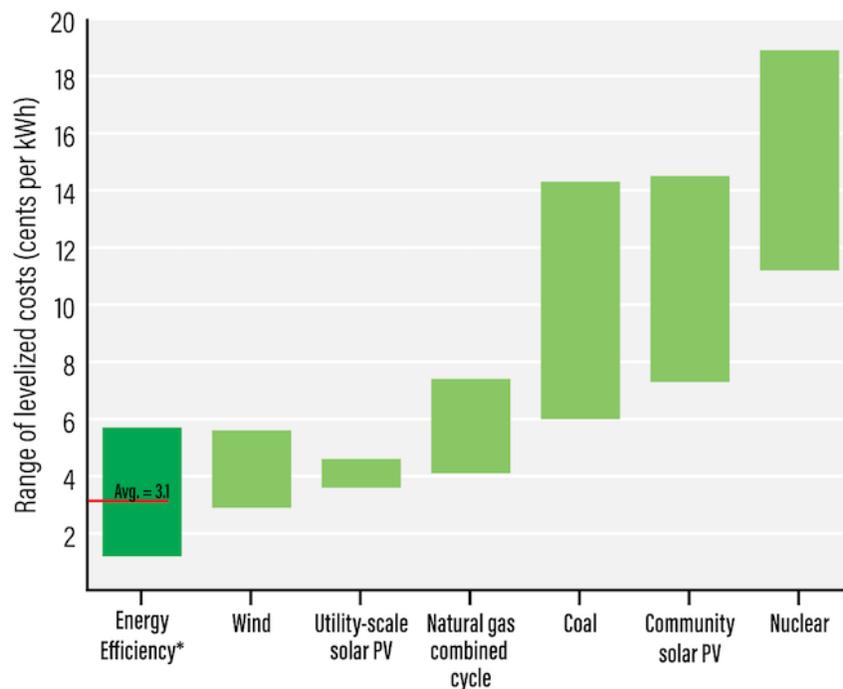


## Mississippi Renewable Energy and Energy Efficiency Update

### Mississippi Issues

#### Renewable Energy Getting Cheaper, but Energy Efficiency Still Least-Cost Energy Resource

New data by [Lazard](#), a financial advisory firm, shows that prices for renewable electricity declined again this year, continuing their [downward trend](#). In some cases, it is more cost-effective to invest in new renewable energy than to keep older power plants going, even without subsidies! As great as that news is, energy efficiency is still the nation's least-cost energy resource. Energy efficiency – the kilowatt-hours we avoid by eliminating waste – also delivers a host of other benefits. It improves electric grid reliability and resilience, creates jobs, spurs other economic development, reduces customer utility bills, makes homes and buildings more comfortable, can be targeted to vulnerable customers, and reduces pollution.



\*Notes: Energy efficiency program portfolio data from Molina and Relf 2018. Represents costs to utilities or program administrators only, including shareholder performance incentives if applicable. All other data from Lazard 2018 Unsubsidized Levelized Cost of Energy Comparison.

The average cost of efficiency to utilities is still generally less than that of wind or utility-scale solar. And overall, energy efficiency and clean energy continue to come in at a lower cost per kilowatt hour than more traditional resources. **Mississippi utilities should increase energy efficiency program investments, help their customers use energy more efficiently, and meet new demand by saving energy rather than generating it.**

#### Forrest County Investing in Energy Efficiency to Lower Utility Costs

The Forrest County Board of Supervisors is investing \$2.9 million to do lighting, HVAC, plumbing and other improvements in approximately 60 county buildings. Within 15 years, savings of upwards to \$5 million will be realized. So the project will more than pay for itself and then those savings will continue into the years that follow. [See the story.](#)

## MPSC Invites Comments on Draft Study of Actual Benefits of Distributed Generation (Docket No. 2011-AD-2)

In mid-November, Acadian Consulting Group, LLC (Acadian) submitted its draft study report examining its calculated actual benefits of distributed generation in Mississippi. The MPSC has issued an [Order Requesting Comments](#) to receive feedback regarding the study, its methodology, and its conclusions. 25x'25 and other interveners [requested an extension of time](#) for stakeholders to review the report and develop comments. The MPSC granted an additional 30 days for the comment period. **Stakeholders will now have seventy-five (75) days from Nov. 19, or no later than Feb. 2, 2019.** Currently, the MPSC net metering rule requires a 2.5 cent per kilowatt-hour (“kWh”) “adder” above avoided cost for electrical generation put to the grid and a 2.0 cent per kWh adder to lower-income household net metered generation. The Acadian draft report recommends an adder of 0.35 cents/kWh for Entergy customers and 0.27 cents/kWh for customers in MS Power Co. service territory. 25x'25 and others will be formulating a response. Some of you had problems downloading the report in November Update. Please use this [link to download the report](#).

