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### MEETING REVIEW -

The June 14 and special conversion meeting on the 28th went well.

On June 14th, Keith Spradling, of Keith's Kars, covered purchasing new EVs as well as registration, insurance, and finance information. To contact Keith for more information call him at 775/741-4652 or visit him at his 'Kar' lot at 13203 S Virginia St, Reno.

At the June 28th special conversion meeting we decided to place a member's resource page on the website for folks who are attempting conversions. There you will find folks possessing various talents needed to perform conversions. Feel free to call them and ask questions! The webpage is not public, hence it is not listed on the home page. It is located at this URL: <http://electricnevada.org/member.htm>. Please bookmark it for future reference! And if you want to be added as a resource please contact Bob Tregilus, 826-4514.

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### EVENTS CALENDAR

SUSTAINABLE LIVING & RENEWABLE ENERGY ROUNDUP, 8/10 - 8/12 -
Western Nevada College, 1680 Bently Parkway South, Minden, NV.
Map: http://tinyurl.com/38tdat

Sunrise Sustainable Resource Group <http://cvsustainables.org> has given us free booth space for this event! Volunteers needed, please contact Bob at 826-4514 for more information. Bob will be doing a presentation \_Electric Vehicles and the 21st Century\_ on Saturday, August 11 from 9:30 - 10:15 A.M. in the Gazebo at Ferris Park in Minden.

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### LISTSERVS - GET INVOLVED AND INFORMED VIA EMAIL!

Besides the two club listservs (see the ATC website for more information) Bill Brinsmead alerted us to a national list. The Electric Vehicle Email Discussion is located at http://www.madkatz.com/ev/evlist.html.

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### WATTS UP? -
by Bob Tregilus, ATC Chair

The ATC was very busy in June. Frankly, I lost count of the events we were at. Of note, however, was the Tour de Nez bicycle race. We had a fantastic showing of EVs! Thanks to all who contributed! Besides members and various drop-ins the Altairnano folks were directly across the street from the ATC booth. So not only did we have a variety of ATC member vehicles for the public to ogle but there was a Phoenix Motorcars SUT there as well! The SUT was being used as a nonpolluting pace car for several of the bike events. You can view pictures of the ATC booth and the Phoenix SUT, as well as a couple of very interesting electric bicycles at this URL: <http://www.scwi.us/neal/pics/tourdenez/>. These pictures will be organized, given captions, and posted to the website at a later date.

ATC treasurer, Peter Fletcher, is doing a fantastic job negotiating with Who Killed the Electric Car writer/director Chris Paine. Tentatively, we will have Chris address the group and show clips from his film at either the November or more likely the January meeting!

In October we are hoping to have Altairnano address the club at the National Auto Museum. This will be a special Saturday event. Members will be able to get discounted tickets to the museum at \$7.00 for adults. So, after the Altairnano and Phoenix Motorcars presentation you will have the rest of the day to enjoy the fantastic displays of the world famous Harrah's Auto Collection. It is likely we will have a Phoenix SUT at the presentation - possibly for a ride and drive! Of interest are the three EVs in the Harrah collection: a 1912 Baker Electric V Special Extension Coupe (formally owned by Andy Griffith), a 1973 Battery Box Experimental Electric Streamliner, and a 1914 Detroit Electric 46 Gentleman's Roadster.

Be sure to make note that we are now holding two meetings a month. There is the regular meeting for general information purposes and a special conversion meeting. The next conversion meeting will feature the film Convert It. That will be on July 26 at the usual location. (Please see meeting information at the beginning of this newsletter.)

Finally, ATC member's are encouraged to join the Electric Auto Association, of which we are a chapter. You can join at this URL: <http://www.eaaev.org/eaamembership.html>

Please be sure to say you are a member of the Alternative Transportation Club so that we benefit from your membership.

See everyone at the next meeting on the 12th!

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### TIPS FOR PURCHASING A USED ELECTRIC VEHICLE  
by Neal Peters

Since I was about 4 years old, batteries and electric motors fascinated me. Then I discovered internal combustion engines (ICEs) and what it could do for a mini bike. Other than for air compressors and bench grinders etc., I forgot all about our friend the electric motor.

