



## **ELECTRIC VEHICLE ASSOCIATION OF SAN DIEGO (EVAOSD)**

An affiliate of the ELECTRIC AUTO ASSOCIATION (EAA), 2031 Ladera Ct., Carlsbad CA 92009 Ph: 760.753.2949

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**Regular Meetings:** 4<sup>th</sup> Tuesday of every month (January thru November), at 7:00 pm,  
**Location:** San Diego R.T.C. (Pearson Kia), at 4001 El Cajon Blvd. and Interstate 15  
**Place:** **In the cul-de-sac between the RTC and I-15**  
**Next Meeting:** Tuesday, June 26, 2007 @ 6 p.m. (the 4<sup>th</sup> Tuesday)  
**Topic:** Annual EV Project Display and EVAOSD June Social Exchange

## **The President's Message**

The month of May was a busy time with our meeting discussing batteries and having the CARB (California Air Resources Board) meetings being conducted in our area. During the EVAOSD meeting we compared the different choices of batteries and discussed several myths that are not true since batteries have evolved with changes and improvements.

The CARB meetings went well with many EV, PHEV and interested stakeholders coming down from all over the state. Paul Marshall and Richard were able to install two temporarily EV chargers that were heavily used and appreciated by most of the RAV4 and eBox that came down. I was able to give the card (that most of you signed) to the CARB Board on behalf of EVAOSD. Many from our group spoke including Russ Lemon Tom and Colina Young. The Telsa and Phoneix EV were present and there was plenty to see and discuss with the distinguish electric-drive leaders and hearing the Expert Panel Review in anticipation of the final ruling that is expected in October for the ZEV (Zero Emissions Vehicle) Program.

For our June EVAOSD meeting we have a tradition of meeting at 6:00 p.m. during June (when the daylight last until about 8:00 p.m.) and sharing EVAOSD projects with some Show and Tell. So bring your EV or your parts and soon to be an EV to our meeting and share your learning experience with the group. We will have some hybrids and soon to be PHEV (plugged-in hybrids) as well.

In the past (when we has a dozen members) we were able to barbeque some hamburgers. We have outgrown our small size and we will be focusing on EV and our accomplishments. So please do contribute to the success of the meeting with your project, photos and experience toward an independence of petroleum.

The EVAOSD meeting will be outside in the cul-de-sac of Central Avenue; between 41<sup>st</sup> Street and Interstate 15 and between El Cajon Blvd. and Wightman Street next to the Pearson Kia Dealership where we normally meet.

I look forward to seeing you at our meetings, perhaps in an EV.

Bill Hammons, President EVAOSD

# The EV Grin

"EV'ers know about the grin that someone has just after driving an EV." Here are some notes for the San Diego EV Community.

## Calendar of Events:

6/26/07 EVAOSD Meeting and Project Display

7/2 -13/07 & 7/30-8/10/07 Commuter Conversion Electric Car Class for Teachers (C2EC2T) an EV Conversion Workshop

<http://home.att.net/~NCSDCA/EVAoSD/EVworkshopflyer2007.pdf>

7/6/07 Green Grand Prix in Watkins Glen, NY

<http://www.glenspeed.com/>

7/18/07 HEV conversion to PHEV by SDG&E San Diego Ecco Center and RTC

7/21-22/07 Hybridfest in Madison, Wisconsin

<http://hybridfest.com/>

7/24/07 EVAOSD Meeting

8/11/07 Portland, OR EV Awareness Day

[www.oeav.org/](http://www.oeav.org/)

8/28/07 EVAOSD Meeting

9/25/07 EVAOSD Meeting

9/28-29/07 AltWheels Alternative Transportation & Energy Festival in Boston, MA

<http://www.altwheels.org/>

10/3/07 National AFV Day Odyssey  
<http://www.nationalafvdayodyssey.org/>

10/5/07 SDRCFC Meeting – TBA

10/18-19/07 Border Energy Forum XIV US/Mexico in San Diego, CA

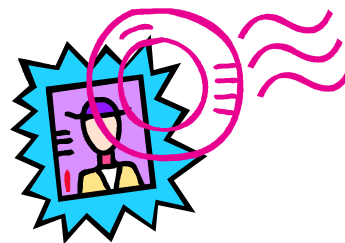
<http://www.glo.state.tx.us/energy/border/forum/14/index.html>

