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News. June, 2014. Issue #27. 35,000 ESB video views.

At present, we are stealing the future, selling it in the present, and calling it gross domestic product. We can just as easily have an economy that is based on healing the future instead of stealing it.

Paul Hawken

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# **Electricity**

### Small, Nearly Silent Wind Turbines in Development

Wind & solar often complement each other. Solar works best in sunny weather. In many, and perhaps most, areas the wind blows best when it is not sunny (at night & during the winter). Wouldn't it be great to have a small, rugged, nearly silent wind turbine to juice our lives when your solar panels aren't? (G)

http://www.treehugger.com/wind-technology/silent-wind-turbines-could-generate-half-household-energy.html

#### 430 MW Solar on Stilts With Food Growing Beneath

The rate at which renewable energy change is happening is amazing! Last month's ESB news reported on a small farm that was growing crops underneath a checkerboard of solar panels. This month Kyocera has struck a basic agreement to develop a giant solar farm based on that concept. (First link, the small farm. Second link, Kyocera's news release. Both G).

http://www.bloomberg.com/news/2014-05-26/solar-farmers-in-japan-to-harvest-electricity-with-crops.html http://global.kyocera.com/news/2014/0602\_nobu.html

### The Best and Cheapest Path Forward Includes Lots of Renewables

Practicing Risk-Aware Electricity Regulation: What Every State Regulator Needs to Know Ron Binz - the former Chair of the Colorado Public Utilities Commission (PUC) - thinks and writes about renewables, the electric industry, and electric industry regulators. This month he helped write an article that uses major electric utility reports to make the case for lots of renewables. A transformation is moving through the electricity sector, of which low-carbon energy is only a part. If not handled carefully, it could be costly to utilities -- and to society. The burden is on utilities and policymakers to act. Discarding myths and letting facts and analysis guide decision-making will be essential to making wise choices as we transition to a cleaner, smarter, more resilient electricity system. (G)

http://www.greentechmedia.com/articles/read/why-the-best-path-to-a-low-carbon-future-includes-plenty-of-wind-and-solar

Probably the majority of the electric industry in the US is regulated by some kind PUC. The risks this regulated industry faces in the near future are stunning. What risks should PUC regulators require the electric industry address before approving their projects? A thoughtful podcast with Ron Binz and report (CERES - a non-profit - requires your email address to get the report). (Podcast: G. Report: PG).

http://www.ceres.org/resources/podcasts/shifting-ground/view

http://www.ceres.org/resources/reports/practicing-risk-aware-electricity-regulation/view

### Forget Utility 2.0, Let's Talk Energy Ownership 2.0

Much of the national discussion on electricity generation focuses on electric utilities as they must compete with solar and energy storage - Utility 2.0. John Farrell argues that more important may be what decentralized energy ownership could mean for a new energy democracy and for all of us - Energy Ownership 2.0.

If we stop at Utility 2.0, we allow utilities to use their customers' money – lobbying the Public Utilities Commission, the legislature, etc – to defend dirty and outdated infrastructure instead of spending it on the tools – smart grids, energy efficiency, demand management – to reduce energy bills and carbon emissions, and that also encourage economic ownership by their customers. (G) <a href="http://www.ilsr.org/forget-utility-2-0-talk-energy-ownership-2-0/">http://www.ilsr.org/forget-utility-2-0-talk-energy-ownership-2-0/</a>

## **Transportation**

#### Harley-Davidson LiveWire All-Electric Motorcycle Demo Fleets

HD is setting out with small fleets of very fast EMs (electric motorcycles) for people to try. The purpose? HD wants to know if fans and non-fans would buy quiet & quick motorcycles. (G) <a href="http://www.autoblog.com/2014/06/26/harley-davidson-livewire-first-ride-review-video">http://www.autoblog.com/2014/06/26/harley-davidson-livewire-first-ride-review-video</a>

#### Sunseeker Duo Solar Electric Airplane

Prototype. 2 seats. Range: As long as the sun is shining and then some from the batteries. Estimated to go 50 MPH. Beautifully quiet. (G) <a href="http://www.solar-flight.com/sunseeker-duo1/">http://www.solar-flight.com/sunseeker-duo1/</a>

## **Energy Storage**, Etcetera

### **Interactive Maps & Other Online Interactive Graphics**

One of the most powerful motivators for change is what our neighbors do. Maps and interactive graphics help us "see" our national and global neighbors and how their activities impact us. Maps can help us see things in new ways. While not all of the following maps are specific to energy, they all help us understand energy, the pollution that fossil burning creates, the impact of climate change, and new ways to see how our neighbors' activities impact us.

Map showing current and proposed carbon taxes or other ways to price carbon. It is interesting how many states and countries have or are close to putting a price on carbon. (PG) <a href="http://www.worldbank.org/en/news/feature/2014/05/28/state-trends-report-tracks-global-growth-carbon-pricing">http://www.worldbank.org/en/news/feature/2014/05/28/state-trends-report-tracks-global-growth-carbon-pricing</a>

The US Energy Information Agency's (EIA) map tool. Almost everything you might want to know about US energy data but were afraid to ask. (PG)

http://www.eia.gov/state/maps.cfm

EIA's tool can be daunting to use. Here are 11 maps on energy extracted from this tool (G). <a href="http://www.vox.com/2014/6/12/5803998/the-us-energy-system-in-11-maps">http://www.vox.com/2014/6/12/5803998/the-us-energy-system-in-11-maps</a>

EPA Map - State by state information for cutting carbon (click on a state) (G). <a href="http://cleanpowerplanmaps.epa.gov/CleanPowerPlan/">http://cleanpowerplanmaps.epa.gov/CleanPowerPlan/</a>

Air pollution map across the globe (small particles - "PM 2.5"). (mouse over a country. Bigger numbers is badder for these small particles). (G) http://www.theatlantic.com/health/archive/2014/06/the-air-we-breathe/372411/

NOAA climate change maps help show the temperature of the entire planet (PG).

http://www.ncdc.noaa.gov/cag/mapping/global

Temperature anomalies over time (not a map but from the same website) (PG).

http://www.ncdc.noaa.gov/cag/time-series/global

Maps on a variety of topics for various cities - not specific to energy but interesting because they present complex information in understandable ways. (G)

http://youarehere.cc/#/maps/by-topic

For example, a map of San Francisco bicycle crashes. Answers what streets are most dangerous. <a href="http://youarehere.cc/p/bicycle-accidents/sanfrancisco">http://youarehere.cc/p/bicycle-accidents/sanfrancisco</a>

(try clicking on "details" and then double click on one of the bars in the graph to see one street).

Finally, see what rising sea levels look like in various cities and states. (both G).

Click on a state:

http://sealevel.climatecentral.org/

Search for a city name (e.g., San Francisco) for stunning pictures. Not all cities are there. Many of the images are created by users and so may not be particularly consistent. http://drownyourtown.tumblr.com/