

Charged Up



ELECTRIC VEHICLE ASSOCIATION OF SAN DIEGO (EVAOSD)

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Treasurer:	Lloyd Rose
Program Chairman:	Joseph Gottlieb
Newsletter Editor:	Manny Gomez
Webmaster:	Russ Lemon
Librarian & AV:	Lloyd Rose

Regular Meetings: 4th Tuesday of every month (January thru November), at 7:00 pm,

Location: San Diego R.T.C. (Pearson Fuels), at 4001 El Cajon Blvd. and Interstate 15

Place: In the Auto-torium

Next meeting: Tuesday, July 22, 2008 @ 7:00 p.m.

Program: New President will propose changes.

If you'd like an electric auto-graph, talk to my agent!

Two local News programs highlight ElectraCity Motors' conversion business.

By Manny Gomez

Who: ElectraCity Motors

What: Local converter makes the airwaves

When: Weekly starting a few weeks ago

Where: San Diego County

Why: To satisfy tree huggers as well as neo-cons.

How: Many solutions depending on your budget

Channels 9 and 10 showcased ElectraCity motors late June and mid July. **(continued on pg.5...)**

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MESSAGE FROM THE PRESIDENT

Electric car elitist. Anti-Gasolineist. Liquid fuel challenged. All the things I like to call those who, as Manny (the one that brought you this newsletter) would like to say, “drank the juice”.

A rant from the president

Buy, build, or steal that EV. The message that you are receiving now is going to be a bit harsh compared to my previous ones. I am going to ask a lot from you and demand that you act.

BUY THAT EV. If you can go with an NEV/LSV/SCOOTER/TRIKE DO IT! Stop wondering if it will work for you and do it. In your life you will own plenty of vehicles, make a bunch of changes, and what you do right now, will not change your existence as you know it.

BUILD THAT EV! We all have lives, we are all busy, some of us have kids, responsibilities, bills, that we use as excuses why things are not progressing. **GET UP AND DO IT!** Force yourself to do ONE part of that EV right now. Put in those 5 bolts, pop in that clutch cable. It doesn't have to be done in one sitting, just do a little bit each night (I sound like your physician recommending exercise)

STEAL THAT EV. There are a TON of good deals out there. A lot of EV people who will help and give you their expertise for free. Go ahead ask the questions, buy that used motor, and take that helping hand from the guy or gal sitting next to you. Just get it done!



It has been an active month with EVerybody charging ahead in his or her own direction. Our June EVAOSD meeting was well attended with many announcements, EVs and even Mr. Q's tattoo. Paul Dunne had just received the plates for his conversion; Linda Irish was giving rides in her Twike; Lloyd Rose delivered the pizza; Mary Venables shared info about CCSE's Street Smart EVent; Wistar Rhoads displayed KTA parts; Mark Hardy discussed his battery failure and the repair solution; a new (to us) RAV4 and even Clayton Becker had a NEV that he is driving. The show-stopper was Abràn Quevedo's duel 120V packs.



Theory aside (KW=KW) da Q says, “With 2 more batteries and 60 lbs. less lead (going from 8V to 12V batteries duel packs) that in “real world experience” he has more EV power and range.”

The Car Shows continued with Dave Grove '33 Rolls, Mark Hardy's '93 EV pickup and Michael Kadie's '65 Coupe supporting the La Jolla Festival of Arts. Later Miriana and Fred Ferino took “Center Stage” of the Infield Pavilion during the last week of the San Diego Fair; showing their vehicles and inventions.

Meanwhile Everybody is working towards sustainable transportation. I have been working with Bob Van Gorder to plug-in my HEV range extender while Bob has installed the 2nd motor on Paul Marshall's Cadillac and is working on the supports. Bob is also changing the batteries on Mary Lou's Miata and in his spare time taking his Cony from 28 to 100 HP; now that's a theory (4 times HP) that will get you down the road quickly.

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MESSAGE FROM THE TREASURER

In case folks haven't read this interview with Elon Musk, I thought it was worth showing in the newsletter because it is a very "positive" outlook on the electric car future.



Vince Bucci / Getty Images

Powering Up: Musk hopes to bring electric cars to the masses

A Tesla In Your Future?

