Townsend, Erle

From: Marcia Ciorra <mlciorra@gmail.com>
Sent: Tuesday, January 2, 2024 9:44 AM
To: DEP Rule Comments
Subject: "Comment on Chapter 127-A: Advanced Clean Cars II Program (Reposting)."

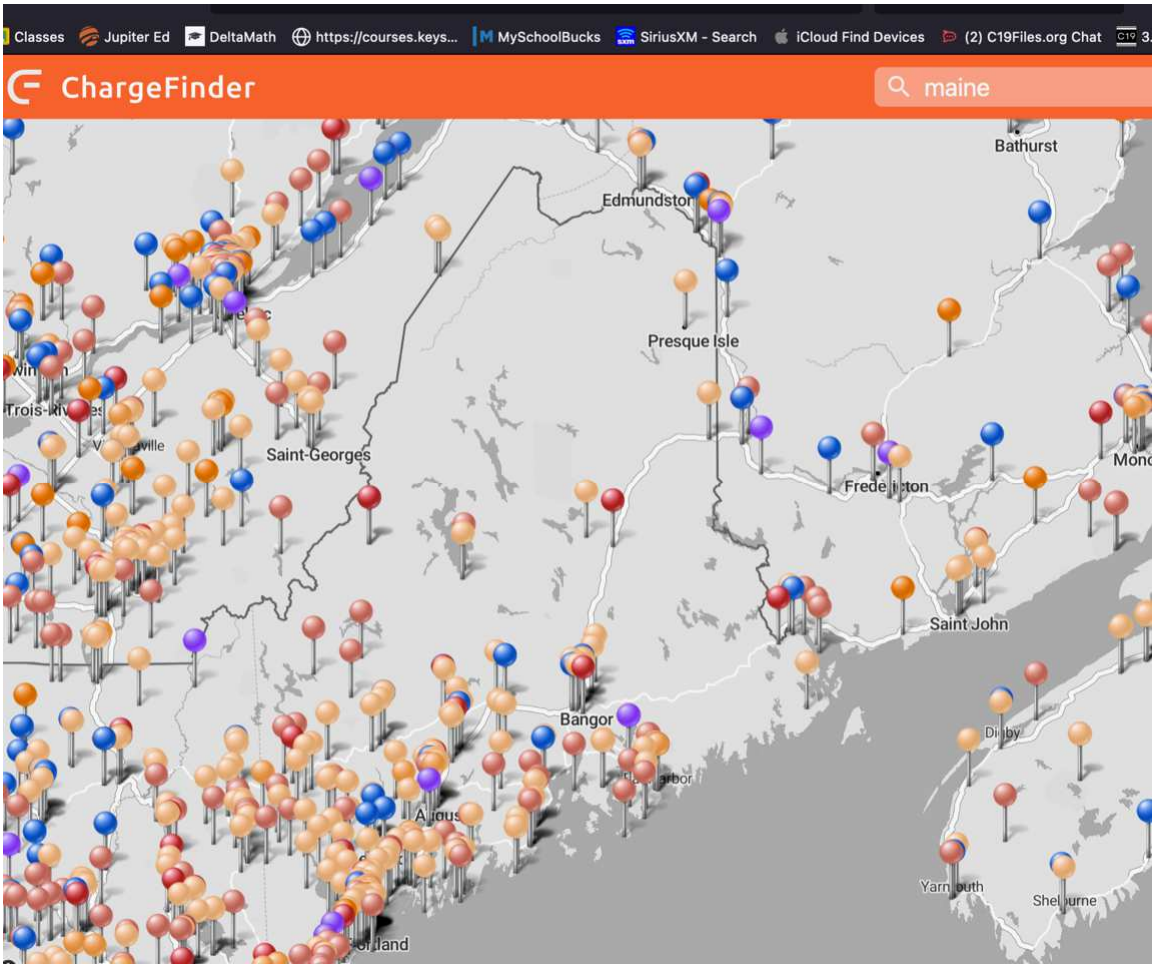
Dear DEP board,

How anyone can even consider a mandate that up to 81% of all cars sold in Maine be EV in the next 8 years is beyond comprehension considering the economic factors that would negatively affect Mainers. Most Mainers, (vs tourists and visitors) are not wealthy. Then there's the negative environmental impact caused by mining the minerals for the EVs. There's the electric grid, in Massachusetts electric vehicles are already causing problems with theirs. (According to an electrician who did some work on a friend's home there.)