Ten years ago I rekindled my fondness for battery powered electric motors and how they applied to electric vehicles (EVs). A big part of the reason was because I spent the last 25 years as an ICE mechanic, a motorcycle mechanic to be specific. I grew tired of the constant need for repairs, it was dirty work. ICEs, when running, are basically tiring to blow themselves up.

In 1996 a friend and I converted a 1970 Honda CT90, or Trail 90, to electric. I still ride it on most nice days.

You can be driving an EV too! Finding a good used EV is easy.

If you're interested in buying a used EV you may find them to be more plentiful than you thought. There is a plethora of used EVs out there, in states of condition ranging from being turn key to needing complete rebuilds.

Last October I decided to try to find a good used EV. I was looking for a car that was already converted. I'm fairly handy at mechanical and electrical but didn't want to spend \$10,000.00 on a conversion kit plus about 200 hours converting a car.

The point is you can find a used electric car already converted with low time on it from \$4000.00 on up. I've found most just need a new traction pack (the batteries that provide power to move the car) and a new auxiliary battery plus maybe an upgrade or two like new wiring, fuses and a DC/DC converter to charge the auxiliary battery that runs the lights, horn and other 12vdc auxiliary systems.

If your looking for a vehicle that's ready to run plan on spending at least \$10,000. You'll find most of the good deals are from people who really need to get rid of the vehicle. In most of these cases the traction pack has been dead for years and the person can't afford the \$2,000 for a new one.

If you find a vehicle that has been sitting for years look out for corrosion on the motor and other electrical components, especially if you are looking in an area that is either costal or where the roads are salted in the winter. Chances are if there is corrosion on the outside of the motor there will be a significant amount on the inside as well.

You should look for a newer conversion; from the late 80s up the DC components were more modern. If you get into a 70s to early 80s conversion the controllers and other components tend to be noisy, large and clunky.

There are many AC conversions out there too. At any given time you may find a Solectria or U.S. Electricar AC conversion for sale. These were professionally converted and most have heat, air and power everything. The components that Solectria used are still available, which is a must in my mind.

Many of the other AC EVs you will see for sale are factory built like the Ford Ranger pickups starting from the 1998 model with a lead acid traction pack to the early 2000 models which used Nickel-Metal Hydride batteries. These range in price from about \$12,000 to \$28,000 with the NiMH pack. Most have fewer than 10,000 miles on them. You'll also find the Chevy S10 and Toyota RAV4s for sale.

The only problem with these factory EVs is the components are proprietary and very hard if not impossible to find. For example, the controller for the Ranger - if you can find one - sells for \$3,000 used. You'll need a factory computer interface and software to do any troubleshooting if you have a problem.

So unless these issues don't bother you, I would stick to a DC conversion where there are many places out there to find replacement parts.

Here are a few of the places I look for used EVs:

\* <http://www.austinev.org/evtradinpost/>

\* <http://evfinder.com/classifieds.htm> (Scroll down the page to find eBay ads.)

I also do searches on eBay in the category: eBay Motors > Cars and Trucks using search terms such as - electric car, electric vehicle, EV, and BEV.

I ended up buying my EV from <http://www.voltagevehicles.com>.

Good luck and happy E-Tripping!

Neal Peters is the former owner of a motorcycle shop in the Clear Lake region of California. He is a long time eBay trader as well. Neal is very well read on the topic of EVs and is willing to help with advice on buying or building an EV. You may contact Neal at 541.973.8289 or [neal\(at\)scwi.us](mailto:neal(at)scwi.us).

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### EVs IN THE NEWS -

PLUG-IN HYBRIDS: POWER COMING AND GOING -

"There's a new technology in cars that could save gas and stop construction of new power plants - and Austin [Texas] Energy is leading the field in its development."

Full story here:

<http://tinyurl.com/367ozg>

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SOLAR POWER TO JUICE THE MOTOR BIKE? PANEL UP -

"I'd been riding for years before I learned motorcycles' dirty little secret. Mile per mile, some bikes actually spew more gunk into the air than cars, pickup trucks or SUVs, even if they do use less gas. It was a sickening realization, since I'd spent so much time believing the opposite was true."

