



ELECTRIC VEHICLE ASSOCIATION OF SAN DIEGO (EVAOSD)

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Regular Meetings: 4th 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 Autotorium
Next Meeting: Tuesday, January 23, 2007 @ 7 p.m.
Topic: "Jump-Starting the EV Future" Special Features from "Who Killed the Electric Car?"

The President's Message

With 2006 being such a progressive year as it pertains to electric vehicles 2007 shows promise for even more progress to be made. Thanks to EVeryone that helped as we charged ahead and thank you for your contribution to our success. I am tempted to highlight the mile stones that we as a group accomplished, but it seems that 2007 is not waiting for us to rehash history.

So let's charge down this road of 2007 as we keep plugging along our way. First of all announcing the first EVer EAA (Electric Automobile Association) Education Chapter has been formed here in San Diego through SDSU with Jim Burns and his students. Then (in order of importance of course) GM announced that they were going to work on a plug-in hybrid with lithium batteries. Before I could share this information with you GM announced that they were going to build a PHEV that is EV driven with an ICE generator. Now that is not a NICE (No ICE) car but think of the potential of being NICE around town (40 mile range) with the ICE generating power on extended trips with a constant rate that is efficient and perhaps a bio-fuel. Now there are some questions as to GM let say integrity

as in show or better yet sell me the car. The suspected caviler statement followed that GM needed to research batteries to get a 40 mile range. This is the same GM that built the EV1 ten years ago with 100 mile range.

Better still in addition to the already promised Telsa, Tango, Phoenix and other start-up EV the established manufactures are jumping onto the bandwagon. In the San Diego area a ZAP EV dealer has opened for business. Mr. Q is planning two EV Conversion Workshops this summer and is converting cars to be Qlectric here and now. So we have plenty to discuss with much more promising 2007 news in this newsletter.

For our first meeting of 2007 we will be seeing a video and discussing several aspects to "Jump-Starting an EV in **YOUR** Future." We also will be networking and exchanging info about "Current EVents."

I look forward to seeing you at our meetings perhaps in an EV. Watts up for 2007!!!

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:

1/23/07 EVAOSD Meeting "Jump-Starting the EV in Your Future."

1/26-28/07 6th EVer EAA All Chapters Meeting & 2007 Battery Beach Burnout – www.FloridaEaa.org

1/28/07 11 – 2 PM San Diego Prius Club Meeting Featuring 2 Phoenix EV and nano battery factory rep.

2/17/07 EAA National Annual Meeting – Palo Alto, CA or via telephone (888) 583-9625 code 303303#

2/27/07 EVAOSD Meeting Zap EV Dealership in the San Diego Area with Joe Gottlieb

2/26 – 28 Faster Freight Clean Air in Long Beach

4/1-4/07 Nat'l Alternative Fuel Vehicle Conference & Expo – Anaheim, CA www.afvi.org/

4/16/07 10 – 3 PM UCSD Clean Car Show all EV are welcome and encouraged to participate.

4/22/07 Earth Day 2007

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.

FOR IMMEDIATE RELEASE January 12, 2007 WRITERS GUILDS ANNOUNCE NOMINEES FOR 2007 DOCUMENTARY SCREENPLAY AWARD (My pick "WKTEC?")

Los Angeles and New York – The Writers Guild of America, West (WGAW) and the Writers of America, East (WGAE) have announced nominations for outstanding achievement in documentary writing for the screen during the 2006 season: 1 of the 5 is...

WHO KILLED THE ELECTRIC CAR? Written by Chris Paine, Sony Pictures Classics

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 and wish you prosperity and happiness during the New Year.

Thanks to Russ Lemon and Kevin Taylor for donating equipment & time to meeting presentations.

Thanks to Abràn Quevedo for putting together 2 EV Workshops this summer.

The following members & associates that are "Taking Turns" with updates that is not in the mainstream media.