10/23/07 EVAOSD Meeting

11/9-11/07 San Francisco Green Festival

11/27/07 EVAOSD Meeting

12/2-5/07 EVS 23 in Anaheim, CA [www.evs23.org](http://www.evs23.org)



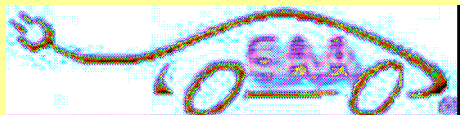
With increased postage and printing rates EVAOSD needs to be prudent with our expenses and in doing so we need to update our mailing list in line with paid members. If your membership has expired please bring your membership current so that we can continue to send you a newsletter.

**Membership** to EAA & EVAOSD just got better. YES, Everything is going up with higher cost except for membership to our group. EAA (which includes EVAOSD membership) has started a student/senior membership category for \$25 per year; that is a reduction from \$34 per year for many of us. And your EVAOSD is still held to the original fees of the 1990s except it includes membership benefits with SDRCCC (San Diego Regional Clean Cities Coalition). So join today and start saving while you are supporting EV.

**Note that checks or PayPal payments for EVAOSD need to be made out to EAA with memo indicating that funds are intended for EVAOSD. Our day-to-day function stays the same EAA is helping with our banking and non-profit status.**

To prepare this newsletter we use items that we find on the internet and to share the knowledge. In accordance with Title 17 U.S.C. Section 107, this material is distributed without profit to those who have expressed a prior interest in receiving the included information for research and educational purposes.

## EVAOSD Gives Thanks to all that help us down the road...



Dedicated people like you are EVAOSD's greatest asset. We appreciate your support and extra efforts... Thanks to Russ Lemon for donating equipment & time to meeting presentations. Thanks again to Paul Marshall and Richard for connecting our EV chargers with WATTs of power.



Extends their thanks for your support and patronage during Street Smart San Diego. The following members & associates that are "Taking Turns" with updates that is not in the mainstream media.

### Ford Rolls Out First E85-Fueled Hybrid SUVs

Ford has delivered the first of its E85-powered Ford Escape Hybrid SUVs. The three vehicles — the world's first hybrid vehicles capable of operating on blends of fuel containing as much as 85 percent ethanol — were delivered to the US Department of Energy, the Renewable Fuels Association and the Governors' Ethanol Coalition. A total of 20 Ford E85 Escape Hybrids will be delivered to select fleet customers in six states. The E85 version produces about 25 percent fewer greenhouse gas emissions than a gasoline-fueled Escape Hybrid. Ford has committed to making half of its annual vehicle production capable of running on alternative fuels by 2012. Source: *Ford Makes History As Demonstration Fleet Of Ethanol-Fueled Hybrids Hits The Road, World-Wire*



CARS INITIATIVE — 100+ MPG Hybrids

Says...

PRESIDENTIAL CANDIDATE: See New Mexico Governor Bill Richardson's 2.5-minute video "Energy Plan: Bring Plug-In Cars to market." He promises a plug-in summit within 30 days of taking office in February, 2009. Richardson, former Congressman and US Secretary of Energy notes that Tesla will build EVs in his state.

<<http://www.youtube.com/watch?v=Sv6j9Y5yFpk&mode=related&search=%20a%202:31>>

NEW BOOK PICKS CALCARS, HIGHLIGHTS PHEVS *The Clean Tech Revolution: The Next Big Growth and Investment Opportunity*, 308 pages, \$26.95, is written by Ron Pernick and Clint Wilder -- among the most well-known writers, advisors and conference organizers in Clean Tech. Collins, Its publisher says it "highlights breakthrough clean-tech opportunities, potential roadblocks and pitfalls, and pioneering individuals, companies, and regions around the world," and describes it as "a groundbreaking book that shows how clean-tech markets offer the best opportunity for wealth creation in a generation while solving some of the greatest issues facing humankind."

