



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 R.T.C. (Pearson Plus), at 4001 El Cajon Blvd. and Interstate 15
Place: In the Autotorium
Next Meeting: Tuesday, February 28, 2006 @ 7 p.m.
Subject #1: Converted S-10 EV Pick-up Truck with solar accessory support..
Speakers: Lee Campbell also Jim Bohorquez both members of EAA & EVAOSD.
Subject #2: Converted Porsche 911 Targa EV.

The President's Message

During our January EVAOSD meeting we will begin the year by discussing new vehicles and technologies that are expected in 2006 and beyond. Thanks to David Cutter for giving us a prospective on innovations with new technology that will help us charge ahead.

Additionally, Kevin Taylor showed a video trailer of **EV Confidential**, the EV1 movie that was presented during the Sundance Film Festival last month. Jack Thach, Robert Paashaus and Dale Malone have either joined &/or renewed their memberships and we have added three EV to our group so far this year. With the announcements of an Earth Day Parade, interest in the 5th EVer EAA Chapters meeting in Illinois and an EV Conversion Workshop we are off to a great and encouraging start for 2006.

It seems to me that based on the recent news accounts that the country and world is moving towards reducing our dependency on oil and moving in our direction towards EV and PHEV. I had the opportunity to meet and compare notes with Kevin Woodhouse, President of Australia Electric Vehicle Association last week while he was in San Diego. Kevin will be attending the Annual EAA General (members)

meeting via "tele" from Australia. You can listen in as well the details follow in this newsletter.

For our February 28, 2006, Lee Campbell will be presenting his converted S10 EV Pick-up with solar assist for accessory support. Also Jim Bohorquez is presenting his converted 911 Porsche Targa. These members will have their vehicles available and a story to tell. The stories range from making use of excess solar home power to keeping a 911 on the road, because of limited available parts.

I look forward to seeing you at our meeting on Tuesday, February 28, 2006 @ 7p.m. The meeting will be at the RTC (Regional Transportation Center), [in the autotorium & outside to view the EV] located on the southwest corner of the main building.

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:

2/20-22 Nat'l Ethanol Conference – Las Vegas, NV

2/22-24 Clean Heavy-duty Vehicles – San Diego, CA

2/25 '06 International Annual EAA Members Meeting
Palo Alto, CA – San Diego connection (888) 583-9625

2/28 EVAOSD Meeting – Lee Campbell EV Conversion

3/12-16 NHA Annual Hydrogen Conference & Expo –
Long Beach, CA

3/28 EVAOSD Meeting – TBD

3/28-4/2 57th Annual Greater San Diego Science &
Engineering Fair – Balboa Park Activity Center

4/7-8 2006 EV Challenge – North Carolina

4/23 17th Earth Fair & AFV Parade – The world's largest
annual environmental fair and Earth Day Celebration –
produced by volunteers – San Diego, CA

4/25 EVAOSD Meeting – TBD

5/5-10 Clean Cities Congress & Expo; Fueling Clean
Transportation – Phoenix, AZ

5/10-14 18th Annual Tour de Sol – Saratoga Spa State
Park, NY

5/12-14 5th EVer EAA Chapters Conference – Fox Valley
in Chicago/Juliet, Illinois. **EVAOSD representative
needed to report back to our group.**

5/23 EVAOSD Meeting – TBD

**The Annual EAA General (members) meeting Saturday,
February 25, 2006, is a close as your telephone just dial 1 888-
583-9625 then dial in the access code 303303#**

The **International Annual EAA Members Meeting** will be held at **10:00 AM (PST - California time), on Saturday, February 25, 2006** at the Hewlett & Packard Building, Level A Auditorium, 3000 Hanover Street in Palo Alto, CA. Silicon Valley EAA Chapter will be hosting the Event with POC, SVEAA President Jerry Pohorsky: (408) 241-2538 Pohorsky@comcast.net. You may also attend by making a conference call-in, preferably as an EAA Chapter, by dialing **(888) 583-9625** with code **303303#**. In a manner to reduce background noise (from the telephones) Please mute your phone, with **61#** or all your home sounds will go onto our PA system! Use 60# to un-mute.

