranging from 12-15% in 2019.
- EML also occasionally obtains power from *three PURPA Qualified Facilities* that have a combined generation capacity of over 22 MW.

Continued...



A reliable power system has enough generation, network capacity and reserves to supply customers with the energy that they demand with a very high degree of confidence. ***Your local power provider works hard so the lights turn on – and stay on – in your home or business each morning.*** This feat is even more impressive when you consider the journey electricity must make before it arrives at your outlet.

If you are an Entergy customer, I hope that you gained some insight into what fuels and power plants are utilized to generate the power you consume every day.

OTHER NEWS

New Arkansas Solar Goes Online - Just across the Mississippi River from Greenville, MS, near Lake Village, AR, the Chicot Solar Energy Center began operations in September. This 825-acre solar farm boasts 350,000 panels with a peak capacity of 100 MW, enough to power 18,000 typical homes. NextEra Energy Resources owns and operates Chicot Solar. Entergy Arkansas has a 20-year purchase agreement for the cost-effective power Chicot Solar will generate. Additionally, Chicot Solar is expected to generate nearly $7 million in additional revenue for Chicot County, with much of the funding going to Chicot County Public Schools.

Connect MS Committee Meets – The newly formed Connect MS Committee met virtually for the first time last week to introduce committee members, to identify key issues challenging broadband expansion, and to learn more about how MSU researchers will initiate a study to determine the economic impact of rural broadband. The events of 2020 have highlighted the deficiencies in broadband infrastructure and demonstrate that reliable, high-speed service will be required across the state from this point forward.

LAST WEEK *at the* MPSC

Entergy MS filed its annual adjustment to its Middle South Energy (MSE) riders. MSE-3 provides for Entergy MS's recovery of allocated share of Grand Gulf Nuclear Station costs. MSE-4 recovers the projected level of System Energy Resource, Inc.'s demand charges for the succeeding fiscal year. An increase in the MSE-3 and MSE-4 factors will result in an increase of $1.08 on an average Entergy MS residential customer's bill.

Continued...

- Spire Mississippi filed an Amended Application for Approval for its Natural Gas Expansion and Rural Economic Development Initiative Application to address comments expressed by the MPUS and MPSC. Spire is proposing to invest up to $6.5 M to expand its distribution network into West Hattiesburg.
- Atmos Energy filed a Construction Notice to replace approximately 9,650 feet of steel mains and 140 services on several streets in the West Jackson area. The project is valued at $1.9 M.
- Atmos Energy filed its Supply Hedge Report for the period ending September 30, 2020. Atmos, CenterPoint and Spire filed Purchased Gas Adjustment reports for the month of June 2020.
- The Town of Edwards submitted site maps, legal descriptions and a county map in support of its Petition for a Water CPCN.
- Entergy MS filed an Application for Approval of an Amendment to the Agreement of Service with Nucor Steel.
- Great River Utility Operating Company, LLC filed a Applications for CPCN and requests to acquire the assets of the following water and/or wastewater systems: Cedar Creek Development, Inc. in Adams County; S2 Environmental LLC in Lamar County; Ironwood Utilities LLC in Warren County; West Coast Lumber, Inc. in Warren County; Pecan Village LLC in Warren County; and, Affordable Homes of Vicksburg, Inc. in Warren County.

Last week, our Consumer Complaint Specialists handled a total of 21 complaints in the Central District.

Electric Companies	11
Telecommunications	5
Water/Sewage	4
Natural Gas	1

Last week, the Central District received a total of 198 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/consolidate debts, health products/prescription drugs and insurance.

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.