

# **Travels With Tesla: A Doctor's Electrifying Journey**

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One typical sunny California morning, El Camino Hospital anesthesiologist Phil Stillman turned on his computer and began planning a driving tour in his new electric car. He poured a cup of coffee and began studying a map. This was no ordinary car map, however, it was a detailed map of electric supercharger stations that he would depend upon during his travels with his sleek, shiny, burgundy Tesla Model S. There was a feeling of both excitement and apprehension, as some unknowns lay ahead. How many miles would he really get on a charge? What if he ran out of battery before the next charging station or the station was closed?

We asked Dr. Stillman a few questions about his first electric car tour and how it went.

Question: Where did you travel on your journey and with whom?

Answer: My wife, Siggie, and I drove to Disneyland!

Question: What resources did you use on the web?

Answer: We mapped out our proposed route using Google Maps and the Tesla site, which had a list of all the supercharger stations. We also researched hotels, which advertised on-site charging stations.

Question: Did you have to bring anything special or unusual "just in case?"

Answer: I brought the Tesla mobile connector with adapters so I could plug into public and private J1772 charging station.

Question: What was your greatest fear before you started your journey?

Answer: No fears! Concerning "range anxiety," i.e., apprehension about charging, there was very little (except our Santa Barbara experience below). The supercharger stations are 150 miles or less apart and the range of the car is 260 miles, so there was a lot of margin for error.

Question: What was your hardest day and what happened?

Answer: We spent the night in Santa Barbara and planned to charge the car up fully, so we could drive north on 101 and cut over on 46 to the supercharger station at Harris Ranch (200 miles). Because the charging station at our hotel was so slow, we could only charge to 210 miles, overnight, and I wasn't willing to take the risk. Instead of going north, we had to head south a bit, cut over northern Ventura County to I-5 and up to the supercharger station in Lebec, at the foot of the Grapevine. It took extra time, but we enjoyed driving through the citrus orchards.

Question: What was the most fun part...besides driving the car?

Answer: It was fun hanging out at the supercharger stations with the other Tesla owners. At the one in Hawthorne, we met a guy who saved for ten years for his "dream car" and decided to get a Tesla. He was a truck driver and knew more about the car than anyone I'd met.

Question: Overall how would you rate the performance of the car and compare to other cars you have owned?

Answer: By far the best performing and nicest riding car I've ever owned!

Question: Any other amusing stories?

Answer: We went to an event sponsored by the Tesla Motors Club and I got to ask Elon Musk if we were going to have a Model S Hot Wheels. He suggested asking Mattel, so I started a petition, and it's now before the head of the Hot Wheels division.

## **Tesla Has Cracked the Code**

Sales of the Tesla have skyrocketed in 2013. In the first half of 2013, it was the top selling luxury car with 8.4% of the luxury car market, with 9,850 cars sold. Overall, electric car sales have jumped in the last two years. Since 2011, more than 131,000 electric autos have been sold in the U.S., and half of them in 2013, according to the Electric Drive Transportation Association. One-third of those cars were sold in California. The popularity of all electric cars was given a jump-start by Tesla. Thilo Koslowski, who is chief auto industry analyst at Gartner, Inc., states "Tesla has cracked the code of making an EV a desirable product to have, rather than just a frugal car appealing to people who want to eliminate the use of fossil fuels and help the environment. The mass market appeal is not there yet, but every manufacturer is chasing EVs that enable full range (without gasoline backup) at the right price point."

## **Award Winning Car With the Highest Safety Testing...Ever**

Tesla's sleek Model S was unanimously voted *Motor Trend's* car of the year for 2013. It was the first time an all-electric car has won. *Consumer Reports* has listed the Tesla Model S as its top scoring car for 2013.

"It drives like a sports car, eager and agile and instantly responsive. But it's also as smoothly effortless as a Rolls-Royce, can carry almost as much stuff as a Chevy Equinox, and is more efficient than a Toyota Prius," *Motor Trend* writes. "By any measure, the Tesla Model S is a truly remarkable automobile, perhaps the most accomplished all-new luxury car since the original Lexus LS 400."

In August 2013, Tesla's Model S sedan captured a perfect score of five stars in all categories of the crash safety tests conducted by the National Highway Traffic Safety Administration. In fact, it was the safest car ever tested by the agency.

## **Electric Car Options**

Although the price tag for a Tesla Model S is not one affordable by many, the company is working on another model that will sell for about \$35,000. Other all-electric cars on the road are the Nissan Leaf, which is about \$30,000, and the Chevrolet Volt, which is about \$40,000. There are also plug-in hybrids made by Toyota, Honda, Ford, and others that you can connect to a household wall socket. As electric vehicles go mainstream, more and more charging stations are being installed by small businesses and major corporations. At a recent electric vehicle show at the S.F. Exploratorium, more than 50 corporate executives showed up alongside Governor Brown to cheer the next generation of electric automobiles and trucks.

## **Going Solar to Fuel Your Auto**

Dr. Stillman has ventured even farther into sustainability by installing solar panels at his home, to power his Tesla. While stated EPA miles per gallon are higher for electric cars (80-120 mpg), they currently do not take into account the extraction, transportation, and refining of gasoline, the combustion efficiencies or thermal energy transfer of fossil fuels from the power plant to your home. When the math is done, the actual MPG is closer to 25 to 50 mpg, depending on the energy source. (4)(5) The analysis still favors electric cars, as they are zero emissions on the road and electricity from the grid can be generated from renewable resources such as solar, wind, and biofuels. In the U.S., 30 of 50 states have Renewable Portfolio Standards (RPS), regulations that require increased use of renewables in energy production. California's RPS, signed by Governor Schwarzenegger in 2008, requires that electricity sellers derive 33% of their energy

from renewable sources by 2020.

In addition, electric cars are simpler machines with fewer moving parts and lower maintenance. While we still need to keep working on curbing our addiction to those pesky fossil fuels, we can have an exhilarating experience at the same time. Dr. Stillman has found a way to reduce his global-warming footprint and get that “Tesla Thrill” every day. To those of you who also own a Tesla, you know what that means.

1. 2013 *Motor Trend* Car of the Year: Tesla Model S. [http://www.motortrend.com/oftheyear/car/1301\\_2013\\_motor\\_trend\\_car\\_of\\_the\\_year\\_tesla\\_model\\_s/viewall.html](http://www.motortrend.com/oftheyear/car/1301_2013_motor_trend_car_of_the_year_tesla_model_s/viewall.html)
2. Automobile of the Year. [http://www.automobilemag.com/features/awards/1301\\_2013\\_automobile\\_of\\_the\\_year\\_tesla\\_model\\_s/viewall.html](http://www.automobilemag.com/features/awards/1301_2013_automobile_of_the_year_tesla_model_s/viewall.html)
3. A Decade Later, Tesla Now Officially a Threat to the Auto Industry. <http://gigaom.com/2013/08/26/a-decade-later-tesla-now-officially-a-threat-to-the-auto-industry/>
4. Electric Vehicles: Compare Side-by-Side. <http://www.fueleconomy.gov/feg/evsbs.shtml>
5. Do the Math. MPG Electric Cars. UCSD Physics. <http://physics.ucsd.edu/do-the-math/tag/car/>