

## Mississippi Renewable Energy and Energy Efficiency Update

### WalletHub's 2017 Ranking of the Most & Least Expensive States

WalletHub analysts looked at data on the total monthly energy bills in each of the 50 states and the District of Columbia to find [where energy costs are the most and least expensive](#). Where did **Mississippi** rank? Here is what they found:

Mississippi is the 8<sup>th</sup> most energy-expensive state coming in at \$307 average monthly energy costs.

Mississippi has the 5<sup>th</sup> highest average monthly total residential electricity energy cost at \$159.

Mississippi has the 3<sup>rd</sup> highest electricity consumption per consumer in the nation.

Mississippi average residential price of electricity is 11.64¢/kWh. National average is 12.7¢/kWh.

Mississippi has the 6<sup>th</sup> lowest average monthly natural gas energy cost at \$17.

Mississippi average residential price of natural gas is \$13.24/CCF. National average is \$11.38/CCF.

Mississippi has the 4<sup>th</sup> highest average monthly motor fuel cost at \$131.

Mississippi has the 3<sup>rd</sup> lowest motor fuel price in the nation.

Mississippi has the 2<sup>nd</sup> highest motor fuel consumption in the nation.

Brightside: Mississippi ranks 51<sup>st</sup> in home heating oil expenditures (\$0) and home heating oil use (0 gal).

In Mississippi, the median household income is \$40,037 (latest data available) and last in the nation.

Remember that median is the midpoint, meaning half of a group has more income and half has less.

Based on estimated annual energy costs, Mississippians on average spend over 9% of annual income on energy. However, that percentage can increase dramatically should household income decline. In the U.S., the pre-tax median household income of senior households aged 65 or more was \$36,895.

A report from the American Coalition for Clean Coal Electricity ([Energy Expenditures by American Families](#)) found that electricity expenditures - the most common monthly utility bill - are the least likely to be reduced when a family is confronted with reduced income. Cost increases affecting energy goods and services have the most regressive impact on low-income household with increases in residential electricity costs have the most financial impact.

So what are the high-level conclusions? While Mississippi is a **conservative** (red) state politically, we are not good at practicing energy **conservation**. Being a rural state, we like to commute and drive our trucks and SUVs – a lot. We use our A/Cs much more than we use our heat. Our homes are not as sealed and insulated as they need to be. Fluctuations in energy costs (especially upward) can have more of a direct impact on the financial well-being of Mississippi households than most other U.S. states.

### MPSC Regular Meeting and Docket Call – July 6

At the July 6, 2017, MPSC Regular Meeting ([see agenda](#)), the Commission acted on the following items of interest to clean energy stakeholders:

Each year, utilities subject to Rule 29 (Conservation and Energy Efficiency Programs) submit for approval their requested changes in program implementation and cost recovery of programs and incentives.

Each utilities' Energy Efficiency Cost Recovery (EECR) Rider is adjusted to consider lost contributions to fixed costs (LCFCs), incremental program costs, and any true-ups from the previous program year.

#### **CenterPoint Energy Resources – Docket No. 2014-UA-007 – [Approval of CenterPoint "Quick Start"](#)**

[Portfolio and EECR Rider](#): CenterPoint anticipates a 2017 energy efficiency program budget of \$1.064 million. This will add 11 cents per month to a typical customer's bill.

**Mississippi Power Co. – Docket No. 2014-UN-10 - [Approval of MS Power Co. “Quick Start” Portfolio and EECR Rider](#):** Mississippi Power Co. (MPCo) revised its EECR due to several factors. MPCo anticipates a 2017 energy efficiency program budget of \$6.152 million. This adds approximately 43 cents per month to a typical customer’s bill.

**Atmos Energy Corp – Docket No. 2014-UN-17 - [Approval of Atmos Energy “Quick Start” Portfolio and EECR Rider](#):** Atmos requested an 11% increase in its energy efficiency program budget due to growth of its commercial and industrial programs. Atmos anticipates a 2017 energy efficiency program budget of \$2.103 million. This adds approximately 2 cents per month to typical customer’s bill.

Other rate-related issues:

[CenterPoint Energy](#) customers will see an increase of \$1.21 per month on an average bill to recover major capital investments in completed infrastructure projects.

