



AMERICAN
ENERGY
SOCIETY

The world's exclusive network for energy professionals;
Connecting experts, thought leaders and decision-makers in pursuit of a sustainable energy future.

Energy Matters

31 March 2015

Members: Welcome to the e-Newsletter of the American Energy Society

Below are "sound-bite" summaries of the *energy news you need to know* right now. Topics include: conventional, renewables, jobs, funding, electricity, policy, climate, events, technology, featured organizations and experts ...

For more information about these and other stories please visit your account at: www.energysociety.org.

Conventional

The future price of oil? Three competing opinions:

- 1) **Dropping**, according to David Rubenstein, Carlyle Group Co-Founder, who thinks "the O&G markets look frothy." Translation: he anticipates the price of oil will drop to \$35/barrel before the end of the second quarter, and won't approach the \$100/barrel in the next decade, or longer.
- 2) **Steady**, says Bloomberg Energy, who thinks prices will fluctuate between current levels and something less than \$50/barrel, due to activities of the Saudi's and the shale surge.
- 3) **Rising**, or so says the US Energy Information Agency (EIA) in its recently issued [forecast report](#), which says that oil production will decline in April due to few rigs being deployed, and suggesting oil prices will rise before the end of the second quarter.

Two new [studies](#) from Penn State University (one by AES Member Andrew Kleit, Prof. of Energy and Environmental Economics) says that **the proposed "Sunrise" natural gas pipeline project for the Pennsylvania/Virginia region will have a significant positive economic impact**, generating approximately \$1.6 billion in additional wages and saving consumers \$860 million/year in gas prices. (*Please note*: sources and sponsors for this story are unconfirmed.)

Renewables

China will take over top-spot as the world's leading solar energy producer later this year. Right now, Germany has 36.8 GW of installed solar capacity, as opposed to China with 29.6 GW. This will change, however, when China installs 17.8 GW of solar later this year.

Top 8 Solar Energy Producing Countries

- 1 - *Germany*: 36.8 GW of installed solar capacity
 - 2 - *China*: 29.6 GW of installed solar
 - 3 - *Italy*: 17.6 GW of solar capacity (In 2010 Italy was in 5th place, with 1.2 GW)
 - 4 - *Japan*: 13.6 GW of solar (in 2010 Japan was in 3rd place)
- To see 5 - 8, log into your account at www.energysociety.org

Funding

The "Funding Season" is heating up:

- \$3,500,000 available through the DoE for "Smart Grid Technology Transfer."
- \$15,000,000 in DoE funding available for "Integration of Solar Energy and Storage," part of the larger SunShot Initiative (SunShot).
- \$36,000,000 in DoE funds for "Saline CO2 Storage R&D."
- The DoE Loan Program Office is currently accepting applications in four technology areas:
 - * Advanced Technology Vehicle Manufacturing (\$16 billion)
 - * Advanced Fossil Energy (\$8 billion)
 - * Renewable Energy and Efficiency (\$4 billion)
 - * Advanced Nuclear Energy (\$12 billion)
- The DoE is also requesting open solicitations for "Innovative Clean Energy Projects."

The American Energy Society also confidently anticipates significant increases in funding for "smart city" projects. For more on this insight, please see the "Policy" section below, or log into your account at www.energysociety.org

Dayaway and Spark Clean Energy are co-hosting [a campaign](#) to encourage **college student groups to form clubs that focus on sustainability** and clean energy. Cash awards are available.

Electricity

EPRI has launched an ambitious [initiative](#) to build the most advanced integrated grid in the world. To do this, EPRI is calling on a community of stakeholders, collaborators and partners to contribute to and participate in the following phases of this extraordinary project.

- *Concept Papers*. The grid is expected to change in different, perhaps fundamental ways, requiring careful assessment of the costs and opportunities of different technological and policy pathways.
- *Benefit-Cost Framework*. EPRI is seeking proposals to assess the benefits and costs of transitioning to a more Integrated Grid.
- *Pilot Projects*. There is a near-term opportunity to put the Integrated Grid Benefit-Cost Framework to the test via pilot projects using new technology and an integrated approach.

