

James Moore

As a long time resident (since 1977) of Washington State I strongly object to the proposed phasing out of internal combustion engine vehicles for a variety of reasons;

1) EV vehicles are not, now nor ever will be, "zero emissions" - they have to get their electricity from somewhere and those sources all create CO2 emissions (even a hydro dam has to use concrete structures and metal turbines all of which require vast inputs of energy to create and install). EV vehicles also rely upon very energy intensive (and environmentally toxic) batteries.

2) EV vehicles may be a practical and desirable choice for some urban dwellers but are not for rural people who may;

- need to travel greater distances between charging stations,
- haul greater weights over longer distances or steeper inclines,
- live off-grid and thus not have easy (or any!) access to charging capability at home.

3) EV vehicles may simply not be affordable for those who are middle and lower income (which make up the majority of rural - if not all - Washington residents).

4) EV vehicles may make sense in warmer/milder climates (such as Southern California), but present the potentially fatal consequence for northern climes when/if a driver and their passengers are stranded in their EV - either in a storm or bad traffic - and have to rely upon the battery to keep them warm for any length of time. Generating heat via a battery (of any design) is extremely difficult and inefficient and will quickly drain it, leading to exposure to freezing temps and/or an inability to ever start and drive the vehicle when the road conditions improve. This risk is even greater for rural residents due to the greater distances and more remote and unpredictable driving conditions involved.

5) EV vehicles will further centralize and concentrate (the opposite of diversify) energy demand/use and so further tax an already straining electrical grid. As a result, greater use of fossil fuels will be required further from the source (i.e. distant power plants - see comment 1), which is inherently inefficient and more susceptible to catastrophic failure. Note the problem California is having this very week just keeping its power grid working to cool homes with only a currently small EV market also demanding power.

6) Finally, the dream of a zero-emission future (with ever increasing energy demand) is simply impractical given current technology. The reason fossil fuels are popular (and ubiquitous) is they are easiest and cheapest to obtain and use. Most of the other alternative sources (such as wind and solar) are net energy drains (i.e. take more energy to manufacture and maintain than they ever produce). My hunch is EVs will also always fall into this category. They may make us feel good because they aren't polluting the very streets we drive and live on, but overall they will be causing more pollution elsewhere. The push to embrace the EV fad now is also diverting valuable resources, engineering and manufacturing skills away from more sustainable innovation. In the end EVs will fail, future politicians will reverse the current idealistic mandates, and much time, energy and money will have been wasted.

In conclusion, I think Washington State needs to be an innovative leader in this regard and not just another blind follower.

Sincerely,
James Moore
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