



# Electric Vehicles

## Frequently Asked Questions (FAQ)



### *“Why should I drive an Electric Vehicle (EV)?”*

There are many reasons to drive an EV. Here are some of the most compelling:

**Better Fuel Economy** - Go 100 miles on \$4 of electricity. That’s 4 cents per mile!

**Never Visit a Gas Station Again** - Use domestically produced, publicly regulated electricity instead of foreign oil which is always subject to volatile price swings. Don’t waste time looking for the cheapest gas and pumping it. Studies show gasoline nozzles are some of the dirtiest places we touch in public!<sup>1</sup>

**Clean Energy** - Electricity can be made from many different clean, renewable fuel sources. If you have solar, your cost can be much cheaper.

**Good for the Environment:** In addition to using a much cleaner fuel source, depending on how the electricity is generated, there is a significant reduction in greenhouse gas (GHG) emissions, nitrogen oxide (NOx), and other pollutants over petroleum based vehicles.

**Practicality** – Driving range of EVs exceeds the distance most people drive each day, which is estimated to be less than 40 miles. EVs require no warm up period before driving.

**Silent and Smooth** - Electric motor is whisper quiet with no vibration. When you stop the car, there’s no idling, no wasted energy. Imagine how quiet all EV roadways would be!

**Reliable & Extremely Low Maintenance:** There are very few moving parts and almost no maintenance. For a short video comparing EV and combustion engine components, click [here](#).<sup>2</sup>

**Performance** - Instant torque and quick acceleration make driving fun again. There’s no “wind up” to power like in a gasoline/diesel engine. This is why most EVs can beat most gasoline/diesel powered vehicles off the line.

**Carpool lane:** All EVs can legally use the carpool lane at any time regardless of number of occupants with an Air Resources Board (ARB) white sticker.

### *“OK, but I’m still worried about the lack of range with EVs.”*

This is known as “range anxiety”. The reality is most people’s daily driving is less than the full range of most readily available EVs (70-80+ miles). In fact, a study from MIT and the Santa Fe Institute concluded **87%** of the vehicles on the road today could be replaced by an EV, *even if there’s no possibility of recharging during the day.*<sup>3</sup> Like your cell phone, you plug it in at home, charge overnight, and have a full “tank” in the morning. Battery technology is advancing rapidly, and affordable vehicles that can exceed 200 miles on a single charge are here. General Motors introduced the Chevy Bolt (EPA estimated

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<sup>1</sup>“Gas Pump Handles Top Study of Filthy Surfaces,” Reuters, Oct 25, 2011:

<http://www.reuters.com/article/us-usa-health-filth-idUSTRE79O0G820111025>

<sup>2</sup> Morris, Charles, “VIDEO: Just how does an EV work, anyway?” Charged: Electric Vehicles Magazine, June 8, 2017:

<https://chargedevs.com/newswire/video-just-how-does-an-ev-work-anyway/>

<sup>3</sup> Needell, Zachary et.al, “Potential for widespread electrification of personal vehicle travel in the United States,” Nature Energy, Aug 15, 2016. <http://www.nature.com/articles/nenergy2016112>

mileage: 238, MSRP \$36,620) and Tesla released the lower cost Model 3 with similar range and price in February 2019. There will also be at least 20 EVs with over 200 mile range on the market by 2020.<sup>4</sup> Current research efforts could lead to an EV with 500 mile range within the next ten years!<sup>5</sup> In the meantime, for that occasional long trip, take the gasoline and maintenance money you're saving and rent something nice! Might as well put those miles on someone else's vehicle! Also, most families have two cars; why not make one of them electric?

### ***“Is there really no maintenance?”***

There are NO: oil changes, smog checks, tune-ups, transmissions, water pumps, fuel pumps, starters, alternators, belts, spark plugs, fuel injectors, mufflers, gas & oil filters, and only a few hoses. Brakes last much longer than those on gasoline powered vehicles due to regenerative braking as energy from slowing/stopping an EV actually recharges the batteries. The simple drivetrain has few moving parts to repair or replace. Maintenance typically consists of tire rotation, windshield washer fluid refill, and wiper blade replacements!

### ***“What about the battery? I hear that's expensive to replace.”***

It's true, the battery is the single most expensive component of an EV. Over many cycles battery capacity (and thus range) can diminish. Heat, aggressive driving, and deep charging (i.e., fully draining the battery frequently) have all been shown to reduce range. Many manufacturers include 8-10 year or more warranties on the battery. There are also things you can do to minimize degradation, including buying a vehicle that liquid cools its battery, avoiding driving aggressively, and avoiding complete discharge. An even better option may be to lease the EV as most people get a new car before 8-10 years, and battery technology is rapidly evolving. Very few first generation hybrid vehicles have needed battery replacements. Additionally, EV batteries are already cheaper than 2020 projections.<sup>6</sup> With an EV you needn't worry about the cost of expensive gasoline motor and transmission repairs.