[Mississippi Power](#) customers will see an increase of 79 cents per month on an average bill to recover Ad Valorem Taxes associated with the Plant Daniel Scrubber Project.

[Atmos Energy](#) purchased the natural gas distribution system from the Town of Flora. Atmos (or one of its predecessors) has been operating the natural gas distribution system for Flora since 1957. Atmos is purchasing the system for \$602,000. Atmos will continue to serve the town and no impacts to current rates are expected.

Also, under Docket No. 2017-UA-79, the Commission designated Frank Farmer to be the Commission’s representative and may take actions to advance the Commission’s business in all dockets related to the [Southern Cross Transmission Project](#).

**Public Hearing on Solar Project** –The [public hearing](#) on the [Joint Petition](#) (2017-UA-104) from MS Power Co. and SR Meridian III, LLC (Silicon Ranch Solar) for a Certificate of Public Convenience and Necessity Authorizing the Construction, Operation and Maintenance of Solar Energy Generating Facilities and Related Facilities in Lauderdale County, MS was postponed due to a late intervention request. The public hearing will now be held on Thursday, August 17, at 10 am in Jackson at the MPSC Hearing Room.

**Next Meeting of the MPSC** – The next [regular meeting](#) of the MPSC will take place on **August 1, 2017, at 10 am** in the MPSC Hearing Room to consider the Docket and other matters. A Public Hearing will be held immediately following the August 1, 2017 regular meeting to take comments regarding the proposed “[Hire Mississippi Rule](#).” Written comments on the proposal were due on July 18, 2017.

## **Site Dedication for State's Largest Solar Facility**

On [July 7](#), nearly 60 state leaders, utility representatives, and clean energy supporters [attended the site dedication](#) of the Mississippi Power Co., D. E. Shaw Renewable Investments and DEPCOM Power 52 MW solar energy facility at 1693 Highway 42 near Sumrall, MS. The \$100 million facility consists of more than 215,000 panels, covers 595 acres, and produces enough energy power nearly 8000 homes. The three companies mentioned above have also contributed more than \$400,000 in corporate donations to numerous local programs. In addition, 92% of the 360 construction workers at the site were hired locally. The dedication’s guest speaker was former U.S. Senator Trent Lott who now represents the Solar Energy Industries Association on Capitol Hill.



## Gulfport Seabee Base Solar Facility Dedicated

On [July 11](#), the Department of the Navy, Mississippi Power Company, Hannah Solar, WGL Energy and local leaders [cut the ribbon](#) on a 15-acre, \$7 million solar facility at the Naval Construction Battalion Center in Gulfport. At the site, 13,000 panels generate 3.29 MW which is enough to power about 450 homes. The base has additional solar panels on buildings. Among other projects, outdoor lighting was replaced with LED lights, saving \$127,000 a year, and reducing energy consumption by 30 percent.

## Solar Farm Coming to the Coast?

The Hancock County School District is in talks with a solar development company about [possibly leasing several hundred acres of 16<sup>th</sup> section land](#) for the construction of a large solar facility. The solar project could be a new revenue source for the school district and serve as an educational tool for students.

## CLEAResult Looking to Fill Vacancies in Jackson Area

[CLEAResult](#) is a consulting firm that designs and implements energy-efficiency programs nationwide, including in Mississippi. CLEAResult is searching for a full-time [Energy Efficiency Program Specialist](#). This position will provide implementation support to client initiatives that increase the demand for energy-efficient technologies in the residential and small commercial market sector. CLEAResult is also searching for a [Market Outreach Specialist](#) that will be responsible for engaging/recruiting retail appliance dealers, plumbing and HVAC contractors to participate in the Atmos Energy Efficiency Programs.

## Grant Opportunities

### REAP - Renewable Energy for America Grants

**Deadline:** October 31, 2017

**Funding Amount:** \$1,500 to \$500,000 (25% of the total project cost)

**Eligible Entities:** Farmers and rural businesses

**Links:** <https://www.rd.usda.gov/programs-services/all-programs/energy-programs>

**Overview:** REAP grants are offered by USDA Rural Development and can help agricultural producers and rural businesses pay for 25% of renewable energy and/or energy efficiency project costs. Funds are to do efficiency upgrades or install renewable energy systems. Project examples include: lighting efficiency, heating efficiency, bio-energy, solar energy, and dairy ventilation projects. An energy assessment or

audit is required as part of the application. There is also a low interest loan program that can help with part of the project costs. This is a great opportunity to reduce the long term operating cost of your business!

