

Townsend, Erle

From: Tim Kirner <tckirner@gmail.com>
Sent: Monday, January 22, 2024 6:05 PM
To: DEP Rule Comments
Subject: Comment on Chapter 127-A: Advanced Clean Cars II Program (Reposting)

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While EVs may indeed become the common form of personal transportation at some point, their adoption in Maine is perhaps premature. A reality check is in order to the so-called plusses of EVs.

1. They are “zero emission”: While it is true there are no greenhouse gasses coming out of their nonexistent tailpipes, they are not without their effect on the climate. Mandy Gunasekara Director of IFW’s Center for Energy and Conservation and former chief of staff at the U.S. Environmental Protection Agency recently wrote:

While the concept of “zero-emission vehicles” looks good on paper to some, reality paints a different picture. As one leading physicist and engineer has made clear: the average 1,000-pound EV battery requires extracting and processing 500,000 pounds of materials to procure the requisite lithium, cobalt, nickel, and other battery materials. Much of this mining is done abroad in mines that have little regard for basic environmental standards or any notion of cutting emissions. As a result, the first 60,000 to 70,000 miles of an EV are more polluting – by climate activists’ own standards – than gas-powered cars.

A quick internet search find studies showing the break-even point can vary depending upon a great many factors. Nevertheless the breakeven is never zero.

It doesn’t end there. All EVs must get electricity from some source. In Maine, 42% of our power comes from natural Gas. Which does produce greenhouse gasses when electricity is produced. While there are great plans for Maine to increase its renewable electricity output (currently at 26%), today’s Maine Sunday Telegram: [The Cost of Wind Power Offshore? No one’s sure](#) by Tux Turkel should bring some reality to that dream.

Additionally, today’s vehicles, both ICE and EVs produce tire and brake dust. In fact, the Washington Post reported these sources of pollution exceed tailpipe emissions from gas-powered cars. Further, these pollutants are unregulated. Since EVs are on average thousands of pounds heavier than gasoline vehicles, EVs produce more of these pollutants.

To say EVs are “zero-emission vehicles is to disregard reality or grossly misrepresent EVs.

2. Cost: simply put EVs are on average more expensive than ICE vehicles. In 2022, the average cost of an EV was \$61,488 versus \$49,507 for a gas powered car. Many Mainers simply cannot afford an EV. A loan for the average EV after a hefty 20% down at 5% interest would cost nearly \$1,000 per month for 5 years. That hardly seems like a reasonable cost for the average Maine citizen whose median household income is around \$60,000. So, given the high cost, the people tending to purchase EVs have high incomes. (One study done in 2020 showed the average income of EV owners was \$100,000 a year.) Plus, the so-called tax credits “up to \$7,500” are not a guarantee. The rules can be complicated and many EVs do not qualify for the maximum subsidy.

It is true the cheapest EV, The Chevy Bolt, sells for under \$30,000. However, lower cost comes at a cost – range. The optimistic range is listed as 259 miles. Which is 74 miles less than the popular Tesla Model 3.

2. Maine weather: all chemical reactions are slower at cold temperatures. Chemists know this. While EV enthusiasts don't often talk about it, it is a reality. That inexpensive Chevy Bolt, when tested at 32 degrees versus 70 degrees had a range reduction of 32%. Even the Tesla 3 lost 17% of range. Further, charging times increase as well. Think about that as you go to your EV on a zero-degree morning. Recent news from Chicago clearly show cold weather charging is a crap shoot.

3. Speaking of charging: there are a mere 469 locations with charging stations in Maine, versus 1400 gas stations. Plus, one can fill a ICE car with gas in 10 minutes. It can take hours to charge a EV, way more in cold weather. While there are plans to increase the number of charging stations, that will take time. Home charging may help with this. However, for apartment dwellers, 27% of Maine residents, home charging is not viable. Additionally, another reality facing all Mainers is the increase in electricity rates.

4. Range anxiety: For around-town commutes, ranges of 200 to 300 miles are fine. However, when thinking about a longer trip, the range does become a potential issue. First, there is the quandary about charging. One's route needs to be carefully planned to ensure charging stations are available. Next charging times need to be factored into the total trip time. Charging times can vary widely depending on a host of variables including power source, car's charging capacity, and battery size. Both very hot and cold temperatures increase charging time.

Then too is the question of whether the range figures touted by the EV manufacturer are realistic, real-world or marketing hype. For example, the figures could include around-town driving with regenerative braking. There, when braking, the vehicle returns some of the energy of braking back to the battery thus extending the range. Of course, on a long-distance highway trip, there will be little of this energy recapture. Then too, some manufacturers have been accused of simply overstating range estimates.

This is not to try to dissuade someone from purchasing an EV. Any Maine citizen has the freedom and right to do so. However, there are forces within the government, media, and the general (uninformed) public who feel EVs are the answer to climate change. Perhaps they will be in the future. But before jumping to that conclusion, it might be well to become informed.

Tim Kirner
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