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

GM Revives Effort to Build Electric Vehicle

General Motors Corp. has announced plans to revive its previously abandoned attempt to build electric vehicles that are capable and fuel-efficient alternatives to traditional cars. GM, criticized for canceling its \$1 billion-plus EV1 electric car program in 2003, offered a new concept sedan—the Chevrolet Volt—at this year's North American International Auto Show. The concept car represents an attempt to eventually produce a car that is primarily electric and far superior to the EV1. The Volt would be capable of hitting 150 miles per gallon and traveling as far as 640 miles on a single tank of fuel under a combination of engine and battery power. However, the automaker admits the project needs a breakthrough on battery technology to become reality.

Source: GM Announces New Effort To Build Electric Vehicle, The Wall Street Journal



both of these attributes into a promising package.

Chevy Volt

The standard engine that pairs with the electric motor is only used to re-charge the batteries and in a brilliant move, that engine can be filled up with anything from E85 to Hydrogen. Some great forward thinking was put into the Volt and they wrapped it in a cool looking package.

Chevy Volt

Concept cars aren't just about style, they also provide a showcase for cutting-edge technology. The Chevy Volt takes third place by combining





Chevy Volt

Designed as an electric car that embodies a sporty soul, the Volt electrifies onlookers with a four-door coupe appearance that belies its efficient and green drivetrain. Using GM's new E-Flex platform, the Volt is considered a fully Electric Vehicle.

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Toyota FT-HS

In the interior Toyota took design even further. Utilizing a concept they refer to as 'solo space', the driver is wrapped inside an angular yet swooping cockpit that features a hub-less steering wheel that seems to float in front of you. Add to this a 400 hp Hybrid Synergy Drive powertrain and you got yourself one clean, mean driving machine.

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From Felix Kramer of Calcars@yahoo.com adds that....

More encouraging news--this overview and the one from IEEE <<http://www.calcars.org/calcars-news/638.html>> are both good introductions.

Powering GM's Electric Vehicles Recent advances in battery chemistry and systems design could lead to working prototypes by year's end. Technology Review/Published by MIT Thursday, January 11, 2007 By Kevin Bullis <<http://www.technologyreview.com/Energy/18054/>> CAPTION: A123 Systems has designed a new automotive-grade battery that may make General Motors' plug-in hybrids possible.

General Motors (GM) recently announced that it is developing two types of plug-in hybrid vehicles, cars designed to run exclusively or almost exclusively on electricity for daily commutes. (See "GM's New Electric Vehicle" and "GM's Plug-In Hybrid.") But the announcements came with this caveat: the battery technology isn't ready, and production will have to wait. In reality, the battery technology is actually quite close to being ready.

Schwarzenegger's Cuts in California's Greenhouse Gas Emissions Will Accelerate Alternative Fuels Growth

Tackling California's battle against global warming, Gov. Arnold Schwarzenegger will order a 10% cut in motor vehicle emissions of greenhouse gases, mainly carbon dioxide. Such an order would be the first major step in implementing the

state's landmark law that requires California to reduce greenhouse gas emissions 25% by 2020. Currently, the state relies on petroleum-based fuels for 96% of its transportation needs and transportation accounts for more than 40% of California's annual greenhouse gas emissions. A drop of 10% in carbon released by vehicles in California would translate to a 20% drop in gasoline consumption and more than triple the size of the state's alternative fuels market.

Source: Next Schwarzenegger target: fuel emissions, The Los Angeles Times

Venture Capitalists Look at Alternative Energy

Investors in start-ups are expected to pump even more money into energy ventures in 2007 after doubling their bets last year amid shifting politics and global-warming worries. Venture-capital firms poured \$536 million into biofuel and other energy ventures in the first three quarters last year vs. \$224 million in all of 2005, said industry tracker Dow Jones VentureOne. Political shifts are driving the trend. With Democrats planning to push for more alternative-energy research and Presidential candidates likely to make energy policy a theme in 2008 campaigns ... "It can only be a more favorable environment for start-ups," said Nancy Floyd, co-founder of Nth Power, a venture-capital firm focused on energy investing.

