

# Charged Up



## ELECTRIC VEHICLE ASSOCIATION OF SAN DIEGO (EVAOSD)

An affiliate of the Electric Auto Association (EAA)

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Vice President: Wistar Rhoads

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Program Chairman: Joseph S. Gottlieb

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Webmaster: Russ Lemon

Librarian & AV: Lloyd Rose

**Regular Meetings:** Our meetings are on on the 4th monday of every month (except December).

**Location:** California Center for Sustainable Energy  
8690 Balboa Ave., Suite 100 · San Diego, CA 92123

**Place:** Main Conference Room

**Next Meeting:** Monday, April 25, 2011 @ 7:00 p.m.

**Program:** General Topics

**THANK YOU** to all the folks that participated in the UC San Diego green open house and EARTH DAY at balboa park!

### Presidents Desk:

First, I **LOVE** my leaf. It is exactly what I have been dreaming of for over two decades. It's just a car. What do I love the most? I sometimes forget it's electric when I am driving. What don't I like? It's gadget overload for the average user. Having off-peak timers, touch screen web inter-faceable blink chargers that have more settings than that VCR no one programs the time on can be daunting.

Now, some math: I am averaging 4.5 Miles per kWh. When I charge at night, I pay \$0.07 per kWh. So, I currently pay (actual) \$0.0156 per mile! **LESS THAN TWO CENTS PER MILE** folks!

Now, some tech: I wish it had more regenerative braking with the ability to dial in the max amount of regen I could get.

**Quick Rant:** When did the slow lane become not so slow? For me, if I am trying to **REALLY** conserve energy, I find a nice truck doing 55MPH and get behind him, but then I get people riding up my tailpipe (insert chuckle). They sit there until they become irate enough to get into one of the other 5 lanes to pass!

### Inside this issue:

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## From the Treasurer

It's fascinating to see how many Electric Vehicle Start up Companies there are and who might survive. The hard economic times are not helping the situation and most difficulties will be from financial pressures and supply problems. Many of the companies are still trying to find investment dollars or subsidies or grants. The following article puts it in perspective and lists many of the contenders for survival.



*2012 Fisker Karma – Click above for high-res image gallery*

With GM reporting just 1,210 Chevy Volts sold in the first three months of 2011, including 608 in March, and Nissan showing only 452 Leafs sold in the first three months, including 298 in March, critics are saying that there is no market for plug-in cars. But what these idiots don't know – or pretend not to know – is that both cars' sales so far have been severely limited by lack of supply, not demand.

While GM and Nissan have been very slow to ramp up production and distribution, primarily to ensure flawless quality, both EVs have thousands of would-be buyers cooling their heels on waiting lists. And GM (maybe Nissan, too) is telling Chevy dealers to retain (not sell) a Volt demonstrator at a time when some of them probably still haven't received their first one.

That said, with literally dozens of new EVs expected to hit the U.S. market (and others) in the next few years, I'm wondering how many start-up EV makers will survive.

"[Audi](#) plans a range of high-priced electric cars with e-tron version of the R8 in 2012."

[BMW](#)'s Megacity vehicle project is scheduled to produce the i3 EV city car in 2013.

- [Fiat/Chrysler](#) will launch an electric 500 next year.
- [Ford](#) will follow its electric Transit Connect small commercial van with a Focus EV late this year and a C-Max small minivan plug-in hybrid for 2013.
- [GM](#) plans "several different variants' of plug-in-hybrid Volt-technology vehicles in the next few years," plus a [plug-in hybrid Cadillac SRX](#) by 2013.
- [Honda](#) will have Fit EVs in a demonstration fleet this year and begin selling them in 2012, and is developing a two-motor plug-in hybrid powertrain for the 2013 Accord.
- [Mazda](#) plans a Mazda2 subcompact EV next spring, mainly for Japanese fleets.
- [Mercedes-Benz](#) (working with China's [BYD](#)) will build more than 500 subcompact A-Class EVs this year and bring them to the U.S. within three years, and "will launch the SLS AMG in 2013 as an EV, followed by an S-Class plug-in hybrid."
- [Mitsubishi](#) "plans to launch its i small EV, formerly...iMiEV, here late this year."
- [Nissan/Infiniti](#) plans to launch an Infiniti EV in 2013 as part of Nissan and Renault's planned eight-EV lineup that began with the 2011 Leaf.
- [Smart](#) is planning larger-scale production of its electric ForTwo by 2012.
- [Toyota](#), besides its 2012 plug-in Prius, will launch an electric version of its tiny Scion iQ, plans (in cooperation with Tesla) a small demo fleet of [RAV4 EVs](#) (and "wants a production version by 2012") and "may develop an electric [Lexus](#) RX SUV."
- [Volkswagen](#) plans full-electric versions of its Up minicar and compact Jetta and Golf, the latter arriving here by late 2013 or early 2014.

Most of these mainstream makers are solvent enough to shoulder the huge costs of designing, developing and building small-volume EVs, and subsidize them (i.e., absorb per-vehicle losses), at least at first, if necessary. But what about Tesla and Fisker, and all these tiny start-ups operating on venture capital, government grants and loans, and begging for more?

