



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: 4th Tuesday of every month (January thru November), at 7:00 pm,
Location: San Diego Regional Transportation Center, at the corner of I-15 and El Cajon Blvd.
Place: In the Autotorium
Next Meeting: Tuesday, March 22, 2005 @ 7 p.m.
1st Subject: EV1 Vigil videos and report by Kevin Taylor

The President's Message

Our February meeting was almost rained-out as several of our members were not able to attend. However, we were able to have an excellent meeting with about as many guests as members. Guest were from EAA, Phoenix EVA, San Diego Prius Club and individuals. Jim Bohorquez of Mesa Power Systems put together an excellent program from converting hybrids to plug-in to V2G (vehicle-to-grid). Jerry Asher shared his EAA perspective, Current Events and discussed the 4th EVer EAA All Chapters Meeting to be held in Austin, TX on April 1, 2005.

Keith Vansickle has committed to attending the 4th EVer All Chapters Meeting in Austin, TX, by driving to the meeting. So we will have representation during the meeting for the second time and we will be able to get a first hand report of the meeting from Keith during our April meeting. Keith will be driving his Impact hybrid and taking his E-bike with solar charging equipment for charging. The bottom line is that EVAOSD will have two vehicles in the show as well as representation.

Linda Irish is in town from Denmark and may be able to attend our March Meeting. She has been to Denmark to start

her paperwork and she will be returning soon to her new job. It would be good to get a first hand report from someone living in Europe on the transportation status abroad. Some of her notes are listed in the "Taking Turns Section" of this newsletter.

Also during our March Meeting Kevin Taylor has been to the EV1 Vigil and brought back a video to share. Perhaps Dave Cutter will share his story and photos of his Oxygen Scooter leading the Carlsbad Marathon last month because they wanted a clean vehicle ahead of the runners opposed to sucking Harley-Davidson flumes for 26 miles.

I look forward to seeing you at our meeting on Tuesday, March 22, 2005 @ 7p.m. The meeting will be at the RTC (Regional Transportation Center), in the Autotorium located on the southeast corner of Interstate 15 & El Cajon Blvd.

Note: If you arrive late the building may look dark and closed for business. We meet after normal business hours in the "Autotorium" and the public is welcome to attend our meetings.

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:

3/15-20 51st Greater San Diego Science & Engineering Fair

3/22 EVAOSD Meeting

3/29-31 NHA Annual H2 Conf. – Washington DC

3/30-31 Wind Energy Delivery & Reliability Toronto, Ontario

4/1 4th EVer EAA All Chapters Meeting Austin

4/2-6 EVS 21 Monaco

4/11-14 SAE World Congress – Detroit

4/20-22 EnvironDesign 9 New York, NY

4/26 EVAOSD Meeting

4/27-29 7th Annual Small Fuel Cells Conference Washington, DC

5/1 EarthFair 2005 San Diego, CA

5/1-4 11th Nat'l Clean Cities Conf. & Expo.

Palm Springs, CA

5/13-16 Tour de Sol Albany, NY

5/15-18 Windpower '05 Conference & Expo. Denver, CO

5/24 EVAOSD Meeting

6/13-15 Int'l Symposium Large Lithium & VRLA Batteries – Honolulu

6/15-17 Int'l Advanced Automotive Battery Conf. – Honolulu

6/17 SDRFC Meeting

6/27 EVAOSD Picnic

6/28-29 Energy Mang. Congress – San Diego

7/13-11 Advance Capacity World Summit San Diego

New date for the Earth Fair 2005... Parade Sing Up

May 1, 2005 Our 16th Annual EarthFair in Balboa Park is the largest free annual environmental fair in

the world. EarthFair draws around 60,000 visitors.

So contact Bill Hammons to sign up for the Alternative Fuel Vehicle Parade.

EarthDayWeb.org or call 858-272-7370

4th EVer EAA All Chapters Conference is set for 4/1-3/05...

Every year EAA has an All Chapters Conference, this year the location is in Austin, TX.

This is an excellent opportunity to check out the EV community in south Texas. If you know someone in the area share the info.

Greater San Diego Science & Engineering Fair...

Support our students & future Engineers by attending the (High School) S&E Fair March 19 & 20, 2005.

Notes from EAA Annual Meeting

Most Public Transportation is electric.

For new construction 1 LEED point is given for each EV charger installed.

Taking Turns ‘- - -, _ _ _ Messages from our members . . .

Russ Lemon reports: ELIICA Eight wheels, eight motors, no tailpipe



EIGHT-WHEELIN': There are no plans to put the stunning Eliica electric car in production. But that fact hasn't prevented its designers from estimating that a mass-produced version would sell for US \$380 000.

Aficionados know that every auto show has its share of malproportioned design exercises, technical oddities, and just plain weirdness. But to make jaws drop in awe at an international auto show—that takes some doing.

Hats off, to the students at the Electrical Vehicle Laboratory at Keio University's Fujisawa, Japan, campus. Their Eliica electric concept car, unveiled at the last Tokyo Motor Show, has a 60-kilowatt motor, including the reduction gear, wheel bearing and brake, in each and every one of its wheels—all eight of them. The advantages of using eight small wheels rather than four larger ones, says the Keio team, include increased interior space, better road holding (owing to the greater tire contact area), and a more comfortable ride (because shock absorption is spread over twice as many wheels). It can supposedly go from zero to 100 km/h (62 mph) in four seconds. A version tuned for top speed is said to exceed the 368 km/h (229 mph) it has recorded in tests.

