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News. July, 2013. Issue #16. 10,300 ESB [video views](#).

*The most important fact about Spaceship Earth:
an instruction manual didn't come with it.*

--- R. Buckminster Fuller

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News About EnergyShouldBe (ESB)

10,000 Video Views

We crossed the 10,000 video view milestone in mid-July. We are seeing about 2,000 total views per month across all our videos.

New Video: Driving Electric to Grandma's. 7 Solutions for Electric Vehicle Range Anxiety
3 minutes long. (G)

http://www.youtube.com/watch?v=nbCoT_EZwpU

Energy Should Not Be

Note: Most of what ESB and ESB News describes is a positive energy future - what energy should be. We steer clear of energy should **NOT** be articles. However, when we find stellar articles, we will pass them on in this section.

Excellent Video: Extreme Weather

Why a fairly small climate change makes a big difference in weather making things much hotter, drier, wetter, and sometimes even colder. (18 minute video & transcript: G)

<http://www.abc.net.au/catalyst/stories/3796205.htm>

Electricity

IEA: Predicts Strong Renewables Growth

Renewables will overtake natural gas and be double that of nuclear by 2016...

(Article G. Study PG)

<http://www.reuters.com/article/2013/06/26/iea-renewable-idUSL2N0F20VW20130626>

http://www.iea.org/newsroomandevents/speeches/130626_MTRMR_2013_Launch.pdf

A Clear Description of How Central Receiver Concentrating Solar Works

What makes up a Nevada central receiver concentrating solar project? Mirrors, molten salt, two storage tanks, 110 MW of capacity, and 10 hours of storage. (G)

<http://reneweconomy.com.au/2013/explainer-how-csp-with-integrated-storage-works-78892>

Study: Wind Farms Don't Need Fossil Backup (Much)

First, all power plants (fossil, nuclear, & renewable) need backup in case they fail. One myth about wind systems is that carbon savings are minimal because of a big need for fossil spinning reserves. A study from the UK shows that this is not the case.

Over the 18 month period the electricity generated by wind farms reduced the requirement for electricity from other sources by 23,707 GWh, resulting in an estimated 10.9 million tonnes less CO2 being emitted. Because there were windfarms on the system it is estimated that 22 GWh of electricity was provided at a higher carbon cost than would otherwise have been the case, resulting in an increase of 8,800 tonnes of CO2 being emitted. This offset the benefit in the reduction in carbon intensity by 0.081% over this 18 month period. (article & study, G & PG).

<http://www.ewea.org/blog/2013/06/wind-farms-dont-need-fossil-fuel-back-up/>

http://www.scottish.parliament.uk/S4_EconomyEnergyandTourismCommittee/NATIONAL_GRID.pdf

Transportation

The End of EV Range Anxiety in Sight?

An excellent summary of research and development from The Rocky Mountain Institute. (G)
http://blog.rmi.org/blog_2013_06_20_is_the_end_of_ev_range_anxiety_in_sight

Bosch Low-Cost Home Charger, Higher Cost Wireless Charger

\$500 for a wired home charger. \$3000 installed for the wireless charger for a Nissan Leaf or Chevy Volt. (G)
<http://green.autoblog.com/2013/06/13/bosch-will-install-wireless-charging-stations-for-3k-a-pop-for/>

Etcetera

Cheap, Efficient Fuel Cell Catalyst Outperforms Platinum Catalysts Currently Used

Researchers have developed a new graphene-Iodine nanoparticle catalyst that can replace expensive platinum. It may significantly improve the cost-performance of fuel cells. (article PG).
<http://phys.org/news/2013-06-metal-free-catalyst-outperforms-platinum-fuel.html>

Seafloor Compressed Air Energy Storage

High efficiency. Installed at 400 - 800 meters depth. Allows much much higher air pressure to be stored in the same physical tank because of the pressure of the water on the outside of the tank. Describes a 1 MW / 4 MWh storage system at 70% efficiency being proposed under Lake Ontario near Toronto, Canada. (all G)
<http://gigaom.com/2013/05/17/underwater-batteries-are-making-a-splash-for-energy-storage>
<http://web.mit.edu/newsoffice/2013/wind-power-even-without-the-wind-0425.html>
<http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=6471167>

WindStax Vertical Axis Wind Turbine

Vertical Axis turbines are generally easier to install than the more typical horizontal axis turbines - most of the working parts are low down and easily accessed. The company used relatively cheap and light materials to keep costs down. The moving parts are made with wood, bent and laminated with kevlar. (G)
<http://www.bizjournals.com/pittsburgh/blog/energy/2013/05/wind-turbines-in-the-strip-district.html>

Walgreens Net Zero Energy Store

Walgreens is building a net zero energy store - a store that has solar panels that, over the course of a year, produce as much energy as the store consumes. (G)
www.nytimes.com/2013/06/05/realestate/commercial/walgreen-builds-a-zero-net-energy-store.html

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