

## Mississippi Renewable Energy and Energy Efficiency Update

### Mississippi Issues

#### **Continental Tire Presented with Special Award for Energy-Efficiency Efforts**

The Continental Tire company near Clinton received [special recognition](#) this month for its training facility. The U.S. Green Building Council presented Continental with the LEED Silver plaque for the company's efforts to promote energy-efficiency. Many aspects of the facility including the building materials, lighting and HVAC equipment, the paint used at the facility, solar panels and more, have helped the company and the training facility become energy-efficient.



#### **Keesler Air Force Base Breaks Ground on Solar Project**

Keesler Air Force Base recently held a [groundbreaking ceremony](#) to announce their latest project - a nearly \$6 million, 1.5 MW solar energy facility. The facility is expected to help save up to \$2 million annually in energy costs. The solar facility will also double as covered parking for 497 parking spots. Keesler employees and visitors will be able to park under the solar carport on hot sunny days and provide shading for their vehicles. The structure is designed to meet wind requirements of up to 170 miles per hour. Construction is scheduled to be completed by May 2021.

#### **Brookhaven Driller and Others Awarded USDA grant**

Brookhaven company Big H Directional Drilling Co. received a \$6,733 grant from the USDA that will be used to install a solar array system. They were [one of five Mississippi businesses](#) to receive USDA Rural Energy for America Program grants — nearly \$70,000 total — to be used for projects that will help reduce energy costs.

In Bay Springs, BMW Farms Inc. received a \$20,000 grant that will be used to upgrade brooders, fans and baffles, while in Brooksville, owner Kendall Jost received a \$15,000 grant to upgrade the aeration systems of the catfish ponds. In Vicksburg, Magnolia Metal and Plastic Products Inc. received a grant of \$6,181 to make upgrades to their lighting systems, resulting in increased energy efficiency and in Greenwood, Walter Pillow and Sons Planting Co. received a \$20,000 grant to upgrade their grain dryer.

The USDA is investing in rural businesses through the Rural Energy for America Program for renewable energy and energy efficiency projects across the nation. [See the full list of awards here.](#)

## Columbus Home Becomes State's First eScore of 10

After Jamie Alford's air conditioner began to fail last summer, she decided to improve more than just her air conditioner and become more energy efficient. After \$15,000 in upgrades, Alford's family's home in Columbus became the [first in Mississippi to score a perfect 10 on Tennessee Valley Authority eScore evaluation](#). After recommendations from a 4-County Electric Power Association energy advisor, Alford installed new windows, doors, insulation in her attic, a new HVAC unit and new hot water heater. After \$15,000 in upgrades, the average bill went from more than \$300/month to less than \$150/month and the home is much more comfortable and healthier.

## Natchez Biofuels Plant 'Ceases Production'

Low-carbon biofuel producer/supplier World Energy announced in mid-August that three of its facilities would be [shutting down temporarily](#), including the one in Natchez located at 151 L.E. Barry Road. World Energy also has facilities in Rome, Georgia and Harrisburg, Pennsylvania. The majority of employees will be furloughed until market conditions improved. World Energy cited the recent refinery waivers granted at EPA and expiration of biofuel tax credits for blenders.

## Review of MPSC Regular Meeting – August 8

On August 8, the MPSC held its [regular docket meeting](#). The Commission took action on the following:

**Entergy Mississippi, Ad Valorem Tax Adjustment Rider, Docket No. 2014-UN-132:** The [Ad Valorem Tax Adjustment Rider Schedule ATA-3 \(Revised\)](#) allows Entergy Mississippi to collect the incremental difference between the projected ad valorem tax expense to be paid during the upcoming 12-month period and the level currently reflected in base rates, plus a true-up for the under-recovery of ad valorem tax expense in the prior twelve months. Based on staff redetermination, the estimated impact on the monthly bill of a typical residential customer using 1,000 kWh per month is a decrease of \$0.45 per month beginning with September 2019 bills. [Approved 3-0](#) by the Commission.

### **MPSC Rule Amendment, Rule 21 of Public Utilities Rule of Practice and Procedure, 2018-AD-99:**

Known as the "Airplane Rule," Rule 21 was amended to more clearly reflect the policy that utilities' private aircraft expenses should not generally be recoverable from ratepayers. After consideration of utilities comments and testimony, the amendment was [approved 3-0](#) by the Commission.

