

Director's Message

By Joseph Oldham

For those of us that live and work in the San Joaquin Valley, the challenges we face with regard to improving our air quality are not new. Every year, we see various reports that show the Valley having some of the worst, if not the worst, air quality conditions of any place in the United States. It is easy to become discouraged or worse, even cynical, about this issue from year after year hearing the same message.

So this first Director's Message for the San Joaquin Valley Clean Transportation Center is not going to "beat that dead horse." Instead, I want to talk to you about the opportunities for a cleaner and lower cost Valley transportation future through new technology that is here now and expanding rapidly across California.

We know that we live in a region where the automobile is almost an essential for living (some folks will argue that they are an essential, but we won't get into that debate). As such, Valley residents spend significant portions of their household budget on things such as gasoline, car maintenance and repairs, and insurance. Battery-electric and plug-in hybrid electric cars offer an easy way to save significant portions of those monthly car costs through reduced or no gasoline purchases and reduced maintenance. I know this is the case because I own a 2013 Chevrolet Volt plug-in hybrid electric car, have driven it more than 76,000 miles, and tracked my costs. I also own a 2007 Toyota Tacoma truck, for which I also track the costs. I drive the Volt about 22,000 miles per year, and I have seen the cost savings owning the Volt compared to the Tacoma.

This is what I found:

- My normal work commute each week is just under 40 miles per day, so the Volt's all-electric range of 40 miles on a charge allows me to operate most days as an all-electric vehicle using no gasoline. Cost for electricity using the special electric vehicle charging rate, EVA, from PG&E translates to about \$1.32 per day. Using my 4-cylinder Tacoma truck to do the same commute while getting 22 mpg, costs \$4.33 per day. Using the Volt saves \$3.01 per day, which adds up to \$60.20 per month or **\$722.40 per year just on fuel for commuting.**
- The Volt only needs once-a-year oil changes because the gasoline engine runs so little. My Toyota truck needs four oil changes to go the same 20,000 miles per year at about \$50 per change.
- With the Volt, I can expect the brakes to last for 200,000 miles easily (my 2004 Toyota Prius still had the original brakes when I sold it with 204,000 miles on it) due to the regenerative braking through the electric motor. I have replaced the front brakes twice on my Toyota truck in 100,000 miles and the last cost was more than \$250.
- The Volt has no transmission to service, so the transmission fluid does not need replacement and I never need to worry about the transmission failing. My Toyota requires transmission service every 80,000 miles and costs about \$170. I can't imagine how much a transmission overhaul would cost!

Finally, the concern I hear from people unfamiliar with hybrid electric technology is about battery life and the cost to replace the battery system. Yes, the batteries are expensive, but the manufacturer warranties the main drive battery for 150,000 miles. Again, my 2004 Prius had 204,000 miles on it with no battery issues when I sold it in 2012, so I am not concerned about the battery life of my Chevy Volt.

Real experience with this technology has made owners of electric and hybrid electric cars the best advocates for the vehicles. I recently was talking with a friend of mine from Fresno that owns a Tesla Model S and he told me he will never buy a gasoline-powered car again. That is a powerful statement when you consider he has the financial ability to afford a multitude of car choices and chooses to only own a battery-electric car! My friend is a smart, successful local business owner and has run the numbers; electric cars make good financial sense!

And here is the best news for those of us that live in the San Joaquin Valley – these new electric and hybrid electric vehicles have zero or near zero emissions! That means every mile you drive in an electric or plug-in hybrid electric vehicle instead of driving that same mile in a gasoline or diesel-powered vehicle, you help us all solve that pesky air quality problem we have been living with for decades. What a great deal; you save money and help your family, neighbors and friends all breathe better and live longer!!

So the next time you are considering purchasing a new or used vehicle, please consider an all-electric or plug-in hybrid electric. Used electric and plug-in hybrid electric cars are starting to be available at dealers, and incentives are offered by our Air District, the State of California and the Federal government for new electric or plug-in hybrid electric car purchases. To find more information about the incentives from the San Joaquin Valley Air Pollution Control District for purchase of electric or plug-in hybrid electric cars, go to this link:
<http://valleyair.org/grants/driveclean.htm>.

Next time, we will be talking about how buses and trucks are being cleaned up through electric drive systems. Until then, remember that this is our Valley, our air and our responsibility to keep it clean! Let's all work together to make a difference in our air quality!

"The CALSTART San Joaquin Valley Clean Transportation Center is a joint project between CALSTART and the California Energy Commission. It is funded through a grant from the California Energy Commission with the mission to assist residents and businesses in the San Joaquin Valley deploy cleaner transportation options to help improve air quality and promote economic prosperity. For more information about CALSTART, visit www.calstart.org "