May 12-14, 2006

Chicago/Juliet, IL

5th Annual EAA Chapters Conference

Hosted by the [Fox Valley EAA](#). The conference will include various events to promote EV discussions and social events to promote communication between EAA Chapters. This conference will coincide with the Midwest Alternative Fuel Expo. Time during the conference has been reserved to attend the NEDRA High Voltage Nationals on May 13.

Web Site: <http://fveaa.org>

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

Austinenergy.com is working towards “Creating a Market for PHEVs Around the Country: 50-City Plan”

The Plug-In Hybrid 50-City Plan is intended to build a market for gas optional hybrid vehicles around the country. The 50-City Plan seeks support from utilities to:

Develop \$50-\$100 million in incentives from utilities for PHEV procurement and fleet purchase commitments by government, private businesses and consumers.

Action Items for Top 50-Cities

1. Develop incentives to be provided by electric utilities. PHEVs will utilize excess generation capacity available during night-time hours
2. Secure fleet purchase commitments from local, state and federal governments
3. Enlist Chamber of Commerce lead to solid purchase commitments from private fleets
4. Enlist community and environmental leaders to promote individual citizen purchase commitments
5. Solid local government and state support of PHEV initiative through approval of favorable policies
6. Promote nationwide “Plan to Purchase” Web site where citizens and businesses can sign petitions expressing interest in purchasing commercially available PHEVs from major auto makers.

Top 50 Cities by Population		
Albuquerque	Honolulu	Oklahoma City
Arlington, TX	Houston	Omaha
Atlanta	Indianapolis	Philadelphia
Austin	Jacksonville	Phoenix
Baltimore	Kansas City	Portland
Boston	Las Vegas	Sacramento
Charlotte	Long Beach, CA	San Antonio
Chicago	Los Angeles	San Diego
Cleveland	Memphis	San Francisco
Colorado Springs	Mesa, AR	San Jose
Columbus	Miami	Seattle
Dallas	Milwaukee	St. Louis, Mo
Denver	Minneapolis	Tucson
Detroit	Nashville	Tulsa
El Paso	New Orleans	Virginia Beach, VA
Fort Worth	New York	Washington, DC
Fresno	Oakland	Wichita

Extreme Machine: 330 MPG Aptera



Steve Fambro and the guys at Accelerated Composites in Carlsbad, CA have a dream. It's a radically efficient machine classified as a "motorcycle," but capable of speeding two passengers more than 300 miles on a single gallon of fuel using a combination of the company's patent-pending diesel-electric hybrid drive and slipstream body shell made of advanced composites.

Picking up where the groundbreaking, but single-seat fiberglass Corbin Sparrow left off, Accelerated Composites hopes to manufacture the vehicle in Southern California and sell it for under \$20,000.

The computer generated image above is the latest revision of the concept. Fambro writes in a the company's new press release, "What we've done is changed the way cars are thought of and designed. Rather than designing to a styling aesthetic, like the big auto makers do, we hew to an efficiency and safety aesthetic. When you do that, math and physics mostly dictate the shape of the car, and in this case, math and physics look awesome."

The Aptera® utilizes proprietary composite construction that significantly lowers manufacturing cost when compared to most other composite construction methods, and even steel. The patent-pending "Panelized Automated Composite Construction", or PAC2, lends itself to parallel assembly and has a very low initial capitalization.

Steve emphasizes that he and his associates are very serious about developing this extreme machine.

Accelerated Composite's press release does note the construction of the car is "based on the driver-protection 'crash box' found in Formula One race cars. 'Composites are enormously strong and lightweight,' says Fambro. 'That's why all the aircraft manufacturers are switching to them.'

So why aren't the auto makers switching? Asked Fambro. "Cost. They haven't figured out cost-effective manufacturing processes for composites. But we have."

"We' re going to produce and sell these cars," writes Fambro. "We' ve got a perfectly timed, market busting product. We have a great team of world class engineers and designers, high-powered marketing and sales experience, and a solid business plan".

Steve gave me a personal heads-up on their project some time back, promising to share the design with me as it matured. He sent me an early rendition last week, making me promise to keep it to myself. Now that the cat... I mean the car is out of the bag, I can talk about.

