

Welcome to the May 2017 MS Renewable Energy and Energy Efficiency Update!

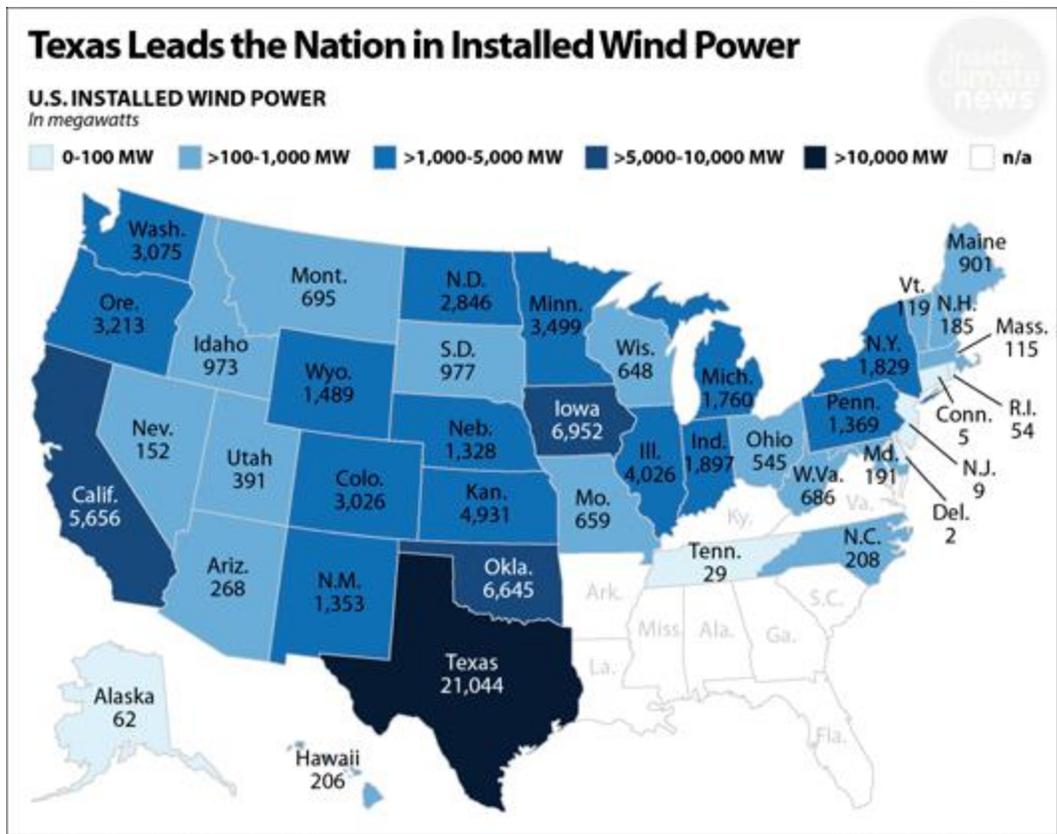
As reported in the past two Updates, the MPSC is seeking public comments on a number of issues as the Commission is considering the establishment of energy savings targets and preparing for the next phase of energy efficiency programs in the state (Docket No. 2010-AD-2). 25x'25 has developed and submitted its comprehensive [comments](#) to the MPSC. Please feel free to gain ideas from the 25x'25 comments to craft your own comments. Entergy MS filed a [Request for an Extension of Time](#) to submit its comments. In response, the MPSC agreed to [grant all parties additional time](#) to file comments. **Comments in this energy efficiency docket shall be file no later than June 9.** More information on the issues and where to submit comments is located in the body of the email below.

25x'25 also recently helped to draft [comments](#) in response to the EPA's Request for Evaluation of Existing Regulations and the Administration's Executive Order on Reducing Regulation and Controlling Regulatory Costs. Our comments focused on the rules that have unreasonably capped ethanol's market potential and the regulatory barriers that block ethanol as a source of clean octane for today's highly efficient motor vehicles.

The **Attorney General of Mississippi and its Consumer Protection Division** has released "[A Consumer's Guide to Solar Power in Mississippi](#)." The document is a product of an ongoing multisector effort to protect consumers in this new arena and was developed with input from the Mississippi Net Metering Working Group and multiple stakeholders. The guide is intended to offer potential solar owners guidance when evaluating options to install a solar photovoltaic system for the generation and self-supply of electricity. The guide covers many different topics, provides suggested questions to ask a solar contractor, and offers additional resources for information related to solar energy development. See the [press release](#) and a [story](#) from the Clarion-Ledger.