## MPSC Requests Comments on Entergy MS IRP Proposed Rule (Docket No. 2018-AD-64)

In May 2018, the MS Public Service Commission issued an [Order that establishes a docket](#) to investigate and consider the development and adoption of a rule defining an Integrated Resource Planning (IRP) process for regulated electric utilities in Mississippi. An IRP establishes a framework for future generation planning and greatly increases opportunities for transparency and public participation. Stakeholders were invited to submit written comments regarding the development and adoption of a rule defining an IRP process for Mississippi. As part of its comments, Entergy MS submitted for MPSC’s consideration a proposed IRP Rule that would replace the MPSC’s existing Rule 29.

The MPSC has now issued an [Order that request stakeholders to provide written comments](#) evaluating [Entergy MS’s proposed IRP Rule](#). The MPSC [granted an extension of time](#) to submit comments. This proposal is NOT a product of the MPSC or the Staff. **Stakeholders have until Feb. 15, 2019, to submit written comments.**

According to the Order, the MPSC does not at this juncture propose to adopt Entergy MS's proposed IRP Rule as its own, but merely seeks comments from all interested and affected parties on the form and substance of Entergy MS's proposal. 25x'25 encourages anyone interested to file comments on this matter.

## MPSC Approves Entergy MS Net Metering Rates Through 2021

Despite the preliminary findings of the Acadian report, Entergy MS filed a Notice that [proposed](#) to keep its Non-Quantifiable Expected Benefits adder at an assigned value of [2.5 cents per kWh until January 3, 2022](#), rather than adopt a much lower rate as recommended by the Acadian report. The new rate went into effect on December 27, 2018. 25x'25 [filed comments in support](#) of Entergy’s proposal while encouraging the other state electric utilities to do the same. The MPSC [approved](#) Entergy’s Net Energy Metering Rate. See Docket No. 2016-UN-32.

## MS Power Company Files Notice to Maintain Current Net Metering Rates

On December 17, Mississippi Power Company (MPC) filed a [Notice of Intent](#) to maintain the 2.5 ¢/kWh adder in place until such time as modified by order of the Mississippi Public Service Commission. 25x'25

[filed comments in support](#) of MPC's proposed Renewable Net Energy Metering Rate, Rate Schedule RENM-1 and encouraged the Commission to adopt the rate request. See MPSC Docket No. 2016-UN-33.

## **Entergy MS Files CPCN for 100 MW Solar Project in Sunflower County**

On December 20, 2018, Entergy MS filed a [Joint Petition for Certificates of Public Convenience and Necessity](#) seeking authorization of SCSP to construct and Entergy Mississippi to acquire, own, operate, improve, and maintain the Sunflower Solar Facility [near Ruleville, MS](#). The estimated total dollar investment for Entergy MS to acquire the Sunflower Solar Facility and related assets is approximately \$153.2 million. A residential customer using 1,000 kWh per month would see a net increase in rates of approximately \$1.38 per month. With this filing, Entergy MS is also seeking approval to implement a community solar offering for customers, sourced initially from the "Bright Future" solar facilities. 25x'25 filed a motion to intervene. See MPSC Docket No. 2018-UA-267.

## **Entergy MS Files Proposal for Community Solar Program and Special Rate Tariff**

Last month, Entergy Mississippi, LLC [proposed a community solar offering](#) for its customers. In [testimony](#) provided by Aaron E Hill, Entergy Mississippi, LLC "proposes to use the Bright Future Solar Project sites to support the community solar offering." The Bright Future Solar Project consists of three existing 500 kW pilot project sites. 25x'25 has concerns regarding the use of these sites to support a community solar program. Therefore, 25x'25 filed a [Motion to Intervene](#). See Docket No: 2018-UN-268

## **Entergy MS Requests Approval of New Programs and Services for Customers**

In June 2018, Entergy Mississippi, Inc. (EMI) [indicated](#) it would be taking steps to modernize the energy grid, adopt new technologies, and develop and implement new services and offerings for customers. In November 2018, EMI filed its [Supplemental Report](#) proposing a portfolio of customer offerings to include: billing, renewable power, demand-side management, and new technologies in energy storage. 25x'25 has filed a [Motion to Intervene](#). See Docket No: 2018-UN-133.

