

Charged Up



ELECTRIC VEHICLE ASSOCIATION OF SAN DIEGO (EVAOSD)

An affiliate of the Electric Auto Association (EAA)

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Treasurer: Lloyd Rose

Program Chairman: Joseph S. Gottlieb

Newsletter Editor: Staff

Webmaster: Russ Lemon

Librarian & AV: Lloyd Rose

Regular Meetings: Our meetings times are changing. For this summer we are on the 4th monday of the month.

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

Place: Main Conference Room

Next Meeting: Monday, May 24, 2010 @ 7:00 p.m.

Program: General Topics

We are still on the move!

This month is at the CCSE.

MEETING DATE IS MONDAY, MAY 24th.

Local News:



Aptera might have misjudged how heavy they got. Youtube videos show the automotive X-Prize test track with a very saggy, door popping Aptera. Consumer reports posted this video at http://www.youtube.com/watch?v=GuQIRoE_jcE

On a good note, they are still in the running and have an excellent chance at winning the competition.

SDG&E Energy Showcase:

Thanks to all that participated! The show was a great success! Every year

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SDG&E likes to recognize companies that have made a reduction in energy consumption. The Showcase also provides a chance for businesses to show off products that help conserve energy. This was our 4th year participating in it and it was a good turnout. They have a banquet lunch that is always tasty and it's a good sense of how big business is making a difference too. See page 5 of the newsletter for pictures of us at the event.

Nissan Leaf Update:

YOKOHAMA, Japan (AP) - Nissan Chief Executive Carlos

Ghosn says the automaker has received 13,000 orders in the U.S. and Japan for its new electric car, the Leaf, exceeding production capacity.

Ghosn said Thursday the company is seeking to add capacity to meet demand. The first models of the zero-emissions Leaf will be delivered to customers in December.

Presidents Rant:

My favorite comment of the year is from a BP executive that said (in reference to the oil leak in the gulf of mexico) "at least the oil is biodegradable". While true, it's funny how even the worst disasters can bring out the best spin.

Everyone wants to blame BP except me. I know this is going to stir my inbox. I blame YOU! Wait...and me! I blame anyone that buys any fossile fuel. Yes, the oil companies are greedy, single purposed, monolithic government controlling entities without regard to human safety or humanity itself. We all know, knew, and will continually prove that fact year after year. HOWEVER, and that is a capital however. We run on Oil. We are addicted. We can not live in the lifestyles we have become accustom to without it (like a divorce settlement). So, when I see people

pick up their pitchforks and explain how the leaking pipe should be fixed by stuffing BP executives in it, I have to share some of the blame. After all, I did just fill up my gas tank, drank water out of a plastic cup while using a rubber non-skid pad to prevent my dimise in the shower. Am I happy the gulf of mexico is going to be a giant long john silver fryer? heck no. I just know I am not blame free. So drive gas free... Go Electric!

From the Treasurer:

Now that I have been involved in Electric Vehicle Assoc for awhile, I start to forget how much learning has taken place and that there are new people coming into the Association all the time. It can be an overwhelming process to try to learn the information important to each person, so I thought I would relay a recent question and answer session that I went through. It seems there are many things to learn.

Could you take a quick review of below questions, and please let me know if you have comments?

1) What do you think about this company?

<http://www.acpropulsion.com/>

2) In general, do you think the configuration with your vehicles are better than wheel hub motors?

3) Weego is about 2500 lbs, and realistically, do you think their FSV can run 70 MPH, 100 miles range? Do you think the FSV version of Weego will be 100 HP or more?

4) Most of small box cars in the market today are 2500 to 3000 lbs. What speed, HP, and range do you think we can achieve with \$15,000 conversion cost (price), say if we were able to do 50 vehicles or more?

These are I think, my first basic questions....

Thanks!

And here are my Brief Answers.....if you need more detail, let me know....

1. AC Propulsion has one of the best power trains out there but it is quite expensive. It has had this technology for 10 years and hasn't really improved upon it (chk Alan Cocconni (sp?) and the T-Zero). They like to only work with a large fleet programs and only do new production vehs not retrofit. (the BMW Mini program they did was expensive and makes no economic sense? One year lease on a E Mini at \$880 per month, then turn the car back in ?! (could lease the best Mercedes for that amount) They did 500 vehs and now BMW is not putting E Mini into production. I don't get it ? Huge outlay of money for what result....)
2. Wheel hub motors are not powerfull enough for the weight of freeway capable vehs and they also become "unsprung weight" which can ruin the motors and the veh suspension. They also are usually unsealed and because the openings are near the tires/wheels the water splash and dirt enter the motor and ruin it in no time. (People keep trying to use them... and I haven't seen any that work out....some scooters perhaps have shown success maybe)
3. The freeway version of the Wheego will go 70 mph. It could probably go 200 miles range at 25 mph on level ground. At 70 mph up hills the range could be 30 miles? Funny how people don't define "range". (Also, nobody asks this question about "gas" cars .) Again, horsepower has to be defined.... is it hp at the motor?, at the transaxle? , at the wheels ? etc etc (I have driven the Wheego...it works well....)
4. Speed is not a problem, they will go as fast as you gear them. (standrd 4speed manual will get you 90MPH) HP is not a problem...bigger motor more HP.