### ***“OK, but aren't batteries bad for the environment? Aren't they dangerous?”***

Batteries are some of the most highly recycled items estimated at nearly 99% recovery according to the US EPA.<sup>7</sup> The metals in newer batteries are more valuable, further driving this recycling effort. Almost all EVs rely on lithium-ion batteries, which contain less toxic metals than other batteries like lead or cadmium, and are actually categorized as a non-hazardous waste. There are potential environmental impacts associated with obtaining lithium, but most lithium today comes from saltwater brine, not mining.<sup>8</sup> There are also many other uses for EV batteries at their end of life, such as remanufacturing and energy storage to stabilize the electricity grid.<sup>9,10,11</sup> Additionally, there are new battery technologies being considered using

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<sup>4</sup> Cobb, Jeff, “20 EVs with 200-plus Miles Range Due By 2020,” Hybrid Cars, July 25, 2017: <http://www.hybridcars.com/20-evs-with-200-plus-miles-range-due-by-2020/>

<sup>5</sup> Berg, Phil, “8 Potential EV and Hybrid Battery Breakthroughs,” Popular Mechanics, Feb 29, 2012: <http://www.popularmechanics.com/cars/g785/8-potential-ev-and-hybrid-battery-breakthroughs/>

<sup>6</sup> Evans, Simon, “Electric Vehicle Batteries are Already Cheaper than 2020 projections,” CarbonBrief.org. Mar 23, 2015. <https://www.carbonbrief.org/electric-vehicle-batteries-already-cheaper-than-2020-projections>

<sup>7</sup> “Advancing Sustainable Materials Management: Facts and Figures,” U.S. Environmental Protection Agency, 2014. <https://www.epa.gov/smm/advancing-sustainable-materials-management-facts-and-figures>

<sup>8</sup> Abell, Lauren & Oppenheimer, Paul, “World Lithium Resource Impact on Electric Vehicles,” Plug-In America, Dec 2008: <http://action.pluginamerica.org/o/2711/images/World-Lithium-Resource-Impact-on-Electric-Vehicles-v1.pdf>

<sup>9</sup> Stringer, David & Ma, Jie, “Where 3 million Electric Vehicle Batteries Will Go When They Retire,” Bloomberg, Jun 27, 2018: <https://www.bloomberg.com/news/features/2018-06-27/where-3-million-electric-vehicle-batteries-will-go-when-they-retire?cmpId=yahoo.headline&yptr=yahoo>

more abundant materials that could be commercially viable in the coming decade.<sup>12</sup> As for danger, studies have shown that electric cars are far safer than gasoline vehicles in the event of an accident.<sup>13</sup>

## “Where do Electric Vehicles charge?”

The short answer is, anywhere there’s an electrical outlet! EV owners charge primarily at home overnight using off-peak hour electricity. You can also charge at one of the many public charging stations, often for free, which can be found using free mobile phone apps such as Plugshare. There are also DC Fast Chargers available that charge even faster. In El Dorado County, they’re located in El Dorado Hills, Pollock Pines, and South Lake Tahoe. AQMD has funded the installation of over 28 EV chargers (Level 2) in El Dorado County, most using competitive grant funding. Visit <https://www.edcgov.us/Government/AirQualityManagement/pages/evs.aspx> and click on the EV map.

## “How long does it take to fully charge?”

This depends primarily on 4 factors. The:

- car’s ability to take a charge (charge rate),
- current charge level of the battery,
- battery capacity, and
- level of power being used to recharge.



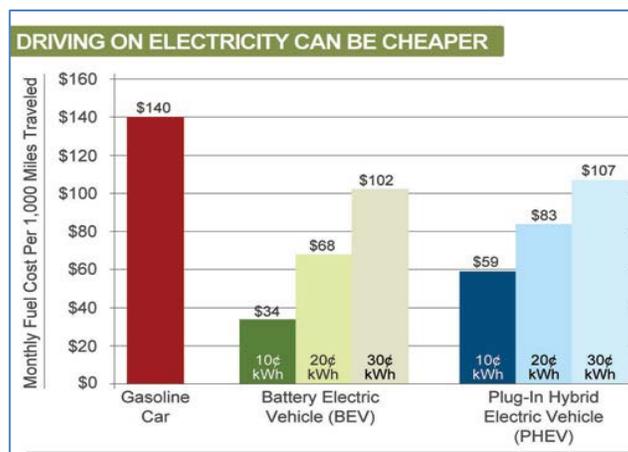
In general, the following applies to most EVs:

- Level 1, (120V AC, typical wall outlet):
- Level 2, (240V AC, typical electric dryer outlet):
- DC Fast Charge, (480V DC, high-speed charger):  
80% charge in 30 minutes.