The electric car has been pronounced dead many times, but [Elon Musk](#) is out to resurrect it. The South African-born Musk left home at age 17 for North America and made a fortune when PayPal, a company he cofounded, was sold to eBay in 2002. One of his new companies—he's chairman of three start-ups—is Tesla Motors, a San Carlos, Calif.-based electric-car manufacturer. Its first model, the [Tesla Roadster](#), is a sleek, high-end sports car with an eyepopping price tag. It'll start rolling onto streets this summer. NEWSWEEK's [Fareed Zakaria](#) spoke to Musk about the future of transportation in an oil-constrained world. Excerpts:

Zakaria: What's your goal in producing the Tesla Roadster?

Musk: This car itself is not going to change the world—it's a \$100,000 sports car being produced in quantities of about 1,800 a year. Where it really becomes meaningful is when we produce the next models, which will be lower-cost and higher-volume. Our second product is a sedan that is about half the price and will be produced in late 2010 in 20,000 units a year.

And your third model will be even cheaper.

Yes. As a rough rule of thumb, when you increase the production quantity by a factor of 10, you can reduce the price by a factor of two. In the early 20th century, cars were initially something for wealthy people. It took quite some time for the cost to be optimized and become accessible to a broader population. It's the same thing here—we'll see the traditional [technology](#) learning curve. We're trying to push it as fast as we possibly can, and we think we could either directly or in partnership with a major auto company actually get to a car that is under \$30,000 in four years.

Your car runs exclusively on electricity, but GM and Toyota are working on so-called plug-in hybrids, which also feature a gas tank to extend the range. Why didn't you do the same?

We spent a lot of time last year looking at plug-in hybrids and ultimately concluded that it would not be a very good car. You're forced to compromise. Because you need both a gasoline-powered engine and a big battery, neither can be very good, and the engine will be a weak engine. It's just not where the future lies. We'll be able to offer a car with a 305-mile range roughly three years from now.

Join EVAOSD for the CCSE's 2nd Annual Street Smart Event!

What:

Street Smart is a free event showcasing green transportation strategies.

When:

Sunday, July 27, 2008

10:00 a.m. - 4:00 p.m.

Where:

California Center for Sustainable Energy

8690 Balboa Ave., Suite 100

San Diego, CA 92123

Most people travel less than 50 miles a day.

And 99 percent of travel is under 200 miles [a day]. There is the occasional road trip, but that's actually pretty rare, and for some people it's never. Our second model will address that rare case in two ways. One is to allow people to switch out the battery pack, so you can go to a battery-change station just like you'd go to a gas station. The second path is to have a high-speed charge. If you have a high-powered onboard charger, you can get an 80 percent charge in 45 minutes. If you're going from L.A. to [San Francisco](#), which is about a 400-mile trip, you can drive 200 miles, stop for lunch, charge your car in the restaurant parking lot, finish lunch and continue the remaining 200 miles to San Francisco.

What is your solution to the problem of needing a large or heavy battery in order to store a lot of energy?

I think what we'll see is an increasing amount of energy being stored in the battery pack and a lowering of the cost of the battery pack over time. It's not the only thing. The efficiency of the electric motor, the efficiency of the powertrain, the rolling resistance are all important.

Why is it so difficult to make a battery that can hold a huge charge for lots of time?

I think engineering is harder than physics, and I'm a physics guy. If you look at the improvement of battery energy density, it tracks to about 8 or 9 percent a year.

Do you think all cars will be electric?

Absolutely. In 30 years, a majority of all new cars produced in the United States, perhaps worldwide, will be electric. And I don't mean hybrid. I mean pure electric.

When you plug into an outlet, you're in effect plugging into coal, because a lot of the electricity produced in the United States is coal-fired. Does that bother you from a global-warming perspective?

I'm very familiar with the "long tailpipe" criticism. I have another company, SolarCity, which is the largest provider of solar power to homes and businesses in California. The solution is to get a SolarCity solar panel on your roof and then have an electric car. It takes actually only a small solar-panel setup—of about 10 by 15 feet—to generate 200 to 400 miles a week of electricity for your car.

A lot of people say solar is really only viable because of massive government subsidies.

That's a very simplistic statement. Solar is viable in certain parts of the country—depending on the local cost of electricity—without subsidies. Subsidies make it economically viable in more places than it would otherwise be. Like almost any industry, there are huge economies of scale. As solar gets bigger and bigger, it gets increasingly economically viable.

