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Attachments: AFPM DELAWARE ACC II Comments Final 052623.pdf

Comments on 2022-R-A-0011: Low Emission Vehicle Program

Name: Richard Moskowitz
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Organization: American Fuel and Petrochemical Manufacturers

Comments:

Upload 1 of 3 Please accept the American Fuel and Petrochemical Manufacturers' comments on the DNREC's proposed adoption of California's Advanced Clean Car II regulation. This filing includes three .pdf files: (1) AFPM's comments to DNREC's proposal; (2) Attachment 1 - AFPM's comments to the California Air Resources Board; and (3) Attachment 2 - AFPM's comments to the New York Department of Environmental Conservation.

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March 6, 2023

New York State Department of Environmental Conservation
Division of Air Resources
625 Broadway
Albany, NY 12233-325
ATTN: James Clyne, P.E.

-Submitted electronically via email to: air.regs@dec.ny.gov.

RE: Proposed Rulemaking 6 NYCRR Part 218, *Emission Standards for Motor Vehicles and Motor Vehicle Engines* and Part 200, *General Provisions*.

A. Introduction and summary of comments.

A1. AFPM and its interest in NYSDEC's proposed adoption of ACC II.

The American Fuel & Petrochemical Manufacturers (AFPM) appreciates the opportunity to comment on the New York State Department of Environmental Conservation (NYSDEC) proposed amendments to Title 6 of the New York Codes, Rules, and Regulations (NYCRR).¹ AFPM is a national trade association representing nearly all U.S. refining and petrochemical manufacturing capacity. AFPM members support more than three million quality jobs, contribute to our economic and national security, and enable the production of thousands of vital products used by families and businesses throughout the U.S. AFPM members are also leaders in producing lower carbon fuels, such as renewable diesel and sustainable aviation fuel.

A2. Summary of AFPM's reasons for opposing NYSDEC's proposal.

NYSDEC is proposing to adopt CARB's ACC II standards, but it is preempted from doing so. NYSDEC must consider whether the measures called for in the California ACC II rule conflict with or are otherwise preempted by the statutory mandates of federal legislation such as the Energy Policy and Conservation Act ("EPCA"); the federal Clean Air Act ("CAA"); and the Energy Independence and Security Act ("EISA"), including the Renewable Fuel Standard ("RFS") program.

For example, EPCA expressly preempts states from adopting regulations "relating to" fuel economy standards, and ACC II falls squarely within that preemptive footprint. Congress did not authorize the National Highway Traffic Safety Administration (NHTSA) or the Environmental Protection Agency (EPA)

¹ By making the following comments available to NYSDEC, AFPM, or any of its members, respectfully do not waive the ability to assert any additional argument at a later date. Additionally, AFPM, or any of its members, reserve the right to supplement or clarify these comments at a later date in one or more subsequent responses.



to waive this express preemption. ACC II is also impliedly preempted under EPCA because it conflicts with important objectives of EPCA and other federal statutes, including the RFS.

ACC II is also expressly preempted by the CAA. Unlike EPCA, EPA may waive this motor vehicle emissions standard preemption under certain conditions. However, California has not even applied to EPA for a waiver from this preemption for ACC II, let alone obtained it. Unless and until California obtains this waiver, New York is preempted by the CAA from adopting and enforcing ACC II.

Not only has California not obtained a waiver for ACC II, ACC II is not a valid subject for an EPA waiver. As our attached comments on CARB's ACC II proposal² (incorporated herein by reference) demonstrate, ACC II and CARB's analysis supporting it are flawed by CARB's failure to conduct an accurate lifecycle assessment (LCA). Without such an analysis, neither CARB nor NYSDEC can demonstrate that ACC II is needed to address compelling and extraordinary circumstances or that its benefits exceed its costs. Moreover, global climate change is not a "compelling and extraordinary condition" under Section 209(b)(1)(B) of the Clean Air Act, as California does not suffer any distinct, localized problem, and California's conditions related to global climate change are not "extraordinary" compared to other states.

Additionally, pending litigation in the D.C. Circuit challenges the CAA preemption waiver mechanism itself, as well as its application to California's greenhouse gas (GHG) regulations, including the predecessor program to ACC II, which relies on the same purported source of authority. Separate and apart from the other concerns our comments raise, NYSDEC should wait until this litigation is resolved before adopting ACC II.

ACC II also includes measures that may violate other constitutional provisions and principles. These include, but likely are not limited to, the Dormant Commerce Clause, which prohibits state regulations that improperly discriminate against out-of-state commercial interests or that unduly burden interstate commerce; the dormant foreign affairs preemption doctrine under the Supremacy Clause, which preempts state laws that intrude on the exclusive federal power to conduct foreign affairs; the Takings Clause of the Fifth Amendment, which precludes the taking of private property (or the elimination of entire industries) for public use without just compensation; and the equal sovereignty doctrine, which constrains the federal government from treating states disparately. New York must carefully consider and analyze these additional legal limitations in deciding whether to adopt the ACC II program, as any such adoption would likewise violate the same constitutional principles.

NYSDEC's analysis in support of its proposed adoption of ACC II is further arbitrary and capricious, including the decision to ignore actual emissions that would be accounted for in a properly conducted LCA. Furthermore, where it does not simply adopt CARB's analysis wholesale without meaningfully adjusting for the differences between the two states, it contains unsupported assertions as to the costs and benefits of its proposed action. NYSDEC's analysis thus fails to meaningfully analyze and transparently present the actual costs and benefits of its proposed action. Chief among the major issues NYDEC neglects are the need for electric grid updates to satisfy the significant increase in demand for electricity that ACC II will generate, the need to replace EV batteries and the resulting waste

² Also available at: <https://www.arb.ca.gov/lists/com-attach/477-accii2022-AHcAdQBxBDZSeVc2.pdf>



management challenges and lifecycle emissions impacts, and the rare mineral demand that will outpace supply and lead to an increase in battery costs, not a decrease as NYSDEC incorrectly projects.