## **Review of MPSC Regular Meeting – January 10**

On January 10, the MPSC met at 10 am in the MPSC Hearing Room. Items of interest to energy and consumer stakeholders ([meeting agenda](#)):

**Entergy Mississippi: Docket 2009-UN-64: Energy Efficiency Rate Rider Schedule EE-2** – Entergy anticipates a budget of \$9.5 million for its Quick Start Energy Efficiency Programs for 2019. This includes a base budget of approximately \$8.75 million for incremental program costs and \$750,000 for costs associated with marketing and administration. Entergy requested no change in the rider rate. The Commission [approved](#) the filing 2-1.

**Entergy Mississippi: Docket 2013-UN-178: Energy Cost Recovery Rate Rider Schedule ECR-4** – The [ECR-4](#) is the projected cost of fuel and energy purchases in 2019 plus any true-up adjustment from 2018. Due to projected reduced costs of natural gas and projected fewer outside energy purchases, the average residential customer will see a decrease of \$1.54 per month on their bill. The Commission [approved](#) the rate.

**Entergy Mississippi: Docket 2014-UN-132: Power Management Rate Rider Schedule PMR-12 (Revised)** – The [PMR-12](#) is the estimated Power Management Costs for the upcoming calendar year and reflects the fuel hedging costs and impacts of the federal Tax Cut and Jobs Act. Due to an under-recovery of costs in 2018, the average residential customer will see an increase of 23 cents per month on their bill. The Commission [approved](#) the rate.

**Entergy Mississippi: Docket 2014-UN-132: MISO Cost & Revenue Rate Rider Schedule MISO-1 (Revised)** – The [MISO-1](#) reflects the sum of credits/charges related to energy movement tariffs and incremental MISO-related costs (membership) and study costs. Due to lower sales (credits) to the MISO system, the average residential customer will see an increase of 45 cents per month on their bill. The Commission [approved](#) the rate.

**Entergy Mississippi: Docket 2014-UN-132: Unit Power Cost Recovery Rate Rider Schedule (UPC-4)** – The UPC-4 reflects the estimated capacity charges for the next calendar year. Due to higher capacity costs and wholesale energy costs, the average residential customer will see an increase of 56 cents per month on their bill. The Commission [approved](#) the rate.

**Entergy Mississippi: Docket 2017-UN-198: Grid Modernization Rate Rider Schedule GMR-1 (Revised)** – The [GMR-1](#) reflects the costs associated with a partnership with Cspire to expand rural broadband in Mississippi. The average residential customer will see an increase of 10 cents per month on their bill.

Cumulatively, a typical Entergy residential customer using 1000 kWhr/month will see a net reduction of 20 cents on their bill starting February 1, 2019.

**Mississippi Power Company: Docket 2018-UN-222: Fuel Cost Recovery Rate Schedule FCR-2 and Energy Cost Management Rate Schedule ECM-2** – The FCR-2 and ECM-2 reflect the company's fuel adjustment costs, energy purchases and fuel hedging costs. Due to a decrease in natural gas costs and an over-recovery in 2018, the average residential customer will see a decrease of \$4.14 per month on their bill, or a 2.96% reduction. The Commission [approved](#) the rate.

[Next Meeting of the MPSC](#) will take place on February 5, 2019, at 10 am in the Woolfolk Building.

## **Commissioner Sam Britton Announces Run for Secretary of State**

Southern District Public Service Commissioner Sam Britton [officially announced](#) his run for Secretary of State in 2019. Commissioner Britton says he will focus on economic growth in the state, while ensuring that the election process remain fair and open. He was elected as a Public Service Commissioner four years ago in 2015.