If you had a magic wand, what change would you make in America's energy policy?

I would certainly shift any subsidies on hydrocarbons to renewable energy. It's ludicrous to be subsidizing oil and coal and other things that clearly don't have a long-term future and bring great damage to the environment.

Would you like to see a carbon cap-and-trade system in the United States?

I'm actually a bigger fan of a carbon tax, just because it's a simpler thing to do than cap-and-trade.

What you're describing is a pretty optimistic future. You believe that American industry can successfully refashion the transportation sector to run on renewable energy?

I am actually fairly optimistic that we will solve this problem. But there's an important caveat there, which is, we cannot be complacent and just assume it will happen. There needs to be strong government action. There needs to be private investment; there need to be entrepreneurs that attack this problem. We will solve this problem—but only if we do all that.



(...continued from page1)

The broadcasts focused on the local shop's conversions including the restoration of Lloyd Rose's "Black Lightning" 2000 Hyundai Accent Conversion. When asked about the experience Lloyd Rose had this to say: "It is so great that Dave Stall and Dan Plante asked for our help and are wanting to focus on and support Electric Vehicles. They will be showcasing Alternative Vehicles and EV's every Monday morning on KUSI's Good Morning San Diego. We appreciate their support!"



(Bill's EV Grins continued from page 2)

Not to be out-done on 2300 B St. as commuters line up to and from work Mr. Q has a static display of two VW Cabarets (an EV & an ICE). Commuters can ponder the choice of gas or electric; while they sit in traffic with the engine running. Look for the rest of the story in "City Beat" a free publication at newsstands.

Thanks to Mark Maynard for listing our Meeting Notice in the Union Tribune "Car Calendar" http://www.signonsandiego.com/uniontrib/20060121/news_1dd21calend1.html.

Dan Wolfson bought new batteries for his Oxygen SLA scooter but he is still riding his Vectrix to work EVeryday. Dan reports that for the remake of the movie "The Italian Job" they had to modify the Mini-Coopers with electric motors to be allowed to film in the Los Angeles subway system. [http://listing-index.ebay.com/movies/The_Italian_Job_\(2003_film\).html](http://listing-index.ebay.com/movies/The_Italian_Job_(2003_film).html) for more info.

New member Marty Nelson has a Dodge pickup that he will be converting soon to an EV. He is serious about building an EV.

Dave Stall with 2 each radio & TV spots has started yet another spot on KUSI Morning News about what San Diegans are doing to beat the high cost of gasoline. Our president Joseph Gottlieb and Treasurer Lloyd Rose opened with the first broadcast 7/14/08 and Dave is working on getting Michael Kadie for the 7/21 broadcast. Watch it!

Street Smart is the next big EVent for EV in our region; it is a free event showcasing green transportation strategies. Look for it on Sunday, July 27, 2008 from 10:00 a.m. till 4:00 p.m. at 8690 Balboa Ave. in San Diego. The Keynote Speaker is Chris Paine of "WktEC" and the Solar Taxi that Lloyd Rose mentioned in last month's "Charged Up newsletter will be among our EVs on display. For more info www.streetsmartsandiego.org.

Just as the 5th C2EC2T EV Conversion Workshop is starting on July 28th Abràn Quevedo says, " I am looking into the feasibility of offering EV conversion workshops on weekends starting in September." The idea for weekend workshops came from potential EV owners who are not able to take time off for ten straight days to attend C2EC2T summer offering. Weekend workshop dates will be announced in August." Look for this announcement.

A "Kick Gas Festival" sanctioned by NEDRA and promoted by Paul Thomas is being scheduled for October 12, 2008 details to follow. Fastest EV???

Hot New Item to have: "Electric Car Conversions" is 1 hour and 45 minutes DVD that has been put together from guys in Florida with Ken Koch consulting. This DIY video can be ordered through Wistar at KTA. The back cover reads, "See how incredibly easy it is to convert your car to electric."

Thanks to EEverybody for your contribution to this page, keep charging ahead and stay plugged-in

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Subscription rates: \$12.50 per year (\$15 foreign, via sea mail) Additional newsletter items can be found on the E-newsletter at evaosd.com.

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