In an email to him yesterday, I expressed my concerns about driver visibility. If the Aptera were the only machine on the road, its current styling wouldn' t be that much of an issue, but if it plas to survive and thrive in car- choked Southern California, it' ll need to become less "spaceship" and more fighteplane with respect to visibility.

I pointed out to Steve that I very quickly learned after buying my Honda Insight to check two or three times before changing lanes because visibility is an issue, especially over the right shoulder. Not only after picking up the car, I came close to side-swiping another car in the right-hand lane that I simply didn' t see. From the point on, I made it

a practice to check two and three times before changing lanes, including using side mirrors and looking carefully through the side glass.

It turns out that Steve also drives an Insight and agreed with me, promising that future iterations of the design will take my suggestion into consideration. Although they plan to include a small television camera for viewing behind the Apera, I'd be reluctant to put all my faith in it.

Now, the next question is where do you hang the license plate?

You can learn more at [Accelerated Composites](#).

17th Annual Earth Fair and AFV Parade is set for Sunday, April 23, 2006...

The world's largest annual environmental fair and Earth Day Celebration- produced by volunteers is taking place in San Diego at Balboa Park. This event is free to participate in or to attend. Bill Hammons is managing the parade and accepting Entry Forms for the AFV Parade and/or the AFV Alley Exhibit Area.

Membership update...

Last Year the EAA lost some records with a computer disk crash. If you are an EAA member, send Russ Lemon [Lemon.J.Russell@ATT.net] an e-mail or ask him to check your records after the January Meeting for a records check. If you are donating to pay for a mailed copy of our monthly newsletter, please check the expiration date. If it is incorrect, please let Russ Lemon know so a correction can be made. If you are not receiving our electronic newsletter and would like to, please let Russ Lemon know. The latest newsletters are posted on our web site [<http://home.att.net/~NCSDCA/EVAoSd/>].

Abran Quevedo is setting up an EV Conversion Workshop this summer...

Approvals are still being processed however, after Abran successful EV conversion of a 1980 Cabriolet this past summer in Turlock, CA he is working on setting up a Workshop in Encinitas this summer. For more information on the Turlock Workshop go to:

http://search.hp.netscape.com/hp/boomframe.jsp?query=Turlock+EV+Conversion&page=1&offset=0&result_url=redir%3Fsrc%3Dwebsearch%26requestId%3D4a09b09c208c0c24%26clickedItemRank%3D1%26userQuery%3DTurlock%2BEV%2BConversion%26clickedItemURN%3Dhttp%253A%252F%252Fwww.greencarcongress.com%252F2005%252F07%252Fturlock_ev_conv.html%26invocationType%3D%26fromPage%3DHPPavTop%26amp%3BampTest%3D1&remove_url=http%3A%2F%2Fwww.greencarcongress.com%2F2005%2F07%2Fturlock_ev_conv.html

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.

Additional articles this month include the following:

Smith Electric Vehicles Debuts Two New EV Trucks...

From News 8 Bush says, "U.S. on verge of energy breakthrough."

Daily Grist reports that someone is addicted to Hot Air...

Note that Toyota has stopped selling Prius hybrids to fleets.

Smith Electric Vehicles Debuts Two New EV Trucks

Source: Smith Electric Vehicles [Feb 20, 2006]

SYNOPSIS: Faraday has a GVW from 3.5t to 7.5t, a restricted top speed of up to 50mph, up to 4t payload and enough battery power to cover up to 120 miles between charges.



Smith Electric Vehicles is making its debut at the Commercial Vehicle Show, where it will unveil a new range of battery powered vans and LCVs that will revolutionise the urban goods delivery market.

British manufacturer Smith is launching two next-generation electric vehicles (EVs), Faraday and Edison.

Kevin Harkin, business development manager for electric vehicles, said: "Our vehicles are cheaper than diesel or petrol LCVs and require far less maintenance.

"There are obvious environmental benefits, but the bottom line is simply that EVs cost less."

Extensive research carried out over more than five years by Smith' s technical experts has found that the whole life cost of a Smith Electric Vehicle is up to a third less than that of the equivalent van or LCV.

"For a start, there are a handful of moving parts at best in an electric vehicle, compared to over 1,000 in an internal combustion engine," said Mr Harkin.

"This means there is a lot less to go wrong – and on the rare occasions when a problem does occur, it can be quickly diagnosed and fixed."

