

Mississippi Renewable Energy and Energy Efficiency Update

MPSC Regular Meeting and Docket Call – February 7

At the January 2017 MPSC Regular Meeting ([see agenda](#)), the Commission did not bring forward or act on any items of interest to renewable energy and energy efficiency supporters. However, the MPSC did vote to issue a new Request for Proposals (RFP) for the performance of third-party fuel audits at MS Power and Entergy MS. The existing contracts had expired and the MPSC chose to issue a new RFP rather than extend the existing contract.

Next Meeting of the MPSC – The next regular meeting of the MPSC will take place on **March 7, 2017, at 10 am** in the MPSC Hearing Room to consider the Docket and other matters. See the [Meeting Notice](#).

MPSC Work Session – February 23

The MPSC held a [work session](#) on the February 23 on the topic of “**Energy Efficiency and Small Business Incentives.**” Atmos Energy, Entergy MS and the MS Development Authority Energy and Natural Resources Division shared information on programs that small businesses can utilize to reduce energy-related costs.

Atmos Energy’s [Small Business Incentive Rider](#) allows eligible small businesses to waive their deposit and receive a 25% reduction in customer and distribution charges. To date, 1,651 small businesses have taken advantage of the program and have collectively saved \$821,198. Companies can also take advantage of rebates offered under the [Small Business Energy Efficiency Program](#). Get rebates for installing high-efficiency heating systems, water heaters, storage tanks, boilers, cooking equipment, and smart thermostats. There is also a Direct Install Program and Custom Program.

Entergy Mississippi’s [Small Business Incentive](#) allows eligible businesses to pay deposits over a 3 month span and provides a 15% rate discount for 24 months. To date, 1,343 businesses have utilized the incentive program to save nearly \$1 million. Businesses must apply for the rebate. Entergy said 250-300 new businesses open each month in Entergy’s service area. Entergy also has its [Entergy Solutions for Business Energy Efficiency Program](#). Programs include energy audits, direct installs prescriptive programs and custom programs. Entergy estimates that up to 60,000 accounts may be eligible for the Business Energy Efficiency Programs.

The MDA Energy and Natural Resources Division offers an [Energy Efficiency Revolving Loan Fund](#) program that provided loans for energy efficiency-related projects at 2% below prime interest rates. \$18 million has been loaned under this project. MDA-ENR also has an Energy Efficiency financing program available for municipalities. The Division will also be developing a website to serve as a central source for all state agency and utility energy programs.

Entergy Solutions for Business Trade Ally Training Dates

The Entergy Solutions for Business program invites partners to attend an upcoming trade ally training session offered on March 7th, 8th or 9th in Brookhaven, Jackson and Senatobia. During the training session discussions will include new energy efficiency programs, review existing programs, highlight industry trends nationally and locally, and discuss successful program participation. For more info contact EntergyBusinessSolutions@icf.com or register at the links below:

Brookhaven- [Register](#)

Tuesday, March 7, 2017

520 Highway 51 South

Jackson- [Register](#)

Wednesday, March 8, 2017

901 Larson Street, Bldg A

Senatobia- [Register](#)

Thursday, March 9, 2017

1661 Scott Street

MS Board of Contractors' Solar Committee to Create a Solar Installer License

The Mississippi State Board of Contractors (MSBOC) continues to work towards adopting a new solar (photovoltaic and thermal) installation license for contractors wishing to install residential- and/or commercial-scale solar systems. New solar installation professionals would need to apply for a license and sit for an exam. The MSBOC hopes to have a solar installer certification program in place by July 1. The creation of a license for residential solar installations requires legislative action. Please support [SB 2855](#). This bill would define "Residential Solar Contractor" as used in the Residential Builders and Remodelers Licensing Law (Section 73-59-1, Mississippi Code).

MS Building Codes Council

The next meeting time for the Mississippi Building Codes Council (MBCC) has not been posted. The legal counsel assigned to support the MBCC continues to investigate the statutorily-defined role of the MBCC, the MS Development Authority's role in establishing commercial building energy codes, and operational guidelines of the MBCC. Eventually, meeting notices, proposed agendas, meeting minutes and other materials will be posted on the State Fire Marshal's website at <http://www.mid.ms.gov/sfm/state-fire-marshal.aspx#&panel1-1>. I will pass along information once a meeting is rescheduled.