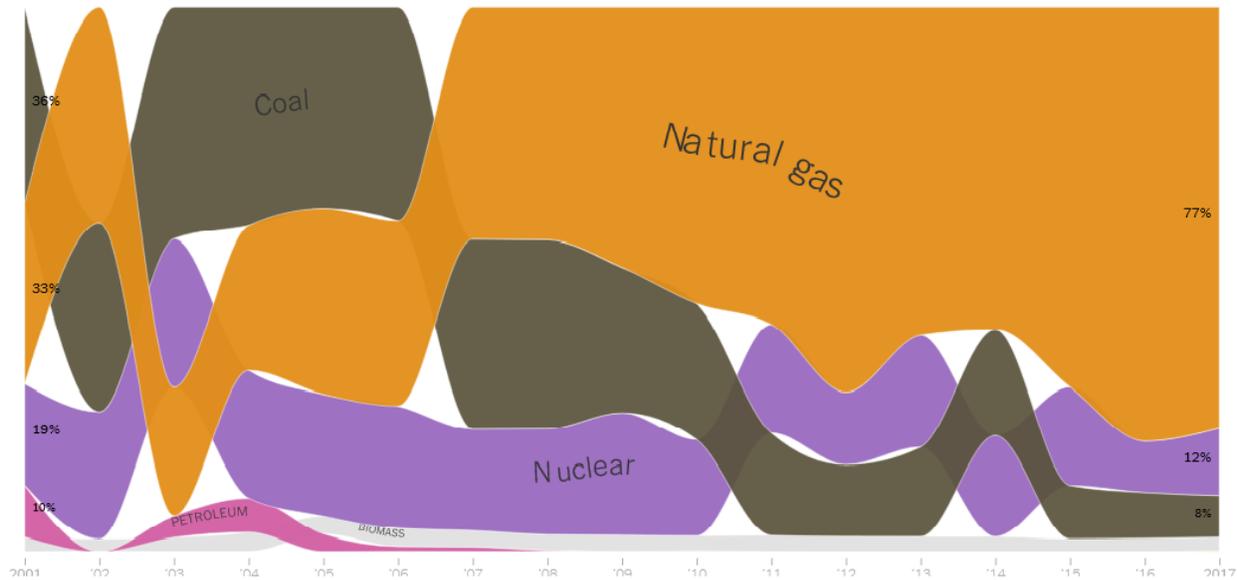
## **Grand Gulf Temporarily Taken Offline; Investigation Underway**

Last month, E&E News [reported](#) on the significant amount of time that Entergy's Grand Gulf nuclear plant has either been operating at reduced power or not at all since 2013. On December 12, Entergy plant operators noticed issues with power production and a bypass valve and [took the plant offline](#). A Nuclear Regulatory Commission team and Entergy personnel spent the following week investigating the reasons for the unplanned shutdown. The MPSC has since indicated that [it intends to look into the matter](#) as well. Grand Gulf went online in 1985.

## **How Mississippi Generated Electricity from 2001 to 2017**

Natural gas powered more than three-quarters of the electricity generated in Mississippi in 2017. Coal, once the state's top source of electricity, has declined over the past decade, outcompeted by cheaper natural gas. Coal provided 36 percent of the electricity produced in-state in 2001, but just 8 percent in 2017. Nuclear generated 12 percent of electricity needs in 2017.

Percentage of power produced from each energy source:



## What will be the Issues Important to Clean Energy in the 2019 Legislature?

The Mississippi Legislature gavelled in on January 8 for the final session of this four-year term. While many assume that it will be a fairly quiet year before election season, some are not so sure. It will be interesting to see who puts forth legislation that aims to establish policy positions to carry into the election cycle. We do know one topic that will have the attention of policymakers: Allowing rural electric cooperatives to [offer services such as high-speed internet access](#) and other broadband technologies in rural areas. Why is broadband important to energy customers? Homeowners and businesses can find and implement energy efficiency solutions through smart technologies and data access to better manage load and reduce peak demand. Legislation of interest:

[HB 44](#) and [HB 441](#): Feasibility of Windmills in Sunflower County

[HB 51](#) and [HB 459](#): Repeal of Electric and Hybrid Vehicle Tax

[HB 366](#): Mississippi Broadband Enabling Act – Passed House; Passed Senate; Signed by Gov

[SB 2020](#): Reconfigure Size and Staff of MPSC

[SB 2087](#): Authorize State Tax Credit for Installation of Solar and Energy Efficiency Equipment

[SB 2393](#): Revise Powers and Duties of Public Utilities Staff

## New Wood Pellet Production and Distribution Facilities in South Mississippi

The George County Board of Supervisors [voted to build](#) a \$140 million wood pellet facility at the county's Industrial Park. The new facility is expected to create 90 new full-time jobs, 300 construction jobs, and an estimated 300 indirect jobs in the timber and transportation industry. Infrastructure improvements, partially funded by MDA, has been completed and will benefit the entire industrial park. [Enviva Wood Pellets](#), the largest producer of wood pellets in the world, will operate the facility and produce up to 500,000 metric tons of wood pellets per year.

