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News. September, 2012. Issue #7. 1,100 ESB [video views](#).

I don't want to go back to a gasoline vehicle again. When (my) LEAF wears out, I'll get another EV. Whenever I have to drive a gas car, the crudeness and nosiness of the car becomes instantly apparent. Gas vehicles suck. Their only saving grace is that they can go a long way on a tank of gas.

*- Leaf Owner & Blogger JP White <http://jpwhitenissanleaf.com/>
(and see the articles below on solutions to the EV range issue).*

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

News About Us

Our Newest Video: The Best Lawnmower: Cordless Electric

Cleaner. Much quieter. Cheaper to operate. No gas to buy, spill, and fill. No nasty fumes to breathe. No oil. No spark plugs. No air filter.

Air pollution free when charged from solar or wind. Much cleaner than gas-powered mower even when charged from coal-fired electricity.

Traditional gas lawn mowers are a major source of pollution (estimates from the EPA).

-- as much as 5% of US air pollution.

-- 17 Million gallons of spilled gasoline per year in the US. As much as was spilled from the Exxon Valdez in Alaska.

-- About 5 million new walk-behind lawnmowers are sold each year in the US.

Cordless electric mowers are very practical for most homeowners. Those with larger yards might want to get a second or third battery pack. 3 minutes. (G)

<http://www.youtube.com/watch?v=nRheW7xKUKI>

Electricity

SunEdison's Eradicate Darkness Program

A microgrid with 14 kilowatts of PV serving 400 villagers in India. The plan is to see if this can be made into a self-sustaining business model. 14 kilowatts of PV is about the amount of PV as are installed on 3 typical Colorado homes. (G)

<http://gigaom.com/cleantech/sunedison-looking-to-light-up-rural-india-with-solar/>

Harnessing Wave Power in Oregon

Must survive stormy seas, be environmentally sound, and, oh yes, generate electricity too. Full size prototypes to test the waters. (G)

http://www.nytimes.com/2012/09/04/us/project-aims-to-harness-wave-energy-off-the-oregon-coast.html?_r=1

Japanese Wind Innovations: Wind Lens & Floating Platforms

Wind lens focuses the wind for more power at less cost. A novel design for a floating platform seeks to reduce costs. Article & video (G & G 5 minutes).

<http://www.link2portal.com/japanese-consortium-invest-%C2%A3962m-offshore-wind-power>
http://www.youtube.com/watch?v=vQexzNg_e9A

Transparent Window Film PV

Uses the infrared (heat) part of the sun's energy so the film is clear but also blocks heat from coming through the window... saving on cooling costs as well as generating electricity. Other applications include transparent electricity generating films for cars, entire buildings, etc. (G).

<http://www.latimes.com/news/local/environment/la-me-gs-ucla-transparent-solar-film-could-be-gamechanger-20120727.0.4271267.story>

Global Wind Survey: 85% of Consumers Want More Renewables

24,000 consumers surveyed in 20 countries. Just 7% prefer fossils. (G)

<http://www.rechargenews.com/energy/wind/article322955.ece>

Long Island Feasibility & Cost Study: 100% Renewables by 2030

(Article (G) and study (PG))

<http://www.awea.org/learnabout/publications/wew/loader.cfm?csModule=security/getfile&pageid=18315#4>

<http://www.renewableenergylongisland.org/downloads/Long%20Island%20Clean%20Electricity%20Vision.pdf>

NREL Analysis on Renewables: 80% by 2050 With Today's Technologies

Renewable electricity generation from technologies that are commercially available today, in combination with a more flexible electric system, is more than adequate to supply 80% of total U.S. electricity generation in 2050 while meeting electricity demand on an hourly basis in every region of the country.