Going Solar is a Challenge in Greenwood, MS

Tim Kalich, Editor and Publisher of the Greenwood Commonwealth newspaper, describes the [journey](#) of 75-year-old Anita Batman in her quest to put solar on her home. The problem: She is served by Greenwood Utilities. Greenwood Utilities does not offer a "net metering" program to its customers like customers of Entergy, MS Power, and most rural electric cooperatives in the state have access to.

Every State Benefits from National Appliance Standards

The average American family [saved nearly \\$500 on utility bills](#) in 2015 due to efficiency standards for appliances, lighting, and plumbing products. Businesses also saved. Total business utility bill savings from standards reached nearly \$23 billion in 2015. **Mississippi** consumers [save about \\$468 a year](#) on utility bills – that's 14% of the average utility bill! While **Mississippi** businesses save \$214 million to invest each year in jobs. [See how much other states save](#) from national appliance standards.

Nettleton School District Embraces Energy Efficiency

Nettleton School District will use money saved through the use of energy-efficient equipment, lighting, water fixtures, and other improvements to meet the district's infrastructure needs – and not have to increase taxes. The district expects to recover \$1.9 million in energy savings throughout the life of the project while reducing energy consumption by 25 percent. [Learn more about the project here](#).

ICF Seeking Energy Efficiency Professionals in Jackson Area

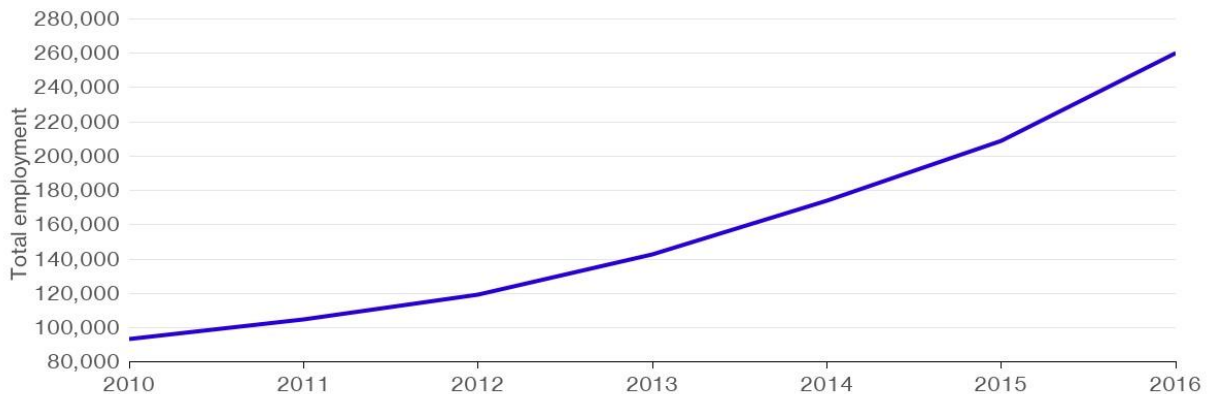
ICF is seeking [Commercial Account Manager/Auditor](#) and [Project Coordinator](#) to work on the Entergy Solutions program. The Commercial Account Manager and Energy Field Auditor will assist in the delivery of the commercial energy efficiency programs. The Project Coordinator will work in the ICF Energy Efficiency division in Jackson, MS. In this role you will serve on the Program Management team that delivers statewide commercial and residential energy efficiency programs. Please follow the links if interested. Both positions are based in Jackson.

Solar Industry Employs More Than 260,000 Workers

U.S. solar-industry [employment](#) in 2016 grew at the fastest pace in at least seven years, with growth in all sectors including manufacturing, sales and installations. One out of every 50 new American jobs last year was in the solar industry, which now employs more than 260,000 workers, according to an annual [report](#) from The Solar Foundation. That's up 25 percent from 2015, and the biggest gain since the group first compiled the data in 2010. The report indicates that **Mississippi** has 883 [solar-related jobs](#). As solar growth begins to stabilize, solar jobs are predicted to increase by only 10% in 2017. However, solar workers will continue to be busy over the next four years. The installed base of solar capacity will climb to 105 gigawatts by 2021, up from about 38 gigawatts today.

