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*Man is so made that when anything fires his soul, impossibilities vanish.*  
- *Jean de La Fontaine*

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## **Electricity**

### **Tesla Announces Battery “Gigafactory”**

To be built in the US. Powered by wind & solar. Raw materials in, battery packs for both EVs and onsite solar & building electricity backup out. Literally doubles worldwide battery manufacturing capacity. Support for 500,000 EVs/year in 2020. And, as they have with the Model S factory, very likely Tesla is setting the factory up to be duplicated around the world. The 6 slides are definitely worth a look. And, Tesla stock skyrockets. (article & slides, both G)  
<http://green.autoblog.com/2014/02/26/tesla-gigafactory-capable-supplying-500000-evs-year>  
[http://www.teslamotors.com/sites/default/files/blog\\_attachments/gigafactory.pdf](http://www.teslamotors.com/sites/default/files/blog_attachments/gigafactory.pdf)

### **Article Proposes a Global Transmission Grid**

A global grid is certainly within our technical reach. The complexities of this idea are more political & financial - who is going to control it and who is going to pay for it. The advantages for moving variable renewables around are clear. For example, the sun is shining somewhere on the globe all of the time. (G)

<http://www.renewableenergyworld.com/rea/news/article/2014/02/global-renewable-energy-grid-project-integrating-renewables-via-hvdc-and-centralized-storage>

### **Iceland Experiment: Superheated Steam From Magma Directly**

Geothermal electricity is usually generated from steam & water coming from hot rocks. While quite challenging, Iceland is experimenting with geothermal energy directly from magma. (G)  
<http://blueandgreentomorrow.com/2014/02/03/icelands-next-renewable-frontier-geothermal-energy-from-magma/>

### **Fracking Techniques to Enhance Geothermal Electricity Generation**

A demonstration well has been drilled in Washington state. Traditionally, geothermal electricity generation has required exactly the right combination of heat, porous rock, and water. This can be difficult to find and develop. Fracking techniques may allow increasing the porosity of rock in geothermal wells opening up vast new areas for geothermal development. (G)  
<http://www.technologyreview.com/news/520361/fracking-for-geothermal-heat-instead-of-gas/>

### **Research: Energy Generator Mimics Muddy Ocean Floor**

Perhaps creating large amount of energy from ocean “dead” zones. (G)  
<http://www.dailycal.org/2014/02/03/researchers-build-prototype-attempt-harness-energy-ocean-waves/>

## **Transportation**

### **Navigant Study Find Plenty of Grid Capacity for EVs**

The latest, and possibly the most comprehensive, study on this topic to date. Some findings: ... *the power grid we have right now can sustain millions of electric vehicles without anyone having to invest in new power generation. ..Transformer issues expected to be minor... Can vehicles act as storage? Yes, they can.* (Article G. Blog Post: PG).

<http://cleantechnica.com/2014/02/03/grid-capacity-electric-vehicles-actually-problem-studies-find/>  
<http://www.navigantresearch.com/blog/plug-in-vehicles-for-utilities-more-opportunities-than-challenges>

### **Skeuomorphic: Adding Noise Back into EVs for Safety at Low Speed**

An update on finding the right balance of sounds to add back into EVs to announce to the blind, among others, that an EV is coming. (G)  
<http://www.technologyreview.com/view/524241/what-noise-does-the-electric-car-make/>

## **Maps**

### **Cool Real Time Global Wind & Current Map**

You can navigate around by double-clicking, shift-double-clicking, and click & dragging. More options and tabs (e.g., “about”) by clicking on the word “earth” in the lower left corner. (G)  
<http://earth.nullschool.net/#current/wind/isobaric/1000hPa/winkel3>

### **State-By-State Map: 100% Renewable Energy**

**How Much Land? What Renewable Mix? Jobs Impact? Cost? (G)**

<http://thesolutionsproject.org/infographic/#>