

# Chuck Wright

Electric transportation is an important part of the coming Energy Transition.

The Energy Transition, including the transition to electric transportation, is:

- Inevitable: costs of renewable energy technologies have for 2 decades been dropping along an exponential path, showing no signs of stopping, while conventional sources have been flat for a century, with no sign of improving. If nothing else, economic forces will make this transition unstoppable.
- Necessary: climate change has the potential to end human civilization, fossil fuels are a major cause, hence their use must be replaced.

Because the Energy Transition is among the largest human endeavors ever, places that ignore or delay it will become economic backwaters, whereas the places that embrace and encourage it will thrive. New Mexico is currently behind economically, and is behind in the Energy Transition. Failure to embrace this change will widen the gap, hurting all New Mexicans.

Electric Vehicles have crossed the threshold of practicality, including for road trips. I and my wife are both close to 100 percent electric. We charge at home, primarily from electricity generated by rooftop solar.

In my opinion, just about any EV is superior to just about any internal combustion car, in cleanliness, quiet, performance, maintenance, and overall cost.

I have three observations about EV charging:

- For road travel, the name of the game in charging is speed, the faster the better. Looking forward, any public support of fast chargers should consider 250 kW an absolute floor in charging capacity.
- The cost of rooftop PV systems capable of charging cars is small compared to the cost of the cars, and the systems last through multiple generations of cars. Relationships between car sellers and PV installers should be considered.
- Low-power, workplace charging should be promoted. Low-cost, Level 1 chargers make use of the abundant daytime energy from solar PV that we should anticipate in the future. This would cover the majority of charging requirements.

The EV transition will hurt some economic interests, who will resist:

- Car dealerships have a huge investment in their service departments. EVs are less complex, have less maintenance and require different skills to service, so the transition is potentially highly disruptive. We should seek ways to help them along. And car dealerships need to be educated, so that they can educate, rather than thwart.
- The oil and gas industries face declining use of their product and will die. We need to help the

people who will be hurt. But the death of these industries is inevitable and necessary. We must have this constantly in mind, realizing that the health and prosperity of all New Mexicans depend on it.