Sun Works

Solar energy job growth is accelerating



Source: The Solar Foundation

Bloomberg 

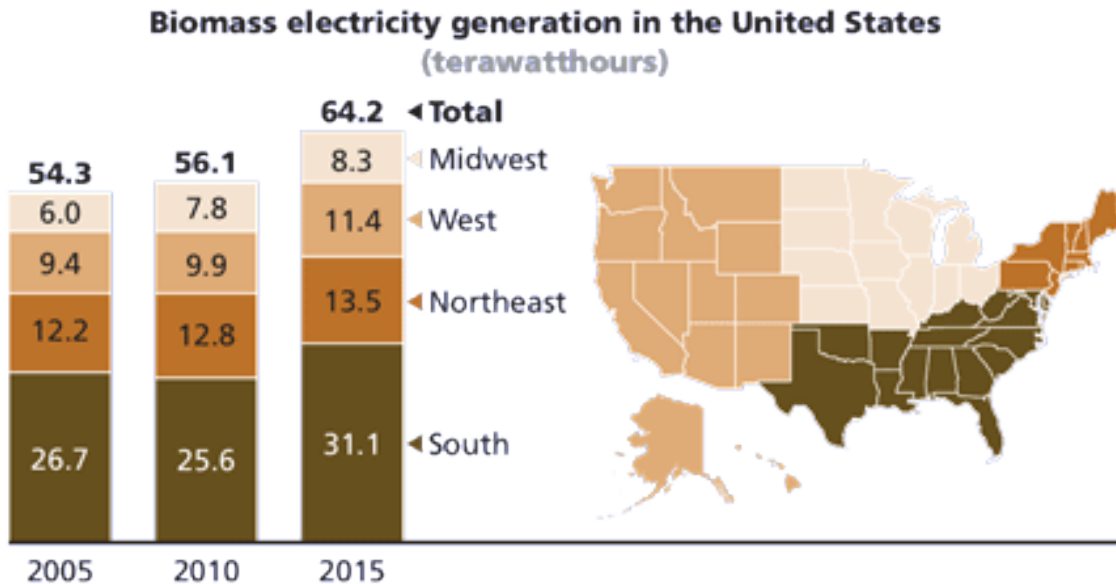
Kemper Update

The [January 2017 Independent Monitor Report](#) is now online for review. MS Power officials have also indicated that plant start-up will be delayed beyond the end of February to conduct more maintenance on the lignite gasifiers. The delay adds at least another \$35 million to the cost of the \$7 billion-plus plant. Southern Company has also stated that it will likely be cheaper to run the plant on natural gas rather than lignite in light of low natural gas prices and other factors. If you are customer of MS Power, you can still request to [become an intervener](#) in the Kemper Discovery Docket and possibly future prudency filings.

Regional Issues

Biomass Electric Most Prevalent in the Southeast U.S.

When one thinks about bioenergy and biomass-to-electricity generation, do you consider the multiple benefits it provides? Benefits include conversion of waste into a commercial commodity; job creation; rural economic development; forest management; and, carbon capture and sequestration result from the growth/harvest/growth cycle. While all regions benefit from biomass power, it is most prevalent in the Southeast. Interestingly, more than half the electricity generated from biomass occurs inside the industrial fence for self-consumption — never making it into the grid.



South Carolina Clean Energy Jobs Census Released

The South Carolina Clean Energy Business Alliance (SCCEBA) has published its [2016 SC Clean Energy Industry Census](#) that estimates 350 clean energy firms provide more than **18,000 full-time equivalent jobs (FTE)** and generate more than **\$3.8 billion in annual gross revenue** for SC's economy. Market segments of the clean energy economy include: Building Efficiency (30%), Solar (18%), Biomass/Biofuels (13%), Wind (9%), Geothermal (7%), Alternative Fuel Vehicles (7%), Energy Storage (6%), Smart Grid (5%), Fuel Cells (3%), and Hydropower/Marine (3%).

Memphis Leaders Aim to Reduce the Burden of High Energy Costs on Low-Income Households

While the Southeast performs badly as a region, Memphis, Tennessee, earns the distinction of having greatest energy burdens for its poor. A [June 2016 ACEEE report](#) also showed that Memphis fared the worst on a variety of statistics affected by energy burdens. The City of Memphis, local utilities and numerous non-profit organizations have banded together to drive policy changes and ensure that programs are designed in a way to bring maximum benefits to the neediest customers and significantly reduce energy burdens for customers across the city. Efforts are outlined in this [article](#).

Densified Biomass Fuel Manufacturing Dashboard

Want to learn more about wood pellet production in the U.S. Check out EIA's new dashboard tool at: <https://www.eia.gov/biofuels/biomass/#dashboard>.

