

Charged Up



ELECTRIC VEHICLE ASSOCIATION OF SAN DIEGO (EVAOSD)

An affiliate of the Electric Auto Association (EAA)

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Secretary: David Crow

Program Chairman: Staff

Newsletter Editor: David Crow

Webmaster: Russ Lemon

Librarian & AV: Lloyd Rose

Monthly Meetings: During the 4th week of the month, day depends on venue.
(No Meeting in December).

Meeting Location, Date and Time:

Coleman University, Hopper Hall

8888 Balboa Ave

San Diego, CA 92123

Wednesday, 27 May 2015, 7:00 P.M.

Program: News, Info, and EV Presentation

Newsletter Topics:

Battery Re-use



CA Fuel Cell Rebate



Motorcycle Price Drops



Inside this issue:

- 1 Newsletter Topics
- 2 Message from the President
- 3 EV battery re-use starting
- 4 Calif Rebate big for Fuel Cell Cars
- 5 Zero Motorcycle Prices Drop
- 6 Local EV Builders and Offers
- 7 Subscription

Message from the President

Hi Everybody,

A new war is coming. This time, it is one that we will eventually lose. The State of Oregon is going to start taxing electric vehicles per mile of driving. Honestly, it is the fair thing to do. Gas cars pay taxes through gasoline consumption, but there is currently no mechanism for electric vehicles. My personal opinion is that it is too soon. I know states want to be proactive in new ways to bring in revenue, but at the cost of reducing EV adoption. I would rather see these things held off for a while longer until the quantity of electric vehicles actually becomes significant. So lets make sure we focus on promoting anything that enhances the number of electric vehicles on the road and we will all benefit.

Hope to see you at the Coleman College meeting!

-Joseph

Driving in Oregon?
100 miles will cost you...

Vehicle Type	Cost for 100 Miles
In a gas-powered vehicle	\$12.16
In an electric vehicle	\$3.41

Support electric vehicles in Oregon:
ucsusa.org/OregonEVs

Union of Concerned Scientists © Union of Concerned Scientists 2015

Used Toyota Hybrid Batteries Repurposed At Yellowstone National Park

By Stephen Edelstein, Green Car Reports, May 15, 2015

Even after they're no longer suitable for their original purpose, the battery packs from hybrids and electric cars can still be useful. Battery energy-storage capacity diminishes over time, to the point where packs are no longer suitable for use in cars.

But after their automotive service lives are finished, battery packs often still have enough usable capacity for other applications. Like, for example, powering a cluster of buildings in a remote part of Yellowstone National Park. Used Toyota Camry Hybrid battery packs will now store energy generated from solar panels at the Lamar Buffalo Ranch field campus within the park. The system includes 208 Camry Hybrid nickel-metal-hydride battery packs recovered from Toyota dealers, providing a total of 85 kilowatt-hours of storage capacity.



Used Toyota Camry Hybrid battery packs installed at Yellowstone National Park

Each pack was disassembled and tested before being converted for stationary energy-storage use. The packs were augmented with battery-management systems from Indy Power Systems, re-wired in parallel, and arranged into arrays of 52 packs each.

The solar array used to power Lamar Buffalo Ranch's five buildings generates enough electricity annually to power six average U.S. households, Toyota says. Adding onsite battery packs makes the most of solar power by storing energy for when sunlight isn't available--making for a more dependable source of power.



Solar Array charging re-used Hybrid Batteries at Yellowstone

Micro-hydro turbines--which capture energy from a nearby stream--will be added to the site in 2016 as well. It's also possible to recycle batteries--Toyota has its own recycling program--but repurposing them can have added benefits.

Anticipated growth in the energy-storage business could mean there will soon be significant demand for battery packs to pair with solar arrays.

And while the nickel-metal-hydrate packs used in Toyota hybrids contain precious metals, the higher-capacity lithium-ion cells in electric cars are made from relatively cheap stuff. So there's less money to be made recycling those, increasing the attractiveness of secondary use.

Either way, there shouldn't be any reason to worry about battery packs ending up in landfills after their automotive service is finished. Whether they're broken down for recycling or repurposed for new uses, they can live on.