The Energy Information Administration (EIA) [has released numbers on US electricity generation](#) for the first quarter of 2017, and renewable energy numbers are coming in big. According to the EIA, renewable energy sources like wind, solar, hydropower, biopower, and geothermal power accounted for nearly a fifth of total electricity generation—as much as 19.35 percent.

Clean, renewable energy also continues to lead in new generation capacity additions in the U.S. In the first quarter of 2017, wind and solar accounted for over 50% of new electrical capacity built in the U.S according to FERC's [Energy Infrastructure Update](#). Newly installed capacity from renewable sources totaled 61.5% of all new U.S. capacity added in 2016. At the current pace, renewable energy could account for 20% of all generating capacity at the end of 2017, which would than double that of nuclear. (Please note that generating capacity is not the same as actual generation) In fact, a new wind turbine went up in America every 2.4 hours. The wind sector has its best quarter in 8 years.



SOURCE: American Wind Energy Association

PAUL HORN / InsideClimate News

Although Mississippi has no major wind projects on the ground, wind energy from Texas could be made available to Mississippians in just a few years if the proposed [Southern Cross Transmission](#) project is successful. General line route proposed below.



Thanks for your interest in clean energy and please let me know if you have any questions. Enjoy this month's Update.

Brent

Mississippi Renewable Energy and Energy Efficiency Update

MPSC Regular Meeting and Docket Call – May 4

At the May 4, 2017, MPSC Regular Meeting ([see agenda](#)), the Commission acted on the following items of interest to clean energy stakeholders:

[Docket No. 2016-UA-261](#): **Entergy MS Request for Advanced Metering Infrastructure (AMI or Smart Meters)** – Entergy is proposing to replace all current base meters with advanced meters that enable two-way data transmission, a secure and reliable communications network that supports two-way data communication, along with related and supporting systems that could include tools to allow customers to manage their energy usage more effectively and to lower their bills. The proposed schedule for the change out of the approximately 453,000 meters is as follows:

Preliminary Deployment Schedule			
	2019	2020	2021
Advanced Meters	148,000	177,000	128,000

Implementation of the AMI project is expected to cost \$136 million. Net benefits over the expected 15-year life of the AMI project is projected to be \$52 million on a present value basis. The AMI upgrades will result in an approximate \$3.25 impact on a typical residential customer’s monthly bill once fully implemented. Entergy agreed to educate customers on how to use the data to maximize savings, provide an opt-out methodology with fees, and will provide regular project updates. The MPSC unanimously approved the request.

[Docket No. 2017-UA-012](#): Entergy MS Request for Transmission and Grid Improvements in Attala County – Entergy is proposing to upgrade substation facilities in Attala County to alleviate transmission constraints and increase grid reliability. The MPSC unanimously approved the request.

The MPSC [moved to open a new docket](#) for the consideration of a “**Hire Mississippi Rule.**” The purpose is to help educate local contractors on the opportunities to participate and bid on local utility projects. The Rule will require broader advertising for requests for bids and MPSC will create a web portal for bid requests. MPSC emphasized this is NOT a mandatory set-aside program, but rather about advertising, transparency and creating new opportunities for MS-based companies. The MPSC will be seeking public comments on the proposed rule. The Order and Proposed Rule can be found at Docket No. [2017-AD-86](#).

The MPSC also held hearings on the following items:

[Docket No. 1992-UN-59](#): MS Power Co. Environmental Compliance Overview (ECO) Plan – The MPSC heard testimony from MS Power Co. officials reviewing the 2016 expenditures and the 2017 expected expenditures related to emission reduction projects at Plant Daniels and other measures. Because of past over-collections associated with the ECO rate filings, MS Power is proposing to reduce its ECO revenue requirement by \$2.90/month for a residence using 1,000 kWh. The filing was unanimously approved.

[Docket No. 2016-UA-207](#): Entergy MS Request for Transmission and Grid Improvements in Hinds County – The MPSC heard testimony from Entergy officials regarding the need for construction of a 32 MW natural gas combustion turbine, construction of a new 230kV transmission line, and upgrade a nearby substation. In addition to providing greater reliability to customers and satisfying NERC reliability

standards, the power from the new combustion turbine could also serve the greater MISO market. The proposed facilities would result in a less than \$1 impact on a typical residential customer's monthly bill when completed. The filing was unanimously approved.