In addition, NYSDEC should not ignore the broader geopolitical context against which it acts: the United States depends, and will necessarily continue to depend, on China for these minerals, and adopting policies like ACC II will only increase that dependence. A transition to so-called Zero Emission Vehicles (ZEVs) would expose New York residents to supply chain vulnerabilities largely beyond the control of regulators. For instance, by 2030, Wells Fargo projects a risk of shortages across all of the key components of EV batteries, except manganese.³ This risk is exacerbated by long lead times for EV battery supply chains⁴ and a reliance on geopolitical rivals who control those supply chains.⁵ Finally, adopting ACC II would constitute a regulatory taking requiring just compensation, which NYSDEC's proposal has not accounted for.

In light of the above, AFPM recommends that NYSDEC revoke this emergency rulemaking and start afresh through the standard rulemaking process, detailing its legal authority and providing a full accounting of the costs and benefits of the proposal. Considering AFPM's foregoing comments, NYSDEC also should reconsider whether to re-propose adopting ACC II *at all*, given that its adoption would be preempted by federal law.

The remainder of these comments discuss AFPM's serious concerns with NYSDEC's proposal to adopt California's ACC II. In section B, we focus on NYSDEC's failure to demonstrate that the legal authorities it cites support adoption of ACC II. In section C, we highlight the deficiencies in NYSDEC's environmental and economic analyses. In Sections D and E, we discuss federal preemption of ACC II and pending litigation. In Section F, we observe that adoption of ACC II constitutes a regulatory taking requiring just compensation. Finally, Section G describes some of the unintended consequences of California's initial foray into ZEV mandates under ACC I.

B. The legal authorities NYSDEC cites do not justify its proposal.

B.1 NYSDEC has not justified its use of "emergency" rulemaking procedures to adopt ACC II.

NYSDEC has not sufficiently analyzed the costs and benefits and environmental impacts necessary to support this emergency rulemaking. NYSDEC adopted ACC II "on an emergency basis," effective immediately as of December 13, 2022.⁶ As authority for doing so, NYSDEC cited section 202(6) of the State Administrative Procedure Act (SAPA).⁷ NYSDEC's invocation of this authority is misplaced. The proposal does not satisfy the requirements of the emergency-rulemaking provision that it cites. In any event, the action in question is plainly inappropriate for emergency rulemaking and adoption of regulatory procedures effective immediately with no prior opportunity for public comment, because it addresses an increase of ZEV mandates beginning in two years.

³ Colin M. Langan, et al., *BEV Teardown Series: The Untold Electric Vehicle Crisis, Part 1: Tesla Model Y—The Pace Car*, WELLS FARGO, May 11, 2022.

⁴ See 2022 Global EV Outlook (IEA May 2022) at 6-7, 178-79, available at <https://www.iea.org/reports/global-ev-outlook-2022> (last visited Mar. 3, 2023)

⁵ *Id.*

⁶ N.Y.S. Reg. (Dec. 28, 2022), at 38, available at <https://dos.ny.gov/system/files/documents/2022/12/122822.pdf> (last visited Mar. 3, 2023).

⁷ *Id.*



New York law authorizes NYSDEC to adopt a rule on an “emergency basis” only if the rule “is necessary for the preservation of the public health, safety or general welfare” and only when a formal rulemaking proceeding would be “contrary to the public interest.”⁸ NYSDEC cannot satisfy this standard, as immediate adoption of ACC II will not meaningfully alter global carbon emissions, much less to a degree needed to demonstrate that ACC II is “necessary” to preserve public health, safety, or general welfare. Indeed, New York is concurrently considering multiple other carbon abatement programs, including a low carbon fuel standard.⁹ Likewise, the federal EPA sets light-duty vehicle standards to regulate carbon emissions from new motor vehicles. That both federal and state policymakers are actively considering multiple options for carbon reductions is *prima facie* evidence that an emergency rulemaking is neither necessary nor appropriate. Finally, even if such an emergency existed, for the time being NYSDEC’s adoption of ACC II will do nothing to address it because the rule could not take effect until EPA issues a Clean Air Act waiver to California.¹⁰

Even if NYSDEC could satisfy the substantive requirements for emergency rulemaking, it has not complied with the emergency adoption rulemaking procedures to fully describe the specific reasons for circumventing the protections of a full and complete rulemaking. “A notice of emergency adoption” must

include a statement *fully describing the specific reasons* for [the required] findings *and the facts and circumstances* on which such findings are based. Such statement shall include, at a minimum, a description of the nature and, if applicable, location of the public health, safety or general welfare need requiring adoption of the rule on an emergency basis; a *description of the cause, consequences, and expected duration of such need*; an *explanation* of why compliance with the requirements of subdivision one of this section would be contrary to the public interest; and an *explanation* of why the current circumstance necessitates that the public and interested parties be given less than the minimum period for notice and comment¹¹

The notice’s justification for emergency rulemaking reads in full:

Failure to maintain the most stringent vehicle emissions standards possible by immediately adopting this rule will be detrimental to the public health and general welfare of New Yorkers. Compliance with the requirements of SAPA § 202(1) would be contrary to the public interest in this instance as the immediate adoption of this rule is necessary to preserve the public health and general welfare of the citizens of the State, due to the loss in GHG and co-pollutant emission reductions caused by a delay. In order to maintain the cleanest motor vehicle standards available to New York, we must adopt these standards now. This amendment is adopted as an emergency measure because time is of the essence.¹²

⁸ SAPA § 202(6)(a)

⁹ See Scoping Plan (N.Y.S. Climate Action Council Dec. 2022), *available at* <https://climate.ny.gov/resources/scoping-plan/> (last visited Mar. 3, 2023) (including Secnario 2: Strategic Use of Low-Carbon Fuels).

