

# Wind & Solar - 50% of World Generation by 2050



Merry Christmas & Happy New Year!

On behalf of the Board of Directors of the Georgia Solar Energy Association, we sincerely wish everyone a safe and joyous holiday season and a vibrant, uplifting and prosperous New Year!



Thank you for your continued support of GA Solar and our mission to promote the economic and environmental benefits of solar energy!

### Wind and Solar are Set to Surge to Almost "50 by 50"



2050." **LEARN MORE** 

"Wind and solar are set to surge to almost "50 by 50" – 50% of world generation by 2050 – on the back of precipitous reductions in cost, and the advent of cheaper and cheaper batteries that will enable electricity to be stored and discharged to meet shifts in demand and supply. Coal shrinks to just 11% of global electricity generation by



December 13, 2018 | Mason Fine Arts Center | Atlanta, Georgia



Holiday Luncheon

@ Mason Fine Art 415 Plasters Ave., NE Ste. 100 ATL. GA 30316 **NEXT WEEK - THURSDAY DECEMBER 13. 2018** 11:00AM - 2:00PM

Last Chance to Register : TODAY! Friday, December 7th!



# And the winner is ... 2018 Solar Advocate Award!

## PLUS – Holiday Luncheon KEYNOTE SPEAKER

#### Peter Heintzelman, President and CEO, Cobb EMC

Peter Heintzelman joined Cobb EMC as President and CEO in March 2018. Through his experience in operations, investment banking, trading and business development across the globe, Heintzelman brings a unique perspective to one of the nation's largest electric cooperatives.

AND the winner of this year's Solar Essay Contest!



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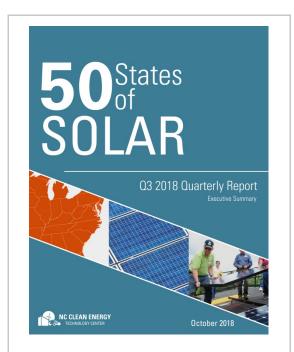
#### Solar "Maker and Braker" Utilities Across the South

A new web tool lets consumers in six Southern states see how their utility is embracing solar or blocking it; the solar policies of more than 400 utilities which can either "make" or "brake" solar growth, are now an open book, thanks to the **Rates of Solar** web



tool published by the Southern Environmental Law Center (SELC).

Southern states are no exception to a national trend in which many utilities are receiving permission from regulators to impose fixed charges for customers with solar. That is despite the benefits of rooftop solar, including displacing or deferring polluting generating units, serving peak demand, and enabling deferral of grid investments. **LEARN MORE** 



North Carolina Clean Energy Technology Center's (NCCETC) Q3 2018 **50** States of Solar report, ... found the greatest number of states involved in policy action over distributed solar in at least a year, with only five U.S. states where nothing substantial happened. **READ MORE** 



# Utilities seek greater fees on customers who go solar

The latest report from North Carolina Clean Energy Technology Center finds a surge in proposed fees for distributed generation solar customers, as increasingly complicated structures are proposed to replace net metering.

More and more states across the nation are undergoing changes in their policies for rooftop solar, which are often driven by utilities using a variety of means to attempt to claw back revenue from their customers who go solar and/or kill the progress of distributed solar. **READ MORE** 

## Wind, Solar and Electric Vehicles will Dominate by 2035 ...

The world runs on oil and gas now, but it won't for long, according to a study by the research firm *Wood Mackenzie* that estimates a global shift from fossil fuels to renewables by 2035. By then, the world will rely more on electric vehicles, wind power and solar power than gasoline-powered vehicles or fossil fuel-based electricity, according to Wood Mackenzie.

The tipping point will come when new technology reaches 20 percent of market share, a sweet spot that reflects new consumer preferences and supply chains reaching a point of maturity. **READ MORE** 



#### **GEORGIA SOLAR MISSION**

To advance the sustainable economic and environmental benefits of solar energy for Georgia through education, advocacy, community and industry support.

#### U.S. Electrical Generation By Solar Up 30% Over Last Year



Renewable energy sources – solar, wind, biomass, geothermal and hydropower – accounted for nearly 18.0% of net domestic electrical generation during the first three quarters of this year, according to a SUN DAY Campaign analysis of newly released data from the U.S. Energy Information Administration (EIA).

In addition, the latest issue of EIA's "Electric Power Monthly" (with data through Sept. 30)

reveals that solar and wind both showed strong growth: Compared to the first nine months of 2017, utility-scale solar expanded by 30.3%, and wind grew by 14.5%. The growth in total solar – including distributed small-scale solar PV – was 28.2%, comprising a 30.3% increase in utility-scale solar and a 23.6% increase in small-scale solar. **LEARN MORE** 

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We post articles daily on solar in Georgia, the southeast, around the United States and the world!

#### **Facebook Secures Solar contracts for Atlanta Data Center**

Walton EMC has signed contracts with two solar energy providers Strata Solar and Silicon Ranch to power Facebook's planned data center in Newton County, Georgia.

Silicon Ranch will deploy a single installation totaling 102.5MW in Early County, using Korean manufacturer Hanwha Q CELLS, as the company has a plant in the region.