California Pushes Hydrogen Cars with 2X the Rebate of Evs

By John Goreham www.torquenews.com, 2015-04-30 14:49

Why does California offer twice the rebates on hydrogen fuel cell cars that it does for EVs? And where is the Toyota we keep hearing about?

We've been following the hydrogen car scene now for a few years. At first all the news was about the Honda FCX Clarity. Folks in the green car movement found it cute and interesting in a funny sort of way. Nobody's laughing anymore since Toyota threw its hat into the ring to become the fourth automaker to get serious about producing a hydrogen fuel cell electric vehicle (HFC EV). The battery electric vehicle (BEV) EVangelists feel all sorts of insulted that any plan but theirs might have government backing and are rapidly typing angry-grams to post on blogs. The delicious irony is that it was the same team that mandated EVs, and gave them a future, that is now doing the same for fuel cell vehicles. Even better, the folks in California that came up this market-by-government-mandate plan like hydrogen powered EVs twice as much as BEVs.



Toyota Mirai getting Fueled up with Hydrogen Gas

On its website where it gives taxpayer dollars to those that choose to buy EVs, California shows its preference for HFC EVs by offering a \$5,000 instant rebate to anyone that wants to buy a Honda, Mercedes, or Hyundai hydrogen fuel cell powered EV. Cars favored by top earners like the BMW i3 and Tesla Model S only get \$2,500 off the price of their \$50K to \$130K car. Even the affordable EVs like the best-selling Leaf only qualify for the \$2,500 rebate. Further down the list, the sort-of EVs like the Volt and Plug-In Prius only get \$1,500. So why does California "punish" cars that run off electrons in favor of cars that prefer elements with one electron?

CARB and other California clean-air groups put a high value on the speed at which one can fuel a zero local emissions vehicle. Also important is the range the vehicle can travel after refueling. As it turns out, HFC EVs simply spank the BEVs in these two important areas, so CARB wants to reward them.

To answer the question in our teaser above, Toyota's Mirai is expected to join the party later this year. When it does, the company that sells more green cars in California than any other automaker will begin to support CARB's mandates with a vengeance. Toyota is planning to put its financial might behind this hydrogen fuel cell push to see what it can do in the market. As the world's most profitable automaker, we are guessing it will do quite a bit. Time will tell.

Zero Motorcycles Announces Price Cut

May 22nd, 2015 by Steve Hanley, www.insideevs.com

By the time you read this, the official price of all Zero motorcycles will be \$1,350 less than it just a few days ago. The company's entry level FX ZF2.8 now lists for \$8,495, while its top of the line SR sports bike now starts at \$15,995. Zero says the price cut is possible because battery costs have dropped, while energy density has increased. That's good news for followers of trends in the electric vehicle marketplace.



Zero gets high marks for upgrading critical components of its motorcycles, especially new brakes with ABS, better hardware, and much-improved suspension components. This should all lead to an even more-engaging driving experience for electric motorcycle enthusiasts.

Attitudes about electric bikes are changing. While riders can still get more bang for their buck with a gasoline powered bike, fans of electric motorcycles praise them for their abundant torque and quiet ride. It's actually the perfect green commuter for anybody that lives in a temperate climate, and it's much more affordable than even the cheapest electric cars. For getting around town emissions-free, electric motorcycles make a ton of sense...and they can get up and go pretty quick too.:

If battery prices continue to fall, more people will find an electric bike may fit their lifestyle just fine.