Home Depot Accelerates Corporate Renewable Energy Goal

Atlanta-based [Home Depot](#) has agreed to buy 50 MW a year from the Los Mirasoles Wind Farm in Texas. That's a fifth of the wind farm's 250 MW capacity and enough to power 100 Home Depot stores for a year. The company also procures energy from solar farms in Delaware and Massachusetts. More than 150 stores and distribution centers utilize on-site fuel cells that produce roughly 85% of each store's electricity needs. The Home Depot said its goal is to procure 135 megawatts of various renewable energy sources by the end of 2020.

Solar Project Completed on Former President Carter's Farm

SolAmerica Energy project's official and others recently debuted the 10-acre solar PV project on farmland belonging to former U.S. President Jimmy Carter. The project will provide more than half of the power needed by the city of Plains, GA. On June 20, 1979, the Carter administration installed 32 solar panels on the roof of the White House and used them to heat water. As president, Carter created the U.S. Department of Energy and the Federal Energy Regulatory Commission and he signed the Public Utility Regulatory Policies Act.

Georgia and most of Southeast Becoming Hotbed for Solar Development

Georgia is the third fastest-growing generator of solar power in the United States and the eighth-largest producer of solar energy, according to the [Solar Energy Industries Association](#) (SEIA). Over the next five years, North Carolina is expected to see an additional 3,656 megawatts of solar growth, with 2,132 megawatts in Georgia, 2,315 megawatts in Florida, and 1,101 megawatts in Virginia, and 476 megawatts in Tennessee. Given its abundant sunshine, the Southeast is the second best part of the country for solar development after the Southwest. But state and local policies tend to hold back development.

Super Bowl LI Powered by Renewable Energy

NRG Energy Inc. and subsidiary Reliant teamed up with the National Football League (NFL) to provide 100% Green-e certified renewable energy to NRG Stadium, site of Super Bowl LI, and the George R. Brown Convention Center, location of the NFL Experience and other NFL celebrations in Houston. Green-e Energy is a third-party certification program that guarantees RECs are generated from new renewable facilities and marketed with transparency and accuracy. Renewable energy powered the lights that illuminated the largest comeback and first overtime in Super Bowl history.

Southwest Power Pool Sets Wind Energy Record

On February 12, the [Southwest Power Pool](#) (SPP) became the first regional transmission organization in North America to provide more than 50% of its power load [from wind energy](#). While it was for a short duration, the wind-penetration percentage was 52.1%. As recently as 10 years ago, the SPP, headquartered in Little Rock, AR, considered a goal of 25% wind unrealistic. The SPP footprint covers almost 550,000 square miles from Canada to Texas.

NCCETC Releases 50 States of Solar Report

The NC Clean Energy Technology Center (NCCETC) [released](#) its annual edition of their 50 States of Solar report, which showed that 47 states plus Washington D.C. made changes to solar policy in 2016. Of the 212 actions catalogued, the most common were related to net metering (73), followed by residential fixed charge increases (71). Learn more in the report [Executive Summary](#).