Next Meeting of the MPSC – The [next regular meeting](#) of the MPSC will take place on **June 6, 2017, at 10 am** in the MPSC Hearing Room to consider the Docket and other matters. The July regular meeting will be held on July 6.

25x'25 Submits Comments to MPSC on Comprehensive Energy Efficiency Programs

With the goal of advancing energy efficiency, creating jobs, and reducing overall energy costs, 25x'25 submitted its [comments](#) to the MPSC this week. The Commission sought comments on the following issues: Numerical Savings Targets; Industrial Opt-Outs; Cost Recovery; Incentive Mechanisms; Cost-Effectiveness Tests; Evaluation, Measurement & Verification; General Quick Start Rule Feedback; Other Considerations.

Stakeholders with interest in providing comments on energy savings targets and energy efficiency programs and services now have until **June 9** to provide comments in regards to all or part of the matters identified in the [Order Requesting Comments](#). Comments will inform and guide the Commission in the selection and adoption of energy savings targets and in its review and approval of Comprehensive Portfolio Plans submitted by the utilities.

Comments should be sent to:

Ms. Katherine Collier
Executive Secretary
Mississippi Public Service Commission
PO Box 1174
Jackson, MS 39725-1174

RE: MPSC Docket No: 2010-AD-2
ORDER ESTABLISHING DOCKET TO INVESTIGATE THE DEVELOPMENT AND IMPLEMENTATION OF ENERGY EFFICIENCY PROGRAMS AND STANDARDS;
ORDER REQUESTING COMMENTS

Or email comments to katherine.collier@psc.state.ms.us and Cc to efile.psc@psc.state.ms.us.

Thank you for your attention to this matter, and let's move energy efficiency forward in Mississippi!

Electric and Natural Gas Utilities Submit Quick Start Energy Efficiency Program Annual Reports to MPSC

The Commission adopted the [Final Order implementing Conservation and Energy Efficiency Programs](#) (Rule 29) on July 11, 2013. Annual reports are due by May 1 of each year. Utilities have now completed two full calendar years (2015 and 2016) of offering energy efficiency programs through the Quick Start portfolio. These customer-funded programs have been providing a range of services, rebates, direct

installs and technical assistance to residential, commercial and industrial customers. Links to the Annual Reports are provided below as well as summary of Total Program Costs and Net Annual Energy Savings.

2016 Energy Efficiency Portfolio Statistics

Utility	Docket Number	Rule 29 Annual Report	Total Program Costs	Net Annual Energy Savings (kWh)	Demand Savings (MW)
Electric Utilities					
Energy Mississippi	2014-UA-6	Report	\$5,953,382	35,996,000	7.95
Mississippi Power Company	2014-UN-10	Report	\$4,061,678	17,830,565	4.050
Cooperative Energy Association Members					
Coahoma Electric Power Association	2014-UA-18 Report	Exh. A	\$12,000	0	0
Coast Electric Power Association		Exh. B	\$400,109	5,237,000	1.554
Delta Electric Power Association		Exh. C	\$590	227,000	0.0488
Dixie Electric Power Association		Exh. D	\$227,349	262,000	0.0141
Magnolia Electric Power Association		Exh. E	\$47,156	1,243,000	0.2866
Pearl River Valley Electric Power Association		Exh. F	\$109,708	562,000	0.2275
Singing River Electric Power Association		Exh. G	\$691,786	1,508,000	0.288
Southern Pine Electric Power Association		Exh. H	\$529,691	528,000	0.219
Southwest Mississippi Electric Power Association		Exh. I	\$13,369	1,000	0.00011
Twin County Electric Power Association		Exh. J	\$0	0	0
Yazoo Valley Electric Power Association		Exh. K	\$19,681	0	0
Local Power Companies in Tennessee Valley Authority Distribution Area					
Central Electric Power Association	2014-UA-16	Report	\$120,235*	2,476,906	0.498
East Mississippi Electric Power Association	2014-UA-5	Report	\$164,121	333,700	0.0531
4-County Electric Power Association	2014-UA-15	Report	\$231,345*	2,020,241	0.293
Northcentral Mississippi Electric Power Association	2014-UA-13	Report	\$52,760*	560,901	0.031
Tallahatchie Valley Electric Power Association	2014-UA-12	Report	\$51,278*	367,184	0.072
Tombigbee Electric Power Association	2014-UA-14	Report	\$327,690*	4,473,911	0.447
Natural Gas Utilities					
Utility			Total Program Costs	Energy Savings (Therms)	Demand Savings (Therms)

Atmos Energy	2014-UN-17	Report	\$1,142,761	531,759	2,544
CenterPoint Energy	2014-UA-7	Report	\$708,868	257,092	2,571

*Represent incentive costs only

MS Power Submits Summary Report on Pilot Energy Efficiency Programs

In July 2016, the MPSC determined that MS Power should proceed with the implementation of [two energy efficiency pilot programs](#) for New Home Construction and Commercial Development. Per the [Order](#), MS Power was instructed to file [a report highlighting results of the pilot programs](#).