Full story here:

<http://tinyurl.com/2jy4sc>

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EV PUSHER PROJECT -

"Electric vehicles are great for around-town driving. Clean, quiet, and up to the task of keeping up with urban traffic. Longer trips can be difficult. The problem is that they do need to be recharged. Mine has a range of approximately 40 miles, so a trip to, say, Portland (100 miles) would require two stops to charge, at about 8 hours per stop. Obviously, this is unworkable in terms of convenient traveling. What's needed is a way to convert the EV into a hybrid for longer distances. Enter the EV pusher trailer, which allows me to have an internal combustion engine to drive the EV forward longer distances when needed, but is detachable for around town use when I want to drive as a pure electric vehicle."

Full story here:

<http://www.mrsharkey.com/pusher.htm>

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PLUG-IN HYBRID EVS: HOW THEY'LL SOLVE THE FUEL CRUNCH -

"Efficient, affordable, 110-volt-powered vehicles could be on dealers' lots within three years—if engineers can get the lithium-ion batteries right. Popular Mechanics unravels the technology and crunches the numbers."

Full story here:

<http://tinyurl.com/24ag48>

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THE 100-YEAR-OLD ELECTRIC CAR -

by Jay Leno

"All the current interest in hybrids and other vehicles with some sort of alternative powertrain is kind of amusing to me. Oh, don't get me wrong. I'm all for pursuing other ways to power cars. But I smile because I've owned three alternative energy cars for years. The newest was built in 1925; the oldest, 1909. Each one is a rolling

manifestation of a brilliant idea. Sadly, they were all way ahead of their time and all three makes failed."

Full story here:  
<http://tinyurl.com/29a35v>

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SUSTAINABLE TRANSPORT  
by Stephen Heckeroth

"The problems associated with petroleum dependent transportation are only partially understood and generally ignored. Oil depletion, pollution and climate change are only the most obvious reasons to phase out the use of oil. Less obvious reasons are the impact of automobiles on communities, the economic implications of spending \$1 billion a week on foreign oil, and the \$100 billion a year spent on the treatment of diseases caused by poor air quality. Our survival depends on maintaining air, water and soil quality. The transition to a global economy is making transportation an ever-increasing part of everything that is purchased. This paper will suggest alternatives to oil dependent transportation."

Full article here:  
<http://tinyurl.com/32gy9b>

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THE 1963 ELECTRIC TYPE 34 KARMAN GHIA  
by Stephen Heckeroth

"The 1990 California Zero Emission Mandate fueled an electric vehicle Renaissance [sic]. My company, MendoMotive, came into being as a result of the prospect of mandated electric car sales in 1998. The company converted one Pontiac Fiero, one Volkswagen Vanagon, one Volkswagen Type 34 Karman Ghia, and produced 4 electric Porsche Spyders, between 1992 and 1994. All the cars used off-the-shelf, inexpensive DC technology. Sales projections were good for 1995 but that year the auto industry and the oil companies spent \$30 million to turn public opinion against electric vehicles and push back the Mandate to 2003. MendoMotive went out of business but the cars produced are still on the road. This report focuses on the Karman Ghia which is used daily by the Heckeroth family."

Full story here:  
<http://tinyurl.com/371326>

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ARTICLE CONTRIBUTIONS AND LEGAL STUFF -

CONTRIBUTIONS -

Your article contributions and letters to the editor are welcome! Please submit original articles to Bob Tregilus: lakeport104@yahoo.com. In the interest of accuracy you are requested to provide citations for any facts stated in your article(s). This is a "plain text" eNewsletter and as such no photographs can be published. All contributions maybe edited for length and clarity. They may be messed up by mistake as well. Warning: dyslexic editor at work!

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COMMENTS -

Please call 775 826-4514 or email your comments to Bob Tregilus at <[lakeport104@yahoo.com](mailto:lakeport104@yahoo.com)>.

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