Automotive Industry Meets Environmental Laws
By Erica Noblecilla

As technology around us is thriving, so is the automotive industry. Technological advances have allowed car companies such as Toyota and Honda to adopt environmentally-friendly cars. Alongside both the negative and positive aspects of the evolving automotive industry, the environment is one of the many important areas of human life that has been and continues to be affected. The relationship between the environment and fuel-powered cars and their emissions, as well as entirely electric powered cars requires thoughtful consideration concerning regulations. Although U.S. citizens are becoming more aware of the relationship between emissions and the environment, it is imperative that we pay attention to the legislation involved. The laws and regulations currently in place do enable advancements. However, some also serve as barriers. Everyone wants a healthy planet, but the real question is - should the U.S. Congress have the power to require certain standards of an industry in order to ensure safety and health standards or can the government ignore scientific research and choose a more politically preferable option?

Every second the air in the atmosphere is getting obstructed and polluted with dozens of fossil fuels, toxins, and dangerous chemicals. Moreover, while cars have become so essential to the everyday lifestyle of millions of individuals across the globe, the emissions humans have created in turn is damaging the earth’s environmental stability and adversely affecting the health of humans.¹

Collectively, cars and trucks account for nearly one-fifth of all US emissions, emitting around 24 pounds of carbon dioxide and other global-warming gases for every gallon of gas. About five pounds comes from the extraction, production, and delivery of the fuel, while the great bulk of heat-trapping emissions, more than 19 pounds per gallon, comes right out of a car’s tailpipe. In total, the US transportation sector, which includes cars, trucks, planes, trains, ships, and freight, produces nearly thirty percent of all US global warming

emissions, more than almost any other sector.\textsuperscript{2}

The statistics above account for only the emissions across America. The total percentage of emissions feeding the atmosphere is quite astounding, “The U.S. has 30 percent of the world's automobiles, yet it contributes about half of the world's emissions from cars.” \textsuperscript{3} This amount of pollutants entering the atmosphere at an unprecedented rate is an issue worthy of regulations. Without the negative effect of these emissions, the issue of environment versus transportation would not surface. It is particularly disturbing that such a large percentage of emissions entering the atmosphere comes from America.

The pollutants that affect the environment include four areas: carbon monoxide, hydrocarbons, nitrogen oxygen from burning fuel, and small particles that harm the human body.\textsuperscript{4} In terms of the legislation currently put in place to remediate the issue of fuel emissions entering the atmosphere, there are dozens of regulations by the Environmental Protection Agency (EPA) that pertain to cars, highway heavy-duty vehicles, and more.\textsuperscript{5} Cars do harm the environment, it is something that is clear and has been clear for quite some time, so the time has come to begin experimenting with alternatives. Electric cars are gaining in popularity,\textsuperscript{6} but what else is there?

Despite the worrisome facts of emissions threatening the sustainability of the environment, a new trend has surfaced. This trend, and a quite honest solution to this issue, is the making of electric cars. The current mogul, Elon Musk, owner of Tesla, has fed and continues to feed this trend with his 100% electric cars that are sleek, popular, sexy, and efficient.  

Aside from Musk’s creations, there are other cars offered by already popular brands such as Honda and Hyundai that are also producing electric cars.

So what exactly are electric cars? Electric cars are 100% emission free vehicles. This means, no more pollutants and a big farewell to nitrogen oxide and other harmful pollutants. These automobiles need nothing more than electricity to run and give off zero emissions into the atmosphere. There are benefits and disadvantages of an electric car system. However, when considered in the context of decreasing global pollution problems, electric cars look like a good solution. One of the solutions to decreasing global warming and the environmental issues surrounding life on earth is essentially getting rid of emissions since it amounts to such a high percentage of the internal heat on the planet. The benefits of electric cars include the fact that they are cheaper to run, they can be charged at home or work, there’s no engine noise, they’re quick, tax breaks and government subsidies are available, they’re safer, they’re less maintenance, and well of course - they’re environmental friendly.

The negative problems with these sleek and slender vehicles include the reality that there are few options available, there is a very limited infrastructure for charging stations, the cost is substantial, and there is a marginal market for the vehicles. The concept that these vehicles depend on electricity may be environmentally attractive, however, the source of the electricity for the car can be counterintuitive and surprisingly even more   

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harmful than regular automobiles.\textsuperscript{10} Suppose 75\% of the future charging stations, hypothetically speaking, get their electricity from a coal-fired power plant, “In fact, the environmental and human health costs of operating an electric vehicle using electricity generated from coal may be as much as 80 percent greater than driving a gasoline-powered vehicle.”\textsuperscript{11}

Additionally, one must also think about making the parts of the car. The engines on these electric powered cars may be gone, but what about the paint, the metal, the copper, steel, rubber, and more counterintuitive materials that are produced for the making of the car itself? Although at the surface it may seem these benefits outweigh the disadvantages, it’s also important to consider the legal and economic aspects of regulating the system.

