



May 26, 2023

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Office of the Secretary
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Submitted electronically to: DNRECHearingComments@delaware.gov and <https://de.gov/dnrecomments>¹

Subject: Department of Natural Resources and Environmental Control, Division of Air Quality
Register Notice SAN # 2022-01, DOCKET # 2022-R-A-0011, 1140 Delaware Low Emission Vehicle Program

The American Petroleum Institute (API)² appreciates the state's desire to be at the front of the curve with respect to energy and environmental policies. While the Department of Natural Resources and Environmental Control (DNREC and the department) is proposing to adopt California's Advanced Clean Car II rule to pursue those goals, API encourages Delaware to retain state sovereignty and refrain from ceding authority to California by adopting its passenger vehicle emissions and related rules. API supports policies that provide customer choice with respect to vehicle purchases. Additionally, API believes markets that are allowed to function within technology-neutral policies should dictate the evolution of the passenger-vehicle fleet, which in turn can help address cost concerns.

Reliable and Affordable Energy is Needed

API's members are applying their abilities and resources to develop emission reduction policies in the transportation sector in a manner that allows Delaware, and all consumers, the ability to choose the technology that best meets their needs. As the trade association representing the natural gas and oil industry, API is uniquely positioned to think about energy solutions, safety, and innovation for the next generation. API welcomes discussion on viable solutions to the dual challenge of ensuring reliable and affordable energy supplies to support economic growth and human prosperity, while advancing environmental progress.

All Technologies Should Compete to Reduce Transportation GHG Emissions

The free market has a proven track record of demonstrating that competition can achieve policy objectives and effectuate advanced technology at a reduced cost to the consumer. Delaware should support policies that allow all technologies to compete including efficient gasoline and diesel vehicles operating with conventional and biofuel blends, battery electric vehicles, hybrid vehicles, hydrogen fuel cell, and hydrogen internal combustion vehicles. Technology-neutral policies create the most efficient and effective opportunities to reduce greenhouse gas

¹ Hard copies of these comments will also be sent via U.S. Mail.

² The American Petroleum Institute represents all segments of America's natural gas and oil industry, which supports more than ten million U.S. jobs and is backed by a growing grassroots movement of millions of Americans. Our 600 members produce, process and distribute the majority of the nation's energy, and participate in API Energy Excellence, which is accelerating environmental and safety progress by fostering new technologies and transparent reporting. API was formed in 1919 as a standards-setting organization and has developed more than 700 standards to enhance operational and environmental safety, efficiency, and sustainability.



emissions in the transportation sector for both new vehicles as well as in the existing vehicle fleet.

API members have and continue to make significant investments in new technologies that reduce carbon emissions in transportation, including: stand-alone production and coprocessing of bio-feedstocks to make renewable fuels; manufacturing of low-carbon ethanol; manufacturing of renewable natural gas from wastewater, landfill gas, and biodigesters at farms as fuel for CNG vehicles; production of blue and green hydrogen for transportation and stationary applications including building infrastructure; direct air carbon capture; carbon capture and sequestration of CO₂; development of advanced plastics to meet auto industry standards and consumer expectations while mitigating environmental impact through emissions reduction and improved vehicle efficiency by light-weighting; and installation of electric vehicle charging stations

To fully assess the environmental performance of different powertrains it is necessary to analyze the emissions generated during all phases of the vehicle.

A Lifecycle Assessment is Necessary to Understand the Best Options for Reducing Carbon Emissions

Any rule should be based on a full life-cycle analysis (LCA) that considers all vehicles have emissions across their life-cycle from production, utilization, infrastructure and disposal. Using this analytical method will provide the best opportunity to decarbonize the transportation sector. Simply analyzing tailpipe emissions is not a scientifically sound approach to assessing vehicle emissions. According to one study, “advanced internal combustion engine vehicles (ICEVs) and hybrid electric vehicles (HEVs) can produce comparable reductions in GHG emissions as similarly equipped, full battery electric vehicles.”³ In order to provide comprehensive evaluation of GHG impacts, DNREC should undertake an analysis of the complete lifecycle emissions of passenger vehicles from mine-to-wheel and well-to-wheel of battery electric vehicles and internal combustion engine vehicles, respectively.

Delaware Should Conduct Further Analysis

Delaware should retain jurisdiction over its policies to address its air quality rather than incorporate by reference California standards. This will prevent substantive changes from automatically taking effect in the state if California adopts those changes by amending existing sections of its Code of Regulations that have been previously incorporated in Delaware. What is best for California is not necessarily what is best for Delaware. Further, Delaware is leaving emissions reductions on the table for vehicles currently on the road, as well as those ICEVs that will be sold today.

Delaware’s Regulatory Flexibility Analysis (RFA) requires the proposing agency to assess “other alternative regulatory methods that will accomplish the objectives of the proposed regulation while minimizing the adverse impact upon individuals and small businesses.” In response to the RFA, DNREC states that, “the compliance obligation for this regulation is not imposed on individuals and/or small business. The compliance obligation for this regulation is on automobile manufacturers.”⁴

While it is technically accurate that the proposed regulation is directly imposed on the automobile manufacturers, the mandate has a significant impact to individuals and small businesses who, when purchasing a new passenger vehicle, will have no option but to buy an electric car in Delaware starting in 2035. According to data from Cox Automotive, the average transaction price for electric cars was \$65,000 which is \$17,000 more than a comparable gasoline-powered car.⁵ That is more than a third (36 percent) more expensive. Even with a \$7,500 federal tax

³ ConservAmerica, “Slow Down: The Case for Technology Neutral Transportation Policy,” p. 1, December 2020.