Smith customers also have access to the UK' s only nationwide EV service support network, through Smith' s sister company, SEV Group Ltd.

SEV has more than 150 service engineers based at seven depots across the UK, looking after more than 5,000 vehicles.

Because every model in the Smith range is a zero emission vehicle, they also qualify for zero Road Fund Licence (road tax), do not require an operator' s licence and are not subject to an annual MoT.

"All of this stacks up in favour of electric vehicles, before you even look at the cost of fuel," said Mr Harkin. "Smith Electric Vehicles run on less than 4p per mile."

Faraday has a GVW from 3.5t to 7.5t, a restricted top speed of up to 50mph, up to 4t payload and enough battery power to cover up to 120 miles between charges.

Edison is aimed at the market for vehicles under 3.5t GVW and will directly compete with Transit type vans.

Both have speed and range capabilities far greater than traditional EV technology.

Mr Harkin said: "Commercial vehicles powered by lead acid batteries can still only produce a top speed of around 25mph and a range between charges of about 40 miles.

"This has really pigeon-holed them into niche applications, such as estates management.

"The vast improvements we have made in these areas have exponentially increased our potential market."

The impressive increases in these areas have been achieved through integrating a new type of battery – Sodium Nickel Chloride, which boasts a much higher power-to-weight ratio than traditional lead acid batteries.

Smith is targeting Faraday and Edison at companies operating in Britain' s congested city centres, from parcel and goods delivery fleets, to builders and tradesmen.

"Faraday and Edison can more than compete in closed urban environments when it comes to speed," said Mr Harkin.

The latest study by the Office of National Statistics (ONS) found that, in the 18 largest towns and cities outside of London, the average rush hour traffic speed was 21mph, and the average off-peak speed was just 25.3mph.

Figures for London are even worse. The latest study by Transport for London found the average peak time speed in the Congestion Charging Zone is between eight and 12 miles per hour.

Because they are zero emission, Smith Electric Vehicles are exempt from the London Congestion Charge and also qualify for free parking in parts of central London.

Smith Electric Vehicles, based in County Durham, is the world' s oldest electric vehicle manufacturer and still one of the largest in the world. Established in 1920, it has been a market leader for more than seven decades.

It has a customer base of more than 500 clients, from prisons and NHS trusts, to local authorities and food distributors.

It is the only UK company with such high specification, commercial electric vehicles in production.

Mr Harkin said: "We are not the only player in the commercial EV market, but we have an unrivalled heritage and vast experience of designing and building electric vehicles.

"We know what the market wants, which is proved by the fact that we are already selling Faraday."

In line with the Smith' s green policy, almost the entire vehicle can be recycled.

"Wherever possible, we are using fully recyclable materials, even down to the battery technology," said Mr Harkin. There are no heavy metals or noxious substances."

The first models to be mass-produced at Smith' s 250,000sq ft facility are aimed at drivers in congested inner city areas, where high top speeds are not necessary, in sectors such as food delivery or kerbside recycling collection.

a range of up to 200 miles.

"We can make them accelerate as fast as a sports car, if that is what the customer wants," said Mr Harkin, "But there is a trade off with range and payload.

"With Faraday and Edison, we are a step closer to writing off the internal combustion engine as a dirty, polluting anachronism."

The CV Show takes place at Birmingham NEC, from April 25 – 27. Visit Smith Electric Vehicles at Hall 4, stand 4680, or visit the new website, www.smithelectricvehicles.com.

ACCORDING TO LOCAL 8 TV; BUSH: U.S. ON VERGE OF ENERGY BREAKTHROUGH

Saying the nation is on the verge of technological breakthroughs that would "startle" most Americans, President Bush on Monday outlined his energy proposals to help wean the country off foreign oil. Less than half the crude oil used by refineries is produced in the United States, while 60 percent comes from foreign nations, Bush said during the first stop on a two-day trip to talk about energy. Some of these foreign suppliers have "unstable" governments that have fundamental differences with America, he said. "It creates a national security issue and we're held hostage for energy by foreign nations that may not like us," Bush said. Bush is focusing on energy at a time when Americans are paying high power bills to heat their homes this winter and have only recently seen a decrease in gasoline prices. One of Bush's proposals would expand research into smaller, **longer-lasting batteries** for electric-gas hybrid cars, including plug-ins. He highlighted that initiative with a visit Monday to the battery center at Milwaukee-based auto-parts supplier Johnson Controls Inc.