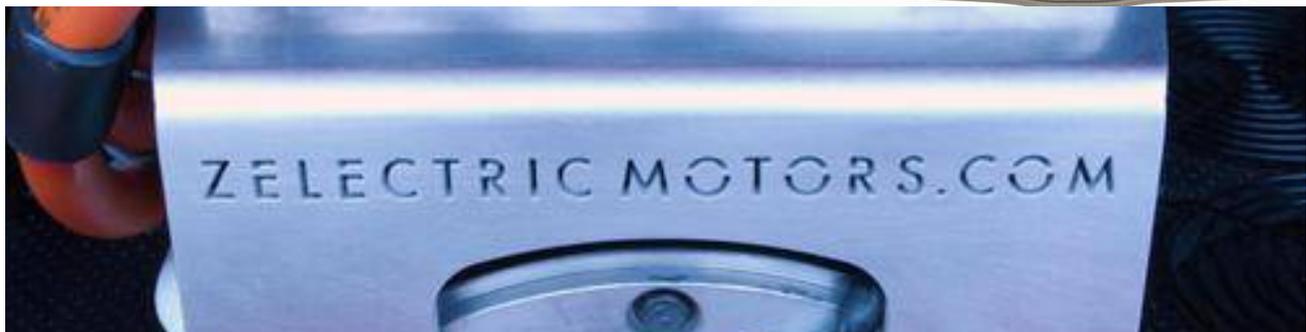
Zero Motorcycles is home based near Santa Cruz, California

Our local San Diego Dealer is Rocket Motorcycles, 5171 Morena Place
San Diego, CA, 92110 (near University of San Diego, Morena Blvd area)

FOR SALE: 1998 VW Golf EV Conversion

Range: 50-60 miles, driver dependent
Top Speed: 85 MPH
4 KW 120V/240V Manzanita Charger
recharge time: 4 hour
Azure Dynamics Motor/Controller
97 X CALB 60 AH Cells, 19 Kwhr Batt Pack
62 HP, 73 FT-LBS
5-Speed Manual Transmission
Power Brakes, Power Steering
Displayed at SD International Auto Show for four years, and my daily driver
Selling due to buying a LEAF for Family use

Contact Dave Crow, (619) 846-5358, cell deekcrow@yahoo.com
\$4,900 or OBO



Electric Auto Association (EAA) Membership Application Form

Fill out this form, attach a check, money order or use PayPal, in US funds only, payable to 'Electric Auto Association'. CE = Current EVents newsletter

e-CE \$35 USA & other Countries \$25 Student \$25 Senior (>65-USA/Canada only) birth year

paper CE \$45 USA \$48 Canada \$52 World \$29 Student \$29 Senior (>65-USA/Canada only)

\$120 (supporting level-1) \$240 (supporting level-2) \$500 or more (high voltage) _____ do not list my name

I support the _____ EAA Chapter (additional chapters, \$10 each) _____

(\$10 each) Additional Chapters or Special interest group (other than the one that comes with the membership)

You can fold this form as indicated and mail it with your payment enclosed. Use tape to seal the form, **on the sides** , before you mail it or send an e-version of this form, through PayPal using <http://electricauto.org/eamembership.html>

New Member Renewal

Name email

Mailing address (Apt. #) Home phone

Mailing City, State & Zip-8 Work phone

Electronic version of Current EVents, paperless only, link sent by email, if your membership was for the e-version, that is what you will receive

Do you own or Lease an electric vehicle (plug-in) production conversion bicycle hybrid or None

please include miles driven and type of vehicle

All information in this application is for the exclusive use of the EAA and not sold or given to any other organization.

Please identify your primary areas of interest relating to the EAA (check as many as your wish

- Owner/Driver Hobby/Builder Professional/Business Competition (Rallies, Races, Records) Plug-in Hybrids
- Environmental/Govt. Regs Social (Rallies, Shows, Events) New Technology & Research Solar & Wind Power
- Promotion & Public Awareness of EVs Student or General Interest Electrathon/Bicycle/Scooter/Other

The Electric Auto Association is a non-profit, 501(c)(3) for the promotion of electric vehicles. Your donations are tax deductible and with your membership you will receive the EAA publication, "Current EVents". All information and statistics in this application are for the exclusive use of the EAA and is not sold or given to any other organization or company. Your membership dues include a percentage goes to the EAA Chapter you support for public Electric Vehicle promotion EVents like rallies, shows and EV rides.

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Please make check or money order payable to: EAA and reference EVAOSD. Send this form and payment to: Richard Rodriguez, EVAOSD Treasurer; 2755 Dos Aarons Way, Suite A, Vista, CA 92081

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