¹⁰ We address these issues below in greater detail in sections B.5 (CAA preemption) and C.4 (NYSDEC’s GHG analysis).

¹¹ SAPA § 202(6)(d)(iv) (emphases added).

¹² N.Y.S. Reg. (Dec. 28, 2022), at 39.



This statement is wholly conclusory. The only specific finding is its assertion that immediate adoption of ACC II will avoid a “loss in GHG and co-pollutant emission reductions.” But this single dependent clause identifies no basis to invoke emergency-rulemaking procedures that would not apply equally in the case of any other environmental regulation—*every* delay in environmental regulation could conceivably result in fewer reductions of some pollutant. Courts have invalidated attempts to use emergency-rulemaking authority where the acting agency gave only such general, conclusory statements of need, instead of complying with SAPA’s notice requirements.¹³

In addition, the proposal’s “Needs and Benefits” section states that there are ozone non-attainment areas in the state and that EPA will reclassify some areas as “severe” nonattainment. However, the CAA was designed to purposefully allow states flexibility to adopt control strategies and extend compliance deadlines while progressively adopting more stringent emission controls, many of which have already been undertaken at the federal and state level and simply need time for implementation to bring the area into attainment. Also, the overwhelming majority of NY is in compliance with the 2015 8-hr ozone standard and only the metro NYC area is designated as “moderate” nonattainment as of February 28, 2023.¹⁴ While it is true the metro NYC area has been designated as “severe” nonattainment with the 2008 ozone standard, this designation was made at the request of New York to EPA, and as New York stated in the request, “New York State continues to exceed its Reasonable Further Progress emission reduction requirements.”¹⁵ Moreover, New York has not exceeded the new July 20, 2027 compliance deadline to attain the standard.¹⁶ Most importantly, New York does not clearly explain to the public that its own ‘business as usual’ analysis shows that light-duty vehicle NOx emissions in the state under current regulations will drop by 73% (between 2025 and 2040), PM2.5 emissions will drop by 31% and CO2 emissions will drop by 35%.¹⁷ Clearly, there is no emergency to further accelerate these emission reductions beyond levels already required under federal and state regulation, given that these emissions are declining rapidly.

In any event, this regulatory action is plainly inappropriate for emergency rulemaking. If NYSDEC adopts ACC II, this will result in a 12 year-long “ramp-up” of car standards and so-called “Zero Emission Vehicle”

¹³ See, e.g., *Demetriou v. N.Y.S. Dep’t of Health*, 162 N.Y.S. 3d 673, 678 (Sup. Ct. Nassau Cty. 2022) (regulatory mask mandate “was promulgated as an emergency ‘regulation’[,] however, respondents cannot support the ‘emergency’ classification other than to say the Commissioner chose to call it an emergency. It is clear that [the mask mandate] was promulgated *without any substantive justification* for the emergency adoption as required by [SAPA] as the only justification the respondents offered for emergency adoption was *entirely conclusory* As a result, the ‘emergency’ ‘rule’ . . . must fail as violative of the State Administrative Procedure Act.”) (emphases added); *Brodsky v. Zagata*, 629 N.Y.S. 2d 373, 377 (Sup. Ct. Albany Cty. 1995) (“The State has failed to comply with the minimal requirements of SAPA. Simply put this record is devoid of any finding of immediate necessity, emergency, or undue delay because of a failure to follow the SAPA ‘statement’ requirement *fully describing the specific reasons* for such findings and facts. Further the Notice of Adoption did not explain *in any detail* why compliance with normal rule making procedure would be contrary to the public interest or why the current circumstances necessitate the use of emergency rule making procedure.”) (emphases added)).

¹⁴ See https://www3.epa.gov/airquality/greenbook/ny8_2015.html.

¹⁵ See NYSDEC SIP Attainment Demonstration, November 29, 2021, https://www.dec.ny.gov/docs/air_pdf/sipseriouso3nynma.pdf.

¹⁶ See 87 Fed. Reg. 60,929 (Oct. 7, 2022), <https://www.govinfo.gov/content/pkg/FR-2022-10-07/pdf/2022-20458.pdf#page=1>.

¹⁷ See the ‘Tables’ tab of the spreadsheet available at <https://www.dec.ny.gov/chemical/8394.html>, Advanced Clean Cars II (ACC II) Emissions Summary for New York State (Excel).



(ZEV) mandates,¹⁸ beginning in model year 2026,¹⁹ with no discernible immediate impact on New Yorkers. Therefore, there is no reason why NYSDEC could not have proposed to adopt ACC II, solicited comments, considered the comments, and decided whether to finalize its proposed action.²⁰ Indeed, the deficiencies in NYSDEC’s regulatory impact analysis, discussed in Section C below, show that NYSDEC left much crucial work undone and has not provided the public with a sufficient basis to provide informed comment, or for itself to make a reasoned decision.

B.2 NYSDEC has not substantiated its assertions that adopting ACC II is aligned with the Climate Leadership and Community Protection Act.

