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News. September, 2014. Issue #30. 41,000 ESB [video views](#).

Large-scale power generation, however, will be the dinosaur of the future energy system:  
Too big, too inflexible, not even relevant for backup power in the long run.

Megabank UBS. August, 2014. Full Report:

<http://www.qualenergia.it/sites/default/files/articolo-doc/ues45625.pdf>

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## New ESB Video Series

### **Penguins & 100% Renewable Energy**

Part 1: Introduction. 4 Key Questions. Energy Independence Looks Like...

<https://www.youtube.com/watch?v=sRJquTFAGVU>

Part 2: Simple Actions Millions Are Taking

<https://www.youtube.com/watch?v=1fLHomoRRy4>

Part 3: More Detail... will be available in late October.

Early reviews are that these are our best videos so far.

*Please share these with your networks!*

*Please “thumbs-up” them in Youtube and leave positive comments, and “like” them on facebook.*

## **Electricity**

### **Germany & Texas: Energy Twins? Both Lots of Renewables. Both Energy Only Markets**

*Geographically and politically, Texas and Germany are on opposite sides of the world, but both believe strongly in competitive energy markets, and both have largely deregulated their power industries. (G)*

<http://www.powermag.com/texas-and-germany-energy-twins/?printmode=1>

### **Texas: World's First Merchant Utility-Scale Solar Electricity Plant?**

Interestingly, Texas, not Germany or California, may have the world's first merchant solar plant. 18 MW, soon to be 30, of PV is now generating electricity to be sold purely on the open market - not under a long-term contract (power purchase agreement) nor under a long-term state or utility subsidy. This is an important next step for solar as the market takes over our increasingly inevitable transition to solar and other renewables. (G)

[http://www.pv-tech.org/news/first\\_solar\\_completes\\_merchant\\_pv\\_power\\_plant\\_in\\_texas](http://www.pv-tech.org/news/first_solar_completes_merchant_pv_power_plant_in_texas)

This solar plant is located in the heart of oil & gas country. In a previous article, several local officials state their hope that the solar plant will help them avoid some of fossils' pitfalls:

*"We've been through many boom and bust cycles in the oil and gas industry and one thing about these renewable energy projects is their energy output is constant,"*

<http://www.permianbasin360.com/story/d/story/solar-energy-comes-to-pecos-county-a-look-at-the-b/24611/fYhMsf73uUSISNT0YCXPSEQ>

### **Fast-Tracked Solar Interconnection Rules Above 15% Gaining Favor**

One mechanism that electric utilities use to control the amount of solar that they don't own is with interconnection rules. In most places, solar on your rooftop can be interconnected to the grid with a fast-tracked process up to some measure on a distribution circuit - the poles and wires leading from a substation transformer to your house. This measure is often 15% of peak load on a distribution circuit.

But in many places - Hawaii, California, etc - 15% has been reached on particular circuits. This allows the electric utility to stall new solar installs requiring expensive, time-consuming studies of the circuit. The 15% number was an arbitrary compromise from some years ago based on an extremely safe estimate, not based on facts or studies of what can be realistically interconnected. This article talks about mechanisms being pursued to require utilities to allow greater than 15% fast-tracked interconnection approval. (VG)

<http://www.renewableenergyworld.com/rea/blog/post/2014/08/the-proof-of-interconnection-reform-is-in-thedata>

## **Transportation**

### **Is Nose to Nose Wireless EV Charging a Better Idea?**

Wireless EV charging uses two matched induction coils, usually one on the ground, and one in the car. The closer the coils get to each other, the smaller and more efficient they are. This nose-to-nose configuration allows smaller coils because the coils can be closer together than in ground to car configurations. The car's induction coil fits behind the license plate. The driver pulls in until touching a plastic bumper. Works fine & at high efficiency (up to 95%) even if the car is not placed perfectly on the charging column. And the charging column bends down without harm if the driver is too aggressive in parking. The current prototype allows 3 kW of charging or about 9 to 12 miles charge per hour. (G)

<http://green.autoblog.com/2014/08/09/is-nose-to-nose-wireless-charging-a-better-idea/>

## **Energy Storage, Etcetera**

### **Crying Fowl or Crying Wolf - Open Season on the Utility's Solar Duck Chart**

Almost everything that electric utilities claim about renewables needs to be analyzed - as they should electric utilities look out for number one. Many utilities have been pointing to a duck-shaped chart that shows what happens with increasing amounts of solar, and using it as an argument against large amounts of customer-sited solar. This article exposes the reality of the duck chart. (PG)

<http://www.renewableenergyworld.com/rea/blog/post/2014/07/crying-fowl-or-crying-wolf-open-season-on-the-utilties-solar-duck-chart>

### **Cigarette Butts to Super-capacitors**

Researchers believe that the structure of cigarette butts might make an ideal component of supercapacitors and perhaps batteries. (PG).

<http://spectrum.ieee.org/nanolab/semiconductors/nanotechnology/used-cigarette-filters-could-enable-next-generation-of-supercapacitors>