The New Home Construction Pilot was created to gauge the interest of new home customers and builders in energy efficiency, to identify which product new customers are most interested in, to analyze the impact in energy savings relative to normal construction standards. The Pilot target was for 8-12 homes to install the minimum measures required for the \$1500 rebate. While no new homes qualified for the rebate during the program evaluation timeframe, some energy efficiency measures were installed and MS Power gained important information about the objectives of home builders and home buyers.

The Commercial Development Pilot was created to help fill vacant commercial space by identifying energy efficiency measures that can be installed to create added value and reduce energy costs to future tenants. The Pilot target was 8-12 small businesses in select cities. Six (6) customers participated. Pilot program expenses were \$14,147.81 with actual savings of 113,776 kWh (which were higher than projected program savings). MS Power wants to expand the Pilot program to the entire service territory and increase eligibility to 3000 sq. ft.

Major Solar Project Announced for Lauderdale County

On Thursday, May 25, representatives of Meridian Naval Air Station (NAS), Silicon Ranch Solar, East Mississippi Electric Power Association (EMEPA), Tennessee Valley Authority (TVA) and the MS Public Service Commission, [participated in a groundbreaking ceremony](#) commemorating the agreement among parties to develop a 6 MW solar facility featuring nearly 51,000 solar panels on a 38 acre tract. The solar facility will be funded, built, owned, operated and maintained by Silicon Ranch of Nashville, TN. The solar facility will provide power to NAS as well as EMEPA and TVA customers.

Origis Energy Breaks Ground on 52 MW Solar Farm

Origis Energy USA [announced](#) it has started construction work on a 52-MW solar power plant near Sumrall that will sell its output to Cooperative Energy. The solar park will be built on a 540-acre site in Lamar County, contain a total of 206,892 photovoltaic (PV) panels, and create some 400 jobs during its construction phase. Completion is scheduled for December 2017.

Seraphin Solar Announces Plans for Phase II Expansion in Jackson

With 160 MW of manufacturing capacity online as a component of its Phase 1 operation in Jackson, Mississippi, Seraphim USA is currently preparing for [Phase 2 expansion](#) to expand the facility with an additional 200 MW. To supplement its leading 72-cell module offering, Seraphim also announced availability of its best-in-class, high-efficiency, 60-cell solar modules, designed for the residential

distributed generation market. [Seraphim Solar USA Manufacturing](#) is producing “Made in the USA” solar modules to meet the strong residential and commercial demand for conversion to solar energy.



Stion Renegotiates Agreement with Local Governments

Stion, Corp. is entering a “payment and forbearance agreement” whereby it promises to pay \$75,000 a month to the county and city toward \$2.3 million in accumulated fees in lieu of ad valorem taxes. Stion had previously renegotiated its [memorandum of understanding](#) with the Mississippi Development Authority, city of Hattiesburg and Forrest County in November 2015. The maker of solar panels agreed in March 2011 to create 1,000 jobs by the end of 2017. Today it employs approximately 125.

Kemper Update

MS Power has [announced](#) that it will delay full startup of the Kemper County Lignite Gasification facility until May 31 as it repairs and modifies gasifiers, each gasifier’s ash removal systems, the plant’s sour water system and other matters. The plant, which is running on natural gas, was at one point supposed to go into full operation running on syngas by May 2014. This brings the plant’s total costs to nearly \$7.3 billion. The [March 2017 Independent Monitor Report](#) is now online for review.

MS Power must submit its rate increase proposals to the MS Public Service Commission by June 3. The MPSC set that June 3 deadline at the end of 2015, when it [allowed](#) Mississippi Power a 15% rate hike to recover costs for the portion of the plant that is producing electricity with natural gas. Many questions remain about the prudence of project spending as well as if the project will be able to provide reliable, affordable power from lignite. Read more here:

<http://www.sunherald.com/news/business/article152881969.html#storylink=cpy>

The Mississippi Business Journal recently ran two columns presenting two viewpoints on the prudence of Kemper. Bill Crawford’s [opinion piece](#) places value on fuel diversification in the market place. Rich Sun’s [opinion piece](#) called into question the risks of investing in unproven technology without economically justified future energy cost projections. You decide.....