Source: Venture capitalists look at alternative energy, Asbury Park Press

PRIUS CLUB MEETING - SUNDAY, JANUARY 28, 2007 at UBS Financial Services, 600 W. Broadway in downtown San Diego **FREE PARKING IN BUILDING HAS BEEN ARRANGED FOR ATTENDEES** enter parking garage on India Street just north of Broadway. 11 AM to 2 PM Lunch will be served - \$7 at door, please specify ham, turkey, beef, tuna or veggie sandwich when you RSVP to priusclub.sandiego@cox.net

We have a very exciting meeting that will give our members the opportunity to

- learn about socially responsible investing;
- see, touch and potentially ride in an **all electric SUV or SUT (Sports Utility Pick-up Truck) from Phoenix MotorCars** featuring new **lithium nano-titanate batteries** first brought to our attention by the late Dave Hermance at our October meeting. A presentation by Altairnano, the maker of the batteries

Aaron Beard, a broker at UBS, our hosts, will discuss the benefits of socially responsible investing and provide information on UBS' investment platform and outlook. He will be stressing the current options for investors looking to leverage their investments in a socially responsible manner.

Bryon Bliss, the VP, Sales of Phoenix MotorCars will bring one of their production all electric vehicles for us to examine. Phoenix displayed both their mid-sized 4-door pickup (SUT) and mid-sized SUV at the Alternative Fuel Expo in Santa Monica, Dec 8-10. If their insurance permits, test rides will take place at the meeting!

Bob Goebel, Director of Sales for Altairnano, will tell us more about Altairnano and the lithium nano-titanate battery technology that gives the Phoenix 5 passenger vehicles the following capabilities:

- Zero emissions
- All-battery power - NanoSafe™ production battery pack system
- 100+ miles per charge
- Speeds of 95 m.p.h. carrying five passengers and full payload
- High torque: 0 to 60 m.p.h. in 10 seconds
- Long battery pack life: 250,000 miles/12+ years
- Off board charger: 10 minutes to recharge to 95% capacity
- On board charger: 6 hours to recharge from 220V plug-in
- California Air Resources Board (CARB)-Certified

Please RSVP as soon as possible as space is limited and the OC Prius Club and the Electric Vehicle Association of San Diego have also been invited.

This marks the end of our printed & mailed newsletter additional EV related stories are

available in our electronic edition at www.evaosd.com under meetings.



Summer Workshop

C2EC2T

Or



Commuter Conversion Electric Car Class for Teachers

July 02- July 13, 2007

Workshop Coordinator: Abrán Quevedo (Mr. Q)

Go from gross polluter to protector of the environment!

You can convert any stick-shift compact car from an ICE (Internal Combustion Engine) that uses gasoline to a NICE (No Internal Combustion Engine) all electric in just ten days! This course, designed for the absolute beginner or novice, will guide you in creating a reliable, pollution-free commuter electric car.

This is the perfect class for auto shop instructors, science teachers, industrial technology teachers, other industrial arts teachers and EV enthusiasts. We will be using the textbook, *Convert It* by Michael P. Brown which describes how to convert from gas to electric power, and along the way teacher participants will develop teaching strategies related to the electric car conversion process.

During the two week course, we will convert a loud, gas-guzzling candidate vehicle into an amazingly quiet, emissions-free electric car that will never have to pay at the gas pump again.

Overcome your fear of the conversion process with patient (mostly), gentle, hands-on instruction. Lots of wrenching included as an added bonus! Specific electric car classroom presentation will be offered by knowledgeable guest speakers related to low-rolling resistance tires, regenerative braking and electric car performance projections.

Tuition cost is \$300 (S.D. county ROP and SDCCC teachers exempt)

Class begins on Monday, July 02 and ends on Friday, July 13.