### **Lowe's Community Partners Grants**

**Deadline:** Fall application cycle July 3, 2017 through August 25, 2017

**Funding Amounts:** Up to \$2,000 to \$100,000

**Eligible Entities:** Schools and Non-profit 501c3

**Links:** <https://newsroom.lowes.com/apply-for-a-grant/>

**Overview:** Lowe's Community Partners grant program helps build better communities by providing monetary assistance to nonprofit organizations and municipalities looking for support of high-need projects such as: building renovations/upgrades, grounds improvements, technology upgrades, and safety improvements. Lowe's encourages applicants to speak to their local store manager to see if their project is a good fit.

### **Kemper Update**

At the July 6, 2017, MPSC Regular Meeting, the Commission took up several items related to the Kemper project. First, under Docket No. 2009-UA-014, the [Commission found](#) that the costs for professional services which pertain to the Kemper Project shall not exceed \$2.5 million. Also, under Docket No. 2015-UN-80, the Commission found that (a) [Frank Farmer shall be the Commission's representative](#) and may take actions to advance the Commission's business in all dockets related to the Kemper Project, and (b) [require Mississippi Power to establish a regulatory account](#) to capture the revenue associated with the accelerated amortization expense after the underlying assets have been fully recovered.

The Commission also established a new docket (No. 2017-AD-112). Under this new docket, the Commission took the legal steps to establish the parameters previously voiced at the Commission's June 21 [special meeting](#). The [Order](#) created under this new docket requires all parties to expeditiously work to settle all outstanding matters associated with the Kemper Project. These matters shall include:

- Remove risk from ratepayers for the lignite coal gasifier and related assets;
- No rate increase to Mississippi Power Company customers. The Commission strongly encourages serious discussions leading to potential rate reduction, particularly for residential customers;
- The settlement should include modification or amendment of the certificate issued in docket no. 2009-UA-014 to allow only for operation of a natural gas facility at the Kemper Project location.

The Commission gave all parties 45 days (on or about August 21) to [agree to and file a settlement](#) of rates and others issues with the Commission. If a settlement is filed, a hearing will be set 45 days from the date of the settlement's filing, and the Commission's designee shall enter an appropriate scheduling order. If an appropriate settlement is not reached and approved, the Commission reserves its right to exercise its full authority to resolve all issues associated with the Kemper Project, including an order to show cause and subsequent proceeding, which could potentially result in revocation of the Kemper Project certificate.

Currently, the lignite gasification and carbon capture operations at Kemper have been [suspended](#). However, the facility will continue to operate its natural gas combined cycle units as it has for nearly three years.

The [April 2017 Independent Monitor Report](#) is now online for review.

Southern Company [announced](#) that it was injecting \$1 billion in capital into MS Power Co. to help it cover expenses and other loan debt. Southern Company and MS Power could have to absorb a total of nearly \$6.5 billion in losses as a result of Kemper.

## **Remember GreenTech Auto?**

GreenTech once planned to build 250,000 electric cars a year and invest \$2 billion in Tunica County, but failed to meet those goals. GreenTech then promised to invest \$60 million and hire 350 full-time workers by the end of 2014 and maintaining those jobs for at least 10 years. Again, GreenTech failed. [Now the state of Mississippi wants back the \\$6.4 million it provided the company](#). The company was also involved in a Chinese “invest to gain U.S. residency” operation.

## **Regional Issues**

### **State Level Electric Energy Efficiency Potential Estimates**

The DOE’s Office of Energy Efficiency and Renewable Energy commissioned the Electric Power Research Institute (EPRI) to determine the energy efficiency potential at the state level in the report, [State Level Electric Energy Efficiency Potential Estimates](#). The analysis shows a total national estimate of 740,985 GWh of cost-effective electric energy efficiency economic potential from 2016 to 2035, which represents 16% of baseline retail sales in 2035. Every state has a large amount of electric energy efficiency potential that can be utilized as a cost-effective energy resource. For **Mississippi**, the energy efficiency economic potential in 2035 is 9,991 GWh, or 15.8% of total baseline sales. Incentives can have an even greater impact on energy efficiency potential.

