

Mississippi Renewable Energy and Energy Efficiency Update

MPSC Regular Meeting and Docket Call – March 7

At the March 2017 MPSC Regular Meeting ([see agenda](#)), the Commission took action on Cooperative Energy's (formerly SMEPA) net metering program and interconnection standards Compliance Filing in regards to 2011-AD-2. Cooperative Energy submitted its Compliance Filing on September 29, 2016, per the request of the MPSC. The MPSC [approved](#) Cooperative Energy's (a G&T cooperative representing 11 distribution cooperatives in 56 counties in Mississippi) Distributive Generation (DG) Application, DG Interconnection Agreement, DG Rate Schedule and Fees and found that Cooperative Energy's [program](#) is in substantial compliance with the Commission's net metering and interconnection rules. All public electric utilities subject to MS Code 77-3-3(d)(I) now have approved net metering programs and interconnection standards.

To find information related to the Distributed Generation Program offered by Cooperative Energy Members:

Coahoma EPA: No Distributed Generation Program links currently available.

Coast EPA: <http://coastepa.com/renewable-energy/>

Delta EPA: No Distributed Generation Program links currently available

Dixie EPA: <https://www.dixieepa.com/forms-documents/>

Magnolia EPA: No Distributed Generation Program links currently available.

Pearl River Valley EPA: <http://prvepa.com/content/important-information-about-residential-solar-generation>

Singing River EPA: <http://singingriver.com/renewables-and-clean-energy/#>

Southern Pine EPA: <https://www.southernpine.coop/wp-content/uploads/2016/12/Cooperative-Energy-Member-DG-Process-Document-2016-Final-with-Blanks....pdf>

Southwest Mississippi EPA: No Distributed Generation Program links currently available.

Twin County EPA: No Distributed Generation Program links currently available.

Yazoo Valley EPA: No Distributed Generation Program links currently available. Contact Michael Neely at 662-746-4251.

Next Meeting of the MPSC – The next regular meeting of the MPSC will take place on **April 4, 2017, at 10 am** in the MPSC Hearing Room to consider the Docket and other matters. See the [Meeting Notice](#). The MPSC will also hold a Work Session on April 13, 2017, on the issue of “Rural Broadband.” See the [Meeting Notice](#).

Net Metering Joint Working Group to Meet on April 18

On Tuesday, April 18, 2017, the Joint Working Group established by the MPSC in its Order Adopting Net Metering Rule, will conduct an open meeting “work session” on the topic of consumer protection and safety standards and guidelines for installations of distributed generation systems and education of consumers. This meeting of the Joint Working Group is set to begin at 10:00 a.m. in the MPSC Hearing Room, 1st Floor, Woolfolk State Office Building, Jackson, Mississippi. See the [Meeting Notice](#).

Interactive Solar Jobs Map Launched

The Solar Foundation just launched a brand new interactive [Solar Jobs Map](#). The map provides data on the number of solar jobs in each state, and even breaks the jobs numbers down by county, congressional district, state Senate district and state House district, along with other solar specific information. The information can also be downloaded in the form of a [Mississippi Solar Jobs Fact Sheet](#).

Mississippi Looks to Advance Energy Goals through New NGA Support

Governor Phil Bryant and the [National Governors Association](#) (NGA) have announced that five states—including **Mississippi**—will participate in a state retreat to help explore innovative policies and programs to reduce energy costs and consumption, conserve natural resources, enhance the use of clean energy resources and improve resiliency in the public sector. The Energy and Natural Resources Division at the Mississippi Development Authority will coordinate next steps and finalize the date for the retreat, most likely in June. The retreat is part of the NGA's Lead-by-Example Initiative.

Ole Miss Offsets Electricity Use with Renewable Energy Certificates

The University of Mississippi offsets a portion of its electricity use through the [purchase of renewable energy certificates](#) (RECs) to lower its carbon footprint, support the development of renewable energy technologies and practice resource stewardship. One REC represents the environmental benefits associated with one megawatt-hour of energy generated from renewable energy resources. The university purchased 3,835 RECs for \$1,800, which is 0.02 percent of the overall electricity bill. This offset 3 percent of institution-wide electricity use from fiscal year 2016. The estimated environmental benefits are similar to growing 69,848 trees per year for 10 years or not using 6,240 barrels of oil.

Is Your Roof Right for Solar?