National Issues

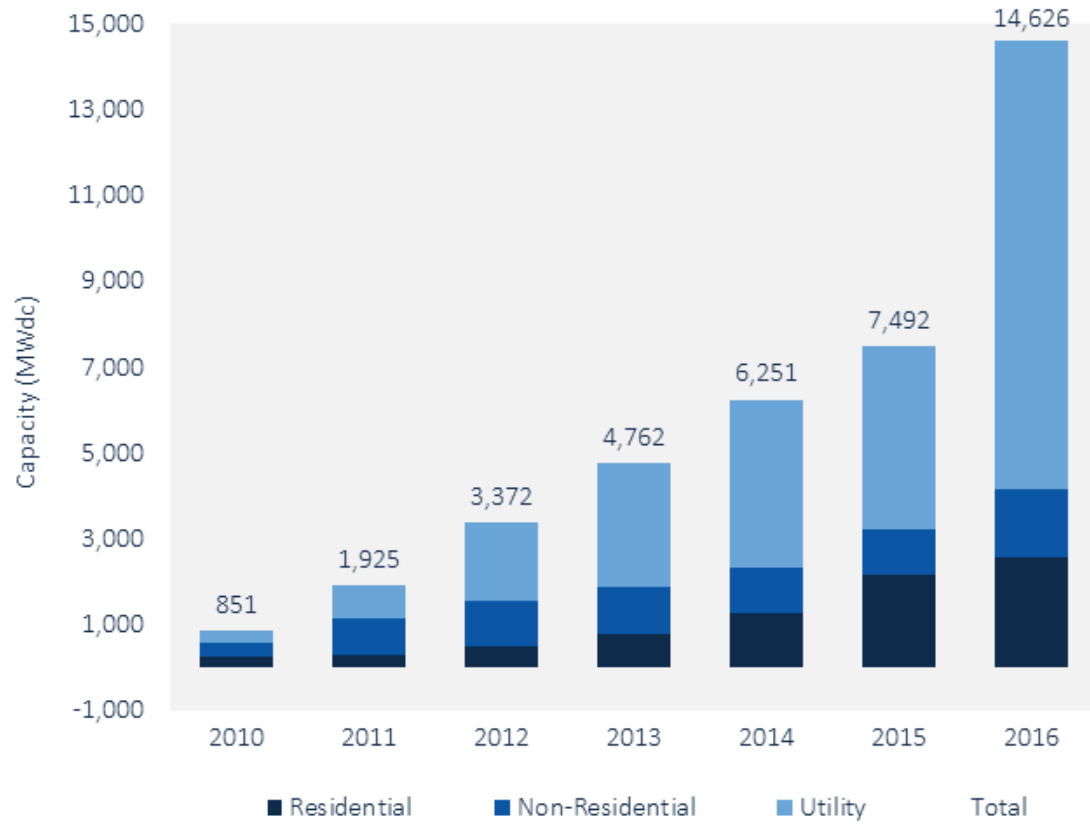
Demand Response and Energy Efficiency Can Reduce Utilities' Peak Demand

Working as complementary programs, demand response and energy efficiency can significantly reduce a utilities' peak demand according to [data analyzed by ACEEE](#). 'Demand response' refers to the various strategies used to reduce loads during peak power demand periods, and shift those loads to periods with lower power demand. Demand response includes a wide variety of strategies including interruptible rates, air conditioner and water heater cycling programs, and pricing programs such as peak time rebates.