The authors identify 10 companies in each of eight clean-tech sectors: solar energy, wind power, biofuels and biomaterials, green buildings, personal transportation, smart grid, mobile technologies, water filtration. Companies were chosen based on growth and industry influence in the near to mid-term

Even though it's a non-profit, CalCars.org was named on the Ten to Watch list of companies in the chapter, Personal Transportation: Designing Ultra-Efficient, Low-Emissions, High-Performance Vehicles. "Our Ten to Watch lists at the end of each chapter highlight companies that are playing a significant role in the growth and innovation of the clean-tech industry," said Pernick. "We chose ten companies, whether public or private, that are poised to make an impact."

The Top 10 in Personal Transportation are CalCars, Chery, EESstor, General Motors, Honda, REVA Electric Car, Tesla Motors, Toyota, Valence Technology and Vectrix. (We're first on the list because it's alphabetical!) The citation concludes, "But regardless of its future business plans, or whether these plans eventually make money, CalCars will continue to be a key PHEV player to watch for its advocacy, technology leadership, and grass-roots influence in an industry that often needs a good kick from the outside."

<http://www.thecleantechrevolution.com/>

## Filling up a Prius vs. Plugging In a RAV4 EV Dueling fillips on U-tube...

<http://www.plugsandcars.blogspot.com/> compares \$6 to \$2.50 per 100 miles for hybrid verses EV. Someone from the Prius group taped his fillup. Darell Dickey then taped his charging of a RAV. Dueling videos available on you tube. From Marc Geller and Paul Scott of Plug In America.

## PG&E's Battery Power Plans Could Jump Start Electric Car Market

[http://blogs.business2.com/greenwombat/2007/06/photo\\_green\\_wom.html](http://blogs.business2.com/greenwombat/2007/06/photo_green_wom.html)

California utility PG&E has given Green Wombat an exclusive look at new technology that could provide a big boost to both the nascent electric car market and renewable energy production. In the coming years, the utility plans to buy thousands of plug-in hybrid and electric car batteries once they've outlived their usefulness for transportation and install them in the basements of office towers and at electrical substations to store green energy. That will cut peak demand for expensive - and greenhouse gas-emitting - electricity.

Electric car batteries generally retain 80 percent of their capacity even after they're no longer good for powering cars. PG&E envisions a time in the near future when banks of EV batteries are charged at night with electricity produced by wind farms, which tend to generate the most electricity in the evening when power demands are the lowest. Normally, that energy is just lost because it isn't stored. During the day when air conditioners crank up and energy demand rises, electricity can be released from the batteries to take the load off the power grid. In theory, that means PG&E won't have to build as many planet-warming natural gas-fired power plants to meet peak demand or as an insurance policy against blackouts. It also allows the utility to do "load leveling." Cranking up a power plant to supply electricity when demand suddenly spikes is expensive. EV batteries could release electricity to the grid to smooth fill in the gaps between supply and demand. The same is true if batteries are used at electrical substations. "If we can put in \$5,000 worth of batteries and avoid putting in a \$50,000 transformer and upgrading the lines then everyone is a winner," says Thesen.

Electric car makers like Silicon Valley's Tesla Motors and Norway's Think could be some of the biggest winners. The battery is the most expensive part of the car, and PG&E's plan would create a significant secondary market for them, especially if other utilities like Southern California Edison (SCE) and San Diego Gas & Electric (SRE) follow suit. A second life for electric car batteries would lower their cost as battery financing syndicates are formed to buy and sell the micro-mini power plants. That would help jump start the market for electric cars by making them more affordable. It would also spur further technological progress in battery development to extend their range and power. "Those batteries have some residual capacity and that residual capacity is actually valuable," Tesla CEO Martin Eberhard told Green Wombat last week. "At a substation you take a whole stack of three-quarter dead batteries and just run them into the ground and then chuck them into recycling." He says there would be no obstacle to repurposing Tesla's powerful lithium-ion batteries - which give its forthcoming Roadster super car its 200 mile range and zero-to-60-in-four seconds vroom - for such use.