In 2015, Google launched Project Sunroof, a map that shows which houses have enough sun exposure for solar panels to be a viable energy source. However, the original map was very limited. Now, Google has greatly expanded the project to cover all 50 U.S. states, with a total of 60 million buildings in the database. Check out the interactive map, searchable by U.S. zip codes, cities, counties and states, [here](#). Please note that only major population areas have been evaluated in Mississippi.

Biomass Utilization is Proportionally High in Mississippi; More Opportunity Exists

The figure below shows the relative percentage of each type of boiler fuel for each state, with the order based on the proportion of wood-fired boilers in each state. The first thing noticeable is the very high percentage of natural gas usage in each state, indicated by the light blue portion of each bar. Generally speaking, more natural gas is used to fire boilers than any other fuel source in the U.S. The continued availability and low price of natural gas is likely to increase that percentage over time. However, the chart can be interpreted to show the states with greatest potential of conversion to biomass feedstocks if natural gas pricing were to become volatile in the future. Mississippi has significant wood resources and a strong biomass delivery infrastructure and could support an increase in biomass utilization in the commercial and industrial sector.

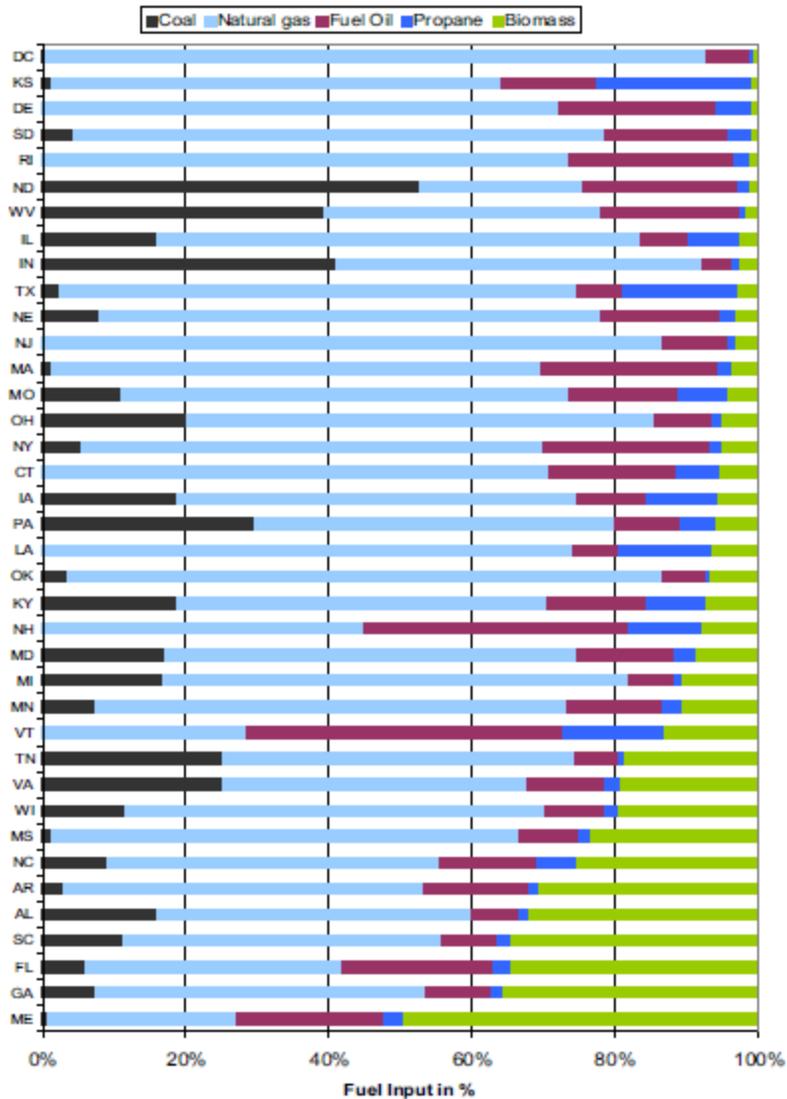


Fig. 8. Estimated relative proportion of fuel feedstocks for commercial and industrial heating applications, by state.

Kemper Update

The [February 2017 Independent Monitor Report](#) is now online for review. MS Power officials have also indicated that plant start-up will be delayed again until mid-April to repair leaking syngas cooling pipes. The delay adds at least another \$35 million to the cost of the \$7 billion-plus plant.