Regional Issues

Atlanta Leaders Commit to 100% Renewable Energy by 2035

Atlanta's City Council passed a [resolution](#) to develop a plan for transitioning all of its buildings to clean electricity sources by 2025, and for the entire city to go green by 2035. Atlanta becomes the [27th U.S. city](#) and the first in Georgia to pledge a 100-percent renewable energy goal.

Ground Broken on 81MW Solar Project in Arkansas

Two years after NextEra Energy Resources and Entergy Arkansas received approval for the Stuttgart Solar Energy Center, the companies [broke ground on the project](#) on May 10. NextEra will own the project, while Entergy will purchase the energy under a 20-year agreement. The project will go online in January 2018. Entergy has said that the energy from the project will reduce residential customer bills by \$0.11 per month over the life of the project.

North Carolina Tax Credit Claims Reach \$245 Million

Due to strong growth in the clean energy sector and supportive public policy, [\\$245 million in state income tax credits](#) was claimed by businesses and residences in 2016, doubling the credit claimed in 2015. However, the [state tax credits](#) were claimed on projects valued at a total \$1.7 billion. The largest beneficiaries of the tax credits was NC Blue Cross Blue Shield, Duke Energy, Wells Fargo Bank and NC Farm Bureau Mutual Insurance. The legislature killed the 35% state tax credit last year so it remains to be seen if the level of investment in clean energy will continue in NC although the costs of clean energy have dropped significantly.

Florida Legislature Passes Solar Tax Exemption at End of Session

In response to [Amendment 4](#) approved by 73% of Floridians last year, [SB 90](#) requires that renewable energy equipment such as solar panels and wind turbines be exempt from state tangible property taxes. And property appraisers cannot consider the equipment when calculating a property's assessed value. The bill also extends these exemptions, which homeowners have enjoyed since 2013, to businesses. Gov. Rick Scott is expected to sign the bill.

South Carolina's Furman University Saves with Solar

Furman University north of Greenville, SC has turned on the \$1.7 million [solar farm](#) located on a six-acre tract. It's expected to generate about 5-15 percent of the school's energy needs, depending on the time of year, and save the school up to \$75,000 annually on electricity costs.

Alabama Paper Mill Installing CHP to Increase Savings and Reduce Costs, Emissions

The Kimberly-Clark plant in Mobile will build a \$75 million [combined heat-power unit](#) (also known as cogeneration) to generate electricity with a natural gas turbine and the exhaust gas will be rerouted to make steam for the plant's operations. Kimberly-Clark, maker of tissues for Kleenex, Scott and Cottonelle, has made a commitment to reduce corporate GHG emissions by 20% from 2005 levels by 2022. The project also greatly improves efficiency, reduces energy costs, and creates a more financially stable outlook for the mill site.

Louisiana Legislature Continues to Push for Solar Tax Credit Fix

The Louisiana State Committee on Ways and Means moved on May 1 to fix one of its “broken promises” by unanimously passing [HB 187](#) to pay solar energy systems tax credits still owed before the legislature put a cap on the program last June. The full House of Representatives passed the bill on May 10. The bill is now awaiting action on the Senate Committee on Revenue and Fiscal Affairs. Louisiana’s solar incentive had been among the most generous in the nation prior to capping and ending the program. Many homes and businesses installed solar prior to the cap being reached yet the LA Dept of Revenue failed to give the solar owners credit.

National Issues

ASCE Issues Infrastructure Report Card for Nation and States

Every four years, the American Society of Civil Engineers (ASCE) publishes [The Infrastructure Report Card](#), which grades the current state of national infrastructure categories on a scale of A through F. Since 1998, America’s infrastructure has earned persistent D averages. This year is no different. In the recently released 2017 report, the overall grade is a D+. Sixteen infrastructure categories were evaluated. [Energy infrastructure earned a D+ rating](#). Most electric transmission and distribution lines went up in the 1950s and 60s with a 50-year life expectancy. As a result of aging infrastructure, severe weather events, and attacks and vandalism, in 2015 Americans experienced a reported 3,571 total outages, with an average duration of 49 minutes. Meanwhile, the number of oil and gas “spill” event has increased in the last several years from 573 in 2012 to 715 in 2015.

The ASCE also provides an overview of [infrastructure challenges in Mississippi](#) and offer some interesting key facts about **Mississippi’s** infrastructure.