- Full charge overnight.
- Full charge in 3-5 hours.

## “How much will charging add to my home’s electric bill? How does that compare to my gasoline bill?”

This, of course, depends on many factors including the fuel efficiency of your current car, your particular cost of electricity, the current price of gasoline, etc. However, assuming your vehicle gets 26 mpg and gasoline costs \$3.63/gal, the following chart compares Battery Electric



<sup>10</sup> Ramoni, Monsuru & Zhang, Hong-Chao, “End of Life (EOL) issues and options for electric vehicle batteries,” Clean Technologies and Environmental Policy, Nov 2013: [https://www.researchgate.net/publication/236649811\\_End-of-life\\_EOL\\_issues\\_and\\_options\\_for\\_electric\\_vehicle\\_batteries](https://www.researchgate.net/publication/236649811_End-of-life_EOL_issues_and_options_for_electric_vehicle_batteries)

<sup>11</sup> Kelly-Detwiler, Peter, “The Afterlife for Electric Vehicle Batteries: A Future Source of Energy Storage?,” Forbes Magazine, Mar 18, 2014: <http://www.forbes.com/sites/peterdetwiler/2014/03/18/the-afterlife-for-electric-vehicle-batteries-a-future-source-of-energy-storage/#7babd18e53d1>

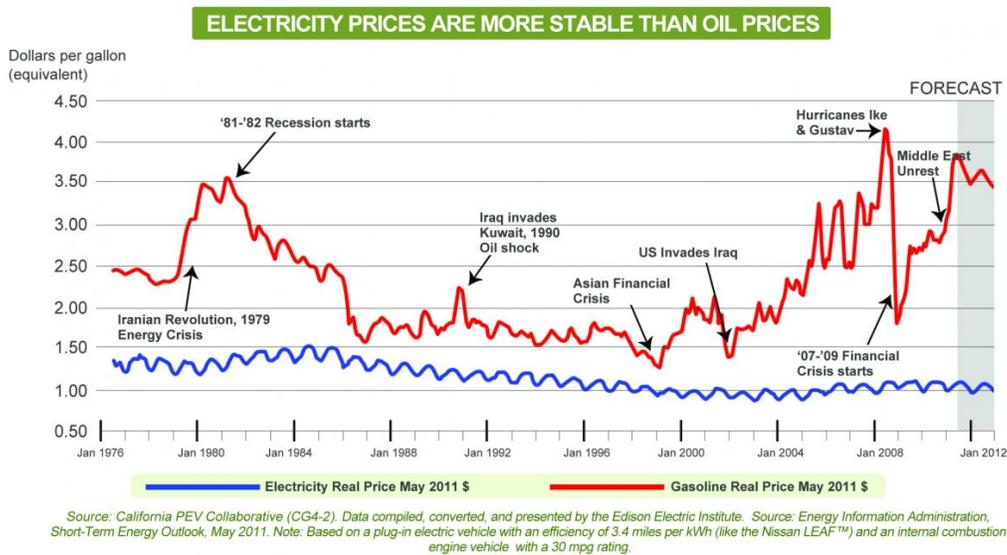
<sup>12</sup> Karsten, Jack & West, Darrell, “Five emerging battery technologies for electric vehicles,”; Brookings Institute, Sept 15, 2015: <http://www.brookings.edu/blogs/techtank/posts/2015/09/15-five-emerging-battery-technologies>

<sup>13</sup> Herron, David, “Electric cars are safer than gasoline cars,” The Long Tail Pipe, Aug 27, 2015 <http://longtailpipe.com/ebooks/green-transportation-guide-buying-owning-charging-plug-in-vehicles-of-all-kinds/electric-cars-are-safer-than-gasoline-cars/>

Vehicles (BEV) & Plug-In Hybrid Electric Vehicles (PHEV) at various electricity prices to a gasoline vehicle<sup>14</sup>:

