Is The Electric Car "The" Future?

Electric cars are nothing new. The first horseless carriages were either steam powered or utilized the services of batteries. Those batteries were the familiar acid-filled lead plate monsters that have now largely been replaced by glass mat (AGM), lithium or other types of batteries. The battery revolution did not last. Reason? The government did not support the use of battery power; the public did not like the fact that the batteries did not last very long; there were no recharging facilities and the batteries were dangerous to dispose of. This should sound familiar.

Steam seemed like a great solution. The problem was that steam boilers blew up; some kind of fuel was still necessary to boil the water or other fluid; and they were slow to get going. While steam has been used extensively in ships, it never made it successfully to cars or airplanes.

Today we have a new revolution in electric powered vehicles, not due to Elon Musk alone. He gets a lot of credit for being a creative entrepreneur, but he would be in nowheresville today absent the support of government. The United States and other countries, through tax incentives, direct grants and other posh infusions of money, have made electric cars all the rage. Some of the manufacturers have made their electric vehicles look great; definitely 21st Century.

As experience with electric vehicles increases, we are now learning some of the downsides to the cars. The ingredients for the batteries have to be dug up from the ground, processed and eventually disposed of. A lot of that degrades third world nations and creates both physical and visual eyesores. Disposing of the old dangerous batteries is being discussed in many circles, but nobody has come up with a workable solution. Lots of the used lithium batteries are sitting in a warehouse in Oklahoma, awaiting a solution. Keep in mind that many hazardous waste sites in the United States are filled with the old lead acid batteries.

There is, of course, also the question of the fire danger from lithium batteries. An entire ship went down at sea, with the loss of hundreds of cars likely due to an exploding lithium battery. The risk of these vehicles, especially because the fires are very difficult to put out, cannot be taken for granted.

There is then the question of the carbon footprint. What is the carbon footprint of a lithium powered battery car to create that battery, dispose of that battery and to produce the electricity to recharge that battery as compared with a fossil fuel engine? There are not a lot of good studies taking into account all the factors. There is some literature comparing the production of gasoline to the production of electricity to power cars but unfortunately, that is skewed. It is intended to make electric cars look much better than they are. A side-by-side comparison from ground up (producing the gas or batteries) to ground down (getting rid of the batteries and the gasoline engines) has not been accomplished in any principled way.

There is also the issue that most manufacturers are switching to very expensive lithium powered vehicles, because that is where the money is. Those vehicles are not as efficient and have a much larger carbon footprint than the smaller cars, the same as

with gas and diesel-powered vehicles. A big truck and the enormous SVUs electrically powered, padding the pocketbooks of their producers, have a much larger carbon footprint than the smaller electric vehicles that were first introduced. Again, good side-by-side comparison data is hard to come by.

Finally, we have not factored in the debt and tax effects of governments around the world demanding battery power for our four tired friends. The expenditure of government, and the diversion of money for other needs, also has a social, societal and ultimately carbon effect.

Are there better ways to reduce carbon footprints than electric vehicles? We know that the greatest polluters are airplanes flying in the stratosphere, ships at sea, and the old coal fired electric plants. We, in this country, have largely ignored the new, safe, clean nuclear and thorium reactors. The Europeans and Chinese are working feverishly on the safer thorium reactors. In the United States, we are doing little or nothing in that respect. Fusion power is right around the corner. That is the power of the sun but, right now, it takes much more energy to initiate a fusion reaction than it is worth. We have yet to make a "moonshot" effort at harnessing fusion power from a cup of water, although lots of money is being spent on the effort around the world.

Finally, does good old fashion capitalism have the answer? Capitalism originally drove lead acid batteries out of the car market, except for starting those cars, because they did not work well, were expensive and inconvenient. If electric vehicles were left on their own, not subsidized by government, would they survive? The public is well aware of the fact that gasoline engines have evolved tremendously in just the last 20 years. They are smaller and more powerful, they put out less pollutants and they have aggressively increased horsepower by the use of turbos. The gasoline engine has survived every attempt at its demise, because it has been improved and doubtless could be greatly improved in the future. Volkswagen, unfortunately with great dishonesty, tried to utilize diesel power. While the German company did not set a good example, diesel is an approach not to be ignored.

While reducing carbon emissions is a laudable goal, and one which should be pursued, it would be wonderful if we put some scientific inquiry behind the advantages versus the disadvantages of electric vehicles. As a nation we could look at alternatives, letting the best, most efficient technology win out through its own merits. Generally speaking, when the government mandates that people move in a certain direction, they wind up driving everyone off a cliff, and I know something about Cliffs.

Hopefully, we will have some meaningful debate, discussions and developments in the vehicle market, that will not be dictated or ramrodded down our throats by Big Government and its insatiable partnership with Big Business.

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