At the beginning of the month, [Moody's downgraded Mississippi Power's stock ratings](#) and withdrew its Baa3 Issuer Rating. Moody's also gave Mississippi Power a "negative" rating. From Moody's: "The negative outlook on Mississippi Power's ratings reflects the challenges and regulatory contentiousness we expect as it seeks rate recovery and a determination of prudence on the Kemper plant. It also incorporates execution risk in bringing the plant on line and in maintaining reliable commercial operation; uncertainty over the plant's future operating costs and their recovery; and questions as to whether the IGCC portion of the plant will operate at all."

If you are customer of MS Power, you can still request to [become an intervener](#) in the Kemper Discovery Docket and possibly future prudence filings.

Regional Issues

Sustainable Solar Farm Development in the Southeast

A new report highlights how communities across the Southeast are harnessing the many benefits of solar power while ensuring that energy demands are balanced with smart, sustainable development of solar farms. "[The Environmental Review of Solar Farms in the Southeast U.S.](#)" describes the environmental review processes and sustainable practices that currently inform the development of solar farms, which the report defines as projects larger than 1 megawatt (MW) and require roughly 5 acres of land or more. Also, see the [handout](#) debunking anti-solar farm "myths." And for a great story of how agriculture and solar goes hand-in-hand, [see the video on Sun-Ray Farms](#).

Electricity Consumption and Peak Demand Scenarios for the Southeastern U.S.

In a [new report](#), ACEEE looks at how energy efficiency, photovoltaics (solar electricity), electric vehicles, heat pumps, and demand response (shifting loads from periods of high demand) might affect electricity needs in the Southeast. ACEEE finds that if all of these resources are pursued on an accelerated basis, electricity demand in the region would be level until about 2030, reducing the impact of expensive new generation on consumer wallets.

Alabama's Largest Solar Project is Online

Learn more about the 640 acre, 75 MW [River Bend Energy Center](#).

Arkansas Stakeholders Revisiting Net Metering and Interconnection Rules

On April 29, 2016, the APSC initiated a rulemaking proceeding to implement the directives Act 827 of 2015. Act 827 amended Arkansas' net metering law as implemented through the *Net-Metering Rules* (NMRs) of the APSC. Among other things, Act 827 required the APSC to review the rates, terms, and conditions for net metering contracts.

On March 8, 2017, after nearly a year of comments and testimony from stakeholders, the APSC issued an [Order](#) that revised the AR NMRs. Most significant in the revised NMRs, the APSC ruled that existing net metering customers will be grandfathered into the new net metering program structure for a period of 20 years. Customers submitting a Standard Interconnection Agreement before the date of the Phase 2 (new rate tariff) order expected later this year will be grandfathered and retain current net metering rates. The Commission's ruling is good news for businesses looking for new market opportunities and for consumers and businesses looking for greater energy choice.

Arkansas Cooperative to Build 1 MW Community Solar Facility

Ouachita Electric Cooperative of Camden, AR will build a 1 MW solar facility of 4,080 panels and encompassing 5.5 acres and power up to 250 homes. OEC members who purchase solar power generated by the facility can receive credit on their electric bills. Last year, OEC built a 93 kW solar facility that provides 95% of the electricity to OEC's headquarters, operations center and campus in Camden.

Florida Utility Commits to Expanding Utility-Scale Solar

Florida Power & Light Co. (FPL) [unveiled](#) plans to double its short-term commitment to build new solar plants and the utility has [announced](#) the names and locations of the eight projects it will build in Florida over the next 12 months. Each of the new solar projects will be 74.5 MW in capacity. Combined, the new plants are expected to generate enough energy annually to power approximately 120,000 homes and produce net savings for FPL customers of \$39 million over their operational lifetime.