The 328-volt battery pack itself, along with the inverters and all control electronics, is sandwiched in a trough just 15 centimeters high in the vehicle's flat floor. A version tuned for fastest acceleration can generate torque of 100 newton-meters at each wheel motor and can accelerate the car at a G-force of 0.8. That version's range is approximately 320 km (200 miles); it requires up to 10 hours to recharge from full discharge.

The first two axles are mechanically steered, and the wheel angle on the rearmost one is varied electrically to assist in cornering. Shock absorbers on each wheel pair are hydraulically connected to spread the force of wheel movement. The driver can command the vehicle to park itself--in garage spaces or parallel--as well as to make U-turns.

The car was created in partnership with 38 companies. The drag coefficient of a model built to one-fifth scale is just 0.17, better than that of any current production vehicle, though no figures have been released for the full-size version. And there's no typo in that name; it's short for Electric Lithium Ion Car, of course. IEEE Spectrum, March 2005, page 23

As discussed during our February EVAOSD Meeting:



Meet the World's First 150 MPG Plug-In Prius By [EV World](#)

March 07, 2005

Okay... so as to not confuse you any more than you might already be, Energy CS' plug-in Toyota Prius gets between 120-180 miles per gallon equivalent for the first 50-60 miles of the day. After that, it drops back to the standard Prius 50 mpg average. So, how's that work, you ask?

Simple. For the first 50-60 miles, it runs mainly on electricity stored in its brand new, 9kWh Valence U-Charge Lithium-ion Saphion battery pack. The gasoline engine runs so seldom that you would effectively get the equivalent of up to 120 mpg under normal driving conditions using a combination of EV mode driving and electrically assisted gasoline engine driving. With less aggressive driving (and thus lighter use of the gasoline engine) gasoline consumption can be as low as 180mpg.

Of course, you can drive as far as you like in the normal Prius gasoline-electric hybrid mode, but then you drop back to the still very respectable 50 mpg.

In practical terms, since most people drive only about 25-40 miles a day, you'd use more electric power than the normal Prius. In effect, your energy would come from the power grid and you'd pay for your "fuel" through your electric power bill instead of to the oil company.

Starting to get the picture? See why environmentalists, electric utilities and all those national security wonks in Washington, D.C. are so excited about the plug-in hybrid concept? It's an idea whose time has come, though, as you might expect, carmakers are less than enthusiastic about it, arguing that its impractical and too expensive.

What can't be argued is that the technology now exists to make it happen and there are small research programs cropping up all over America. I happen to luck out while in Los Angeles in the end of February and got to see one of those projects just before the car was shipped to Europe for EVS 21, this one created by a small engineering shop located in the foothills, in the heart of Monrovia. That firm is Energy CS, headed by my old friend Greg Hanssen and his partner Peter Nortman. They've taken a stock 2004 Toyota Prius gasoline-electric hybrid, removed the 1.3kWh NiMH battery pack, installed a 9kWh Valence U-Charge pack powered by the Austin, Texas company's Saphion lithium ion battery chemistry.

Linda Irish reports form Denmark...

I should be at the March meeting. I did not see any electric vehicles, but here are a few observations from Denmark.

1. There is a 180% tax on all cars sold in Denmark.
2. In my two weeks there, never saw a traffic jam (possibly related to #1)
3. There are very few SUVs, less than 5% of all cars. Of those SUVs, the majority are smaller than a RAV4. I only saw one full size SUV.
4. Pickup trucks were non existent.
5. Few mini vans, almost all were in use by businesses that needed something larger than a car.
6. Gasoline is about \$6 per gallon
7. Status Symbol cars were rare.
8. Packaging of food products used much less material than in the USA.
9. Bicycles accounted for a significant part of traffic. Snow removal was good on all bike lanes. Bike lanes were a part of all major roads and much wider than in San Diego
- 10 Many streets are closed to vehicle traffic, pedestrians and bikes only.
11. Salt is highly corrosive to bicycles. I discovered this the hard way on my own bike.
12. Busses ran like clockwork. Busses arrived at stops on time without exception. A bus from each route is available every 15 minutes.

Larry Emerson reports... On sighting of used Prius vehicles.

While visiting Kearny Mesa Toyota, Larry noted four used Prius (3 each 2004 & a 2002 model) for sale. Noting the high resale value he reports the following.

The 2002 model had 46,600 miles and was being sold for \$19,600! He did not check all of the prices on the 2004, but noted one that had 26,000 miles and was going for \$27,000+. Assuming that the 2004 Prius was loaded, but he was told that it was not loaded. Larry expressed surprise and asked why? The salesman indicated that because of the large demand and back-up of orders. The salesman went on to say that the demand was starting to ease up as the production has been increased by Toyota. Even if the price is open to negotiations Larry wanted to pass along the high hybrid resale value information to EVAOSD members.

Editors note: Current IRS allowance deduction of \$2,000 for 2005, with \$500 deduction in 2006 and no allowance for hybrid purchase beyond 2006.

EVAOSD Newsletter Monthly, 6-10 pages, covering San Diego County and Southern California
Subscription rates: \$12.50 per year (\$15 foreign, via sea mail)

EAA Current Events Monthly newsletter of the Electric Auto Association
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

Current subscribers have borrowing privileges for the association's video tape and publications library.
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 PROVIDE ALL INFORMATION AS YOU WANT IT TO APPEAR FOR MAILING

(Please print clearly.)

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Work Phone (optional) (_____) _____ - _____

Cell Phone (optional) (_____) _____ - _____

Email address _____

***Please make check or money order payable to: EVAOSD.
Send this form and payment to: Russ Lemon, EVAOSD Treasurer.***



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