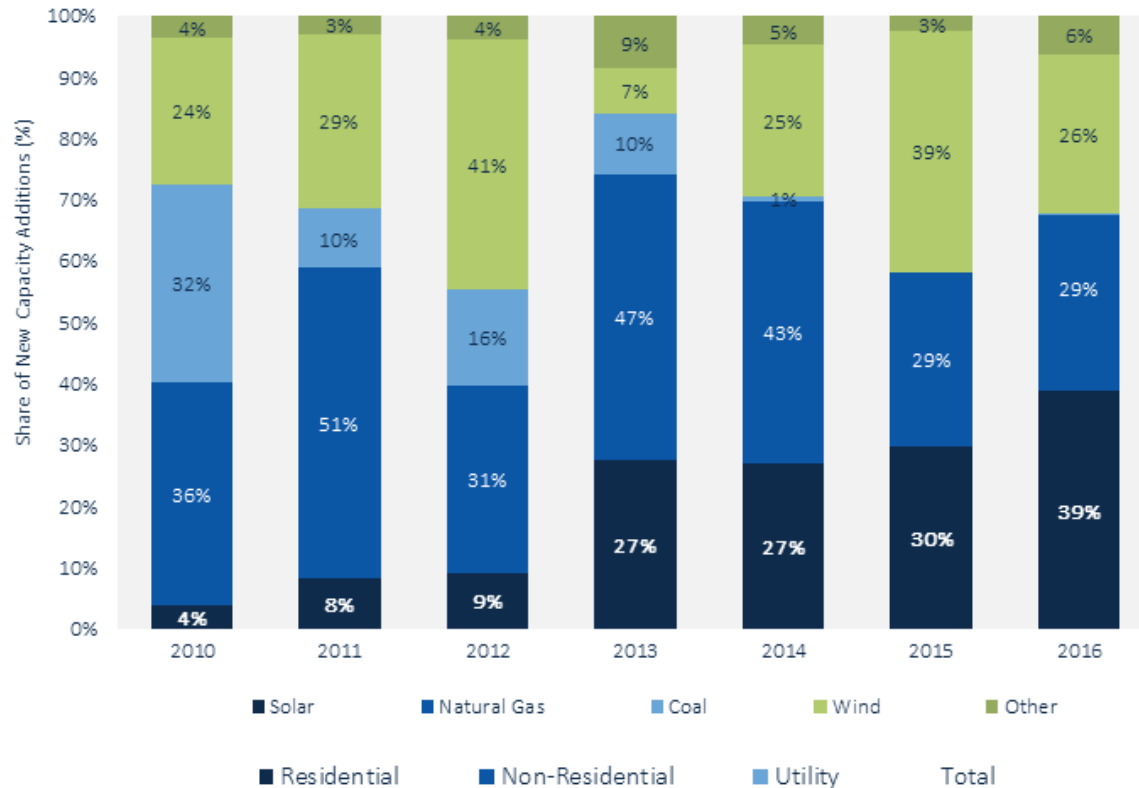
U.S. Solar Installations Set New Record

The United States solar market nearly doubled its annual record, topping out at 14,625 megawatts of solar PV installed across all consumer classes in 2016. This represents a 95 percent increase over the previous record of 7,493 megawatts installed in 2015. For the first time ever, U.S. solar ranked as the number one source of new electric generating capacity additions on an annual basis. In total, solar accounted for 39 percent of new capacity additions across all fuel types in 2016. This data was presented in advance of the upcoming [U.S. Solar Market Insight](#) report, set to be released on March 9.

U.S. Solar PV Installations, 2010 - 2016



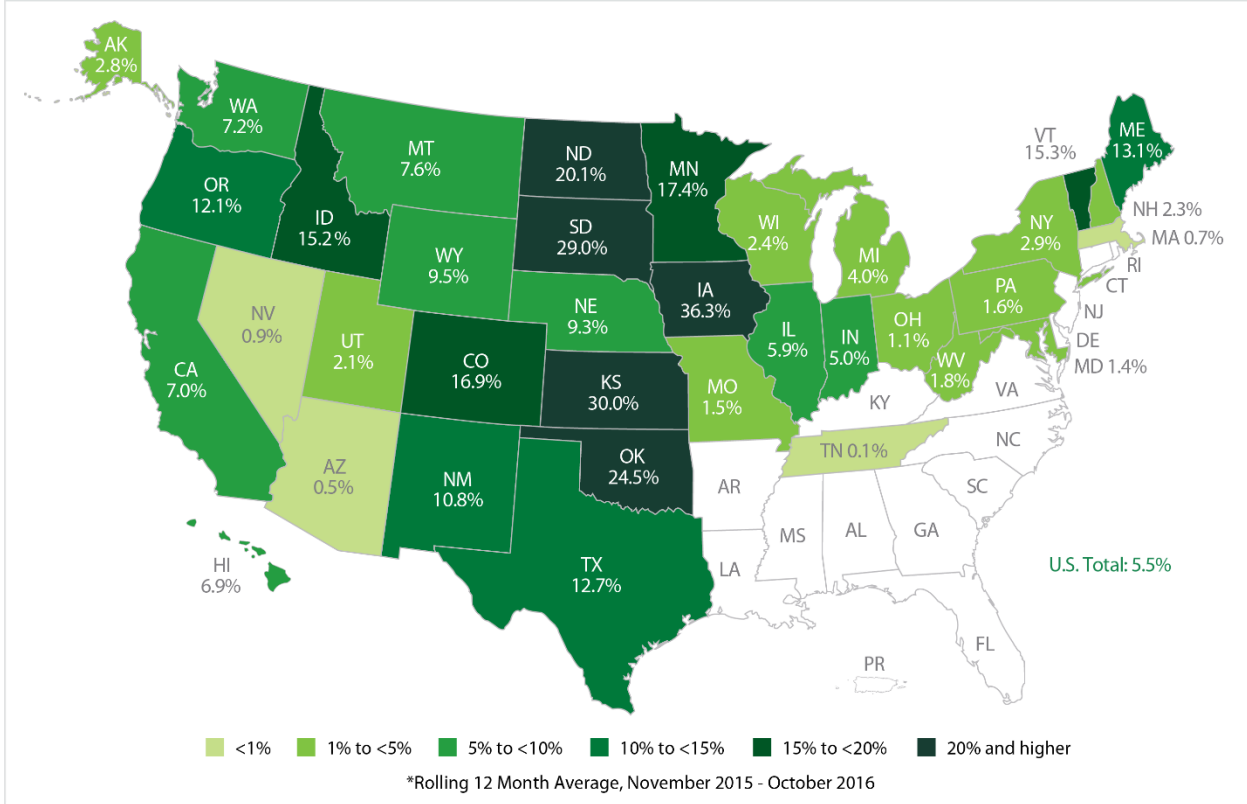
Share of Capacity Additions by Generation Source



Wind is Largest Renewable Energy Resource

American wind power just passed a [historic milestone](#)—it’s now the country’s largest renewable resource by installed generating capacity. U.S. wind capacity now stands at over [82,000 megawatts \(MW\)](#), surpassing the 80,000 MW at the nation’s hydropower dams. That also means wind energy is now the country’s fourth-largest source of electric capacity, behind natural gas, coal and nuclear energy. Wind generates about 5.5% of America’s electricity, enough to power 24 million homes.