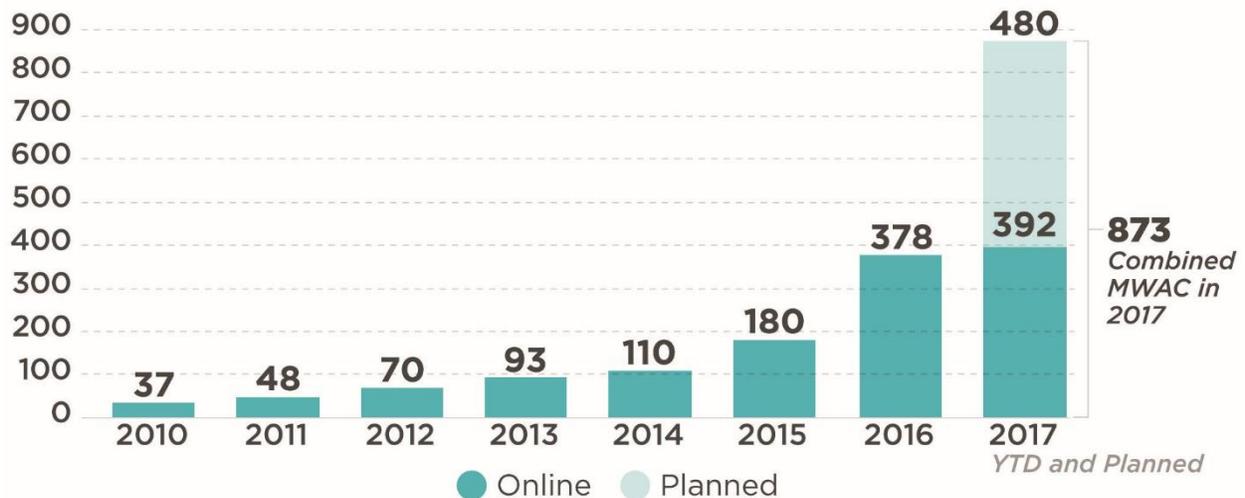
Georgia Biomass Energy Facility Begins Testing

The new [Albany Green Energy](#) biomass renewable energy plant has begun its testing phase. By mid-summer, the cogeneration facility will be supplying 50 MW of electricity to Georgia Power and steam to Procter & Gamble (for production of Bounty paper towels and Charmin bath tissue) and Marine Corps Logistics Base-Albany. The facility will consume about 100 tons/day of chipped wood and other biomass resources.

Georgia is Top State for Electric Cooperative Solar Development

According to data [released](#) by the National Rural Electric Cooperative Association (NRECA), co-ops are on pace to add 480 MW of solar, which would bring their total capacity to 873 MW.

Solar Capacity (MWAC)



NOTE: Co-op solar capacity owned or purchased under contract

Source: NRECA Business & Technology Strategies

Among states where co-ops have been actively developing solar, Georgia ranks first with a total of 122 MW. However, most of the solar is directly installed and owned by Georgia co-ops. Some co-ops charge their net metering customers a series of exorbitant monthly fees even before the first kilowatt-hour is generated or consumed. These fees makes solar uneconomical, thus the extremely low numbers of net metering customers in Georgia electric cooperative service areas.

In a recent survey, co-ops were asked to identify the factors driving their decision to offer or support solar programs. 68% of respondents said they were motivated by a desire to increase consumer

satisfaction; 59% cited consumer demand for solar offerings; 43% pointed to the decline in the cost of solar development. Saying and doing are two different things.....

Louisiana Stakeholders Begin Formulating Phase II Energy Efficiency Programs

Louisiana electric and natural gas utilities have completed two full years of its Quick Start Programs and is a third of the way through program year three. Therefore, the LPSC has initiated a Collaborative Process to formulate Phase II (Comprehensive) Energy Efficiency Programs that will likely be tied into utility Integrated Resource Plans. Phase II Comprehensive Program development will go through a series of proposals and stakeholder comments addressing an array of issues. The first [stakeholder technical conference](#) was held on March 8. While there was much consensus on the overall framework of Comprehensive Programs going forward, there are still some details to be worked out.

Abita Springs, LA to go 100% Renewable Energy

[Abita Springs](#) has become the first municipality in Louisiana, and the 24th in the United States, to commit to a full transition to clean and renewable energy. The Town Council on March 22 approved a resolution establishing a community-wide goal of transitioning to 100 percent renewable energy by 2030. Abita Springs is also home to Abita Brewery, which uses solar to power its business.