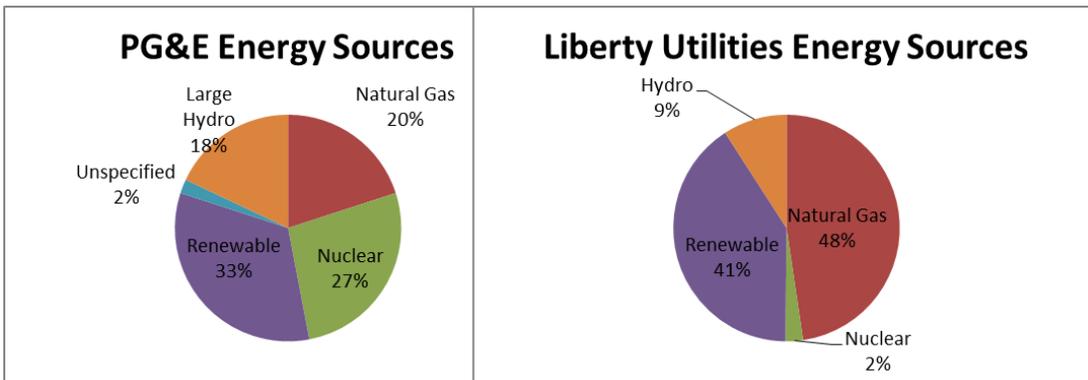
Additionally, the California utility companies have put together EV calculators accounting for the type of vehicle, how much you drive daily, and your specific electricity rate to estimate your monthly cost to fuel your vehicle, which can be found on the state’s DriveClean website [here](#).<sup>15</sup> Likewise, the US Dept. of Energy calculates the “eGallon”, or the cost of fueling a vehicle with electricity compared to a similar gasoline vehicle, and compares it to the average price of gasoline for each state using this tool [here](#).<sup>16</sup> In general, it costs about half as much to fuel an electric rather than a gasoline vehicle. This does not account for the cost savings in maintenance or if you have home solar.

Gas prices fluctuate wildly, and usually not in your favor, depending on world events. Conversely, the price of electricity has stayed relatively stable. If you have solar installed at your home your cost for electricity can be even cheaper. The monthly cost savings can offset the cost to purchase or lease an electric vehicle.



**“Isn’t an EV just a ‘coal powered’ car?”**

The following is a breakdown of the 2017 energy sources used by PG&E, the county’s largest utility providing power for the West Slope, and Liberty Utilities, providing power to the Tahoe area:



\*Unspecified refers to electricity that is not traceable to specific generation sources by an auditable contract trail.  
 \*\* In 2016, the State of California’s Renewable Portfolio Standard was 25%. Liberty Utilities purchased all of its power from other

<sup>14</sup> “Fuel Costs: PEV vs Gasoline Cars?”, CA Plug-in Electric Vehicle Collaborative, Jan 2012: [http://www.pevcollaborative.org/sites/all/themes/pev/files/Comm\\_guide4\\_122308.pdf](http://www.pevcollaborative.org/sites/all/themes/pev/files/Comm_guide4_122308.pdf)

<sup>15</sup> Plug-in Electric Vehicle Resource Center, California Air Resources Board, [www.driveclean.ca.gov](http://www.driveclean.ca.gov)

<sup>16</sup> Leistikow, Dan, “The eGallon: How Much Cheaper is it to Drive on Electricity?”, US Dept. of Energy, updated June 24, 2017. <https://energy.gov/articles/egallon-how-much-cheaper-it-drive-electricity>

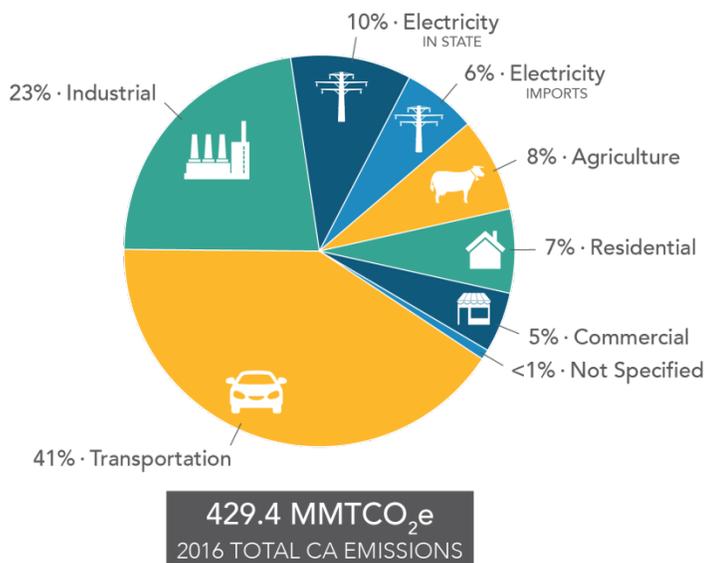
sources in 2016, including 25% from geothermal resources which included renewable energy credits (RECs) needed to comply with CA’s standard. However, Liberty Utilities estimates its total renewable power mix was 36% since the power it purchased from NV Energy also had a renewable component. In early 2017, Liberty Utilities’ own 50 MW Luning Solar Center became operational.

To meet California’s Renewable Portfolio Standard (RPS), PG&E and Liberty Utilities have committed to increasing the use of renewable sources to 33% by 2020.<sup>17</sup> Statewide, **only 4.13%** of California’s power comes from coal, which will continue to decrease as utility companies meet the RPS.<sup>18</sup>

EVs only get cleaner with age as electricity providers continually upgrade and convert to renewable resources. Conversely, petroleum fueled vehicle emissions and efficiency get worse with age as exhaust and emission control components, seals, and filters break down.