Each class runs from 8:00 a.m. until 3:00 p.m. daily.

Professional Growth Units (PGU) may be available at time of registration

San Diego Community College District Center City/Skills Center

835 Park Boulevard San Diego, CA 92101-4721 Phone: (619) 239-6739

For registration and motel accommodation information contact: quevedo@cox.net



Certificate of Completion Awarded to Workshop Participants

Ford has also sought the spotlight with a PHEV at the Detroit Auto Show. Most reports are dismissive, pointing out that while GM's car is intended for production, Ford's makes no pretense about actually building it -- especially because it adds all the additional burdens of being hydrogen-fueled. Nevertheless, after being unable to respond to proposals from CalCars and Prof. Andy Frank for six months last year (see <http://www.calcars.org/news-archive.html> May 11-16, 2006), it is significant that Ford wants to share some of the interest in PHEVs.

Following is Ford's press release, a short AP story, and the statement from Freedom From Oil (formerly Jumpstart Ford, co-founded by Rainforest Action Network, Global Exchange and the Ruckus Society) describing both the GM and Ford vehicles as cars that will never be produced.

Ford rolls out plug-in hybrid with hydrogen fuel cell

<http://www.prdomain.com/companies/F/FordMotor/newsreleases/200711038405.htm>

The HySeries Drive system already is on the road

in a Ford Edge prototype, which will be shown

publicly for the first time at the Washington, D.C., Auto Show on Jan. 23.

<http://www.detnews.com/apps/pbcs.dll/article?AID=/20070106/UPDATE/701060439>

Airstream, Ford conceive space-age crossover

http://ran.org/media_center/news_article/?uid=2230

Ford mulling plug-in hybrid vehicle-exec

Tue Jan 16, 2007 6:52pm ET143

<http://today.reuters.com/stocks/QuoteCompanyNewsArticle.aspx?view=CN&storyID=2007-01-16T235221Z_01_N16244071_RTRIDST_0_FORD-HYBRID.XML&rpc=66>

HOT PRIUS Presentation

Meet Tomio Yamazaki, the Chief Designer of Prius II & currently CFO of Calty Design Research, Inc. will show us how they came up with the design of the Prius- 2nd Generation. He has many pictures to show of designs they considered and why and why not each was chosen. Very Interesting! Not to be missed.

Time & Location: Sat, Jan. 20th, Come at NOON to Eat at the [Carrows](#), 16931 Magnolia Avenue, Huntington Beach, CA 92647, (714) 848-1995 (just off the 405 freeway- I-405, south off Warner, right at Magnolia and on left side across from Boomers Amusement park). There will be NO parking lot pre-get together (you never know about the weather!). Just order off the menu.

Big Three Seek Battery Subsidies

Larger U.S. Outlay Would Speed Work On Electric Vehicles

By NEAL E. BOUDETTE and JOHN D. STOLL

January 9, 2007; Page A14

<http://online.wsj.com/article/SB116831919685971148.html>

POWER PLAY

- The News: The Big Three have asked the U.S. to subsidize development of advanced batteries that would power electric cars.
- The Issue: Japan has the lead in powerful, lightweight battery design.
- What's Next: The proposal is under review by a technology adviser to the President and the Energy Department.



NEW IN GRIST

Energizer Money

Enviros delighted with House Democrats' CLEAN energy bill

After years of playing grumbly defense, environmentalists are giddy about having a high-profile bill in Congress they can wholeheartedly support. The CLEAN Energy Act of 2007 (CLEAN stands for "Creating Long-Term Energy Alternatives for the Nation" -- which, as strained legislative acronyms go, isn't half bad) would roll back tax breaks for the oil and gas industry and steer the resulting funds toward energy efficiency and renewables. The House is poised to pass the measure on Thursday. The Senate -- well, that's another matter

altogether, as Muckraker reports.