Another interesting article, "[Spectacular Failures' Await Electric Vehicle Industry](#)," appeared March 30 on WardsAuto.com. Author James Amend uses Li-ion Motors – which [won the \\$2.5 million Progressive Automotive X-Prize](#) for a "production-viable design," as a telling example. It "carries an upside-down balance sheet, with millions of dollars in liabilities to creditors and the U.S. Internal Revenue Service," he writes. "According to a regulatory filing, the company figures it needs an additional \$2 million to bring its cars to market.

"Including plug-in hybrids," he adds, "more than 70 EVs are expected to hit roadways around the world, according to a Ward's survey of sellers and intenders.... Meanwhile, offerings from tiny start-ups such as Mindset, Detroit Electric and Green Automotive appear in doubt. Requests by Ward's seeking business updates...went unreturned."

About the non-mainstream companies included in AN's story, Guilford reports:

- [Aptera](#) "seeks a federal loan to start production of the 2e, a three-wheel EV."
- [BYD](#) "pushed back the scheduled launch of its EV and F3DM plug-in hybrid to spring 2012, delayed from last December."
- [Coda](#) "plans to launch its [China-built] battery-powered sedan in the second half of this year."
- Envision has begun installing electric power-trains "in partially-assembled vehicles bought from Renault/Dacia."
- [Fisker](#) is building the [Karma](#) plug-in hybrid luxury sedan in Finland and plans five more near-term models through 2016, including a small sedan to be built in Delaware starting in 2012.
- [Tesla](#) plans to launch its [Model S electric sedan](#) in mid-2012 and a sub-\$30K small EV in four or five years.
- [Think](#) "is [selling small quantities](#) of its U.S.-manufactured City EV to fleet users and plans retail sales to limited markets this year."
- [Wheego](#) is [launching sales](#) of its LiFe two-seat EV microcar and "plans a five-seat car this year, followed by a light truck."
- Zap's Chinese partner Jonway Automobile "says it will sell the A380 EV SUV by June and...Alias EV roadster by September."

But Ward's Amend points out that even Tesla is far from financially viable, having lost \$274 million on 2010 revenues of \$144.5 million, according to a recent quarterly regulatory filing. The document also warned that Tesla's cost to develop its own Model S chassis will be substantial: "Our Model S production model will require significant investments of cash and management resources, and we may experience unexpected delays or difficulties that could postpone our ability to launch the Model S on our planned timeline or result in cost overruns."

One small company that may have found a formula for success is [Bright Automotive](#), which "hopes to market a multipurpose PHEV to commercial and government fleets," Amend writes. "The Idea is powered by a Li-ion battery pack with a range of about 40 miles. Then it switches over to a hybrid propulsion system. "Bright's technology drew a \$5million equity investment last year from GM which supplies the Idea's 2.4L internal combustion engine. In return...GM gained access to Bright's work in advanced lightweight materials." He adds that Bright will also have "access to GM's advanced engine, transmission and other technologies," and that it's looking for DOE funding.

So, in my mind there are excellent reasons why not a single start-up U.S. automaker has survived in the last seven decades, and why our last "Big Three" periodically struggle to stay afloat. Few outside the industry have any idea of the astronomical costs of just meeting government regulations, let alone designing, developing, building and marketing viable vehicles, then keeping them running and customers happy once they're sold.

So...You can place your bets now on which of these "bold few" will still be around by mid-decade (and I'll be glad to hold the bet money for you).

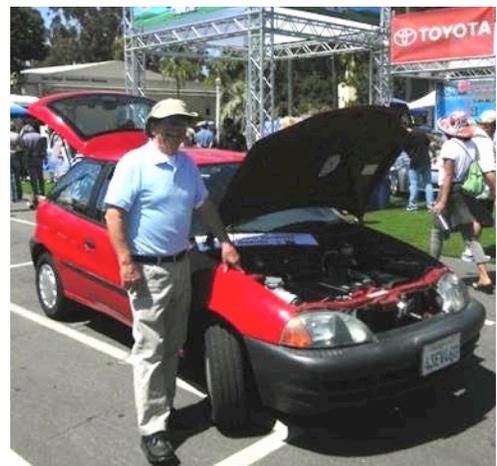
**Earth Day Photos**



**ELECTRIC VEHICLE (EV) CONVERSION WORKSHOP  
(ONE DAY MINI-COURSE)**

**Description:** The workshop will go over the basics of a Gas to Electric Vehicle conversion with a focus on the EV sub-systems needed for a do-it-yourself conversion. Instruction will include hands-on activities on dynamic EV mock-up platforms. In addition previously converted EV case study models will be available for test rides.

- Date: Offered on the first Saturday of each month
- Time: From 9:00 AM to 1:00 PM
- Cost: \$75.00 (includes materials and lunch)
- Location: Kick Gas Co-Op, 815 University Ave, San Diego CA 92103
- Website: <http://kick-gas-club-electric-conversions.com/>
- Contact: [quevedo@cox.net](mailto:quevedo@cox.net) or [jasonrugs@yahoo.com](mailto:jasonrugs@yahoo.com) to pay registration fee



\*\* Space is limited \*\*



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) \_\_\_\_\_

[ ] (\$10each ) 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.

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. New Subscribers, please use this form to register to receive the EVAOSD Newsletter. Current Subscribers, please use this form to send us any change in your details.

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

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