NYSDEC’s notice asserts that adoption of ACC II is “consistent with the requirements of New York’s Climate Leadership and Community Protection Act,” which “established GHG reduction requirements and other climate policy goals. . . . [T]he CLCPA includes numerous requirements regarding the reduction of GHGs, and [adoption of ACC II] will further reduce GHGs from motor vehicles in the State.”²¹

But NYSDEC’s analysis does not demonstrate that adopting ACC II would, in fact, align with the CLCPA’s goals. The CLCPA requires *statewide* reductions of GHG emissions. NYSDEC’s Regulatory Impact Statement acknowledges this fact as a general matter, yet fails to consider whether ACC II will in fact reduce New York State’s *overall* GHG emissions profile, or whether there are more effective or less costly alternative means of doing so.²²

As we explain in these comments and in our attached comments on CARB’s ACC II proposal, in the absence of a lifecycle GHG emissions analysis, neither CARB nor NYSDEC can demonstrate the *statewide* GHG impact of ACC II.

Our attached comments on CARB’s ACC II proposal include a study from Ramboll that evaluated whether alternative vehicle technology and fuel pathways could achieve life cycle GHG emission reductions similar or greater than the ACC II proposal. Unlike CARB’s and NYSDEC’s partial analysis, Ramboll evaluated the full life cycle impacts of ZEV technologies under the ACC II proposal to more completely and properly characterize the potential near-term and long-term GHG emissions performance. Ramboll considered other pathways that would not require a replacement of the entire transportation infrastructure system, and that would also not require the wholesale transformation of electric energy production and distribution infrastructure on an unprecedented short time scale. Instead, these other pathways would allow battery, hydrogen, and low-carbon intensity gaseous and liquid fueled vehicles to compete to achieve California’s GHG targets for light-duty transportation in the quickest and most cost-

¹⁸ On an LCA basis, of course, there is no such thing as a “zero-emission” vehicle, since all vehicles will have associated upstream and downstream emissions.

¹⁹ See *generally* N.Y.S. Reg. (Dec. 28, 2022), at 40.

²⁰ See *generally* SAPA § 202 (Rulemaking procedure).

²¹ N.Y.S. Reg. (Dec. 28, 2022), at 40; see *also id.* (adoption of ACC II is “consistent with the requirements of [the CLCPA] to further reduce greenhouse gas (GHG) emissions in the State”); RIS 9 (adoption of ACC II is “consistent with the CLCPA because [it] will further reduce GHG emissions from motor vehicles.”).

²² RIS 9 (CLCPA “among other things requires a 40 percent reduction in *Statewide* GHG emissions from 1990 levels by 2030, and an 85 percent reduction from 1990 levels by 2050.”) (emphasis added). See *also* 6 NYCRR 496.1 (“This Part adopts limits on the emissions of greenhouse *gases from across the State and all sectors of the State economy* for the years 2030 and 2050, as a percentage of 1990 emission levels of 60 percent and 15 percent, respectively, as established in the Climate Leadership and Community Protection Act, Chapter 106 of the Laws of 2019.”) (emphasis added).



effective manner. Ramboll's conclusions showed that CARB's attributions of GHG reductions to its proposed ACC II regulation were incomplete and emphasized the need for CARB to conduct a full lifecycle GHG emission assessment to quantify the cradle-to-grave effects of the draft ACC II proposal. Ramboll's study shows that a full LCA demonstrates that there are multiple GHG-reducing vehicle/fuel technologies that, individually or in combination, have equivalent GHG reductions as the ZEV-mandated ACC II proposal. CARB did not remedy these inadequacies in its analysis before adopting ACC II, and NYSDEC's own analysis suffers from the same deficiencies.

Even if CARB's analysis included the carbon emissions associated with battery production and had been otherwise adequate (which, as our comments on its proposal demonstrated, it was not), NYSDEC cannot simply rely on CARB. For NYSDEC to conduct an adequate LCA of the effects of adopting ACC II on statewide GHG emissions, it would need to consider factors such as the mix of the fuel base for generation supplied to the grid on which New York's ZEVs will charge, expected miles traveled by New York drivers, New York temperature trends throughout the year and their effect on charging needs and battery capabilities, and many other state-specific factors.

NYSDEC's omission of a LCA is especially troubling in light of the CLCPA's explicit requirement that regulations promulgated to achieve statewide GHG regulations "[i]ncorporate measures to minimize leakage."²³ There is no analysis of the potential for leakage in either NYSDEC's proposal or its Regulatory Impact Statement, let alone any discussion of how to minimize it. Far from NYSDEC demonstrating that its proposed action is aligned with CLCPA's goals, its proposal violates CLCPA's own requirements.

B.3 NYSDEC has not demonstrated that adoption of ACC II will further its task of mitigating the effects of criteria pollutants.

In the section of its Regulatory Impact Statement (RIS) addressing "Needs and Benefits," NYSDEC observes that it "is also tasked with mitigating the effects of criteria pollutants."²⁴ It is not clear what NYSDEC is referring to here. The RIS cites some fifteen state statutory provisions as authority,²⁵ but none of these appear to refer directly to criteria pollutants. NYSDEC is presumably referring to some combination of general statements of purpose in these state statutes regarding preserving air quality, the federal Clean Air Act,²⁶ and the state's State Implementation Plans approved by EPA pursuant to that Act.