Range, Range Range! is always the problem (which goes back to question 3.) Lighter veh, more effecient motors, regen, better batteries, aerodynamics, etc etc all effect "range" . The only solution I have really seen for "range anxiety" is to have a generator.. ie Chevy Volt idea. But very very difficult. (and your back to poluting again.)

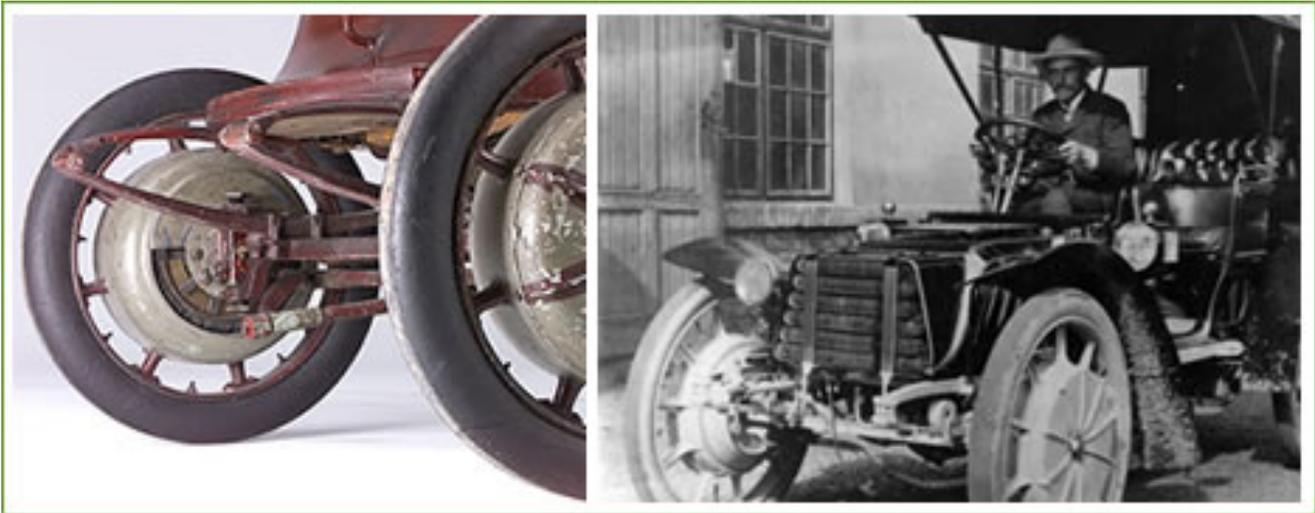
So we live with short range (under 100 miles for very efficient car and under 50 miles for less expensive conversion). (Electric cars can work as your 2nd car....) Batteries get better butthat is a whole discussion in itself.

The good part is that EVehs do work! I can drive my EV many days and never touch my gas vehicle! Its quiet, its clean, its much cheaper than buying gas, money isn't going to people who hate us and even better...its fun !

Hope this helps,
Lloyd Rose

Anyway, we should probably try to revisit many of the questions that newer people might have in this area of Electric Vehicles and we will try to continue to publish questions and answers if it seems worthwhile to members.

HISTORY Corner by Al Hodges



Ferdinand Porsche, one of Lohner's employees, developed a drive system based on fitting an electric motor to each front wheel without transmissions (hub mounted). The front wheel driven, gasoline-electric Lohner "Porsche" entered in the 1900 "Semmering" race, driven by

Dr. Porsche himself. Lohner produced a number of hybrid petrol- electric cars with the gasoline engine driving a generator to produce the electricity to drive the electric motors.

Ferdinand Porsche invented the 4 wheel drive, a Hybrid Vehicle.

History Trivia:

1839 – Moritz von Jacobi sailed an electric boat on the Neva, with the help of an electromagnetic engine of one horse- power, fed by the current from a battery of Grove cells.

1882 – A screw launch, carrying several passengers, and propelled by an electric motor of three horse-power, powered by forty-five accumulators, was tried on the Thames.

1879 – The first electric "railway" was built by Dr. Werner von Siemens. The wheels of the car were driven by an electric motor drawing its electricity from the rails which were insulated from ground and connected to a generator.

1906/7 – The Liege, Belgian Auto-Mixte Hybrid used technology called the Henri-Pieper system. A 24 hp gasoline engine drove via a magnetic disc clutch, a motor dynamo, connected to a transmission without a gearbox, and then the rear wheels by chain final drive. Normally the engine alone could be used to propel the car. When the load was light or braking required the dynamo driven by the engine or the final drive (Regenerative braking,) could be used to charge a bank of 28 Tudor batteries in series. When the load was heavy the battery could be used to drive the dynamo as a motor to assist the engine, or the electric motor could be used to drive the car on its own. An electric, hand operated controller selected the required configuration. The clutch disc was part of a magnetic brake.

SDG&E Energy Showcase Photos



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: Saturday, June 5th 2010
Time: 9:00 AM to 1:00 PM
Cost: \$60.00 (includes materials and lunch)
Location: Kick Gas Co-Op, 815 University Ave, San Diego CA
Website: <http://kick-gas-club-electric-conversions.com/>
Contact: quevedo@cox.net



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.

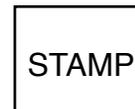
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Please make check or money order payable to: EAA and reference EVAOSD. Send this form and payment to: Lloyd Rose, EVAOSD Treasurer; 2755 Dos Aarons Way, Suite A, Vista, CA 92081

EVAoSD Newsletter

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