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RE: Public Comments on Alternative to proposed Amendments to 7 DE Admin. Code 1140, Delaware Low Emission Vehicle **Revision 1 with changes in bold type**

DNREC has stated they must respond to the US EPA demand for an updated State Implementation Plan (SIP) that establishes a path forward to attain compliance with the National Ambient Air Quality Standard (NAAQS) for ozone¹. All Delaware counties are in attainment for the standard however, New Castle County is included in the Greater Philadelphia Non-Attainment area with one station that is still over the standard. DNREC is amending its Low Emission Vehicle regulation to mandate the use of zero emission Electric Vehicles (EV) for submission in the SIP². Auto manufacturers will be required to sell 35% EVs by Model Year 2027, and 100% by 2035³ **when gasoline powered vehicles will be effectively banned in Delaware.** A less drastic step is to petition the EPA to remove New Castle County from the Greater Philadelphia Non-attainment area, a process that has already been followed to remove Sussex and Kent Counties. **That action removes the basis for amending the Low Emission Vehicle regulation.**

In 2017 DNREC recommended Kent County be removed from the Philadelphia Non-attainment area and be found to be in attainment as the three year average maximum ozone was at 66 PPB compared to the 70 PPB standard according to an EPA technical support document¹⁵. DNREC also requested New Castle County be removed from the Philadelphia Non-attainment area, and be classified as a single county Non-attainment area as its three year average for ozone was 74 PPB. The EPA agreed on Kent County, but rejected the recommendation on New Castle County stating on page 38:

“Based on its relatively high emissions and meteorology that indicates that it is upwind of nearby violating counties in the Philadelphia-Wilmington-Atlantic City area, EPA determines that it is contributing to those violations and should be part of that nonattainment area.”

The situation is now reversed with the ten closest upwind Air Quality Monitoring Stations all in compliance and the highest reading station in New Castle County at 65 PPB which is lower than Kent County was in 2017 when it was found to be in attainment. A second criteria pollutant, nitrogen dioxide, has a three year average maximum of 41 PPB compared to a 100 PPB standard¹⁶. In addition, total Delaware emissions from highway vehicles and large New Castle County point sources have dropped about 40% since 2017 and by 80% to 90% since 1990¹⁷. Emissions will continue to fall as older vehicles leave the fleet. Clearly DNREC should make the case to the EPA New Castle County should be removed from the Philadelphia Non-attainment area, and be found in attainment.

The NAAQS standard requires a maximum level of 70 PPB for the fourth highest 8 hour period averaged over three years. The highest Air Quality Monitoring (AQM) station in New Castle County



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averaged 68 PPB over the 2018 to 2020 period used by the EPA. The more recent three year period of 2020 to 2022 averaged even better at 65 PPB. Air quality has been improving as older vehicles in the vehicle fleet are replaced by new lower emitting vehicles along with lower industrial and building emissions. When measurements started in 1980 Wilmington had 180 days over a less stringent standard with many of those days way over the standard. In 2022 there was not a single day over the current more stringent standard.

The Greater Philadelphia Non-attainment Area includes 21 AQMs in 13 counties and 20 stations now meet the standard, but the station in Bristol, PA averaged 73 PPB in the 2020 to 2022 period. The 2021, 77 PPB result at Bristol seems out of line with the 70 in 2022 and 71 in 2020. A little research turned up high days matched high wildfire smoke days from western wild fires on at least three occasions, and those exceptional events can be excluded by petition to the EPA. Doing so would show Bristol had a three year average of just 71 PPB, barely over the standard.

The EPA includes counties in the region as they may contribute to high days because of prevailing winds from the southwest. However, there are ten AQM's upwind that are in attainment between Wilmington and Bristol, and two nearby upwind stations from Bristol in Mercer County are also in attainment. The Bristol station is surrounded by four high traffic roadways within one-quarter to one-half mile. All this suggests the air pollution problem in Bristol is now local, not regional. It is also likely Bristol will be in attainment as soon as two years from now without any added emission control steps.

A review of nine light duty vehicle models from manufactures offering both EV and similar non-EV models found an average premium of \$14,300 for EVs when the Delaware 3.75% document fee was included⁴. EVs are simply not affordable for most people. Limited supplies of key raw materials are causing costs to rise, and \$7,500 federal subsidies require materials and batteries must be made in the United States which is not a low cost supplier⁵. One stakeholder reported a study that showed EVs would be competitive with gasoline powered vehicles in four years. Great if that happens, but it only means regulatory mandates will not be needed to encourage sales.