As we explain in the section of these comments addressing NYSDEC's analysis in support of its proposal, and in our attached comments on CARB's proposed adoption of ACC II, without conducting an LCA,

²³ N.Y. Envir. Conser. Law § 75-0109(3)(e). NYSDEC is well-aware that life-cycle analysis is necessary to compare to the costs and benefits of electric vehicles compared to convention vehicles—AFPM informed NYSDEC of this obligation on another NYSDEC vehicle rulemaking. See Comments of American Fuel & Petrochemical Manufacturers on Proposed 6 NYCRR Part 218, Emission Standards for Motor Vehicles and Motor Vehicle Engines 6 NYCRR Section 200.9 (Nov. 17, 2021).

²⁴ RIS 10. See also RIS 74 ("The severity of New York State's air quality problems dictates that New York State must maintain compliance with recent improvements in the California standards to achieve necessary reductions of *pollutants that aid in the formation of ground-level ozone*, as well as climate change. Adhering to federal standards would impede New York's ability to attain and maintain ambient air quality standards and make reasonable further progress as required in its State Implementation Plan.") (emphasis added).

²⁵ RIS 2.

²⁶ 42 U.S.C. § 7401 *et seq.*



NYSDEC cannot demonstrate the overall effect that adoption of ACC II will have on criteria pollutant emissions in New York. NYSDEC therefore has not clearly identified the source and scope of this “task[],” and in any event has not adequately demonstrated that adopting ACC II will further carry it out. And even NYSDEC’s own inadequate analysis, as discussed below, appears to show *millions* of dollars of costs per ton of criteria pollutants reduced—orders of magnitude above what EPA has recognized as cost-effective emissions reduction and an irrational basis for regulation.

B.4 New York State’s “zero-emissions cars and trucks” statute does not support NYSDEC’s adoption of ACC II.

NYSDEC cites, as further support for its proposal, state legislation from 2021 that calls for increased ZEV sales in New York, working towards a “goal” of ZEVs making up one hundred percent of new passenger cars and trucks sold or leased in the state by 2035.²⁷ But this legislative provision does not support NYSDEC’s proposal, as the very next paragraph requires NYSDEC to “develop and propose” ZEV regulations “consistent with federal law.”²⁸ As these comments explain,²⁹ adopting ACC II is inconsistent with federal law in at least three independent respects: it is preempted by EPCA and by the RFS, and unless and until EPA grants a Clean Air Act preemption waiver for ACC II, it is also preempted by the Clean Air Act. NYSDEC does not acknowledge this crucial caveat, let alone explain how its proposed adoption of ACC II is “consistent with federal law.” Without doing so, NYSDEC cannot validly support its proposal by reference to this statute.

B.5 Clean Air Act Section 177 does not support NYSDEC’s adoption of ACC II.

NYSDEC, as an additional reason for proposing to adopt ACC II, cites “maintain[ing] identity with Section 177 of the Clean Air Act.”³⁰ Indeed, NYSDEC says that this supposed “identity” imperative is the “primary basis” why it did not consider retaining its current regulations, which reflect its prior adoption of ACC I.³¹

NYSDEC is misconstruing the Clean Air Act. Section 177 contemplates states adopting California’s standards where “such standards are identical to the California standards *for which a waiver has been*

²⁷ See N.Y. Envir. Conser. Law § 19-0306-b. See also N.Y.S. Reg. (Dec. 28, 2022), at 39 (adoption of ACC II “consistent with . . . legislation signed by Governor Hochul in 2021 (Chapter 423, Laws of 2021), which commits the State to all new, light-duty on-road vehicle sales to be zero emission vehicles (ZEV) by 2035”); RIS 15 (“New York State legislation signed by Governor Hochul in 2021 (Chapter 423, Laws of 2021) commits 100% of all new, light-duty on-road vehicle sales in New York to be ZEVs by 2035 and directs the Department to develop and propose regulations like this ACC II proposal to help meet this target.”).

²⁸ N.Y. Envir. Conser. Law § 19-0306-b(2).

²⁹ See below, Sections B.5 (CAA § 177) and D (preemptive effect of EPCA and other federal statutes).

³⁰ N.Y.S. Reg. (Dec. 28, 2022), at 40 (“In accordance with NYS State Administrative Procedures Act (SAPA) Section 202-b, this rulemaking does not include a cure period because *the Department is undertaking this rulemaking to maintain identity* with Section 177 of the Clean Air Act.” See also Revised Rural Area Flexibility Analysis 2 (“Section 177 of the federal Clean Air Act requires New York to maintain standards identical to California’s to maintain the LEV program.”); RIS 7 (“[S]ection 177 of the [Clean Air] Act permits states other than California to adopt and enforce standards for motor vehicle emissions, provided that such standards are identical to California’s standards.”).

³¹ RIS 73 (“The option of maintaining the current ACC I program without adopting CARB’s ACC II amendments was reviewed and rejected. The primary basis for this decision was that the Department believes this is not permitted under Section 177 due to the identity requirement.”).



granted.”³² California has apparently not even applied for, let alone obtained, an EPA waiver of Clean Air Act preemption for ACC II.³³ Section 177 on its face therefore provides no authority for NYSDEC to adopt ACC II, and any such adoption would be preempted by the CAA³⁴ unless and until EPA grants a preemption waiver for ACC II.³⁵

NYSDEC’s misunderstanding of CAA § 177 also exposes a fatal flaw in its “alternatives” analysis within its Regulatory Impact Statement.³⁶ Apart from its misguided reference to CAA § 177 and “identity” with California, NYSDEC’s alternatives analysis simply restates that “adoption of ACC II is consistent with Legislative directives to the Department.” As we explain in these comments, this is incorrect. NYSDEC has therefore not provided the public with a meaningful consideration of alternatives as required by state law.³⁷

NYSDEC’s adoption of ACC II would, therefore, violate a separate provision of state law which applies when NYSDEC is “adopting any code, rule or regulation which contains a requirement that is more stringent than the [Clean Air] Act or regulations issued pursuant to the Act by the United States environmental protection agency [sic].”³⁸ This provision requires NYSDEC to provide “a *detailed* explanation of the reason or reasons that justify exceeding federal minimum requirements.”³⁹ NYSDEC’s confused and conclusory discussion of the possibility of adhering to federal standards does not satisfy this requirement.

