



The Unintended Consequences of Electric Vehicles

by Emmy Muhoza | Feb 2, 2020

If you have been following the news, you probably know that Tesla CEO – Elon Musk – recently released all of Tesla’s patents and announced that they belong to the public. This move was done in the spirit of open source movement for the advancement of electric vehicle technology. When I read the news, I started wondering why Elon Musk would make such a move and what he and Tesla hope to gain from it.

According to U.S law, a company or individual will lose their rights to a patent after fifty years. What that means is that the public can use the patent in any way they want without being sued by the owner of the patent. Historically, we have always witnessed an increased use of any particular product or technology after its patent becomes free for public use and usually this comes with an increase in innovation and an increase in the demand for that particular technology or product. An example of such a product or technology is the 3D printer technology.

CEO Elon Musk’s plan is clear; if he makes Tesla’s patents free for public use, then more and more people will start experimenting with electric cars and that means that there will be an increase in the demand for the parts that are used to make a Tesla electric vehicle. With increased demand, comes increased supply which leads to low prices. And that is exactly what Tesla hopes to gain from making all its patents open for public use. If there is more demand for the parts that are used to make a Tesla electric car, more and more companies will be willing to supply those parts at a lower price, which will make the manufacturing of a Tesla Electric vehicle an economically viable project for Elon and Tesla.

Tesla’s plan to make electric cars widely available and affordable is undoubtedly a move toward sustainability and combating climate change by eliminating or reducing the use of fuel engine cars. However, what we don’t realize is that electric vehicles will have an

unintended consequence on sustainability as they become more affordable and more used.

The manufacturing of electric vehicles requires precious metals and rare earth elements because they are good conductors of electricity and lead to an increased power output by the electric vehicle. Clearly, the more the electric vehicles in demand, the more the precious metals and rare earth elements that will be used to make them and that will lead to an increase in the mining activity for minerals like gold, silver, and cobalt to name but a few. To meet the demand for precious minerals and rare earth elements by electric vehicle manufacturers like Tesla, mining companies will have to significantly increase mining operations, which – if not done well – might lead to the contamination of water supplies and the destruction of vital ecosystems. Worse, in addition to ravaged landscapes, it could lead to the depletion of earth's natural resources faster than we anticipated.

Is the price to save our climate going to be the destruction of the land from which we grow food? If yes, then that is too high of a price to pay and I don't think that it is worth it. Humans are smart beings and I believe that we are capable of finding a better solution to climate change and global warming without compromising the very land that feeds us.

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