The IRS announced a "**one-year [extension](#) of the renewable electricity production tax credit** under section 45, or the energy investment tax credit under section 48." Specifically, all references to January 1, 2015 are replaced with January 1, 2016.

Events

- Last chance to sign up for the **Energy Expo at Georgia Tech - April 3 ... [TICKETS](#)**. Co-hosted with the Energy Club of Georgia Tech, the American Energy Society invites anyone in the Southeast region to attend this special event.

- MIT EI \$200,000 [Clean Energy Prize](#)

Showcase and Award Ceremony, May 11, 2015, 3:00 - 6:30, Kresge Auditorium, MIT Campus.

- **ACORE Renewable Energy Policy Forum** - April 22-23, Westin Washington, D.C. City Center.

Technology

The Department of Energy aims to bring the [price](#) of renewable microgrid energy down to 14 cents/kWh by 2020, so that it will be competitive with retail electricity prices. The technological bottlenecks in microgrid development remain *energy storage technologies* and *power management systems*, especially the inverter that is required to transform the electricity generated from the energy source. The cost of the inverter presents a substantial obstacle in the commercial development of microgrids, and the integration of these complex technologies into the microgrid adds more costs and maintenance challenges. Current microgrid systems can deliver electricity at a rate between 20 cents/kWh to \$1/kWh depending on many factors. The AES strongly encourages all interested Members to **begin preparing for newly released funding and development opportunities in fields related to micro- and smart-grids.**

Policy

The Department of Interior released its long-awaited rule governing hydraulic fracturing for O&G on federal and American Indian lands. The rule, issued by the Bureau of Land Management, **requires companies who use the fracturing process to: strengthen wells with concrete barriers to prevent water, gas and chemical leakage; disclose the chemicals used to the online FracFocus database; share more information about existing wells; and secure recovered waste fluid with stronger interim storage tanks.**

Industry responded with hostility:

- The Institute for Energy Research called the regulation "dishonest."

- IER President said: "This new ... rule isn't about protecting the environment, but rather about curtailing domestic energy production, which has been this administration's goal all along."

- The IER and the Western Energy Alliance (WEA) filed joint federal lawsuits against Interior, stating that the Bureau "lacks factual, scientific, or engineering evidence" to support the new rule.

U.S. Secretary of Commerce (Penny Pritzker) and U.S. Secretary of Energy (Ernest Moniz) will lead a delegation of 25 American companies on a "business development trade mission" to Beijing, Shanghai, and Guangzhou, China next month. **The trade mission will help U.S. companies launch business operations in China for SMART CITIES:** smart-growth products and services, green data centers, carbon capture utilization and storage, energy efficiency technologies, clean air and water technologies, waste treatment technologies, smart grid and green transportation....

The American Energy Society strongly encourages its Members to **LOOK FOR SIGNIFICANT INCREASES IN THE NEXT FUNDING CYCLE BY THE DOE, ARPA-E, AND EERE FOR "SMART CITIES" PROJECTS.**

Featured Organization: Cluster Mapping

The American Energy Society strongly encourages and highly recommends a **new energy website: the Harvard cluster map project**, which provides over 50 million open data records on industry clusters and regional business environments. (<http://clustermapping.us>) The "Energy" dashboard in the "trade" section is especially powerful. The American Energy Society and The White House use this powerful resource and research tool.

Featured Expert - Charles deCuir

More than eleven million inspired professionals are working to secure a sustainable energy future. The sheer size of this professional audience - as well as the depth of its talent, capital, and inspiration - is a validation of the importance of energy. Within this profession there are a number of people who possess traits that we admire and hope to emulate, such as kindness, patience, and generosity and Charles deCuir serves as a prime example. In addition to his work with the Virginia Offshore Wind Coalition, Mr. deCuir is also involved in NovaVis, an ambitious project that is trying to map and connect the supply chain that supports the emerging Offshore Wind industry in the US.