U.S. Wind Energy Share of Electricity Generation*, by State



FERC Issues its Energy Infrastructure Update

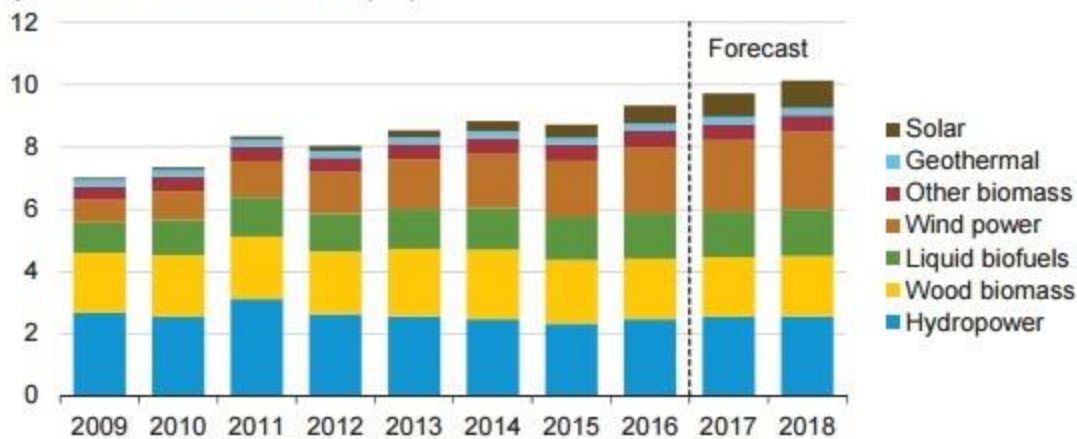
The Federal Energy Regulatory Commission released its [Energy Infrastructure Update](#) with data for the full year 2016. Overall, the U.S. added 696 new electrical generation units with a combined capacity of 26,209 MW in 2016. These installations included three coal units with a combined capacity of 45 MW, 102 natural gas units with a combined capacity of 8,689 MW, one nuclear unit with a capacity of 1,270 MW, seven oil units with a combined capacity of 58 MW, 30 hydropower units with a combined 314 MW of capacity, 51 biomass units with a combined 197 MW of capacity, 77 wind units with a combined 7,865 MW of capacity, 407 solar units with a combined 7,748 MW of capacity, two waste heat units with a combined 23 MW of capacity, and 16 units classified as “other” with a combined capacity of less than 1 MW.

As of the close of 2016, FERC reports that in the U.S.: Coal currently accounts for 24.65 percent of capacity, with natural gas at 43.23 percent, nuclear at 9 percent, oil at 3.79 percent, water at 8.5 percent, wind at 6.92 percent, geothermal steam at 0.33 percent, solar at 2 percent, biomass at 1.42 percent, waste heat at 10 percent and other forms of capacity at 0.06 percent.

Looking ahead, The U.S. Energy Information Administration has released the February edition of its Short-Term Energy Outlook, predicting the non-hydro renewables share of U.S. electricity generation will be 9% in 2017 and 10% in 2018. See the chart below.

U.S. renewable energy supply

quadrillion British thermal units (Btu)



Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

Source: Short-Term Energy Outlook, February 2017.

Residential Solar Power Crosses Party Lines

Division between America's two political parties reached a fever pitch in this election season. These days it's easy to assume Republicans and Democrats don't agree on much, if anything at all. But if a new [study](#) is any indication, residential solar power may be one surprising area where right and left find common ground. PowerScout set out to determine whether Democrats or Republicans adopted more rooftop solar.

PowerScout pulled the addresses of 1.5 million Democratic and Republican party donors in the top 20 solar states and analyzed their rooftops using satellite images and an image-recognition model. Their discovery? The solar adoption rate among the two parties was more or less the same. A little over 3 percent of Democratic donors in those states installed rooftop solar, compared to 2.24 percent of Republican donors. In some areas, Republicans were even more likely to have solar installed than their Democratic neighbors.