NYSDEC says that its “*primary basis*” for rejecting the alternative of “maintaining the current ACC I program without adopting CARB’s ACC II” was that “the Department believes this is not permitted under Section 177 due to the identity requirement.”⁴⁰

³² 42 U.S.C. § 7507(1) (emphasis added).

³³ See Vehicle Emissions California Waivers and Authorizations (EPA), *available at* <https://www.epa.gov/state-and-local-transportation/vehicle-emissions-california-waivers-and-authorizations> (last visited Feb. 21, 2023) (“This page lists Federal Register notices that EPA has issued in response to California waiver and authorization requests.”). As of February 21, 2023, this page reflected that it had last been updated June 13, 2022, months before California finalized the ACC II rulemaking.

³⁴ See CAA § 209(a), 42 U.S.C. § 7543(a). Indeed, CAA § 209(a) preempts states from both “adop[ting]” and “enforc[ing]” a motor vehicle standard unless EPA issues a preemption waiver. This regulatory action is premature and unlawful.

³⁵ See *Am. Auto. Mfrs Ass’n v. Comm’r, Mass. Dep’t. of Env’tl Prot.*, 998 F. Supp. 10, 17-18 (D. Mass 1997) (“A state regulation relating to control of emissions from new motor vehicles or engines can survive pre-emption if, in accordance with [Clean Air Act] § 177, it adopts and enforces standards which are ‘identical to the California standards’ for which the EPA has granted a waiver ‘for such model year.’ *But a state may not either adopt or enforce a standard which does not meet these requirements.* Put another way, under § 177, a state can pass regulations only if it accepts as the basis for its regulations a California “standard” which has been granted a waiver in accordance with § 209(b).” (citation omitted) (emphasis added)) (granting summary judgment for plaintiff and holding preempted Massachusetts state ZEV production, delivery, and reporting requirements).

³⁶ See RIS 73-74.

³⁷ See SAPA § 202-a(g) (Regulatory Impact Statement “shall contain . . . [a] statement indicating whether any significant alternatives to the rule were considered by the agency, including a discussion of such alternatives and the reasons why they were not incorporated into the rule.”).

³⁸ N.Y. Envir. Conser. Law § 19-0303-4(a). NYSDEC incomprehensibly cites this as one of the provisions granting it statutory authority for its proposed action. RIS 2.

³⁹ *Id.* (emphasis added).

⁴⁰ RIS 73 (emphasis added).



NYSDEC is incorrect, for three reasons. First, as explained above, CAA § 177, far from requiring NYSDEC to adopt ACC II, in fact does not allow NYSDEC to adopt ACC II unless and until EPA grants a waiver for that program.

Second, ACC II is a California rulemaking establishing additional provisions of California’s regulatory code, which are separate code sections for separate model years whose text explicitly provides that they are severable from the remainder of California’s car-emissions regulations.⁴¹ NYSDEC identifies no valid reason why it could not retain ACC I without also adopting ACC II,⁴² especially since CAA Section 177 allows other states to adopt California’s standards if “such standards are identical to the California standards for which a waiver has been granted for such model year.”⁴³

Third, NYSDEC could have repealed its existing regulatory requirements resulting from its prior adoption of ACC I, resulting in harmony with existing *federal* standards. CAA § 177 *allows* states to adopt California’s standards under certain circumstances but does not *require* them to do so. NYSDEC did not consider this course of action (harmonizing with federal standards) as part of its alternatives analysis, further undermining that analysis.⁴⁴ Indeed, as shown below, NY has sound environmental, economic, and social reasons to not adopt ACC II.

⁴¹ See CARB, Notice of Public Hearing to Consider Proposed Advanced Clean Cars II Regulations (Mar. 29, 2022), at 7, available at <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/notice.pdf> (last visited Feb. 21, 2023) (“The proposed amendments do not encompass substantive updates to CARB’s existing greenhouse gas emission standards that are part of the existing ACC program in Section 1961.3 of title 13 of the California Code of Regulations.”).

On the severability of ACC II, see Cal. Code Regs. tit. 13, § 1961.4(h) (“*Severability*. Each provision of this section is severable, and in the event that any provision of this section is held to be invalid, the remainder of both this section and this article [i.e., Approval of Motor Vehicle Pollution Control Devices (New Vehicles)] remains in full force and effect.”); *id.* § 1962.4(o) (same).

⁴² See 87 Fed. Reg. 14,332, 14,332/1 (Mar. 14, 2022) (“rescind[ing] EPA’s 2019 waiver withdrawal, thus bringing back into force the 2013 ACC program waiver”).

⁴³ 42 U.S.C. § 7507(1).

⁴⁴ NYSDEC did consider federal standards in a separate section of the RIS, see RIS 74, as required by SAPA § 202-a(h) (RIS “shall contain [a] statement identifying whether the rule exceeds any minimum standards of the federal government for the same or similar subject areas and, if so, an explanation of why the rule exceeds such standards”). This section of the RIS states that “There are no federal ZEV or LEV programs currently available *as an alternative*.” RIS 74 (emphasis added). To support this statement, NYSDEC notes that potential future federal regulations “may be similar to California’s ACC regulation in stringency, but not timing,” because federal rules “could not take effect before model year 2027,” whereas ACC II takes effect beginning with model year 2026, and that “[t]he details regarding any potential federal program are unknown,” whereas ACC II has more stringent emission standards and ZEV sales requirements “compared to current federal standards for the same vehicles.” *Id.* But, as explained in Sections B.5 and D, NYSDEC is currently preempted from adopting ACC II. NYSDEC’s failure to recognize this fact vitiates both its alternatives analysis and its separate discussion of existing federal standards.

