Spotlight on Climate

The Time for Electric Vehicles is NOW!

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(700 words)

Dried up lakes, prolonged heat waves, wildfires, extreme storms, and flooding - climate change is upon us. If we are to lessen or slow climate change, we must take immediate action. The way we get around is a good place to start.

In the US, transportation is our biggest producer of greenhouse gas emissions. Last year we had 289 million combustion engine vehicles (CVs) on our roads, producing 1.9 billion tons of CO_2 emissions. A rapid transition to electric vehicles (EVs) will help reduce that impact.

Several factors are combining to make now the time for EVs. The variety of EVs being sold is soaring, the range of EVs keeps increasing, the cost keeps coming down relative to combustion vehicles (CVs), EVs are cheaper to operate, and the grid keeps getting cleaner, especially here in Northern Arizona.

It's not just Tesla anymore. Right now there are about 110 EV models to choose from. You can even buy an EV pickup if that's your preference. The Ford F150 Lightning sells for just over $40k which is less than a lot of combustion pickups go for. Ask your dealer about extended financial incentives that will bring the cost of your EV even lower.

Advancements in battery technology have increased the average range of EVs sold last year to 250 miles, which is way more than required for casual and mid distance trips. The 2022 Lucid Air EV being built in Phoenix has a range of 520 miles. For longer trips, there are already over 100,000 public charging stations across the US and the National Electric Vehicle Infrastructure Program of 2021 is now providing $7.5 billion to build charging stations in rural communities and every 50 miles along all interstate corridors. New level 3 charging stations can recharge a vehicle in about 20 minutes.

Europe, India, South Korea, the United Kingdom, Canada, and Japan are all phasing out combustion vehicles by 2035. California recently passed a bill requiring the phase out of CVs by 2035. It is likely that 12 other states will follow suit. The big car manufacturers are also making these changes. Cadillac has stated that it will be all electric by 2030, General Motors by 2035, and Ford by 2040.

Of course, EVs are only as clean as the source of electricity they use. If it all came from burning coal, there would be little benefit. Renewable energy is already cleaning up the grid. In Arizona, over 40% of our power already comes from non-fossil fuel sources. APS (Arizona's primary electricity provider) has stated the goal to be 65% clean by

2030 and 100% fossil free by 2050. Is this soon enough to save our climate? Probably not, so we need to keep ‘encouraging’ them to act quickly.

Northern Arizona is on a rapid path toward renewable energy. We already have 226 megawatts (MW) of wind power near Flagstaff. 241 MW of clean energy is now being built by Babbitt Ranches. 477 MW of wind power is being installed near Winslow and Babbitt Ranches plans to build an additional 480 MW of clean energy by 2024. This 1,424 MW of wind and solar power is enough to power over 420,000 homes and many thousands of EVs.

EVs are also cheaper to operate. For example, a combustion Ford F150 costs about $0.20/mile to run, while an electric Ford F150 Lightning only costs $0.06/mile. This is not only because electricity is less expensive than gas, but also because maintenance costs of EVs are much lower. They have fewer moving parts, the engine is not lubricated with oil, and electric engines are much more efficient than combustion engines.

Is it enough for each of us to convert to EV? Of course not. Many institutions have large combustion vehicle fleets with large carbon footprints. While some institutions have electrification goals, none of them are moving fast enough to meet the emission reduction targets approved in the cities of Flagstaff and Sedona. The Northern Arizona Climate Change Alliance (NAZCCA) has launched a ‘Fleet Electrification NOW!’ campaign to encourage all institutions in Northern Arizona to convert to EVs as soon as possible. If you have not already signed the petition, please sign it now at www.NAZCCA.org/ev-now.

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