Poll: North Carolina Voters Support Renewable Energy

A study by Conservatives for Clean Energy, a Raleigh-based organization that educates the public on the economic benefits of renewable energy, has found that North Carolina voters support the growth of renewable energy. Strategic Partners Solutions LLC interviewed 600 registered voters in North Carolina and found that more than 80 percent of North Carolina voters in the last three years would be more likely to support candidates who worked toward clean energy options, including wind, solar and waste to energy technologies. [Read the results of the study](#)

South Carolina Solar Boom Result of Predictable State Policy

In the three-county Charleston region, only 100 solar permits were issued in 2015. In 2016, that number jumped to 1,400. Why? [Because a combination of good solar policy and falling solar installation prices.](#) South Carolina has about 78 MW of solar and another 500 MW is expected to be installed this year. Recently, the state passed true net metering and a solar tax incentive to help jump-start the industry.

National Issues

Fact Sheet: Clean Energy Job Growth in the U.S.

The clean energy economy in the United States—including wind, solar, and efficiency industries—is putting more and more Americans to work. This [fact sheet](#) outlines the latest data on how many Americans are working in clean energy and where the jobs are located.

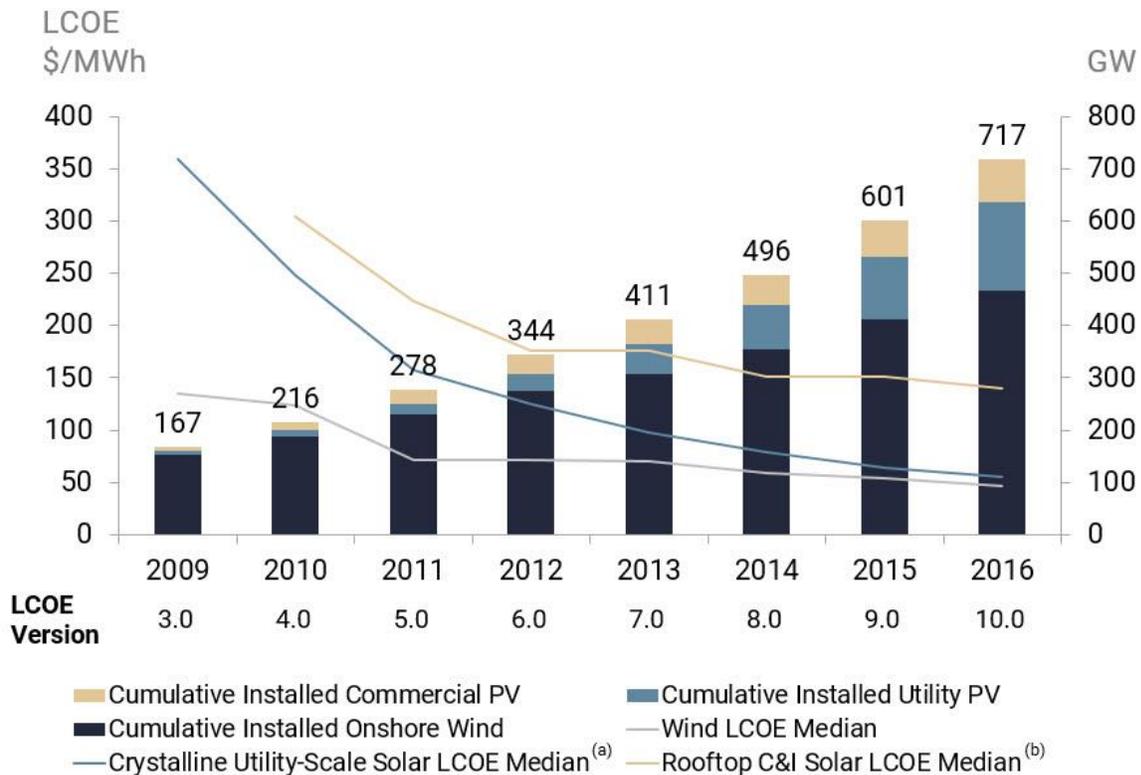
Federal Low-Rise Buildings Now Required to Meet 2015 IECC.

Effective March 13, 2017, DOE published a [final rule](#) to implement provisions in the Energy Conservation and Production Act (ECPA) that require DOE to update the baseline federal energy efficiency performance standards for the construction of new federal low-rise residential buildings to the 2015 IECC standards. Most affected by this rule will be structures such as single- and multi-family military

housing. DOE found that the 2015 IECC would save approximately 25% more source energy than the 2009 IECC.