DNREC also focused in the stakeholders meeting on the importance of Environmental Justice. Yet it is the very low income families DNREC supposedly cares about who can least afford EVs, have no dedicated space for charging their vehicles, and could least afford the potential \$15,000 to \$20,000 cost of replacing a battery pack in a used EV. It is noted one of the mitigations proposed is to develop a car sharing option for low income families. That basically assumes low income families could not look forward to private vehicle ownership in the future. In rural areas lower income people often have longer commutes to their jobs adding extra cost for charging. Environmental Justice apparently only means reducing air pollution in urban areas, a great goal, but again the entire state is now in compliance with all air quality standards so the goal has been met.

In California⁶ the state offers up to \$14,000 in purchase subsidies to low and moderate income families making up to about \$140,000 a year if they turn in an old vehicle made before 2008. The state also offers \$7,500 for families who chose to go car free. Another \$2,000 is available to offset EV charger costs. The proposed DNREC regulatory amendment offers no financial incentives. The non-profit Alliance of



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Automotive Innovations, in a letter to governor Carney, estimated our state government would need to spend \$100 million on chargers and EV purchase subsidies to meet the regulatory goals. Such funding has not been approved by the legislature. DNREC offers a \$2,500 EV purchase grant, but no residential charging station grants. Going forward with the proposed amendment without funding is a tragedy for the Environmental Justice community.

It has been suggested EVs cost less to fuel offsetting the higher purchase price. The US Department of Energy estimates 80% of charging occurs at home at night⁷. Our analysis⁸ comparing a Honda Fit with a similar size Chevy Bolt EV shows a \$524/year fuel saving for the EV with currently available Time of Use electricity pricing. However, as EVs are widely adopted the night electricity use will rise and the Time of Use rate may end which could raise fueling cost by \$240/year (12.5 cents/KWh instead of 5.6 cents times 3,472 KWh/year). EVs currently don't pay fuel taxes to the state and federal Highway Trust Fund used for road repairs and construction. New miles driven taxes may add another \$57/year to EV fueling cost. Finally, plans to replace existing electric generation with renewable energy and battery backup may raise electric rates. Virginia is the only state that has calculated the increase for an actual utility company plan and estimated electric rates would rise 58%⁹. A similar increase in Delaware would add another \$252/year to fueling cost (7.25 cents/KWh increase). These changes wipe out the current estimated fuel savings.

Hybrid gasoline/battery vehicles can offer 50% better mileage than non-hybrid vehicles for a purchase premium as low as \$1,450 that is paid back in as little as two years¹⁰ from fuel savings. Hybrids outsold full battery EVs about two to one in 2021¹¹. The proposed amendment does not include hybrid vehicles.

The underlying authority for the regulation is a federal waiver granted to California that is under legal challenge¹². California was given the waiver for air pollutants like ozone because of unique local issues. However, greenhouse gases, such as carbon dioxide are global, not local. The Supreme Court recently ruled in *West Virginia v. EPA* such major expansions of the meaning of a rule require Congressional approval. DNREC is following the California EV mandates based only on an executive order from the Governor¹³. Delaware regulations should await the resolution of those challenges.

The Low Emission Vehicle Program amendment is a major issue and requires a massive commitment of state funding for EV and EV charger subsidies. It is not logical to employ such a significant new regulation for a currently non-existent air pollution problem. Of course there is the unspoken possibility air pollution regulations are being used as a back door to regulate carbon dioxide emissions. DNREC's last Secretary's Order 2019-A-0017¹⁴ issued April 15, 2019 regarding the Low Emission Vehicle Program entirely encompassed greenhouse gas emissions with no reference to air quality emissions. So, it is likely the current amendment is really about reducing carbon dioxide emissions. Both the US Congress and the Delaware legislature have never passed legislation to regulate carbon dioxide. Delaware Senate Bill 305 designed to provide that authority failed to pass in 2022 precisely because it could result in banning gasoline powered vehicles, but the bill is likely coming back in 2023. Any new regulatory actions need to wait the outcome of a legislative debate on this issue that could have such major cost consequences for Delaware citizens.



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