⁴ RFA, 19 DE Reg. 528 (12/01/15) (Final), page 4.

⁵ Kelley Blue Book, *Electric Car FAQ: “How Much are Electric Cars?”* <https://www.kbb.com/car-advice/electric-car-faqs/#link10>, October 31, 2022, accessed May 19, 2023.



credit (which should not be assumed) and a \$2,000 state tax credit, the average transaction price would remain \$7,500 more than the gasoline vehicle.

Additionally, it is not apparent that the DNREC reviewed any alternatives to the adoption of California’s ACC II requirement that mandates that 43 percent of the new vehicles sold in Delaware be electric by 2027, 76 percent by 2031, and 100 percent by 2035.

Finally, it does not appear that Delaware has reflected on the impact of the department’s actions in relation to energy security considering that moving to BEVs will force the industry to rely on other countries such as China for materials to manufacture BEVs. Delaware also must consider challenges for the power sector and EV charging infrastructure. Thus, there are other issues to consider before adoption of ACC II.

Cost to the Consumer of the Proposed Rule Not Fully Considered

The Regulatory Impact Statement indicates that total cost of ownership is a net benefit for a battery-powered electric vehicle (BEV) with a “home charger” and for a “no home charger” scenario. However, in the “no home charger” scenario there is only a \$150/year benefit.

In contrast, according to a United States Department of Energy Argonne National Labs presentation, the levelized cost of driving (LCOD) on a dollar per mile basis for a midsize sedan is about the same for a conventional gasoline fueled vehicle when compared to a BEV with a 400-mile range (BEV 400) and only slightly less cost efficient when compared to a BEV 300.⁶ Similar results are identified for a Small SUV in the “high tech future.” A hybrid electric vehicle is shown to have an even lower LCOD than the conventional gasoline vehicle. This more cost-effective solution is excluded by ACCII. The extracted charts below are provided for reference (note the second chart includes arrows and call-out boxes added for emphasis).

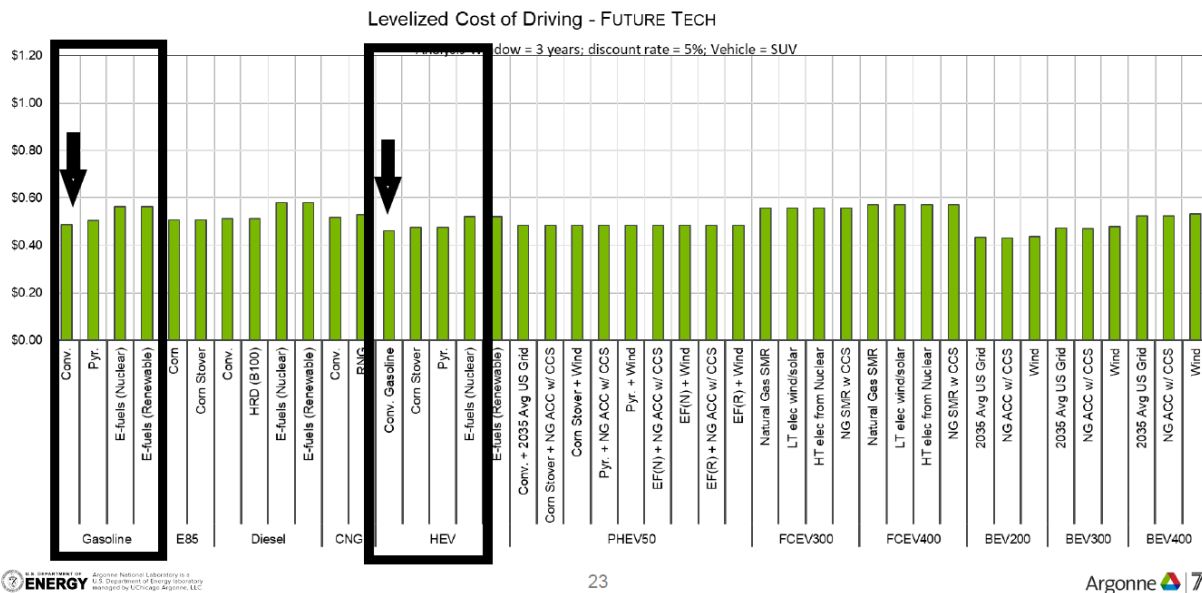
**LCOD RESULTS FOR MIDSIZE SEDAN [\$/mi]
(HIGH TECH FUTURE) [MY2030]**



⁶ Amgad Elgowainy, Ph.D, *Levelized Cost of Driving*, October 2021 Presentation.pdf.



LCOD RESULTS FOR **SMALL SUV** [\$/mi] (HIGH TECH FUTURE) [MY2030]



Additional Considerations

The DNREC should also consider other issues that impact the adoption of ACC II, such as:

1. Is the electric grid capable of supporting the mandated number of vehicles?
2. How will low-income residents living in multi-unit housing be impacted?
3. Will this impact energy security? How much does the technology rely on China and other countries?
4. What are the environmental impacts across the country and world in developing the necessary minerals to support the mandated volume of vehicles?
5. Is it a realistic approach to mandate this technology?
6. Are there less expensive and more efficient ways to reduce carbon emissions?
7. What are the downsides of focusing on one technology?

Conclusion

In conclusion, DNREC should refrain from adopting the California Advanced Clean Car II rule, which has not been approved by EPA, and consider alternatives that could result in achieving the societal goals of reducing carbon emissions in a way that is faster and more cost effective for the people of Delaware.

Respectfully submitted,

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