So probably the most important question I'd ask is, **can our electric grid even handle that many EVs?** Let's say the answer is (a dubious) yes, a large portion of our electricity comes from FOSSIL FUELS. So what's the actual benefit to the environment if there even is one?

Then there are a few economic factors to consider:

A. With the clear lack of available charging stations throughout large portions of the state, especially in rural areas, how do you expect people to charge their vehicles?



B. People do not have a lot of money to do much of anything these days, including buying food and paying Maine's exorbitant electric bills, but then they're expected to buy an EV car and charge it at home if they can't find a charging station?

C. An EV with a battery that's big enough to travel as far as an average sized gas powered car is way more expensive with lowest price range starting maybe around 90k and moving on up to 3 or 400k. Who can afford that?

Last updated on May 5, 2023

Electric car range

How far an electric vehicle (EV) can take you on a single charge depends on the vehicle you're driving. To give you a rough idea of the possibilities, we've gathered a brief overview of the maximum EV range in models available today.

Shortest	Average	Longest
95 km (59 miles)	348 km (216 miles)	685 km (426 miles)

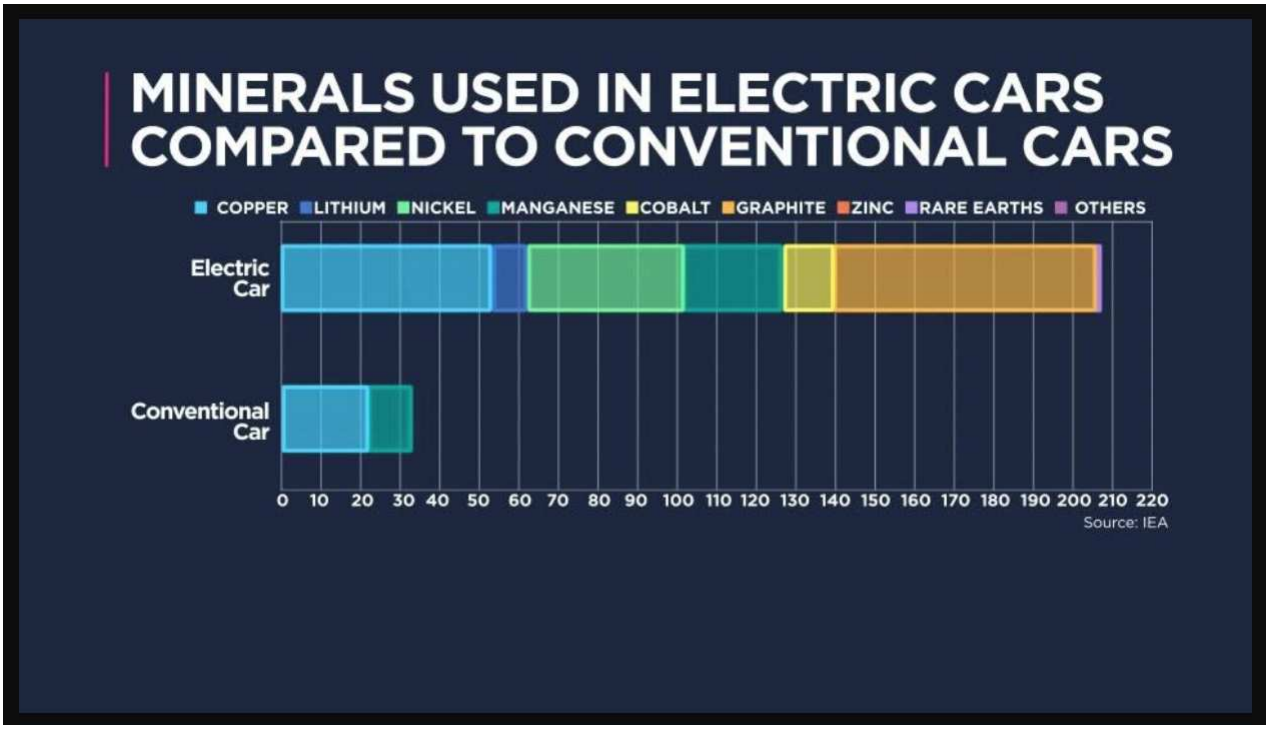
Disclaimer: These numbers are based on data available at the time when writing this blog. The shortest and longest EV range belong to the Smart Fortwo EQ and the Lucid Air Dream Range Edition respectively. The average is based on calculations by the Electric Vehicle Database.