## Other Recent Docket Actions at the MPSC

**Development and Implementation of Integrated Resource Planning Rule, Docket No. 2018-AD-64:** The Commission has requested and received two sets of comments from multiple intervenors regarding the potential framework of an Integrated Resource Planning process. The Commission finds it is in the best interest of Mississippi ratepayers and utilities to proceed with the development of a comprehensive Integrated Resource Planning Rule, and to establish reporting requirements both for long term electric planning and for annual energy delivery planning by regulated gas and electric utilities. The Commission sought comments from all persons concerning a [new Proposed Rule 29](#). Comments were due on or before August 1, 2019. On July 25, 2019, the Commission temporarily suspended the comment deadline in order to conduct an economic impact study of the proposed rule and amendment. **On August 27, the MPSC announced it has completed the economic impact study and has set **October 1, 2019** as the deadline for filing written comments.** After the comment period has expired, the Commission will set a date for a public hearing. 25x'25 will be submitting comments.

**Entergy MS, LLC Sunflower Solar Facility, Docket No. 2018-UA-267:** The MPSC [established a procedural schedule](#) for intervenors to submit data requests (June 13) and file testimony (July 10) in regards to the proposed solar project. Because 25x'25 submission of questions and receipt of answers to data requests required my acceptance of a non-disclosure agreement, I cannot share that information with stakeholders. However, I have provided initial [comments](#) and intervenor [testimony](#) in regards to the proposed project.

In addition, the Mississippi Public Utilities Staff retained the Bates White Consulting firm to provide an [independent assessment](#) of the Sunflower County Solar Facility based on the Petition submitted by Entergy Mississippi LLC (EML) and Sunflower County Solar Project LLC (Sunflower). The report evaluated 1) current solar market in MS, 2) EML solicitation process. 3) Sunflower project design, warranties and terms, and 4) economic impact and risk to ratepayers.

In brief, the MPUS assessment found, among others, that 1) the project will likely result in a net increase in costs to ratepayers, 2) project net benefits are underestimated, 3) the solicitation process did not conform to best practices, 4) specific details regarding project design and materials are not specified, 5) the project imposes risks on Mississippi ratepayers that they would not bear under a typical solar PPA arrangement.

EML has since filed rebuttal testimony in response to the Bates White assessment as well as 25x'25's comments. A [Public Hearing](#) is set for the September 10 at 1:30 pm in the Commission Hearing Room on the 1<sup>st</sup> Floor of the Woolfolk State Office Building.

The next meeting of the MPSC will take place on September 10, 2019, at 10 am in the Woolfolk Building.

## **Regional Issues**

### **GPSC Approves GA Power Co. Plan for More Renewables**

Georgia Power Co. is [changing how it produces electricity](#), with more solar and less coal, according to a plan recently approved by state regulators. Nine years ago, Georgia Power got most of its electricity from coal, followed by natural gas and oil. It got less than twenty percent of its energy from nuclear, solar, hydroelectric dams and other sources. But by 2023, Georgia Power expects its use of solar power to soar – from less than one percent of its grid to 13 percent and more in the years beyond.

### **North Carolina DEQ Releases Draft Clean Energy Plan**

The North Carolina Department of Environmental Quality (NCDEQ) released a [draft Clean Energy Plan](#) that calls for the state to reduce power sector greenhouse gas emissions between 60% and 70% by 2030, relative to 2005 levels, and "work towards zero emissions by 2050." NCDEQ must deliver the Clean Energy Plan to Gov. Roy Cooper by Oct. 1, to comply with last year's [Executive Order](#). The draft includes seven "priority recommendations."

### **TVA Board of Directors Approves 2019 Integrated Resource Plan (IRP) Rec**

TVA's Board of Directors, at its latest quarterly business meeting in Knoxville, Tenn., approved the 2019 IRP Recommendation. A Record of Decision will be published in September, at which point TVA will retire its 2015 IRP and begin to use the [2019 IRP](#) as its long-term plan for meeting future demand for power for the next 20 years. TVA used an integrated, least-cost framework considering multiple views of the future to determine how potential resource portfolios could perform in different market and external conditions. The IRP study shows the addition of solar, natural gas, energy efficiency savings,

wind and more will help TVA achieve a diverse and flexible resource portfolio guided by the least-cost system planning mandate.