The only additional reason NYSDEC gives for not adhering to federal standards is an assertion that doing so would impede New York’s ability to attain and maintain federal ambient air quality standards (NAAQS) under the Clean Air Act. *Id.* This conclusory assertion with no supporting analysis does not constitute a reasoned basis to reject the option of adhering to federal standards. And, as we explain elsewhere in these comments, without conducting a lifecycle analysis, NYSDEC has no basis for its apparent view that adoption of ACC II will assist its air-quality efforts with respect to criteria pollutants or the NAAQS program. In fact, NYSDEC’s analysis does not account for the risk of the opposite effect: mandating more expensive EVs may slow fleet turnover, which could delay penetration of lower-emitting technologies and further interfere with attainment and maintenance of NAAQS standards.



In short, not only does CAA § 177 fail to support NYSDEC's proposed adoption of ACC II, but the federal statutory provision in fact *preempts* adoption at this stage.

C. NYSDEC's analysis in support of its proposal is inadequate.

As a threshold matter, the accumulated weight of NYSDEC's unsupported and/or inadequately supported claims, projections, and assumptions in its regulatory analysis documents render its proposed adoption of ACC II arbitrary and capricious.⁴⁵

C.1 NYSDEC's analysis regarding cars, car components, and their costs

NYSDEC repeatedly makes assumptions and predictions with no or inadequate support regarding cars, car components, and the costs of both.

For example, the "Economic and technological feasibility" section of NYSDEC's regulatory flexibility analysis begins:

There are *numerous* models of passenger car, and light-duty trucks from several manufacturers currently available. *It is expected* that a growing number of ZEVs across all vehicle classes, including light-duty pickup trucks, will become suitable for more applications *as technology advances*.⁴⁶

NYSDEC provides no details or other support for either its characterization of the currently available fleet of ZEVs or its "expect[ation]" that technological progress will increase that fleet sufficient to meet the requirements of its proposed adoption of ACC II. This is not a meaningful analysis of either feasibility or the important value of consumer choice (a concept which is recognized nowhere in NYSDEC's proposal or regulatory analysis). Moreover, NYSDEC fails to recognize and account for the myriad direct and indirect federal and state subsidies required to bring current and future ZEVs into the marketplace, and whether the continuation of these subsidies will be required for ZEV sales and technology to be feasible.

Similarly, with respect to battery costs, NYSDEC states that "battery costs have declined by almost 90 percent since 2010 *and are expected to continue to drop*."⁴⁷ NYSDEC here repeats CARB's mistake,

⁴⁵ See *N.Y.S. Ass'n of Ctys. v. Axelrod*, 577 N.E.2d 16, 20-21 (N.Y. 1991) ("[A]n administrative regulation will be upheld only if it has a rational basis, and is not unreasonable, arbitrary or capricious. Administrative rules are not judicially reviewed pro forma in a vacuum, but are scrutinized for genuine reasonableness and rationality in the specific context.") (citations omitted).

See also *Lynch v. N.Y.C. Civilian Complaint Review Bd.*, 98 N.Y.S.3d 695, 703 (Sup. Ct. N.Y. Cty. 2019) ("Courts have identified several grounds where a court might deem an agency rule invalid as arbitrary and capricious: (1) the agency fails to identify a rational basis for the rule ; (2) agency does not establish a rational relationship to agency's stated purpose; (3) agency does not demonstrate rule is based on a rational, documented, empirical determination; (4) agency fails to identify objective standards for implementing the program; and (5) agency allows for uneven enforcement against those whom it applies.") (citations omitted). As our comments below demonstrate, NYSDEC's proposal suffers from at least the first three of these five bases for invalidity.

⁴⁶ Revised Regulatory Flexibility Analysis for Small Businesses and Local Governments 3 (emphases added).

⁴⁷ RIS 47 (emphasis added). See also Revised Regulatory Flexibility Analysis for Small Businesses and Local Governments 3 ("Cost parity is anticipated to be achieved for a growing number of classes by 2035 as battery prices fall and technology improves."); Regulatory Impact Statement Summary 6 ("Battery storage cost is the



ignoring the question whether the likely future supply and demand trends for critical minerals and other battery components will allow for the necessarily massive supply ramp-up in conjunction with continued falling prices which its analysis “expect[s].” Indeed, NYSDEC’s analysis does not mention “supply” (or “mineral(s)”) anywhere, despite research and commentary warning that critical mineral and battery component supply issues will form a major obstacle to the type of ZEV ramp-up its proposed adoption of ACC II blithely assumes will happen seamlessly. NYSDEC’s analysis further ignores that lithium-ion battery pack prices have in fact recently begun to *rise*, even before the true impacts of ACC II are felt.⁴⁸

Elsewhere, NYSDEC flatly states that it “*believes* CARB’s battery pack, non-battery component, fuel cell and hydrogen storage system, and delete engine cost estimates [i.e., internal combustion engine (ICE)

largest component of the incremental cost of a BEV. Battery costs have declined by almost 90 percent since 2010 and are expected to continue to drop. Battery costs are expected to drop from approximately \$95.3/kWh in 2026 to \$72.5/kWh in 2030.”)