D. Taking money into consideration again, then you have to pay at least $1000 to convert the home's electrical configuration OR have to wait up to EIGHT days to fully charge a vehicle. It's cold here, especially up North which means the batteries' charge won't last very long and you'll have to charge them often. Even if you have a 250 kW charging station close by it takes an HOUR to charge. Who wants to add hours to a long trip? Our camp is 300 miles away from us because we couldn't afford one closer to our home. We go a few times a year and the 5 hours is already way too long a drive. I'd have to stop at least one hour to charge. (I'd rather not.)

Charger speed	EV charge time from empty (Tesla Model Y)	PHEV charge time from empty (Toyota Prius Prime)	Typical charger locations
Level 1 (1.2 kW)	69.5 hours	12 hours	home
Level 2 (9.6 kW)	8.5 hours	2 hours	home, workplace, public
DC fast (250 kW)	about an hour	not supported	Public

OK so now that we know some of the negative economic affects that might be caused by this mandate let's consider these environmental issues…

A. https://cheddar.com/media/evs-gobble-up-rare-earth-minerals-as-miners-struggle-to-keep-up



B.Where do they mine all the minerals that go into the batteries? How much does one battery use? How do they do it, (child labor?)

https://www.forbes.com/sites/tilakdoshi/2020/08/02/the-dirty-secrets-of-clean-electric-vehicles/?sh=3ae3a9c7650b

conventional and electric vehicles. To begin with, about half the lifetime carbon-dioxide emissions from an electric car come from the energy used to produce the car, especially in the mining and processing of raw materials needed for the battery. This compares unfavorably with the manufacture of a gasoline-powered car which accounts for 17% of the car's lifetime carbon-dioxide emissions. When a new EV appears in the show-room, it has already caused 30,000 pounds of carbon-dioxide emission. The equivalent amount for manufacturing a conventional car is 14,000 pounds.

C. How much carbon are we actually offsetting with an EV

> Once on the road, the carbon dioxide emissions of EVs depends on the power-generation fuel used to recharge its battery. If it comes mostly from coal-fired power plants, it will lead to about 15 ounces of carbon-dioxide for every mile it is driven—three ounces more than a similar gasoline-powered car. Even without reference to the source of electricity used for battery charging, if an EV is driven 50,000 miles over its lifetime, the huge initial emissions from its manufacture means the EV will actually have put more carbon-dioxide in the atmosphere than a similar-size gasoline-powered car driven the same number of miles. Even if the EV is driven for 90,000 miles and the battery is charged by cleaner natural-gas fueled power stations, it will cause just 24% less carbon-dioxide emission than a gasoline-powered car. As the skeptical environmentalist Bjorn Lomborg puts it, "This is a far cry from 'zero emissions'".

car?

D. What about EV fires?

However in an electric vehicle, the fires that do occur are often while the vehicle is parked and charging. This means that damage and destruction of other nearby vehicles or the physical structure (garage, house, parking facility) can occur. In some cases, owners houses have been completely destroyed as a result of a fire starting while they were sleeping.

What makes EV fires different from other vehicles?

In ICE vehicles, fires are most commonly caused by fuel leaks, electrical system failures, or overheated engines. Naturally, EVs don't have to worry about most of those causes, but EVs are drastically different from ICE vehicles once a fire is already present.

In an ICE vehicle, starving the fire of oxygen will usually extinguish it. However with an electric vehicle, this will not work. That is because most battery cells already contain everything needed to sustain a fire, no outside material or oxygen is needed. The cathode of the battery cell often provides a source of oxygen, and commonly used battery chemicals are highly flammable, even at room temperature. This means that even if you submerge a burning battery cell, it will continue to have a thermal event until the temperature of the cell is reduced significantly.

I'm sure I could think of more but this is all I have time for right now. Bottom line is. Why FORCE this kind of thing on people with MANDATES? Can't we decide for ourselves what we want to buy?