### “How much pollution do on-road petroleum-fueled vehicles create?”

According to ARB’s 2012 emissions inventory, mobile sources accounted for 84% of all Nitrogen Oxides (NOx) and 86% of all Carbon Monoxide (CO) emitted in California.<sup>19</sup> That’s 1,748 tons of NOx and 5,427 tons of CO, **per day!** Well over half of this pollution comes from on-road vehicles. NOx is one of the major components in the formation of ozone (smog), and CO is a deadly gas. El Dorado County is in non-attainment of the state and federal Ambient Air Quality Standards (AAQS) for ozone. With respect to Greenhouse Gases (GHG), Transportation is the largest sector emitting 41% of all GHG in CA<sup>20</sup>. This is almost entirely emissions from on-road vehicles.



Even when factoring in an electricity power mix that’s high in GHG emissions, (i.e., heavy use of coal, etc), EVs still have lower overall GHG emissions than the average new compact car, which gets 28 miles per gallon.<sup>21</sup>

<sup>17</sup> PG&E, 2017: [https://www.pge.com/en\\_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page?WT.mc\\_id=Vanity\\_cleanenergy](https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page?WT.mc_id=Vanity_cleanenergy)

<sup>18</sup> CA Energy Commission Energy Almanac, Total Electricity System Power, 2017

[http://www.energy.ca.gov/almanac/electricity\\_data/total\\_system\\_power.html](http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html)

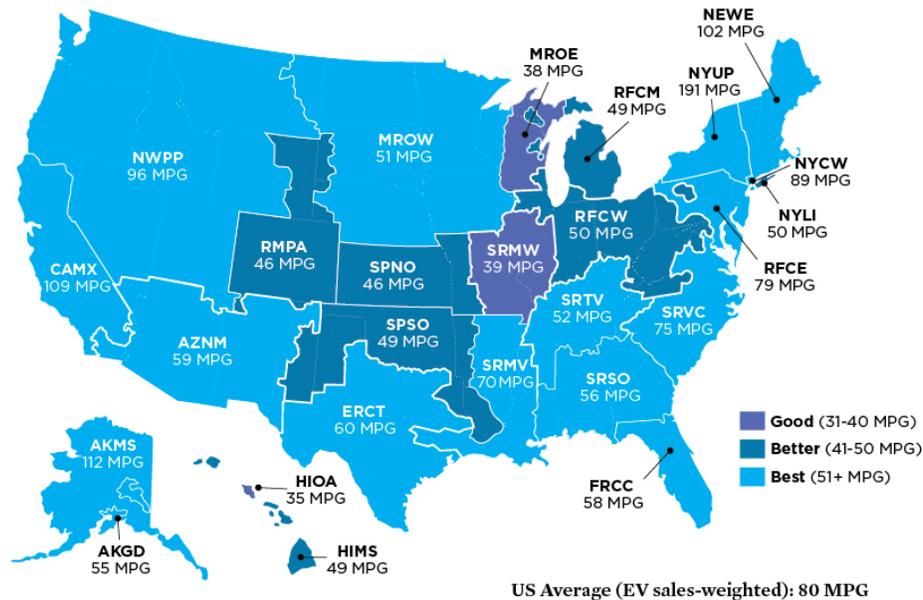
<sup>19</sup> 2012 Estimated Annual Average Emissions Statewide, Air Resources Board:

[https://www.arb.ca.gov/app/emsinv/2017/emseic1\\_query.php?F\\_DIV=-4&F\\_YR=2012&F\\_SEASON=A&SP=SIP105ADJ&F\\_AREA=CA](https://www.arb.ca.gov/app/emsinv/2017/emseic1_query.php?F_DIV=-4&F_YR=2012&F_SEASON=A&SP=SIP105ADJ&F_AREA=CA)

<sup>20</sup> 2015 California Greenhouse Gas Emission Inventory, Air Resources Board: <http://www.arb.ca.gov/cc/inventory/data/data.htm>

<sup>21</sup> Union of Concerned Scientists, *State of Charge* report, Sept. 2014 update:

[http://blog.ucsusa.org/how-do-electric-cars-compare-with-gas-cars-656?\\_ga=1.264002316.109000200.1432745263](http://blog.ucsusa.org/how-do-electric-cars-compare-with-gas-cars-656?_ga=1.264002316.109000200.1432745263)



Note: The MPG (miles per gallon) value listed for each region is the combined city/highway fuel economy rating of a gasoline vehicle that would have global warming emissions equivalent to driving an EV. Regional global warming emissions ratings are based on 2016 power plant data in the EPA's eGRID 2016 database (the most recent version). Comparisons include gasoline and electricity fuel production emissions estimates using Argonne National Laboratory's GREET 2017 model. The 80 MPG US average is a sales-weighted average based on where EVs were sold in 2011-2017.