Enviva is also building a \$60 million distribution plant at the Port of Pascagoula, creating even more job opportunities. The project will include new storage silos, rail and truck unloading facilities and a conveyer system to load ships. The wood pellets will be exported to power plants in the United

Kingdom and Europe. Construction on each project will begin in 2019 with completion targeted for early 2020. The U.S. the largest exporter of wood pellets in the world.

## Regional Issues

### **Texas is known for Oil, but Renewables is Taking Bigger Slice of the Energy Pie**

Texas may be the center of the U.S. oil and gas industry, but the latest data shows that the state's energy market is increasingly [favoring clean energy over fossil fuel alternatives](#). New information from ERCOT shows that carbon-free resources made up more than 30% of Texas 2018 electricity consumption, and 31% of Texas 2019 generation capacity. The largest share of credit goes to the state's wind farms. When it peaks, Texas's wind fleet can actually power more than half of ERCOT's grid.

### **South Carolina Solar Coalition Launches 100 Day Clean Energy Agenda**

A [coalition](#) of solar industry groups, conservation organizations and clean energy advocates announced the release of a [100 Day Clean Energy Agenda](#), calling on state lawmakers to pass a suite of policies in the first 100 Days of 2019 that will inject competition into South Carolina's energy sector. The 100 Day Clean Energy Agenda includes the following policies:

- Eliminating the net metering cap for residential solar;
- Ensuring fair and transparent rates for both residential and large-scale solar;
- Allowing businesses to contract directly with independent clean power providers;
- Ensuring fair and timely contracts for large-scale solar providers; and
- Making solar available and accessible to all South Carolinians, regardless of income.

### **South Carolina PSC Finds SCE&G Misled Regulators on Failed Nuclear Project**

The SC Public Service Commission (SCPSC) ruled that South Carolina Electric & Gas (SCE&G) [acted imprudently and intentionally misled the commission](#) about a failing nuclear reactor construction project to win electric rate hikes. The SCPSC's decision won't affect Virginia-based Dominion Energy's takeover of SCE&G's parent company, SCANA. However, the ruling does signal a tougher attitude toward utilities, especially after the SCPSC allowed SCE&G to raise its electric rates nine times to finance the doomed V.C. Summer Nuclear Station project.

### **Southwestern Electric Power Company Wants More Wind Energy**

Southwestern Electric Power Company (SWEPCO), which serves parts of AR, LA and TX, has issued a [request for proposals](#) to supply up to 1,200 megawatts of additional wind energy by December 15, 2021. SWEPCO is [pursuing this resource](#) due to increased consumer interest to meet renewable energy and sustainability goals, a need for more cost-effective energy, and a need to diversify its energy resource mix. SWEPCO already receives 469 megawatts of wind energy from TX, OK and KS and its Integrated Resource Plans show significant increases in renewable energy over the next 20 years.

### **Louisiana's Nuclear Power Plants Relicensed for Operation into 2040s**

Entergy Corporation's 974-megawatt River Bend facility in St. Francisville and 1,159-megawatt Waterford 3 in Killona have been [federally relicensed](#) to operate into the 2040s. Each was originally licensed in 1985. The facilities employ 1,500 and have received favorable safety and environmental reports although the plants store nuclear waste on-site.

## Louisiana PSC Extends Quick Start Energy Efficiency Programs to Year 5

In 2013, the LPSC adopted rules to that include a two-phase implementation of energy efficiency (EE) programs. The short-term Quick Start portfolio of EE programs were to transition into a more Comprehensive set of programs. Because the “Phase II” EE program rules have not yet been finalized, the LPSC took action to extend the Quick Start programs for one year ending December 31, 2019.

## Arkansas Energy Efficiency Programs Honored

ACEEE honored 53 leading energy efficiency programs in the U.S. with the Exemplary Program Award. The [ACEEE Fourth National Review of Exemplary Energy Efficiency Programs](#) identified 5 programs in Arkansas worthy of recognition. In all, 112 programs from 39 states were evaluated. The 5 Arkansas based programs were: SWEPCO-AR’s [Home Performance with ENERGY STAR Program](#); OG&E and AOG’s Joint Weatherization Program; Entergy Arkansas’ [Energy Solutions Manufactured Homes Program](#); Entergy Arkansas’ [Agricultural Energy Solutions Program](#); and, Ouachita Electric Cooperative’s [HELP PAYS® On-bill Financing Program](#). Arkansas utilities have been offering programs since 2012.