Meanwhile, Strata will build two: an 80MW array in Calhoun County, and another in Colquitt County, offering a maximum power capacity of 20MW. The three projects represent a \$230m investment. **LEARN MORE** 

# Duke Energy Plans To Invest At Least Half a Billion in Energy Storage in the Carolinas



This week Duke Energy said that it plans to deploy about \$500 million of battery storage capacity over the next 15 years, which it estimates to be equivalent to about 300 MW of capacity. The storage capacity investment is written into its latest Integrated Resource Plan (IRP)

Combining battery storage from all utilities, North Carolina has only about 15 megawatts of battery storage capacity in operation, and far less in South Carolina,

so the IRP represents an almost 20-fold increase in storage for the region. LEARN MORE

# Coal Decline is Good News, But Solar Will Fight for its Share Against Gas

10 GW of coal plants have already retired this year, and this is expected to hit 15.4 GW by the year's end. But solar will have to compete with the "rush to gas" to replace this capacity.

Despite President Trump's promises to bring back coal, the burning of rocks to supply electricity is in a terminal decline, in the United States as well as globally. As the latest in this trend, the Institute for



Energy Economics and Financial Analysis (IEEFA) has released a report which finds that by year's end, 15.4 GW of coal plants will have retired in the United States, the most in any year to date. **READ MORE** 



Please consider making a donation to the Georgia Solar Energy Association. Your support helps to advance the solar industry in Georgia. Thank You!

### SEIA Rolls Out New Guide For Installing Residential Solar



photovoltaic system. LEARN MORE

The Solar Energy Industries Association (SEIA) has released an updated **Installation Best Practices Guide for Residential Portfolios**, a document designed for all parties involved in a solar transaction.

The white paper, developed by members of SEIA's Solar Quality Assurance Working Group, provides recommended best practices on everything from contractor qualifications to the design and actual installation of a solar

 Consider Becoming a Member of GA Solar!

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 ADIFFERENCE!
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 Individuals, Nonprofits, Corporations, Cities, Counties, Come One Come Call!

### **Battery Storage for Homeowners**



Solar United Neighbors has developed a guide to educate homeowners about adding storage in their homes. It examines the types of batteries that are available and how they can be used in your home. It then digs into the economics of battery storage to help you understand if adding battery storage can make financial sense for you.

The information in this guide is not just theoretical. In 2018 SUN launched its first storage co-op. Built on the same model used to help thousands of people a year go solar, this co-op helped Maryland homeowners add storage to their homes. **LEARN MORE** 

### Solar And Wind Industries Unite To Rewrite Electric Market Rules, Want Fair Market, Not Subsidies

A new solar and wind group in Washington is working on new wholesale electric market rules for federal regulators to consider in an effort to "level the playing field" by increasing the amount of electricity that comes from renewables.

Grid specialists for the new **Wind Solar Alliance** plan to ask federal and state regulators, lawmakers and U.S. governors ... to consider a plan that changes the way electricity is priced and generation resources are dispatched and compensated in the two largest organized wholesale electricity markets — PJM Interconnection, and the Midwest Independent System Operator.

Among the 10 North American centrally operated markets, PJM and MISO have the largest amount of generating capacity and miles of transmission. Organized markets represent two-thirds of U.S. electric grid. They serve more than 60% of U.S. electric consumers and half of Canada's population. **LEARN MORE** 



### Can the Price of Rooftop Solar Keep Falling?



"If prices keep dropping, [rooftop solar] adoption will continue and a smart utility CEO would watch the market and think about ways utilities can have some control over distributed resources.

Rooftop solar's growth has slowed nationally, but its price to customers continues to fall .... In

2017, the installed price of residential photovoltaic (PV) solar continued its 20-year price decline, but at a slower pace than the 2009-2013 glory years. Tariffs on imported solar products and the rising cost of funding customers slowed the price decline and flattened growth, leaving installers, policymakers and utilities asking if the price will keep falling, and if it does, how low it will go. Changing solar incentives make this question especially important. **READ MORE** 

# Federal Stats Show Renewables Provide More Electricity Than Nuclear In Majority Of States

about "national Citing concerns security" and "grid reliability," the Trump administration is weighing options for subsidizing and preventing the closure of nuclear and coal plants made uneconomic by growing competition from renewable energy and natural gas. However, an analysis ... of recent data from the U.S. Energy Information Administration (EIA) and the Federal Energy Regulatory Commission (FERC) suggests not only that such concerns are unfounded but also that the trend is potentially too late to reverse.



A review of 2017 state-by-state data presented in EIA's "Electric Power Monthly" report reveals that renewable energy sources (biomass, geothermal, hydropower,

solar and wind) are now providing more electricity than nuclear power in over half the states and more electricity than coal in one-third. Nationwide, according to FERC's latest "Energy Infrastructure Update," renewable sources now account for 20.66% of the total available installed generating capacity. **LEARN MORE** 

#### My keynote presentation at the 2018 Southern Solar Summit



Bill Nussey recently gave the afternoon KEYNOTE ADDRESS at the GA Solar 10th Anniversary Southern Solar Summit at The Carter Center in Atlanta on October 25th. His presentation focused on two points:

1) Solar and battery will become the largest source of electricity sooner than people think, and 2) Georgia

is in a unique position to help lead the clean energy transformation. How can solar and battery possibly become the least expensive source of electricity? **LEARN MORE** 

#### Final Hurdle Cleared in California's Solar Mandate for New Homes

The California Building Standards Commission has approved the requirement that new homes integrate rooftop solar. This is expected to not only give a major boost to the state's solar market, but to drive down costs.

In the words of Kelly Knutsen, it's officially official. Today the California Building Standards



Commission unanimously voted to confirm a change to the state's building code which will require that all newly built low-rise (three stories or less) residential units in the state either incorporate rooftop solar or hold a community solar contract, starting in 2020 **READ MORE.** 



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