In fact, EV's have lower GHG emissions than the average new car everywhere in the country, even when the electricity comes from the dirtiest coal-dominated electric grid.<sup>22</sup> Seventy-five percent of the US population lives in places where driving an EV is cleaner than driving a 50 mpg gasoline car, and an 80 mpg car when considering just GHG emissions. EV's continue to get cleaner over time as more renewables are added to the grid.

A full life cycle assessment, from manufacturing to ultimate disposal (aka "cradle to grave" analysis) reveals a 50% GHG reduction over gasoline vehicles.<sup>23</sup>

### ***“Doesn't the government heavily subsidize EVs? Aren't they expensive?”***

To help jumpstart public adoption of EVs, there are federal and state incentives available to those who purchase or lease qualifying vehicles. The federal incentive is a tax credit of up to \$7,500 but this will phase out and depends on how many vehicles of a specific manufacturer are sold.<sup>24</sup> The CA state rebate is up to \$5,000 depending on the type of vehicle purchased.<sup>25</sup> This rebate will also sunset at some point once funding is expended. Locally, El Dorado County Air Quality Management District (AQMD) administers a Drive Clean! \$1,000 vehicle incentive program for eligible El Dorado County residents.<sup>26</sup> *Pre-approval required!* Visit <http://www.EDCCleanAir.org> for info. Additionally, Bloomberg Financial predicts EVs will be cheaper than gasoline vehicles as early as 2025.<sup>27</sup> The federal government has been subsidizing the oil

<sup>22</sup> Union of Concerned Scientists, *New Data Show Electric Vehicles Continue to Get Cleaner*, May 7, 2018: [https://blog.ucsusa.org/dave-reichmuth/new-data-show-electric-vehicles-continue-to-get-cleaner?\\_ga=2.254145742.753037758.1525733851-374581058.1525733851](https://blog.ucsusa.org/dave-reichmuth/new-data-show-electric-vehicles-continue-to-get-cleaner?_ga=2.254145742.753037758.1525733851-374581058.1525733851)

<sup>23</sup> Union of Concerned Scientists, *Cleaner Cars from Cradle to Grave*, Nov 2015:

<http://www.ucsusa.org/clean-vehicles/electric-vehicles/life-cycle-ev-emissions#.VkpmsrQdW>

<sup>24</sup> IRS page regarding federal EV tax credit: <http://www.irs.gov/Businesses/Plug-In-Electric-Vehicle-Credit-IRC-30-and-IRC-30D>

<sup>25</sup> California clean car rebate: <https://cleanvehiclerebate.org/eng>

<sup>26</sup> AQMD Drive Clean! EV incentive:

[http://www.edcgov.us/Government/AirQualityManagement/Grants\\_and\\_Incentive\\_Refunds.aspx](http://www.edcgov.us/Government/AirQualityManagement/Grants_and_Incentive_Refunds.aspx)

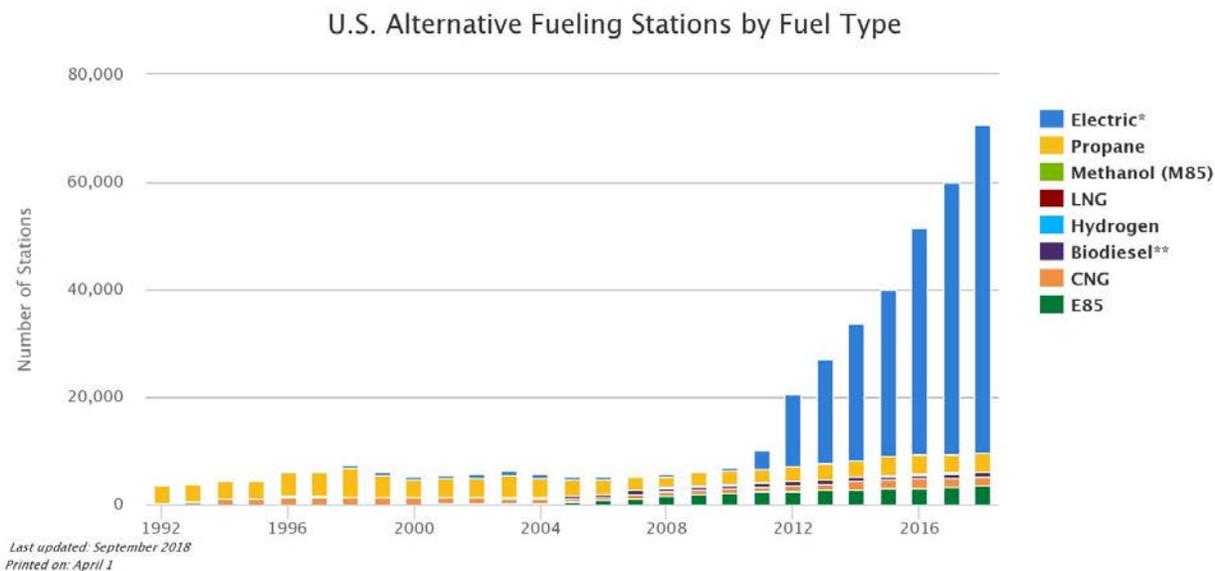
<sup>27</sup> Shankleman, Jess, "Pretty Soon Electric Cars Will Cost Less Than Gasoline," Bloomberg, May 25, 2017:

<https://www.bloomberg.com/news/articles/2017-05-26/electric-cars-seen-cheaper-than-gasoline-models-within-a-decade>

and gas industry for decades.<sup>28</sup> The EV federal tax credit amount was actually based on government subsidies in the form of payments and tax credits directly to petroleum companies by the federal government in 2008. The US Dept. of Energy, with help from the US Government Accountability Office, determined these subsidies benefitted gasoline vehicles by about \$12,000 over its lifetime. The EV tax credit of \$7,500 was calculated as the net present value of that subsidy.<sup>29</sup> Globally, it's estimated fossil fuel subsidies amounted to 6.5% of global gross domestic product, or about \$5.3 trillion in 2015.<sup>30</sup>

***“If EVs are so great, why haven’t I heard more about them and why don’t more people drive them?”***

Excellent question. A survey of 2,500 consumers across the US in 2016 revealed that 60% of respondents were completely unaware of electric vehicles, and 80% had never ridden in or driven one.<sup>31</sup> Respondents stated a perceived lack of charging stations (85%), high costs (83%) and uncertainty over duration of charge (74%) were their top reasons for not wanting to purchase an EV. If you’ve read this far, you know that the vast majority of charging occurs at home, the costs of EVs are coming down dramatically, leases are even lower (which we recommend now anyway), and that most people’s driving habits would easily be covered by EVs readily available today. The number of electric vehicle supply equipment (EVSE or “charging stations”) has dramatically increased in the US as shown on the following graph from the US Dept. of Energy Alternative Fuels Data Center:<sup>32</sup>



Contributing to consumers’ lack of EV information is automakers just aren’t advertising them!<sup>33</sup> Some automakers are only selling EVs in certain states, and there are some states that don’t offer EVs at all. As you’d expect, most EVs are sold in states that have government EV mandates (CA, OR, MD, and most of the northeastern states except NH). Many of the automakers have long viewed EVs as simply “compliance

<sup>28</sup> “Long History of US Energy Subsidies,” Chemical & Engineering News, Dec 11, 2011: <http://cen.acs.org/articles/89/i51/Long-History-US-Energy-Subsidies.html>

<sup>29</sup> Schwitters, Chad, “EV Myths From ‘Our Side’”, Tesla Motors Club, July 2017: <https://teslamotorsclub.com/blog/2017/07/13/ev-myths-from-our-side/>

<sup>30</sup> Coady, David, et al, “How Large are Global Fossil Fuel Subsidies?”, *World Development*, vol 91, pg 11-27, Mar 2017: <http://www.sciencedirect.com/science/article/pii/S0305750X16304867>

<sup>31</sup> “High Costs, Lack of Awareness Threaten to Short Out Electric Vehicle Adoption,” Business Wire, Dec 8, 2016: <http://www.businesswire.com/news/home/20161208005809/en/>

<sup>32</sup> “U.S. Alternative Fueling Stations by Fuel Type,” US Dept of Energy, Alternative Fuel Data Center, Sep 2018, <http://www.afdc.energy.gov/data/?q=evse>

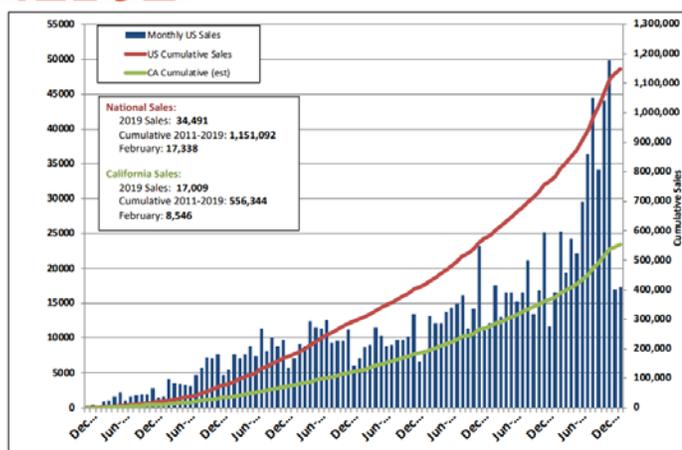
<sup>33</sup> Hall-Geisler, Kristen, “Automakers aren’t really advertising electric vehicles,” TechCrunch.com, Dec 20, 2016 <https://techcrunch.com/2016/12/20/automakers-arent-really-advertising-electric-vehicles/>

cars” and grudgingly sell them to meet the mandates. In 2014, Fiat Chrysler’s CEO Sergio Marchionne famously urged customers *not* to buy the Fiat 500e EV saying his company loses \$14,000 on each one!<sup>34</sup>