## NextEra Energy Completes Purchase of Gulf Power

NextEra Energy Inc., the parent company of Florida Power & Light, [announced](#) it has completed the deal to purchase Gulf Power from Atlanta-based Southern Company. Gulf Power serves about 450,000 customers in eight Panhandle counties. The \$6.475 billion deal included NextEra purchasing Gulf Power, the Florida City Gas natural-gas company and ownership interests in two power plants.

## Dominion Energy Completes Purchase of South Carolina Utility

Dominion Energy Inc. has [completed its merger](#) with SCANA, the parent company of South Carolina Electric & Gas Co., after the failure of a nuclear construction project caused SCANA to drown in debt. More than 737,000 SCE&G customers have already paid more than \$2 billion toward the project, which never generated any power. Dominion paid \$6.8 billion for SCANA Corp.’s stock and also is taking on SCANA’s consolidated net debts of \$6.6 billion. Although the merger means SCE&G customers will see their bills drop a few cents, they will continue paying billions more toward the defunct nuclear project over the next 20 years.

## Dominion Energy \$6 Billion Virginia Grid Modernization Plan Rejected

Virginia utility regulators [rejected most of Dominion Energy’s \\$6 billion proposal](#) to modernize its electrical grid, stating that the cost to customers was too high and the benefits were unclear. Clean energy advocates said the proposal lacked in-depth detail, especially how smart meter technologies would be optimized to advance energy efficiency, demand-response and distributed energy resources.

## Alabama Power Raises Rates to Fund Coal Ash Pond Closures

Alabama Power has implemented a rate increase to to pay for closing coal ash ponds around the state. [Federal water quality and coal ash rules](#) is causing the company to change the way it manages coal ash. Historically, the wet ash goes into and settles out in ponds. Rates went up about 3%, about \$4.50 monthly for the typical residential customer.

## National Issues

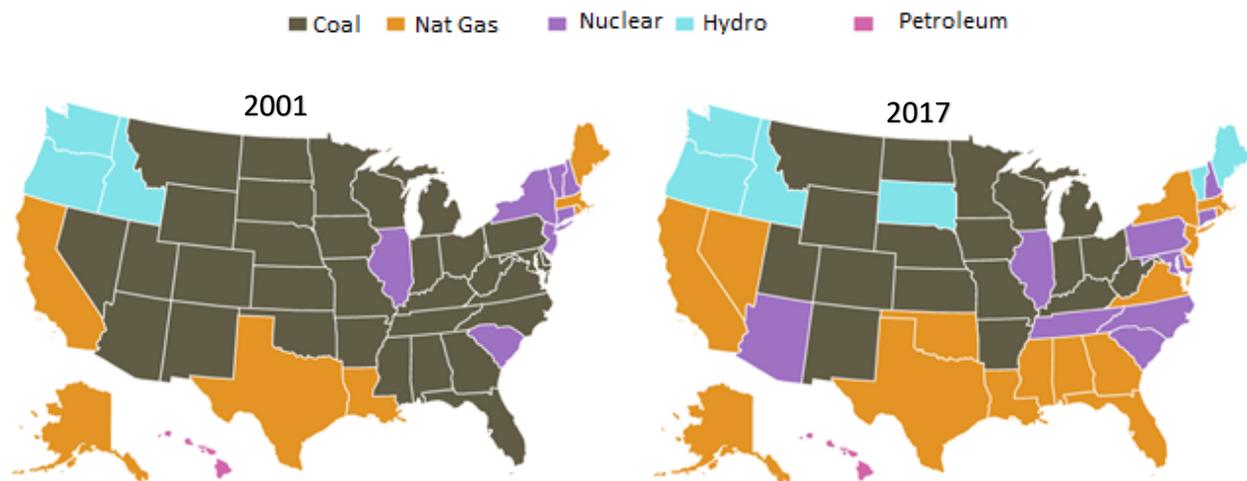
### What Drives Solar Expansion in the U.S.?

