

From: [REDACTED]
To: [REDACTED]
Subject: M192227 FW: EVs verse Petrol
Date: Friday, 19 July 2019 3:28:36 PM
Attachments: [image001.jpg](#)

Tena koe e Rae

Thank you for your email of 17 July 2019 regarding electric compared to petrol vehicles. You may be aware that the Minister recently announced two initiatives for public consultation (a Clean Car standard and a Clean car discount). Information about these can be found on the Ministry of Transport's website at:

<https://www.transport.govt.nz/multi-modal/climatechange/electric-vehicles/clean-cars/>.

As part of the development of this strategy, your email will be forwarded to the Ministry of Transport as a submission and provided to the Minister for her information.

Nga mihi



[REDACTED] **Hekeretari Matua | Office of Hon Julie Anne Genter | Associate Minister of Transport**

Level 6.C Bowen House | Parliament Buildings | Wellington | New Zealand

From: J Genter (MIN)
Sent: Thursday, 18 July 2019 8:29 AM
To: [REDACTED]
Subject: FW: EVs verse Petrol

From: RAE SIMPSON [REDACTED]
Sent: Wednesday, 17 July 2019 5:36 PM
To: J Genter (MIN) <j.genter@ministers.govt.nz>
Subject: EVs verse Petrol

Hello Julie Genter,

Theres a lot of misleading info on EV cars compared to Petrol cars and I was wondering if you have seen the attached e mail before. it can be altered to New Zealand specs and costs etc. But it also is very very interesting reading to say the least.

And EV car at 50 to 60,000 new Zealand dollars are way to expensive for the average person as you can still buy a very economical petrol car for \$20,000. so that would leave you approx. \$40,000 to spend on petrol and at 40 miles to the gallon when you work it out on an average miles of 15,000 per year will last you quite a number of years driving your petrol car.

Also one major concern I find is what happens when the Battery expires as they do and from my understanding they are only good for around 8 to 10 years !!!!!!! not long enough and apparently are bad for the envoiroment .

Plus until EVs can do a lot more mileage before having to stop and recharge then and there price comes down a lot more most folks wont be able to afford them .

who wants to stop at least twice or more if travelling from wellington to Auckland ?? and take a few hours to recharge the battery ??

So please find attached the article that was sent to me form a electrical engineer.

Kind Regards

Rae

I presume there are expert counter –arguments against this criticism of electric cars?

As an engineer, I love the electric vehicle technology. However, I have been troubled for a long time by the fact that the electrical energy to keep the batteries charged has to come from the grid and that means more power generation and a huge increase in the distribution infrastructure. Whether generated from coal, gas, oil, wind or sun, installed generation capacity is limited. A friend sent me the following that says it very well. You should all take a look at this short article.

INTERESTING - ONE OTHER QUESTION: IF ELECTRIC CARS DO NOT USE GASOLINE, THEY WILL NOT PARTICIPATE IN PAYING A GASOLINE TAX ON EVERY GALLON THAT IS SOLD FOR AUTOMOBILES, WHICH WAS ENACTED SOME YEARS AGO TO HELP TO MAINTAIN OUR ROADS AND BRIDGES. THEY WILL USE THE ROADS, BUT WILL NOT PAY FOR THEIR MAINTENANCE!

In case you were thinking of buying a hybrid or an electric car:

Ever since the advent of electric cars, the REAL cost per mile of those things has never been discussed. All you ever heard was the mpg in terms of gasoline, with **nary a mention of the cost of electricity to run it**. This is the first article I've ever seen and tells the story pretty much as I expected it to

Electricity has to be one of the least efficient ways to power things yet they're being shoved down our throats. Glad somebody finally put **engineering and math** to paper.

At a neighborhood BBQ, I was talking to a neighbor, a

BC Hydro executive. I asked him how that renewable thing was doing. He laughed, then got serious. If you really intend to adopt electric vehicles, he pointed out, you had to face certain realities. For example, a home charging system for a Tesla requires 75 amp services. The average house is equipped with 100 amp service. On our small street (approximately 25 homes), the electrical infrastructure would be unable to carry more than three houses with a single Tesla, each. For even half the homes to have electric vehicles, the system would be wildly over-loaded.

This is the elephant in the room with electric vehicles. Our residential infrastructure cannot bear the load. So as our genius elected officials promote this nonsense, not only are we being urged to buy these things and replace our reliable, cheap generating systems with expensive, new windmills and solar cells, but **we will also have to renovate our entire delivery system!** This latter "investment" will not be revealed until we're so far down this dead-end road that it will be presented with an 'OOPS...!' and a shrug.

If you want to argue with a green person over cars that are eco-friendly, just read the following. Note: If you ARE a green person, read it anyway. It's enlightening.

Eric test drove the **Chevy Volt** at the invitation of General Motors and he writes, "For four days in a row, the **fully charged battery lasted only 25 miles before the Volt switched to the reserve gasoline engine.**" Eric calculated the car got **30 mpg** including the 25 miles it ran on the battery. So, the range including the 9-gallon gas tank and the 16 kwh batteries is approximately 270 miles.

It will take you 4.5 hours to drive 270 miles at 60 mph. Then add **10 hours to charge the battery** and you have a total trip time of 14.5 hours. In a typical road trip, your average speed (including charging time) would be 20

mph. According to General Motors, the Volt battery holds 16 kWh of electricity. It takes a full 10 hours to charge a drained battery.

The cost for the electricity to charge the Volt is never mentioned, so I looked up what I pay for electricity. I pay approximately (it varies with amount used and the seasons) \$1.16 per kWh. $16 \text{ kWh} \times \$1.16 \text{ per kWh} = \$18.56 \text{ to charge the battery}$. $\$18.56 \text{ per charge divided by 25 miles} = \$0.74 \text{ per mile to operate the Volt using the battery}$. Compare this to a similar size car with a gasoline engine that gets only 32 mpg. $\$3.19 \text{ per gallon divided by 32 mpg} = \0.10 per mile .

The gasoline-powered car costs about \$20,000 while the Volt costs \$46,000-plus. So the American Government wants loyal Americans not to do the math, but simply pay three times as much for a car, that **costs more than seven times as much to run**, and takes three times longer to drive across the country.