Clean Edge Releases U.S. Clean Tech Leadership Index

The [U.S. Clean Tech Leadership Index](#) tracks and ranks the clean-energy activities of all 50 states and the 50 largest metro areas in the U.S. The state Index covers more than 70 indicators in three main categories: Technology, Policy, and Capital. Data is included for all 50 states on clean-energy generation, energy storage installations, green building deployment, energy efficiency expenditures, VC investments, clean-energy patents, and much more. For the second year in a row, **Mississippi** ranks at 49th on the State Leadership Index.

ACEEE City Energy Efficiency Scorecard Released

ACEEE’s [2017 City Energy Efficiency Scorecard](#) includes the same 51 cities as it did in 2015. ACEEE researchers assessed the central city of each of the nation’s most populous metropolitan statistical areas (MSAs)—excluding San Juan, Puerto Rico. Scoring is based on metrics that reflect the adoption and implementation by cities and utilities serving these cities of specific government policies, programs, and actions that can improve energy efficiency. The [cities ranking](#) the highest tend to be located along the East and West Coasts, while the lowest ranking cities tend to be located in the Midwest and South.

Another Report Card: *The 50 States of Grid Modernization*

The N.C. Clean Energy Technology Center (NCCETC) released its inaugural issue of [The 50 States of Grid Modernization](#). The new quarterly series provides insights on state regulatory and legislative discussions and actions on grid modernization, utility business model and rate reform, energy storage, microgrids, and demand response. **Mississippi** is recognized in the report for the 2017 legislative proposal to

implement a solar tax credit (died in committee) and Entergy's proposal to install Advanced Metering Infrastructure throughout its service area (adopted by the MPSC).

USDA Awards First Loans under the Rural Energy Savings Program

USDA is [awarding](#) a \$13 million Rural Energy Savings Program (RESP) loan to South Carolina's KW Savings Co. and a \$1 million loan to the Northeast Ohio Public Energy Council (NOPEC). These are the first loans USDA is making through RESP. They are being provided through the [Electric Program](#) of USDA's [Rural Utilities Service](#). KW Savings will provide funds to seven rural electric cooperatives for South Carolina's "Help My House" program, which supports investments reduce consumers' energy bills. NOPEC will provide energy improvement loans to small businesses in 206 rural communities across 13 counties in northeast Ohio. NOPEC's Savings Through Efficiency Program (STEP) is expected to reduce energy costs for small businesses by 15 percent.

Study Demonstrates Emissions Benefits of Forest Residue Use

The [Biomass Power Association](#) has released the [results](#) of a [study](#) demonstrating dramatic carbon benefits can be achieved by using forest residue-based biomass instead of natural gas in power generation facilities. The researchers examined the carbon intensity of a 50 MW biomass power facility in New Hampshire and compared it to a typical combined cycle natural gas facility. Researchers accounted for the rate of decay of forest biomass, and the carbon emissions that would result from this decay if the materials were left in the forest rather than used in power generation. The study also accounts for carbon emissions generated during harvesting, chipping and transportation.

DOE Better Building Challenge Participants Keep Saving Energy and Water

DOE has announced that the 345 public and private organizations, businesses and institutions enrolled in the Better Buildings Challenge have combined to achieve 240 trillion BTUs and an estimated \$1.9 billion in cumulative energy and cost savings. These results are summarized in the [2017 Better Buildings Progress Report](#) that highlights accomplishments across the initiative. The goal of this initiative is to make commercial, public, industrial, and residential buildings 20% more energy efficient over the next decade by focusing on overcoming market barriers and sharing partner-created solutions.

New Report Outlines Strategies for Low-Income Household Solar Adoption

Despite increasing affordability of solar and solar-friendly policies and programs, some low-income households still face substantial obstacles to going solar: being renters, having low or no credit, or having little savings. A new guide, [Bringing the Benefits of Solar Energy to Low-Income Consumers: A Guide for States and Municipalities](#), concludes that barriers to adopting solar are not insurmountable. The guide outlines strategies that policymakers and government agencies can use to encourage low-income solar adoption.

What Drives Costs Variations in Residential Solar Installations

Berkeley Lab's new report, [Sources of Price Dispersion in U.S. Residential Solar Installations](#), looks at the factors that drive pricing differences. While the average cost of residential solar photovoltaic (PV) systems has declined dramatically over the past decade, people within the same region can pay dramatically different prices for what, on its face, appears to be the same good. See the [Fact Sheet](#).