Researchers from Stanford University announced that they have developed a database of solar installations in the U.S. to help study how policy and market pressures are impacting the adoption of solar generation. Scientists analyzed more than a billion high-resolution satellite images with a machine learning algorithm and identified nearly every solar power installation in the contiguous 48 states. The data are publicly available on the [project's website](#). [Research](#) found that policy initiatives (tax credits; rebates; RPS; net metering) and annual household income are substantial drivers for solar deployment. Financing tools to help shift the upfront cost of solar would help grow the sector. But there are forces at play around the region that [create economic and regulatory barriers](#) to going solar.

### How the United States Generated Electricity from 2001 to 2017

Fossil fuels still dominate electricity generation in the United States. But the shift from coal to natural gas has helped to lower pollution emissions and diversify generation. Also, renewables like wind and solar have made small yet solid gains. But, each state has its own story.

Top Source of Electricity Generation in Every State



### But Solar and Wind Development are Also Booming

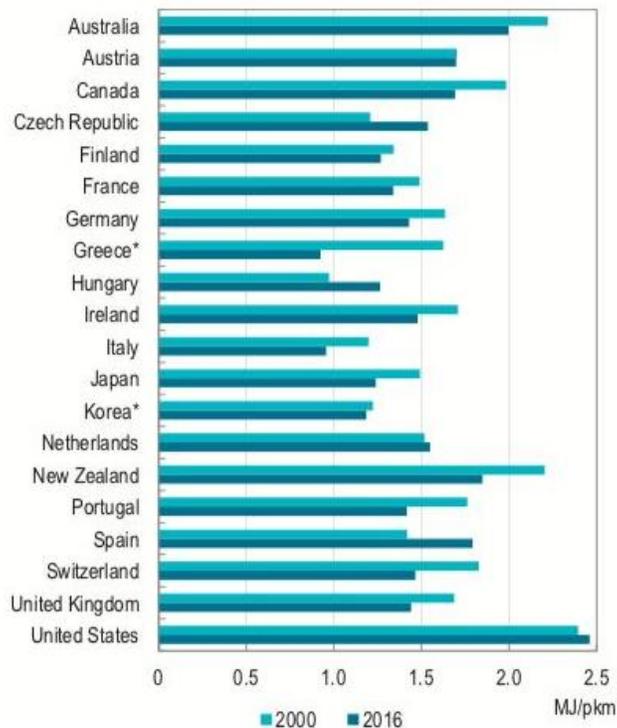
Renewable energy, led by solar and wind, is projected to be the fastest-growing source of US electricity generation for at least the next two years, according to a [report](#) by the US Energy Department. Utility-scale solar power is expected to increase by 10% in 2019 and 17% in 2020. Wind power should grow 12% and 14% in those years, vaulting it ahead of hydropower for the first time. Small-scale solar is predicted to grow by almost 9 GW during the next two years, an increase of 44%.

### What is Biggest User of Energy? Transportation!

While we tend to think of electricity generation as the largest consumer of energy resources, transportation of people and freight actually accounts for the most energy use worldwide. And the U.S. [ranks in the top spot for energy use tied to passenger transport](#) among the IEA's member countries. While energy used to transport a passenger one kilometer decreased in most countries between 2000

and 2016, that's not the case in the United States. Bigger vehicles and more miles being traveled are reasons for high passenger transport energy intensity.

**Figure 14. Energy intensity of passenger transport by country, 2000-2016**



\* refers to 2015 data.

## New Toolkit Helps Policymakers Increase Energy Efficiency

With this being an election year, and new faces will occupy offices up and down the ticket come 2020, candidates need to understand how innovative energy efficiency policies can create jobs, develop the workforce, grow state economies, improve public health, promote technological innovation, protect the environment, and save taxpayers money. ACEEE's new toolkit lays out steps policymakers can take to increase energy efficiency in homes, businesses, and transportation. See [Toolkit for Energy Efficiency](#).

## ACEEE Greenest and Meanest Cars List Revealed

For the first time in five years, the 'Detroit Three' automakers do not have a single car on the annual Greenest vehicles list as they transform and make deep cuts to their car fleets. However, highly efficient powertrains and state-of-the-art technology provide plenty of options for buying a greener, more efficient vehicle. Check out the scores of the 1,200-plus model year 2019 vehicles at [greencars.org](http://greencars.org) interactive database, along fuel economy, pollution impacts, and greenhouse gas emissions.