Is Your Car Mean or Green?

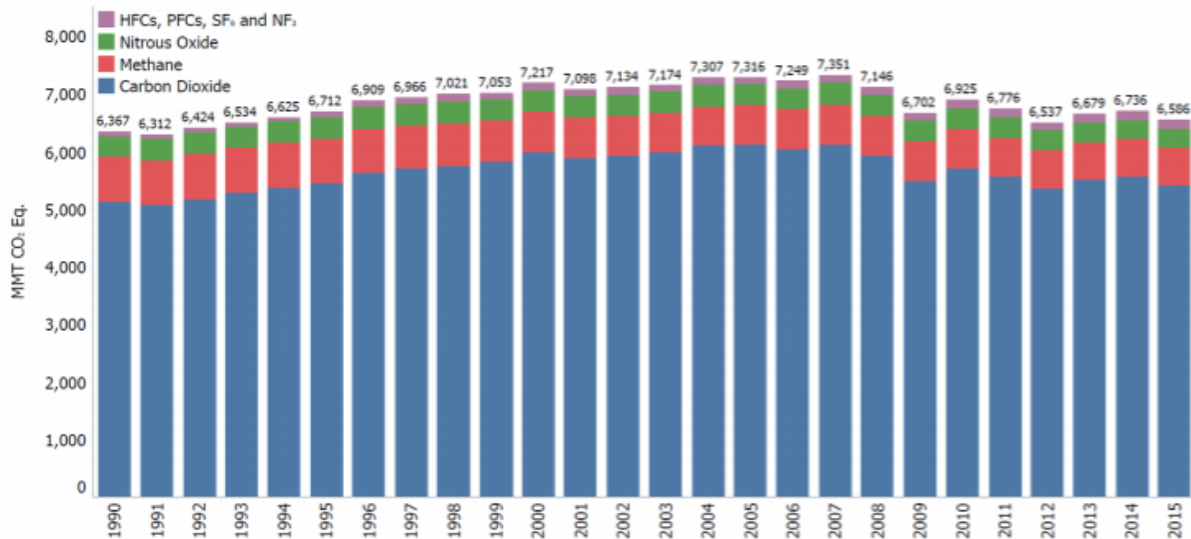
The answer to that question is revealed in the 20th annual environmental ratings at greencars.org, released by the American Council for an Energy-Efficient Economy. The website lists the year's [Greenest](#), [Meanest](#), [Greener Choices](#), and best-in-class vehicles. It features an informative write-up on model year 2017 market trends, a consumer primer on vehicles and the environment, and advice on how to buy green when shopping for a new car or truck. What's the greenest? It's the new midsize Hyundai Ioniq Electric. And the meanest? That would be the Mercedes-Benz AMG G65.

US Greenhouse Gas Emissions Fall Below 1994 Levels

A new report from the EPA, titled "[Inventory of U.S. Greenhouse Gas Emissions and Sinks](#)," says that greenhouse gas emissions from the U.S. have fallen below 1994 levels, the result of a steady decline

since the recession. The most recent declines stem in part from mild weather, lower energy demand and fuel shifting.

Figure ES-1: Gross U.S. Greenhouse Gas Emissions by Gas (MMT CO₂ Eq.)



How Could Low-Carbon Technologies Impact our Energy Future?

Rapid growth in solar photovoltaic (PV) power and energy storage systems could completely upend coal in power generation and significantly cut natural gas' share of the electricity market by 2050, according to a new report by- Carbon Tracker Initiative. The report, [Expect the Unexpected: The Disruptive Power of Low-carbon Technology](#), also predicts that electric vehicles could reach two-thirds of the global road transport market, cutting demand for oil by 25 million b/d compared with current levels. The group modeled numerous scenarios using least-cost factors and avoids speculative policy options.

National Bioenergy Day set for October 18, 2017

Mark your calendars for Wednesday, October 18, 2017 - the Fifth Annual Bioenergy Day! This year, the event focus will be on the role of bioenergy in a larger forest products economy that promotes forest health. Bioenergy stakeholders are invited to participate by holding a facility tour, panel discussion or other event focused on bioenergy and its many benefits. Biomass power, domestic and export pellets, biogas, anaerobic digesters, combined heat and power - all of these types of bioenergy are part of Bioenergy Day. Learn more on www.bioenergyday.com.