For decades, companies have burned and used non-renewable resources. Fossil fuels have been used to manufacture equipment such as cars, planes, and medical instruments, all of which are essentials for human health and safety. Quite literally, humans are using energy in such a way that it has an expiration date for life on this planet…. How smart. And that has formed the controlling impetus for our debate, it is not about right or wrong, it is simply the nature of politics and the government. Just because these new kinds of cars are so attractive to the human mind, one should not doubt for one second that there are in fact many loopholes and back doors that pose perhaps even bigger threats to the environment’s sustainability and human health. Moreover, politicians and the government exacerbate the problem when they take actions that impede economic benefits and opportunities. And sometimes, they even choose to disregard the best interest of the system and they also sometimes disregard the preferences of the popular vote.

Is it possible for the United States Congress to require certain standards? Fortunately for individuals like Elon Musk and the Environment Protection Agency, the federal government is on board with promoting electric automobiles. A big way in which the federal government can impact the notion

\textsuperscript{10} Id.

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of electric powered cars is by promoting research and development,

“Federally funded R&D is one of several means that include standards on fuel efficiency, limits on exhaust emissions, federal purchase of hybrid and electric vehicles, tax or other rebates for purchase of hybrid vehicles, initiation of a carbon tax, and funding construction of hybrid and electric vehicle infrastructure, such as battery charging stations, etc.”

The federal government can do this by promoting specific research like fuel cell research programs. The government can also enact policies and legislation in order to accomplish this task. For example, The American Recovery and Reinvestment Act of 2009, “established tax credits for purchasing electric vehicles (between $2,500 and $7,500 per vehicle, depending on the battery capacity) and conversion kits to retrofit conventionally powered vehicles with electric vehicle capability ($4,000 per vehicle, maximum).”

According to the Hybrid & Electric Vehicle Technology Collaboration Programme, it was anticipated that New Corporate Average Fuel Economy (CAFE) standards would be created and would encourage the expanded market entry of electric drive technologies. “Stricter CAFE standards require cars and light trucks from the 2012 model year (which began sales during 2011) to have an average fuel economy that is 16% greater than the 25.5 mpg average for cars and light trucks for previous model years.”

The U.S. Congress can set and enforce certain standards for electric-powered vehicles, though they have delegated some of their power to the

13 Public Law 111-5 (2009)
15 Id.
Environmental Protection Agency to regulate this industry. Article 1 of the United States Constitution, states, "All legislative Powers herein granted shall be vested in a Congress . . ,"\(^{16}\) so according to this doctrine all power to pass laws lies in the hands of Congress. However, since the Supreme Court’s decision in \textit{J.W. Hampton, Jr. & Co. v. United States},\(^{17}\) the power to regulate may be delegated by Congress to the appropriate administrative agency. In the case of regulating the electric-powered vehicle industry, it is the Environmental Protection Agency that regulates this industry.\(^{18}\)

There are instances where both Congress and federal agencies seem to look the other way or ignore factors that should trigger some sort of regulatory action. When they choose to ignore facts and look the other way, the opportunity for corruption emerges. Although federal agencies hold a lot of power, Congress can still control them by cutting funding. By taking legislative action, Congress can direct administrative agencies to take explicit action to make things happen. For example, it is the federal agencies and the President that work together to propose budget plans. However, it is Congress, by way of The Congressional Budget and Impoundment Control Act of 1974,\(^{19}\) who approves or disapproves these proposals. Therefore, Congress could decide to lower the funding for the EPA in 2019.\(^{20}\)

One of the most effective government policies affecting the market of electric vehicles concerns tax credits currently offered. However, these may not be

around for much longer.\textsuperscript{21} So what exactly is the tax cut? “Section 30d of the tax code gives electric vehicle buyers up to $7,500 off their tax bill – or allows leasing companies to receive the credit and lease EVs for lower rates.” \textsuperscript{22} Initially, the upfront cost of making electric vehicles was substantial and the idea needed financial support from the government. However, once the infrastructure is developed sufficiently and as the electric vehicle industry grows, federal funding may not be as essential. However, if the government were to cut funding for electric vehicles now, it could create a barrier for the continued evolution of the market. So the government may continue to play a major role in the development of electric vehicle market. This funding is not made available through a federal agency, but comes directly from Congress. So, it is Congress that has the power to determine the evolution of electric vehicles.

The power of the government to regulate electric vehicles is important to understand, especially in light of the tremendous growth and potential of this industry. These vehicles are so new that it is difficult to determine whether the regulations concerning their use are sufficient or not. Enabling the potential growth of the market also deserves significant consideration. The loopholes and backdoors that the politicians and government officials are aware of is what the public must uncover in order to formulate a concrete opinion on this matter. The government does have the control and although federal agencies also have control, it is imperative to remember that they are federal agencies and are connected and ultimately supervised by Congress.

In essence, the government can indirectly require certain standards, but the power is in the hands of the federal agencies and more specifically, the EPA in this case. But it also means that the government may seek to solve a problem


and manipulate the system. As discussed above, Congress can choose to cut funding for an agency that is not performing as Congress prefers, or they may choose to leave the decision completely up to the federal agency itself to avoid responsibility. These options represent a more politically preferable option, but is it the right thing to do?