## Empire Electric Proposes Pivot to Renewables in Latest IRP

Empire District Electric Co. serves about 173,000 customers in southwestern Missouri and parts of Kansas, Arkansas and Oklahoma. Its current generation capacity consists of about 65% natural gas, 30% coal and 5% renewables in the form of wind and hydropower. The utility's 2019 integrated resource plan proposes to retire a 200 MW coal plant by the end of the year and over the next two decades add hundreds of megawatts of wind, solar and storage. Empire said [the move would save ratepayers](#) as much as \$325 million over 20 years. The utility says solar, wind and storage can provide the same generation at a lesser cost than its coal plant. The plan also calls for a significant investment in distributed solar resources.

## Entergy New Orleans adding 90 MW of New Solar

Entergy New Orleans [has selected three solar projects](#) that total 90 MW to add to its portfolio. These include a 20-MW solar facility to be built by Entergy at NASA's Michoud Assembly Facility in New Orleans East. The others are for a 50-MW solar site to be constructed on Louisiana State University AgCenter land in Washington parish under a PPA, and a 20-MW PPA for another solar site to be built in St. James Parish. The solar plans have been approved by the New Orleans City Council.

## Entergy Louisiana to Purchase Power from Solar Farm in West Baton Rouge

Capital Region Solar started construction of a \$80 million, 50 MW solar farm that will consist of 197,000 solar panels on 560 acres. Entergy Louisiana will be [purchasing power from the solar farm](#) for 20 years after it is completed in second-quarter 2020. It is expected to save Entergy Louisiana customers \$29 million over 20 years.

## South Carolina's Largest Solar Farm to Date is Commissioned

Cypress Creek Renewables and Cubico Sustainable Investments have commissioned the Palmetto Plains PV installation, [South Carolina's largest solar project in operation](#). Located in Orangeburg County, the Palmetto Plains solar project has an installed generation capacity of 106MW. South Carolina now benefits from over 880MW of solar in operation, enough power for approximately 94,000 households.

## Arkansas Farm Bureau AgCast: Solar Energy for Agriculture

Solar arrays are beginning to become more visible on farms and ranches across Arkansas, especially on crop farms in the Delta as farmers are realizing the cost savings and benefits of solar energy. [Seal Solar explains](#) how solar arrays are efficient and cost-effective power generating systems that may one day become commonplace on many agricultural operations.

## Louisiana PSC to Vote on Net Metering Proposal

The Louisiana Public Service Commission will be voting on September 11th at their regular business meeting on the future of Net Metering in Louisiana. The meeting will be located in the Natchez Room of the Galvez Building in Downtown Baton Rouge at 9am. Net metering allows residential and commercial customers who generate their own electricity from solar power to feed electricity they do not use back into the grid. The LPSC is proposing to change how that excess generation is valued and accounted for.

## Arkansas Net Metering Working Group Meets

The Arkansas Net Metering Working Group was called upon by the Arkansas Public Service Commission to find consensus around amendments to the APSC Net Metering Rules as called for in Act 464 of 2019, the Solar Access Act. A wide range of stakeholders have filed comments under the Net Metering Docket (No. 16-027-R) to help the APSC Staff incorporate the changes required by the new law. However, several contested items have also been introduced to the rewrite of the rules.

## Virginia's Department of Mines, Minerals and Energy Installs a Solar Array

Virginia Gov. Ralph Northam [announced](#) the installation of three new solar energy projects located at the Virginia Department of Mines, Minerals and Energy office in Big Stone Gap, the Virginia Public Safety Training Center in Hanover, and the Haynesville Correctional Center on Virginia's Northern Neck.

These projects will produce power onsite and will offset energy costs for the agencies. Governor Northam first [announced](#) the planned installation of solar energy systems at several state facilities in December 2018. Last month, the governor [unveiled](#) the new solar facility at the Department of Forestry's headquarters in Charlottesville.

## Florida's First Net Zero Energy School Opens

Osceola County's new \$18 million NeoCity Academy is [Florida's first zero-energy school](#). The school is producing more energy on a yearly basis than it consumes. Over 650 solar panels cover every section of roof. The solar roof is saving the Osceola County School District \$115,000 per year. Another way energy is being saved, is by swapping the cafeteria out with a food truck.

