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News. March, 2016. Issue #47. 80,000 ESB [video views](#). *100% Renewable by 2035.*

*Great things are not done by impulse, but by a series of small things brought together.*  
- Vincent van Gogh

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## **Moving to 100% Renewables**

### **88 Republican Congressional Districts Have Utility-Scale Solar**

*The number of U.S. House Republicans representing districts where there are utility-scale solar facilities increased from a measly 12 in 2008 to 88 in 2016. (G)*

<http://www.greentechmedia.com/articles/read/there-are-now-88-congressional-districts-with-a-utility-scale-solar-project>

### **Solar Modules Fall to 57 Cents Per Watt in Q4 2015**

This is about a 10% reduction from 2014. (PG)

<http://www.greentechmedia.com/articles/read/solar-pv-module-price-reach-57-cents-per-watt-in-2015-continue-to-fall-thro>

### **Austin Energy Aims For 14 cents/kWh for Solar-Plus-Storage**

*A \$4.3 million project links Tesla batteries, demand response and IEnergy's software in the quest for a cost-effective battery-solar-grid combination. (PG)*

<http://www.greentechmedia.com/articles/read/How-Austin-Energy-Aims-to-Reach-Solar-Plus-Storage-Integration-at-14-Cents>

## **Levelized Cost of Energy (LCOE) Lazard 2015 Version 9**

LCOE is one way that utilities attempt to compare the cost of electricity over time for different generation technologies. Lazard is a large consulting company that has produced a number of publicly available, careful, and thoughtful analyses of LCOE including directly comparing subsidized and unsubsidized renewables to traditional generation. Bottom line, solar and wind are quite competitive to fossil and nuclear generation on an LCOE basis. (VG rated. link to 2015 report and then 2014).

<https://www.lazard.com/media/2390/lazards-levelized-cost-of-energy-analysis-90.pdf>

[https://www.lazard.com/media/1777/levelized\\_cost\\_of\\_energy\\_-\\_version\\_80.pdf](https://www.lazard.com/media/1777/levelized_cost_of_energy_-_version_80.pdf)

## **Transportation**

### **Tesla's \$35,000 Model 3 Unveiling and 200,000 Reservations in 24 Hours**

With typical fanfare, Elon Musk unveiled Tesla's EV for many of us on 3/31. According to Elon, the base Model 3 will be \$35,000 without tax breaks or incentives, accelerate very quickly from 0 to 60 in 6 seconds, on a full charge, drive 215 miles on the fairly tough and realistic EPA standard, 5 star safety rating - not average but in every category, autopilot hardware with all Tesla autopilot safety features, and finally will fit 5 adults "comfortably". There will be extra cost options for all wheel drive and faster acceleration. In the unveiling, Elon Musk said, "I want to emphasize even if you buy no options at all this will still be an amazing car."

An astonishing 200,000 people plunked down a fully refundable \$1000 each *in the first 24 hours that reservations were open* to get in line to purchase one when they begin coming out at the end of 2017. Not only is this a remarkable statement of support for this model, it represents a \$200 million dollar free loan to the company. (all G rated). Update: 276,000 reservations in 72 hours.

The unveiling video (a fun 25 minutes):

<https://vimeo.com/161138986>

More information and where you can place your reservation:

<https://www.teslamotors.com/model3>

An article on the 900 or so people that lined up at a Tesla store in Arizona to reserve a Model 3:

<http://fortune.com/2016/04/01/tesla-model-3-arizona/>

### **Here's How Electric Cars Will Cause the Next Oil Crisis**

*The question then is how much oil demand will these cars displace? And when will the reduced demand be enough to tip the scales and cause the next oil crisis? ... We found that electric vehicles could displace oil demand of 2 million barrels a day as early as 2023. That would create a glut of oil equivalent to what triggered the 2014 oil crisis.* (G rated. Excellent article. The video at the top of the page is clear and informative).

<http://www.bloomberg.com/features/2016-ev-oil-crisis/>