



Why You Shouldn't Wait Until Your Gas Car Wears Out To Get An EV

During some discussions about electric cars with gas car drivers, there are often comments that it is better to be driving an older gas car as long as that car is functional than to replace it with an electric car because the manufacturing process for new cars is carbon intensive. If we care about slowing climate change, this is the wrong thing to do.

During the last decades of the 20th century, environmental and sustainability organizations advocated keeping cars for many years rather than buying a new car every few years as the most sustainable practice. The reason given was that manufacturing the car was so carbon intensive that the car should be kept for its full useful life.

That advice was fine as long as all cars burned gas or diesel, even though the government's corporate average fuel economy standards mandated that the newer cars be cleaner and burn less fuel. After 2008 when electric cars became available in the Bay Area this was exactly the wrong advice for anyone concerned about climate change.

The recommendation from the 20th century does not apply to replacing a gas or diesel car with an electric car for a variety of reasons. Gas and diesel car drivers who are concerned about climate change should be switching to an electric car just as soon as it is financially possible for them to do so. They are doing far more damage to the environment by keeping the gas car than by replacing it with an electric car.

- Gas or diesel cars burn fossil fuels and use engine oil, and as a result produce greenhouse gases directly from the tailpipe and cause greenhouse gases and pollutants to be released in the production of the fuels and lubricants. For example, Roughly 60 per cent of the greenhouse gases produced in Marin County are from vehicles with internal combustion engines. The longer drivers keep their gas cars, the longer they keep causing climate change. An electric car produces no emissions. Solar electricity and purchasing 100% GHG-free electricity make it possible to drive without any emissions produced by the car or by generating the electricity for the car.
- Buying gasoline funds the tar sands mining, oil drilling, fracking, refining, and transportation of fossil fuels. Demonizing the oil companies for operating the tar sands mining, fracking, building pipelines, causing oil spills, or refinery fires won't cause them to stop as long as consumers keep paying them at the gas pump to keep on extracting fossil fuels.
- Many of the car manufacturing plants throughout the world use solar arrays and wind power for their electricity. Some factories have living roofs and most have implemented significant energy saving measures to the extent that some are zero net energy facilities. Manufacturers have initiated zero waste programs and new electric cars include many recycled components and are made with recyclable materials. The carbon footprint for manufacturing cars is far lower than it was during the 20th century.
- As a gas or diesel vehicle gets older it produces more pollutants. Over the years the engine and emissions control components slowly wear out making older cars more polluting. An internal combustion engine car is the cleanest when it is delivered to the consumer. From that point on it gradually becomes dirtier. Every gas car is polluting more now than when the driver first got it. An electric car tends to become cleaner over time because the electric grid

is getting cleaner. Every business day new solar is added to the grid in California as well as throughout the world. There are now more than 200,000 solar roofs in PG&E's electricity delivery territory alone.

- Leasing or buying an electric car creates more demand for electric cars. The auto makers respond to consumer demand and will make more and better models available if there is more demand. Increased production volume of electric cars will result in lower prices. For consumers with good credit, leasing an electric car may be considerably more economical than buying the car. Leasing also has the advantage that the car can be turned in at the end of the lease for a new electric car with newer safety features, autonomous driving features, and better connectivity and entertainment systems. The federal tax credits and state rebates reduce the cost of leasing so that the used EVs turned in at the end of the leases end up on used car lots at very reasonable prices. This makes it possible for people who may not be able to afford a new car or may not want a new car, to switch to an electric car. A driver leasing an EV now will help another family drive an electric car in a few years.
- Older gas cars tend to have higher maintenance costs, especially if the car is no longer under warranty. Electric cars do not need oil changes, tuneups, or smog checks. A new electric car will cost much less to operate and maintain. The cost of electricity is 2 - 4 cents per mile — far less than gasoline. Driving a new electric car will cost the drivers much less than driving their current gas car and will offer a far better driving experience than their gas car.
- Used gas cars that are traded in are recycled if they have little value. Serviceable newer gas cars will go to the used car dealers and will be purchased by drivers who are trading in an older even more polluting car that will be recycled. So there is an overall reduction in pollution and greenhouse gases that occurs as older gas cars are traded in for new electric cars.

Any discussions about keeping a gas car as long as possible provide an opportunity for us to dispel the myth that keeping a gas car for a long time is best for the climate. Please help us educate drivers that the most effective step they can take to slow climate change is to replace their gas or diesel cars with electric cars as soon as possible. The latest CARB projections show that California will not meet its GHG reduction goals without a much more rapid transition to electric transportation than is currently happening.

If it appears that drivers have difficulty deciding if the advice from years ago should keep them from replacing their gas car with an electric car, just ask them to consider which choice the petroleum industry would prefer that they make.

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