Thank you Charles deCuir for your encouragement and support of the American Energy Society and for all that you do and have done for wind energy in the U.S. and in the Mid-Atlantic region.

What You Missed At AES Last Week

It was a **big week for energy on The Hill last week:**

- The House Energy & Commerce Committee reviewed climate legal issues.
 - There was a legislative hearing on the bipartisan Coal Ash legislation.
 - There was a legislative hearing on thermal water heaters and DOE energy efficiency rules.
 - A House Science Committee held a hearing on Ozone impacts.
 - A House Small Business Committee looked at environmental regulations and the impact on small businesses.
 - The Senate Homeland Security/Govt Affairs discussed overhauling the government regulation-making process.
 - Senate Energy focused on grid upgrades and security and crude exports.
 - State officials met with House Transportation to discuss the highway bill.
- AND, MOST IMPORTANTLY...
- **There were endless budget appropriation hearings, which will have a dramatic effect on funding of grants, awards, loan programs, research and development.**

What's in store at AES - Town Hall Energy Series

Spring Membership Drive - **encourage colleagues to join for FREE as a Basic Member; you and they will get a FREE upgrade to Premium level membership:** www.energysociety.org

The American Energy Society is co-hosting the **Town Hall Energy Series**. Panelists and audiences will take a closer look at local and regional energy clusters, evaluating obstacles and opportunities. The next event is the **Energy Expo at Georgia Tech**, April 3 [TICKETS](#). Please respond by email for more information or to attend at a discounted rate.

Jobs

The energy industry is hiring!

- Spark Clean Energy, [Director](#) of Outreach & Student Programs, B.A./B.S., Chicago or remote.
- Sensus, Mechanical Engineer, B.S. in MechE, North Carolina - <http://bit.ly/1EAMmof>
- MWH, Assoc. Environmental Engineer, BS or MS in Engineering, Iowa - <http://bit.ly/1EAMIk7>
- Itron, Project Analyst, BS in Finance, Ohio - <http://bit.ly/1EFXdj8>
- SilverSpring Networks, Data Analyst, BS or MS, California - <http://bit.ly/1xplpFX>
- GE Power & Water, Communications Specialist, B.S. in Marketing &/or Communications, Pennsylvania - <http://bit.ly/1EAM14O>
- SolarCity, Financial Reporting [Associate](#), B.A./B.S. or higher in Finance, Accounting, or Business, Northern California
- California Center for Sustainable Energy, [Brand and Media](#) Associate, B.A./B.S. in Marketing or Business, Northern California

Climate News

NASA has reported that California will likely run out of water within a year.

In response to this forecast, the California State Water Resources Control Board unanimously voted in favor of the following water restrictions:

- hotels must now require guests use towels twice;
- homeowners can't water lawns for two (2) days after rainfall (does anyone see the irony here?);
- restaurants cannot serve a glass of water unless the customer requests it.

The California State Water Resources Control Board would be well served to consider the ways in which historians will assess their dismal inability to respond in a manner that is commensurate with the existing water crisis.

Please Encourage Colleagues to Join AES

We are a stronger network of experts if Members encourage their colleagues to **join the [American Energy Society](#)**. True to our commitment to sustainable energy, we offer FREE Basic membership, and the current Premium Membership rate is only \$27/year. **Please reply to this email if you know of a colleague who may be interested in Membership.**

Contacts

ARPA-e

<http://arpa-e.energy.gov/>

U.S. House Appropriation/Budget Hearings

<http://appropriations.house.gov/calendar/?EventTypeID=316>

DoE LPO

<http://www.energy.gov/lpo/apply>

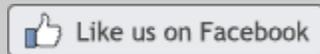
Harvard Cluster Mapping Project

<http://clustermapping.us/cluster>

NovaVis

www.novavis.org/

Visit: www.energysociety.org



Quote of the week:

"We are called to be architects of the future, not its victims."

- R. Buckminster Fuller