### **NC Governor Signs Sweeping Clean Energy Bill; Includes Wind Moratorium**

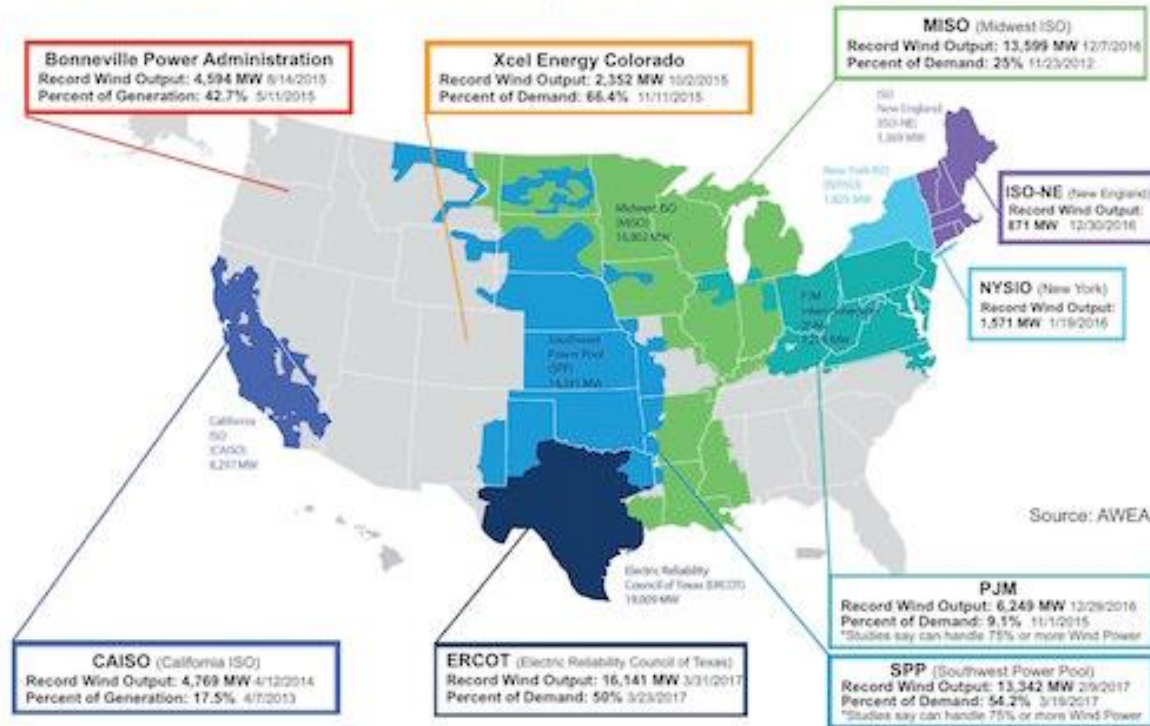
Gov. Roy Cooper [signed into law](#) legislation promoting solar and other alternative energy in the state and issued an executive order encouraging wind-power development despite an 18-month moratorium on wind projects included in the bill. [House Bill 589](#) was constructed over many months with the input of many stakeholders. The wind moratorium was slipped into the bill just prior to the Senate’s final vote. The bill will more than double the state’s solar capacity. However, the bill also opens net metering to a rate and regulatory review further threatening small solar investments.

### **AEP to Invest \$4.5 Billion in 2,000-MW Wind Farm and High-Voltage Transmission Line**

AEP’s utility subsidiaries Public Service Co. of Oklahoma (PSO) and Southwestern Electric Power Co. (SWEPCO) are asking utility regulators in Arkansas, Louisiana, Oklahoma and Texas to approve plans to purchase a 2,000-megawatt (MW) wind farm currently under construction in the western panhandle of Oklahoma and build an approximately 350-mile, dedicated, extra-high voltage power line to efficiently deliver the renewable energy to customers. SWEPCO will own 70 percent of the project and PSO will own 30 percent of the project. The project is expected to save SWEPCO and PSO customers more than \$7 billion, net of cost, over 25 years.