During his trip, Bush is also focusing on a proposal to increase investment in development of clean electric power sources, and proposals to speed the development of biofuels such as "cellulosic" ethanol made from wood chips or sawgrass. Energy conservation groups and environmentalists say they're pleased that the president, a former oil man in Texas, is stressing alternative sources of energy, but they contend his proposals don't go far enough. They say the administration must consider greater fuel-efficiency standards for cars, and some economists believe it's best to increase the gas tax to force consumers to change their driving habits.

During his visit to Johnson Controls' new hybrid battery laboratory, Bush checked out two Ford Escapes – one with a nickel-metal-hybrid battery, the kind that powers most hybrid-electric vehicles, and one with a lithium-ion battery, which Johnson Controls believes are the wave of the future. The lithium-ion battery was about half the size of the older-model battery. In 2004, Johnson Controls received a government contract to develop the lithium-ion batteries.

While Bush is highlighting his budget proposals to help wean America from foreign oil, the lab he visited is meeting a \$28 million shortfall by cutting its staff by 32 people, including eight researchers. "Our nation is on the threshold of new energy technology that I think will startle the American people," Bush said. "We're on the edge of some amazing breakthroughs – breakthroughs all aimed at enhancing our national security and our economic security and the quality of life of the folks who live here in the United States."

Later Monday, Bush visited the United Solar Ovonic Plant, which makes solar panels, in Auburn Hills, Mich., outside Detroit. "This technology right here is going to help us change the way we live in our homes," Bush

told reporters. Bush said he was impressed with the growing commercial uses of solar energy. "Roof makers will one day be able to make a solar roof that protects you from the elements and at the same time, powers your house," Bush said. "The vision is that technology will become so efficient that you' ll become a little power generator in your home, and if you don' t use the energy you generate you' ll be able to feed it back into the electricity grid." Rep. Ed Markey, D-Mass., questioned Bush' s energy policies Monday, saying the administration also supports subsidies for luxury SUVs. "This single tax subsidy dwarfs anything being done for hybrid batteries," Markey said in a news release.

On Tuesday, February 21, 2006, Bush plans to visit the Energy Department' s National Renewable Energy Laboratory in Golden, Colo., to talk about speeding the development of biofuels. As a complement to Bush' s travels, six Cabinet officials are crisscrossing the nation this week, appearing at more than two dozen energy events in more than a dozen states.

Addicted to Hot Air, Bush hits the road to tout alternative energy technologies...

With the American people restless over high home-heating and gasoline prices, President Bush has embarked on a PR tour of electorally important states to promote alternative energy technologies. Yesterday, he touted his plan to increase funding for energy research during visits to solar-panel manufacturer United Solar Ovonic and Johnson Controls, which is researching advanced lithium ion batteries for hybrid cars. (Critics point out that Bush' s proposed funding is less than half of what was promised in last year' s energy bill.) He reiterated that America is addicted to oil and said, "we' ve got to do something about it now." (Critics point out that measures that might have more immediate impact -- like a gas tax, or increased CAFE standards -- are not under discussion.) Today, Bush praised workers at the National Renewable Energy Laboratory in Golden, Colo., where about three dozen researchers were hastily rehired over the weekend in time for Bush' s visit, after having been laid off recently because of budget cuts. (Critics point out that NREL still has a \$23 million budget shortfall. Damn critics.)

straight to the source: [The Kansas City Star](#), Knight Ridder News Service, Ron Hutcheson, 20 Feb 2006

straight to the source: [The New York Times](#), Elisabeth Bumiller, 21 Feb 2006

straight to the source: [The Coloradan](#), Associated Press, Ben Feller, 21 Feb 2006

A note from Lawrence Emerson that Toyota has stopped selling to fleets...

FYI - I got this email from that group that promotes hybrids. I did not realize Toyota had stopped selling to fleets for 2006. I think that is okay. Normally you want government fleets to lead the way to help promote new technologies. In this case, that is not needed. The technology is succeeding on its own.