Consider the automaker and dealership point of view. Automakers already have entrenched expertise, proprietary knowledge, and thousands of patents concerning internal combustion engines (ICE). They have a huge network of companies all built around ICE and they benefit from large economies of scale. While Tesla is just now becoming profitable, the vast majority of EV startups die off because it’s extremely expensive to bring a production ready EV to market. Auto dealerships don’t make much profit on EVs today.<sup>35</sup> Exacerbating this, EVs require almost no maintenance, and dealerships make the majority of their gross profits from their service departments.<sup>36</sup> In short, dealers aren’t excited about selling you a car that has slim profit margins and you’ll most likely never need to bring back for service!

All of this is slowly changing. Automakers’ attitudes towards EVs are evolving and they’re beginning to see EVs as an opportunity rather than an obligation. In 2018, there were 18 different plug-in hybrid and 16 different all electric models on ARB’s carpool lane eligible vehicles list from 17 different automakers. General Motors, Volvo, Mercedes Benz, Ford, Volkswagen, BMW and Audi have major electric vehicle programs in the works in the next five years.<sup>37</sup> Ford wants 40% of its global lineup to be offered as plug-in or hybrid by 2020.<sup>38</sup> Even Toyota, who led the way in hybrid technology with the wildly popular Prius and RAV4 EV, but then decided hydrogen fuel cell vehicles were the way to go, has since shifted focus and plans a mass produced EV by 2020.<sup>39</sup> For detailed sales numbers by manufacturer, model, month and year, visit Inside EVs [Plug-in Sales Scorecard](#).

## VELOZ



Note: Approximation assumes CA sales are 49% of national sales.  
Reference: [www.hybridcars.com](http://www.hybridcars.com) and [www.insideevs.com](http://www.insideevs.com)

3/4/2019

As battery range increases, EV prices fall, and EV infrastructure is expanded, consumer demand should continue to increase, prompting automakers to make EVs available in more states. In fact, EV sales have dramatically increased since 2011 as shown on this graph from the California Plug-in Electric Vehicle Collaborative which tracks EV sales:

For more historical context of the evolution of EVs and forces supporting and opposing them, view the 2006 documentary, [“Who Killed the Electric Car”](#).

## “What are some good websites for more information about EVs?”

[www.driveclean.ca.gov](http://www.driveclean.ca.gov)

[www.GreenCarReports.com](http://www.GreenCarReports.com)

[www.saceva.org](http://www.saceva.org)

[www.pevcollaborative.org](http://www.pevcollaborative.org)

[www.FuelEconomy.gov](http://www.FuelEconomy.gov)

[www.PlugShare.com](http://www.PlugShare.com)

[www.PlugInAmerica.org](http://www.PlugInAmerica.org)

[www.OutsideEVs.com](http://www.OutsideEVs.com)

[www.afdc.energy.gov](http://www.afdc.energy.gov)

<sup>34</sup> “Marchionne urges U.S. customers not to buy the Fiat 500e EV,” Automotive News.com, May 24, 2014

<http://www.autonews.com/article/20140524/COPY01/305249994/marchionne-urges-u.s.-customers-not-to-buy-the-fiat-500e-ev>

<sup>35</sup> Richtel, Matt, “A Car Dealers Won’t Sell: It’s Electric,” New York Time, Nov 24, 2015

[https://www.nytimes.com/2015/12/01/science/electric-car-auto-dealers.html?\\_r=0](https://www.nytimes.com/2015/12/01/science/electric-car-auto-dealers.html?_r=0)

<sup>36</sup> Reed, Philip, “Where Does the Car Dealer Make Money?” Edmunds.com, Dec 3, 2013

<https://www.edmunds.com/car-buying/where-does-the-car-dealer-make-money.html>

<sup>37</sup> Schaal, Eric, “7 Automakers with Major Electric Vehicle Programs in the Works,” Fleetcarma.com, Sep 20, 2016,

<http://www.fleetcarma.com/7-automakers-electric-vehicle-programs/>

<sup>38</sup> Shelton, Sarah, “40 Percent of Ford Models to be Electrified by 2020,” Hybridcars.com, Dec 21, 2015

<http://www.hybridcars.com/40-percent-of-ford-models-to-be-electrified-by-2020/>

<sup>39</sup> Austin, Michael, “Toyota jumping into electric vehicle mass production by 2020,” autoblog.com, Nov 7, 2016,

<http://www.autoblog.com/2016/11/07/toyota-electric-vehicle-mass-production-2020/>