## Wind Reaches Records of 50% or More Powering Regional Grids Studies Confirm U.S. Grid Can Reliably Handle 75% or More Electricity from Wind



### Dominion Energy to Supply University of Virginia with Renewable Energy

120-acre, 15-MW solar farm will [provide power for the University of Virginia](#) (UVA) once it is completed. The facility is expected to be operational by late 2018. UVA acquired the property. Dominion Energy will own the solar farm. UVA has signed a 25-year agreement to take the farm's entire electrical output.

### Michigan Study Finds Distributed Solar Creates Net Benefits for Grid

A new analysis of 40+ studies found solar users are supporting the grid and therefore should not be subject to extra charges by utilities because they've installed solar on their rooftops. The study, titled [Solar Energy in Michigan: The Economic Impact of Distributed Generation \(DG\) on Non-Solar Customers](#), found solar generation provides real benefits to the power system and should be considered when evaluating the impact of solar DG.

### ORNL Receives Advanced Biofuels Research Grant

The DOE [announced](#) \$40 million in awards for the establishment of four DOE Bioenergy Research Centers, which will provide the scientific breakthroughs for a new generation of sustainable, cost-effective cellulosic biofuels, advanced bioproducts and bioenergy. [Oak Ridge National Lab's new Center for Bioenergy Innovation](#) will receive \$12 million next year with the potential for more than \$100 million over the next five years. The Center will focus on the production and conversion of native, fast-growing poplar and switchgrass feedstocks.

### Univ. of Florida Leading SPARC Project

A team lead by the University of Florida is heading up USDA-NIFA-CAP Southeast Partnership for Advanced Renewables from Carinata (SPARC). The project goal is to establish a Brassica carinata

(carinata)-based resilient and sustainable advanced jet fuel and bioproducts supply chain in the Southeast US. Winter production of carinata can be grown in rotation with traditional summer crops to produce a new revenue stream for high-valued, adaptable feedstock and serve as a winter cover crop.

## **Arkansas' Stratton Seed Gets PSC Approval for 1MW Solar Array**

Family-owned [Stratton Seed Co. of Stuttgart announced](#) it plans to build a 1-megawatt solar array capable of supplying power to all 11 of its facilities in Arkansas and Lonoke counties. It is the first company to gain the Arkansas Public Service Commission's blessing for a net-metering facility generating more than 300 kilowatts of power. "Entergy fought us pretty hard, and we had to get a lawyer specializing in this area," Stratton Seed CEO Wendell Stratton told Arkansas Business. Entergy Arkansas itself is building an 81-MW solar facility about seven miles from the Stratton location.

## **What makes a home right for solar?**

The folks at Solar Power Rocks want to help you determine the ingredients of a great solar home. Evaluate all the [variables that work together](#) to make a home perfect for solar panels.

## **Former Nuclear Plant Site Now Hosts Solar Panels**

TVA never completed Phipps Bend Nuclear Power in eastern Tennessee and abandoned the project in 1981 after three years of construction. Today, the [site hosts almost 3,000 solar-tracking panels](#) that sit on four acres and provides power to Holston Electric.

## **NC Wastewater Treatment Facility Growing Sunflowers for On-site Biodiesel**

The [Neuse River Resource Recovery Facility](#), formerly known as the wastewater treatment plant, is growing sunflowers on its nearly 1000 acre "farm" to help soak up the nitrogen-rich biosolids from the wastewater treatment process. The sunflower seeds will be harvested this fall and converted to biofuel via a mobile unit to help balance the facilities' energy use.

## **NREL to Study Offshore Wind Potential in the Gulf of Mexico**

The National Renewable Energy Laboratory will [conduct a survey](#) to determine the feasibility of potential offshore energy resources in the Gulf of Mexico. The Gulf offers advantages for offshore wind including shallow water that makes turbine installation easier, warm waters, accessibility and close proximity to existing offshore oil and gas infrastructure. Lower wind speeds and hurricane-resistant turbine designs present a challenge. Researchers will analyze which offshore wind locations offer the most promise for developers as well as a job impact analysis.