This is the most extensive analysis of its kind that I have seen. Report and very interesting simulations on the right side of the webpage. ("Key Findings" on the webpage are G rated. The report itself and simulations are VG).

http://www.nrel.gov/analysis/re_futures/

Transportation

5 Solutions to the EV Range Issue

We believe that within the next year or so it will become clear that the only remaining advantage of fossil-fueled cars over EVs is how far they can drive in one day or in one stretch - the “range” issue. We believe there are 5 possible solutions to the EV range issue:

1. Batteries that charge to 80% or more in a short period of time.
2. Swappable batteries (a robot changes your car’s depleted battery with a full one).
3. A small tow-behind-your-car trailer with either batteries or a fossil or ethanol fueled generator that is a range extender. You would rent one when you needed to drive a long distance and swap them at rental stations or fill them up as you go.
4. Car trains. A group of cars traveling at high speed close together - almost touching. The first car in the “train” would have a specially certified driver. The rest of the cars would be under computer control while in the train. Most of the energy lost by cars at high speed is due to air resistance. Only the first car in the “train” would experience significant air resistance. The rest would draft and greatly extend their range.
5. Rent a long-distance range car when you need one. Or maybe trade your fun-and-cheap-to-drive EV for a friend’s fossil-fueled car. EVs save so much money that for the few days or weeks a year most of us need a long-range vehicle you could simply rent one and still come out money ahead. Most of our daily driving miles for most of us are well within the range of existing and announced EVs.

Battery swapping is being done in Israel & Japan by BetterPlace.com (start video at 1:30 and watch for 30 seconds (G))

www.youtube.com/watch?v=41XgEcb397Q#!

Car trains are being experimented with by Volvo (G).

<http://green.autoblog.com/2012/09/18/volvo-finishes-satre-project-road-train-works/>

And see below for news on solutions 1 & 3.

Tesla Motors Has Built 6 Superchargers in California for Model S Drivers

150 miles of driving for 30 minute charge. Solar powered. Free. Only for Tesla Model S and future Tesla cars. Model S comes with a small, medium, or large battery. Only the medium and large batteries may be supercharged. 4 to 6 cars at a time. Reservations by phone app and probably by the in-car touch-screen as well. Located near restaurants or other services/shopping.

The Superchargers are already built but need final government approval before allowing Tesla owners full, no compromises, one-day, free “fuel”, zero carbon access to much of California. Tesla has plans for the rest of the country and world. (G)

<http://green.autoblog.com/2012/09/26/superchargers-will-only-work-on-model-s-for-now-and-every-futu/>

Map (scroll down). (G)

<http://www.teslamotors.com/supercharger>

Tow Behind Battery EV Range Extenders

(solution 2 from above)

The concept is that you would rent a small trailer filled with batteries that would give you 4 hours of driving range. Rental stations to be located every 3 hours or so along major roads. (G)
<http://green.autoblog.com/2012/09/24/ebuggy-ev-battery-trailer-offers-four-hours-of-extended-range/>

Test Drive an EV With an EV-Owner

Want the straight scoop on owning an EV? Hundreds of EV owners are standing by to offer you a free, personal test drive in their EV. Click on the map. Double-click to zoom in to your location. Click on the pin of an owner near you and contact them. (G).

http://www.drivingelectric.org/getlocations_drivers

Ebikes Being Built By Carmakers?

Several reviewers of a recent european bicycle show noted the large number of Ebikes being shown with several reviewers being very favorable towards the Daimler Smart Electric Bike (G - 2 min video).

<http://int.smart.com/12bfd2a1-2244-566e-ac98-c890cbee8d09>

Plans for developing electric bikes are underway at VW, Audi, BMW, Peugeot, and Ford, to name a few, and Daimler has already brought a bike to market with the Smart ebike. (G)

<http://electricbikereport.com/electric-bikes-and-the-mountain-bike-moment/>

Misc.

US Carbon Tax Could Halve the Budget Deficit in 10 Years

The idea of some kind of carbon tax is alive in Washington DC. (G)

<http://news.yahoo.com/u-carbon-tax-could-halve-deficit-10-years-082412087.html>

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