Don't Under-Estimate the Cost-Effectiveness of Clean Energy

Lazard [reports](#) that renewables are now cheaper than fossils for new electricity generation, with costs falling by 66% for wind and 85% for solar over the last seven years alone. Investors and power purchasers unaware of those declines may neglect cleaner cheaper options. However, as federal and state policy changes occur, can these technologies continue their cost declines and achieve wider adoption?



Source: Lazard estimates and BNEF.

Note: LCOE medians represent average between low end and high end of LCOE range for each technology.

(a) Low end represents crystalline utility-scale solar with single-axis tracking in high insolation jurisdictions (e.g., Southwest U.S.), while high end represents crystalline utility-scale solar with fixed-tilt design.

(b) Lazard's LCOE initiated reporting of rooftop C&I solar in 2010.

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NEW: Advanced Energy Now 2017 Market Report

The [Advanced Energy Now 2017 Market Report](#) studies the size, growth, and trends in the advanced energy market, globally and in the United States. This year's report shows global growth of 7% from 2015 to 2016. In the United States, advanced energy saw strong growth in power generation and building efficiency technologies, but a decline in revenue from biofuels resulted in overall growth of 1%. In 2016, advanced energy represented a [U.S. market of \\$200 billion and 3.3 million jobs](#).

Top 10 States for LEED in 2016

The US Green Building Council just dropped its [annual list of the Top 10 States for LEED](#), which recognizes those states leading the way for sustainable building design, construction and

transformation. [See the infographic here](#). Across the U.S., 3,366 projects were LEED-certified in 2016, representing 470.39 million square feet. According to USGBC's 2015 [Green Building Economic Impact Study](#), green construction will account for more than 3.3 million U.S. jobs and generate \$190.3 billion in labor earnings by 2018.

Ethanol Sets Production Record

U.S. ethanol production set a new record of 15.33 billion gallons in 2016, according to data released this week by DOE's Energy Information Administration (EIA). The data also suggest domestic ethanol consumption of 14.4 billion gallons in 2016 along with exports of 1.05 billion gallons. U.S. gasoline consumption totaled 143.37 billion gallons, up 1.9 percent from 2015 and a new all-time record. The data imply an average ethanol blend rate across the U.S. of 10.04 percent, meaning higher level blends like E15 and E85 saw increased market penetration. The RFA also released the [2017 Pocket Guide to Ethanol](#).

Solar has Historic 2016

While the February 2017 Update previously reported on the record level of solar PV installations in 2016, the new [U.S. Solar Market Insight](#) report released some additional key findings:

- Solar ranked as the No. 1 source of new electric generating capacity additions brought on-line on an annual basis at 39%.
- On average, a new megawatt of solar PV capacity came on-line every 36 minutes in 2016.
- In 2016, a record 22 states each added more than 100 MW of solar PV.

U.S. Wind Energy Sector Continues to Grow

The American Wind Energy Association (AWEA) released a [white paper](#), "Wind Brings Jobs and Economic Development to All 50 States," to highlight the economic benefits wind delivers to the U.S. economy. For the first time ever, the U.S. wind industry supports more than 100,000 jobs, with 102,500 workers in all 50 states. Meanwhile, American wind power expansion is poised to drive 248,000 jobs and \$85 billion dollars in economic activity over the next four years, according to [new analysis released](#) by Navigant Consulting. This growth could result in the addition of 35,000 MW of new wind power capacity through 2020.

Can Universities Lead the Way Towards a Renewable Energy Future?

A [new report](#) from the Environment America Research & Policy Center says U.S. colleges and universities are in a good position to help lead the country toward a transition to 100% renewable energy. Universities and colleges serve more than 20 million students (large consumer base), campus facilities are good locations to host clean energy projects, and they are leaders in innovation and education. While many colleges and universities have already taken important steps toward clean energy, there is still much that can be done to demonstrate leadership in clean energy and sustainability.

Hearings for 2018 Farm Bill Begins

The U.S. House and Senate recently began hearing to collect information that will help guide the development of a 2018 Farm Bill. While most focus of early Farm Bill discussions have centered on crop

insurance provisions and commodity ARC and PLC programs, the agriculture committees in each chamber are beginning to move into other areas of interest. On March 9, the House Agriculture Committee's Subcommittee on Commodity Exchanges, Energy, and Credit held a hearing to review the rural development and energy programs in the 2014 Farm Bill. [Testimonies can be read here.](#)

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.