## **National Issues**

### **EPA Releases Proposed 2018 RFS Volume Requirements**

On July 5, the EPA released its [proposed rule](#) to set 2018 renewable volume standards (RVOs) under the RFS, along with the 2019 RVO for biomass-based diesel. Overall, the proposed RVOs require approximately 19.24 billion gallons of renewable fuels in 2018. The proposed volume requirements are 40 million gallons lower when compared to the volumes required in 2017. Advanced biofuels (including cellulosic biofuels) will absorb the reduction to better reflect market conditions. [Public comments are due on or before August 31](#). A [public hearing](#) will be held on August 1 in Washington DC.

	2015	2016	2017	2018 (proposed)	2019
<b>Cellulosic biofuel (million gallons)</b>	123	230	311	238	n/a
<b>Biomass-based diesel (billion gallons)</b>	1.73	1.9	2.0	2.1	2.1
<b>Advanced biofuel (billion gallons)</b>	2.88	3.61	4.28	4.24	n/a
<b>Conventional biofuel (billion gallons)</b>	14.05	14.5	15	15	n/a
<b>Renewable fuel (billion gallons)</b>	<b>16.93</b>	<b>18.11</b>	<b>19.28</b>	<b>19.24</b>	<b>n/a</b>

## Energy and National Security

For some reason, many members of congress and higher-ups in the new administration must feel that the U.S. military is going off course in its pursuit of sustainable, alternative energy initiatives. However, everyone from veterans that have served overseas to the current highest-ranked Dept. of Defense officials recognize U.S. leadership in advanced energy development and deployment can yield domestic and international opportunities across our national security spectrum. Unfortunately, there are many groups and some members of congress that wish to stifle the military's alternative energy innovation and investment. Please check out: [Military Pursuit of Clean Energy is a Logistical, Operational Necessity](#); [The Military Is Leading the March Toward Energy Independence](#); [Power Begins at Home: Assured Energy for U.S. Military Bases](#); [Advanced Energy and U.S. National Security](#)

## Unlocking Residential Savings with Program Models for Home Energy Upgrades

Saving energy in homes—especially through long-lived equipment and shell measures that deliver savings for many years—can contribute significantly to meeting state energy efficiency policy objectives and energy savings targets. The DOE evaluated three widely employed types of residential energy efficiency programs to see if it would be possible to develop a replicable “model” program. Model programs were developed for (1) direct install retrofits; (2) heating, ventilating and air-conditioning (HVAC) replacement and early retirement; and (3) comprehensive, whole-home retrofits. See the brief: [Keys to the House: Unlocking Residential Savings With Program Models for Home Energy Upgrades](#).

## Energy Efficiency—ACEEE Jobs and Investment Fact Sheet

How large is the energy efficiency “industry”? At least 2.2 million people work in whole or in part on energy efficiency in the United States. U.S. energy efficiency investment is at least \$86 billion a year. This [fact sheet](#) summarizes recent studies on the economic footprint of energy efficiency, and includes stories of several people who work in energy efficiency.

## NREL Turns 40

For 40 years, the National Renewable Energy Laboratory has expanded American prosperity and security through world-class research. The laboratory's work stimulates the U.S. economy, inspires ingenuity, and preserves our nation's energy security. Learn more about [NREL at 40 and how they are advancing energy innovation](#).

## The 50 States of Solar Report: Q2 2017 Updates Released

The latest quarterly edition of North Carolina Clean Energy Technology Center's (NCCETC) [50 States of Solar](#) report demonstrates utilities across the nation are still pushing for rates that would discourage customer adoption of solar, including increases in fixed and minimum charges, if not attempting to dismantle net metering directly.



## New Annual Report on State RPS Policies

Berkeley Lan has [announced](#) the release of [U.S. Renewables Portfolio Standards: 2017 Annual Status Report](#), an annual report reviewing key trends in state renewables portfolio standards (RPS). The report describes key trends, including recent legislative revisions, RPS policy design features, past and projected impacts on renewables development, compliance with interim targets, and compliance costs. RPS policies exist in 29 states and DC and apply to 56% of total U.S. retail electricity sales.