The chicken-and-egg dilemma, of course, is that PG&E and other utilities will need thousands of EV batteries. Ford (F), General Motors (GM), Toyota and other automakers are not yet making plug-in hybrids. Companies like Think and Tesla, meanwhile, will be selling limited numbers of electric cars over the next couple years. Many EV batteries are expected to last five years or 100,000 miles, meaning it'll be some time before they're ready for recycling. Still, the creation of a secondary market for batteries could drive down costs and expand the electric car fleet sooner than anticipated. That will create another source of supply: Inevitably, drivers will crash their cars, leaving behind batteries in mint-condition that utilities can re-deploy.

"By having these out there we don't have to import as much peak power when it's really expensive from places that are far away," says Thesen, who himself drives Prius he had converted to a plug in. "We move it at the cheapest most efficient time. And for PG&E that also means it's the cleanest. So we're going to be able to upload more clean power to the grid and it's the cheap stuff. So it's this wonderful synergistic win-win for everyone and it will make vehicle batteries cheaper because they will have worth. When we make an electric battery cheaper that means more people can afford it; that means we put less demand on foreign oil imports.

CalCars reports on grants that are being offered <http://www.rechargeit.org...>

-- \$10M RFP: **Later this summer** Google.org will publish a formal request for proposals (RFP) on our website, focused on investment opportunities in companies and projects accelerating the commercialization of alternative transportation that reduces vehicle fossil fuel use and climate emissions. We are looking to invest approximately \$10 million in technologies and companies featuring plug in hybrids, fully electric vehicles, vehicle-to-grid capabilities, batteries and other storage technologies, and the application of renewable energy and fuels to green vehicles. We believe that our investments in green vehicle technology commercialization, coupled with additional R&D and policy grants, will help accelerate progress in addressing the climate and energy challenges of today's transportation sector. <http://www.calcars.org>

GM Shifts Engineers to Speed Creation of Electric Car (Update3) Bloomberg News By Jeff Green Last Updated: June 15, 2007 16:10  
<http://www.bloomberg.com/apps/news?pid=20601087&sid=abR.mR3rTSuQ&refer=home>

General Motors Corp. is reassigning 500 engineers to speed up the creation of the Chevrolet Volt, an electric car designed to close the automaker's technology gap with Toyota Motor Corp.

The engineers will transfer from research and development to production engineering and other areas aimed at preparing the Volt for sale, said Larry Burns, vice president of R&D at the Detroit automaker. The Volt and its fuel-cell power plant are moving from "theory" to "reality," he said in an interview.

The moves accelerate Chief Executive Officer Rick Wagoner's multibillion-dollar gamble to power more vehicles with unproven technologies that use less gasoline. GM is trying to catch Toyota, which has a decade-long lead in gasoline-electric cars and whose hybrids outsold GM's 100-to-1 in the U.S. last year.

"This would leapfrog the current hybrid technology," said Kim Hill, an associate director at the Center for Automotive Research in Ann Arbor, Michigan. "Right now, you still have to go to a gas station to drive your hybrid. With the Volt, you can avoid that."

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Subscription rates: \$39 per year (\$45 foreign), includes a subscription to the EVAOSD Newsletter. Please send directly to EAA using form found at [membership@eaaev.org](mailto:membership@eaaev.org)

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Subscribing to the newsletter is optional and is not a requirement for membership.  
EVAOSD meetings are always open to any and all interested parties.

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**Please make check or money order payable to: EAA and reference EVAOSD. Send this form and payment to: Russ Lemon, EVAOSD Treasurer; 2031 Ladera Ct.; Carlsbad, CA 92009.**



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