## **Breton, Mary B**

**From:** tom.white@juno.com

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**To:** DEP Rule Comments

**Subject:** Comment on Chapter 127-A: Advanced Clean Cars II Program

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Chapter 27 Advanced Clean Cars II Program

Dear Ms. Cayting and Staff,

I have reviewed the notice from you and Jeffrey Crawford and the brief facts sheet. I wish to make several comments. I presume "ZEV" and "EV" refer to electric vehicles. I saw no reference to hydrogen vehicles. Some call these zero emission, but they do emit water vapor, the most prominent Green House Gas (GHG).

I am a retired pastor, but my undergraduate degree was Environmental Resource Management (Penn State '74). I have gone back to studying the subject for the last two decades, mostly climate and atmosphere.

Internal combustion engines do not produce CO2, they produce CO as well as other chemicals. Left to itself, CO will combine with the abundant free oxygen in the atmosphere. However, beginning in 1975 the federal government required auto manufacturers to use catalytic converters. This was to reduce smog, ozone depleting chemicals and other harmful chemical byproducts of the combustion process. Key byproducts emitted by the converters are water vapor and CO2. These are the primary Green House Gases (GHG). Yet for years professionals described them as "harmless".

Far from being a poison, CO2 is a miracle molecule. It is the reason New England is so green and it helps keep our planet warm for plants, animals and humans. Water vapor is the primary GHG, CO2 is second. CO2 is a mere .04% (400-420ppm) of the atmosphere. The human contribution to that is 3.5 – 5%. I'm in an email dialogue with Dr. Howard Diamond, a NOAA scientist. He argues 5%, I think it is closer to 3.5. In any case it is tiny. Even if one believes anthropogenic CO2 is the primary cause for Global Warming, unless China and India (double the West) are forced reduce their CO2 emissions, there is little point for the West to continue efforts.

I do not believe there is a Global Warming/Climate Change crisis, certainly not manmade. We are in an interglacial period. These are characterized by gradual warming. There are natural causes that have a more determinative impact on surface and atmospheric warming. Just before this summer began scientists said, it may be a hot summer because El Nino will be strong. El Nino and La Nina (ENSO) are strong warming and cooling factors for climate.

The biggest news in the "Climate World" was the eruption of the Hunga-Tonga volcano in Jan. 2022. Volcanoes typically emit ash which has a cooling effect. But Hunga, being under the ocean, emitted massive amounts of water vapor. It was a record for the 18 years of satellite capacity to measure atmospheric water vapor. Estimates are, it added 10 - 13% to the current atmospheric concentration.

This may cause global warming for the next 5 years.

Antarctic ice cores go back to about 800,000 years. There are various spikes in temperature and CO2 rises. I recall there are seven. In all cases, CO2 rise follows temperature by 100 – 800 years. Even Dr. Diamond acknowledges this. Obviously, CO2 did not cause the temperature increase.

In addition to powerful natural causation, CO2 has its limits. I am studying the Well Mixed Theory, the logarithmic effect of CO2 and the saturation of atmospheric CO2. The latter two are similar. It appears that CO2 is not well mixed around the globe and its concentration is certainly changed seasonally by vegetation. That limits its ability to absorb atmospheric IR waves. Perhaps more important is, it appears that CO2's warming effect is logarithmic. That is, as the

concentration increases its warming effect decreases. It is not linear. Said another way, it reaches saturation. Its ability to absorb IR waves diminishes. We should not be concerned with trying to reduce anthropogenic CO2.

We should not be forcing manufacturers to produce higher percentages of EVs, at least until the electrical infrastructure has been built-up to accommodate the greater need. We should walk before running. Hybrid vehicles should be promoted first. South Korea has proceeded in this direction. Currently, the mining for rare earth materials for EV batteries is highly pollutive. In addition, China has a corner on the market, making the US more dependent on China. We should be mining and producing battery technology ourselves.

I do support renewable energy but not to avert a Global Warming crisis from CO2. I have been a fan of Hydroelectric energy for years. New England is particularly equipped to use this resource with its many small dams. However, all energy sources have their side effects. Local author Stephen Kasprzak in *Arctic Blue Deserts* discusses the damage done by the mega dams of Hydro Quebec and Russia on their rivers of the Arctic. His theist is, there is anthropogenic Global Warming, but it's not caused by CO2. The massive reservoirs have given off much heat absorbing water vapor. Also, they have changed the albedo of water and ice. Instead of solar reflecting ice, there are many square miles of solar radiation absorbing unfrozen water. These side effects are in addition to degradation of natural coastal fisheries by preventing nutrient rich out flows of spring melting over the decades.

It is unwise to institute a restriction of gasoline and diesel fuel vehicles while increasing the production of all electric vehicles. It is not necessary to attempt the reduction of anthropogenic CO2. I would be happy to discuss these matters with you or your staff. Thank you for your time and attention.

Sincerely, Tom White Kennebunk