## Duke Energy Proposes New Program to Let Big Users Get Renewable Power

Duke Energy is [rolling out a new program](#) that clears the way for large customers to buy solar or wind energy from independent power producers. Enrollment for the Green Source Advantage program starts on Oct. 1 for manufacturers, data centers, big box store chains and other large users. The program won final approval this month from the North Carolina Utilities Commission.

## Is an Electric Vehicle Right for You?

As electric vehicles (EV) become more mainstream, more buyers are evaluating vehicle options. So how do you know if an EV is right for you? The [EV Selector Tool](#) pairs personal preferences – average miles per day, body style, pricing range – with EV options. The EV Savings Calculator adds up how much money you could save driving electric versus gas, and a map shows [EV charging stations](#) throughout the

world. Seven items you should consider when deciding whether an EV should be your next car: Range; Charging; Cost; Battery; Maintenance; Quiet; and Body Type. Want more insight into the energy demand for an EV? Check out RAP's latest blog: [EVs Are a Lot Like Water Heaters](#).

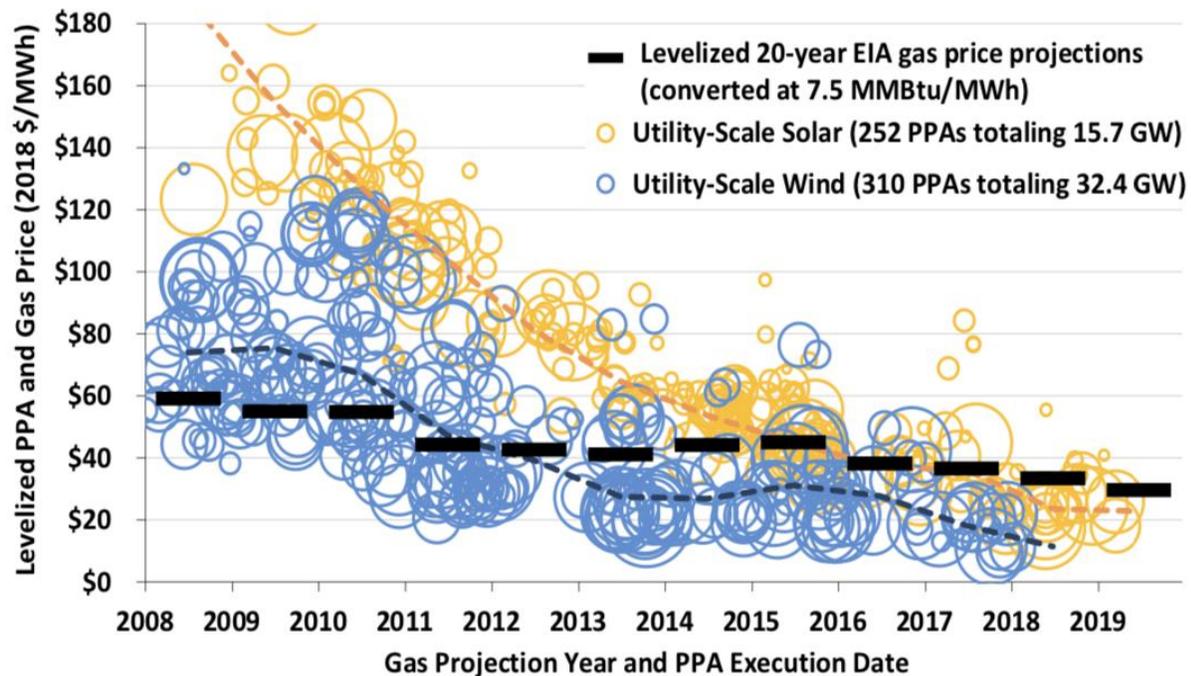
## National Issues

### Jobs in Renewable Energy, Energy Efficiency, and Resilience

Jobs in energy efficiency experienced significant growth—the sector now employs more than 3 million people in the United States according to the 2019 U.S. Energy Employment Report (USEER). The EESI has compiled information on categories of energy efficiency jobs and renewable energy jobs. According to USEER, 555,000 employees worked in zero-emission technology industries, including renewables. For more see the EESI Fact Sheet: [Jobs in Renewable Energy, Energy Efficiency, and Resilience \(2019\)](#).

