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News. February, 2016. Issue #46. 79,000 ESB [video views](#). *100% Renewable by 2035.*

*When fossil prices fall, they fire. When renewable prices fall, we hire.
-RJ Harrington, Renewable Energy Advocate*

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Moving to 100% Renewables

Big Island of Hawaii: 97% Renewables by 2030 at Lower Cost (G)

http://www.hiec.coop/docs_and_pdfs/HIEC-APGP-2-9-16.pdf

Study from Kauai: The Impact of Extensive PV Penetration

By 2016, Kauai will be obtaining over 17 percent of its annual electricity from solar generation. Under clear sun conditions, around 80 to 95 percent of the daytime demand will be met by the installed solar capacity. (PG)

http://www.nreca.coop/wp-content/uploads/2014/09/ts_kiuc_pv_case_study_july_2015.pdf

Wind Saves Consumers and Businesses \$2 Billion in 2 Days During the Polar Vortex

When it is super cold, there is high demand for natural gas for heating. This drives gas supplies down and costs up. This also causes the cost of gas generated electricity to go up. But the wind is often blowing when it is very cold. This helps keep electricity spot prices low. In this estimate these savings added up to \$2 billion in 2 days during the 2014 polar vortex. That is enough money to build 700 to 1500 MWs of new wind generation from those 2 days' savings. (G)

<http://www.aweablog.org/dont-worry-cold-weather-can-mean-cold-hard-savings/>

US Could Make a Fast, Cheap Switch to Clean Energy

This study looked at the cost of renewables, the requirements for reliable electricity delivery, and the impact of a national high voltage DC transmission system. The results showed 60 to 80% reductions in US emissions from electricity generation by 2030. *In all scenarios, the cost of power in 2030 would be cheaper than the International Energy Agency's estimate of an average \$0.115 per kilowatt-hour for the levelized cost of electricity in the U.S. in 2030.* (two G-rated articles. The study requires a subscription)

<http://www.greentechmedia.com/articles/read/Is-High-Voltage-DC-the-Best-Way-to-Modernize-the-Grid-and-Reduce-Emissions>

<http://news.yahoo.com/u-could-fast-cheap-switch-clean-energy-160005301.html>

<http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate2921.html>

Flotation is the Next Big Thing in Energy Production

This article describes research and development in floating nuclear, solar, and wind electricity generation. I think that large-scale floating nuclear power plants are a stunningly bad idea because they would be a fairly easy terrorist target. On the other hand, floating solar and wind may make sense. (G)

<http://www.greentechmedia.com/articles/read/flotation-is-the-next-big-thing-in-energy-production>

Solar Roadways in France

After testing, the French are looking at paving more than 600 miles of road with solar panels. (G)

<http://www.smithsonianmag.com/smart-news/france-paving-more-600-miles-road-solar-panels-180958035>

Al Gore's Latest TED Talk: The Case for Optimism on Climate Change

The talk starts with the question "Do we really have to change?" This part of the talk is an interesting and well-done update on the issue of climate change. At 12 minutes 50 seconds he enthusiastically gives a YES! to the second question: "Can we change?" Finally, at 17:50 he begins to answer the "Will we change?" question. The talk ends at 21 minutes. The audiences' standing ovation is followed with a few minutes of Q & A. (I recommend the talk highly - particularly the 9 minutes that start at 12:50. G)

http://www.ted.com/talks/al_gore_the_case_for_optimism_on_climate_change

Energy Storage and Miscellaneous

Thermal Storage for Producing Electricity From Electricity

This article explores different options for using molten salts to store electricity from wind and solar electric generation. (PG)

<http://www.renewableenergyworld.com/articles/print/volume-18/issue-110/features/thermal-renewable-energy/commercializing-standalone-thermal-energy-storage.html>

The Biggest Energy Storage Projects of 2015

Last year will likely be remembered as the year that energy storage got serious. (G)

<http://www.greentechmedia.com/articles/read/a-look-at-the-biggest-energy-storage-projects-built-around-the-world-in-the>