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News. October, 2012. Issue #8. 1270 ESB [video views](#).

*It may very well be the most important car since the Model T...
Car 3.0*

Tesla Model S video test drive by Motor Trend magazine (8 minutes. G)
www.youtube.com/watch?v=AODsTuaJEfc

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Ratings for articles and videos: (G = General Audience, PG = Pretty Geeky, VG = Very Geeky).

News About Us

New Video

To Allow Lots of Renewables, Baseload Coal & Nuclear Must Go.

Monopoly electric companies are investing billions in building new and refurbishing old baseload coal & nuclear electric power plants.

Is this money being thrown down a rat hole? Voters in every country strongly want a future with lots of renewables, yet baseload power plants are not nimble enough to backup the inherent variability of solar and wind.

And in many places, once approved, an investment by a monopoly electric company becomes gold for the company - even if the baseload power plant is shut off years ahead of schedule, monopoly electric companies get both their investment returned and make a profit on those investments - paid for by you and me.

If we want a future with lots of renewables, electric companies must stop all investments in baseload power plants now. 3 minutes. (PG)
<http://www.youtube.com/watch?v=deWtgpheDJM>

October Speaking Engagement - CU RASEI Graduate Energy Certificate Program Boulder Colorado: From Mostly Coal & Fossils to Mostly Renewables.

<http://rasei.colorado.edu/education/programs-for-graduate-students/45-education/graduate-energy-certification-program/41-graduate-energy-certificate-program>

Electricity

GE FlexEfficiency 750 MW Natural Gas Turbine Made to Backup Renewables

Very efficient - a remarkable 61% of the fuel's energy becomes electricity. Compare this to 30% for a coal-fired power plant.

Can start up and ramp up and down very quickly - 100 MW per minute. Can turn down to just 14% of rated output - as compared to 60% turn down minimum for coal-fired power plants. This makes it good at backing up intermittent solar and wind. News article, poster, and webpage with more detail (G, G, and PG).

<http://green.blogs.nytimes.com/2012/09/26/adapting-gas-fired-power-to-a-greener-grid/>
http://www.ge-flexibility.com/static/global-multimedia/flexibility/documents/Final_FE60_Plant_Poster.pdf
<http://www.ge-flexibility.com/solutions/flexefficiency-60-portfolio/index.html>

While this is exciting technology, as higher percentages of renewables (e.g., 60% and more) come online, it may be more cost-effective to use simpler, smaller, and cheaper single-cycle combustion turbines. The purchase of any large generation with long - 50 year - lifespans needs to be carefully modeled with analysis including what happens with lots of solar and wind. Power companies must be made to model what happens with fossil fired power plants with 30, 50, 80, and 90% renewables before justifying multi-\$100 million investments. In addition, analysis must include realistic assessments of the solar, wind, tidal, geothermal and other renewable resources in each region.

Why Residential PV Prices Are 45% Lower in Germany Than in the US

To put it simply, while German installers pay the same price for solar panels -where price is determined on a global scale- they are paying much less for all the 'soft costs' associated with a solar installation. In Germany their customer acquisition costs are lower; their permitting costs are lower; they pay lower sales tax on solar systems, and their solar companies may be making smaller margins on each installation. Article (G) and slides from a technical presentation (PG).

<http://blog.cleantechies.com/2012/10/08/lessons-from-germany-on-solar-costs/>
<http://eetd.lbl.gov/ea/ems/reports/german-us-pv-price-ppt.pdf>

“Solar Energy: The Biggest No-Brainer in the History of the World”

So says multi-state roofing company Petersen Dean. In addition, they claim that they *can design and build roof top solar power systems at a profit, without the need for the investment tax credit.... My goal was to be free of the ITC in 2015, so we are way out ahead of schedule and with continued advances in technology; we see a very bright future for solar power and* PetersenDean, (G)

<http://www.businesswire.com/news/home/20121024005581/en/PetersenDean-Roofing-Solar-Announces-Design-Build-Roof>
<http://www.petersendean.com/solar-power.php>

Transportation

Snowmobile Maker Polaris Now Making E-Bikes

After a quick explanation of the simple controls, we were off for a short, but very fun ride. The ... system is different from most others in that it not only operates as a pedelec – using torque sensors to decide how much assist to dish out – but also offers a stand-alone throttle system that, once you are moving, can take over all the locomotive work from your tired (or lazy) legs.

Polaris is a big company - \$3 Billion per year. They have 5 models of E-Bikes. (G)

<http://green.autoblog.com/2012/10/24/polaris-launches-electric-bicycle-we-go-hands-on/>
<http://polarisebikes.com/>

New Nissan Leaf Commercial

Figuring out how to sell new technology is often critical to its success. Below is Nissan's latest attempt to explain the Leaf to consumers. (1 minute. G)

<http://www.youtube.com/watch?v=DGGP6LZ0jCg>

Electric Bikes in Rome

Liliana Ginanneschi rode an electric bicycle to her wedding ..., and rented out the bikes for her guests... "When the wedding ceremony ended we jumped on our bikes and headed to the reception," (she) says. "Two guests liked it so much that they later bought electric bikes." ... Enel Green Power calculates that Italian car drivers spend an average of €3,600 a year for their average daily usage of 14 kilometers. The same commute costs €10 in electricity for electric bike users, the company said. (G)

<http://online.wsj.com/article/SB10000872396390444657804578052542429024124.html>

Misc.

Philips LED \$5 Mail-in Rebate

Get \$5 back on \$15. Best place I've found to buy these is Home Depot. Good on purchases now to 12/31/12. The bulbs look yellow when off but produce a high quality, dimmable light. (G)

http://www.usa.philips.com/consumerfiles/pageitems/locales/en_US/CONSUMER/categorypages/led2011/assets/pdf/LED_Rebate_Form_9-2012.pdf

Minneapolis Begins Municipalization Exploration

Video 1: More Clean Energy by Municipalizing (17 minutes: John Farrell). Video 2: How Boulder, Colorado Came to Pursue Municipalization (4 minutes: former Mayor Susan Osborne) (all 3 G rated).

<http://www.youtube.com/watch?v=3Zmr6v-DrIY>

<http://www.youtube.com/watch?v=yUqEFQqdK4Y>

<http://minneapolisenergyoptions.org/>