### Wind Power Prices Now Lower than the Cost of Natural Gas

The price to build and operate a wind farm is [now lower than buying fuel for a natural gas plant](#), according to the Energy Department. A [new report](#) shows that wind hardware prices are dropping, even as new turbine designs are increasing the typical power generated by each turbine. As a result, recent wind farms have gotten so cheap that you can build and operate them for less than the expected cost of buying fuel for an equivalent natural gas plant. The US' installed wind capacity is nearly 100GW.

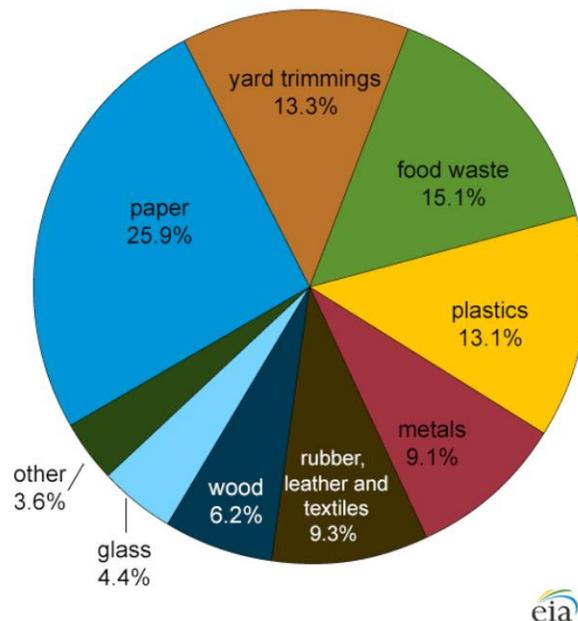


## Waste-to-Energy from Municipal Solid Wastes Report Released

In the United States, municipal solid waste (MSW) is both a potentially valuable resource and often a significant disposal problem in many locations. The United States produced more than 260 million tons of MSW in 2015. This equates to roughly 4.4 pounds per day per person.<sup>1</sup>

### Total MSW generation in the United States by type of waste, 2015

Total = 262 million tons



In the [Waste-to-Energy from Municipal Solid Wastes Report](#), DOE identifies several R&D opportunities for cost-competitive waste-to-energy facilities: applying gasification technologies to sorted MSW to produce a syngas intermediate; lowering capital costs of next generation anaerobic digestion systems that make high-value products; converting sorted-MSW to biocrude and derivative fuels; and enhancing techno-economic viability of processes for currently unrecycled plastics.

[Read more](#) about BETO's findings and the challenges and opportunities of MSW.

## USDA Invests in Energy Efficiency Improvements

Rural Business-Cooperative Service Administrator Bette Brand today announced that the U.S. Department of Agriculture (USDA) is [awarding grants for projects in all states and the Commonwealth of Puerto Rico to reduce energy costs](#) (PDF, 216 KB) for farmers, ag producers and rural-based businesses and institutions.

Under today's announcement, USDA is investing \$9.3 million through the [Rural Energy for America Program](#) (REAP) for renewable energy and energy efficiency projects across the nation. Congress appropriated \$50 million for REAP grants and loan guarantees in fiscal year 2019. USDA will make additional funding announcements in the REAP program in coming weeks.

## **The Value of “Solar + DER” Combinations**

Much has been written about the value of solar photovoltaic generation, but less about the value of some of the other distributed energy resources — energy storage, electric vehicles, demand response, and energy efficiency — or how these resources can be combined. [This paper](#) considers the types of values (or “value streams”) that combinations of distributed energy resources can create, examines three “use cases,” and explores a path for capturing more of the full value of these combinations.

## **U.S. is Largest Oil and Gas Producer in the World**

Petroleum and natural gas production in the United States jumped by 16 percent and 12 percent, respectively, in 2018, setting new production records and placing the United States as the world’s single largest producer of oil and natural gas, the Energy Information Administration (EIA) [said](#) last week. The U.S. had already surpassed Russia as the world’s biggest natural gas producer back in 2011. Last year, the United States beat Saudi Arabia to become the single largest petroleum producer. The EIA expects U.S. crude oil production to set record production in 2019 at 12.3 million bpd. (While some may not consider this news item to be germane to the clean energy sector, it is important to understand the market dynamics of other energy resources.)