⁴⁸ BloombergNEF, Lithium-ion Battery Pack Prices Rise for First Time to an Average of \$151/kWh (Dec. 6, 2022), available at <https://about.bnef.com/blog/lithium-ion-battery-pack-prices-rise-for-first-time-to-an-average-of-151-kwh/> (last visited Feb. 26, 2023) (“Rising raw material and battery component prices and soaring inflation have led to the first ever increase in lithium-ion battery pack prices since [Bloomberg] began tracking the market in 2010. After more than a decade of declines, volume-weighted average prices for lithium-ion battery packs across all sectors have increased to \$151/kWh in 2022, a 7% rise from last year in real terms. The upward cost pressure on batteries outpaced the higher adoption of lower cost chemistries like lithium iron phosphate (LFP). [Bloomberg] expects prices to stay at similar levels next year, further defying historical trends.”); Graham Evans, A reckoning for EV battery raw materials (S&P Global Mobility Oct. 31, 2022), available at <https://www.spglobal.com/mobility/en/research-analysis/a-reckoning-for-ev-battery-raw-materials.html> (last visited Feb. 26, 2023) (“Geopolitical turbulence and the fragile and volatile nature of the critical raw-material supply chain could curtail planned expansion in battery production—slowing mainstream electric-vehicle (EV) adoption and the transition to an electrified future. Soaring prices of critical battery metals, as observed in the following chart from S&P Global Commodity Insights, are threatening supplier and OEM profit margins. This situation has quickly translated into increased component and vehicle prices, according to new analysis from S&P Global Mobility Auto Supply Chain & Technology Group. . . . S&P Global Mobility research clearly indicates that established battery raw material supply and processing operations under mainland Chinese ownership will continue to deliver much of the world’s supply of lithium-ion batteries and their constituent key elements.”); Mark P. Mills, The “Energy Transition” Delusion: A Reality Reset (Manhattan Institute Aug. 2022), at 8, 10, available at https://media4.manhattan-institute.org/sites/default/files/the-energy-transition-delusion_a-reality-reset.pdf (last visited Feb. 22, 2023) (“In the complex calculus of energy policies, the decarbonization road map also creates problematic realignments in energy supply chains. Start with the facts that the U.S. today is dependent on imports for 100% of some 17 minerals that are already listed as critical for national and economic security and that, for 28 other critical minerals, U.S. imports account for more than half of existing domestic demand. Factories that assemble batteries or solar hardware in this country would be equivalent to assembling conventional automobiles domestically but importing all the key components and all the fuel. . . . Today, the energy sector uses less than 15% of the various critical minerals that are also used for other purposes. But if transition goals were achieved, that share rises from 40% to 70% (at least). Just the pursuit of such an increase and shift in commodities usage would lead to higher and more volatile prices. Even in these early days of potential radical increases in demand, lithium prices are already up nearly 1,000% over the past two years, along with copper trading in a range that’s double the long-run history, nickel trading at a five-year high after coming down from recent peaks, and aluminum prices at a 10-year high. Again, this is the case with SWB [solar, wind, and battery] meeting only a few percentage points of total global energy needs. Escalating mineral demands further will escalate their prices, which will have two macroeconomic impacts: it will increase the costs of the SWB hardware itself—thereby inflating the costs of already expensive transition policies—and it will increase the costs of other manufactured goods competing for the same minerals. The latter is broadly inflationary, and the former reverses the assumption built into all transition forecasts, i.e., that the SWB hardware inevitably becomes cheaper.”).



manufacturing costs avoided] would similarly apply to vehicles sold in New York State.”⁴⁹ No basis is provided for this “belief.”

NYSDEC also notes that “Federal and state incentives are *currently* available to offset” higher vehicle and infrastructure costs that will result from adopting ACC II.⁵⁰ NYSDEC offers no details, nor any analysis of whether this state of affairs is likely to last and, if it does not, what would be the implications for the cost analysis and overall viability of the regulatory program. Indeed, the Internal Revenue Service has not even issued final guidance on its implementation of the “buy America” provisions of EV subsidies pursuant to the Inflation Reduction Act, subsidies which were designed to protect national security by applying exclusively to ZEVs with 40-100 percent of the battery critical minerals and value of components sourced from or manufactured or assembled in the U.S. or a free-trade partner country. If applied consistent with the statutory language, these subsidies are not available to most ZEVs in the market today. Moreover, NYSDEC does not even consider the extent to which its proposal depends on a basket of more valuable subsidies, whether or not they will continue indefinitely, or the market implications of an increasing percentage of vehicle sales depending on cross-subsidies from a shrinking number of gasoline vehicle buyers. NYSDEC must account for the following costs and market impacts which currently are ignored in its proposal:

- Zero-emission vehicle credits, or “ZEV credits.” These credits are a currency created by the State of California to provide supplemental subsidies of EV sales to achieve their ZEV sales mandate. NYSDEC must disclose the cost of this incremental subsidy that manufacturers of EVs require (in addition to many other subsidies) to entice buyers to meet state EV sales mandates. If buyers wanted EVs, the ZEV credit price would be \$0, but California and other states explicitly decided to not collect this data from automakers, so the public has no information about the costs of this scheme. NYSDEC must disclose who is paying the costs of the ZEV credits. Will New York gasoline and diesel vehicle buyers cover the costs of ZEV credits for EV sales in the state, i.e., will the MSRP of a gasoline pickup truck in New York be higher than the MSRP of a gasoline pickup truck in a state without a ZEV sales mandate and ACCII? If so, by how much? Or, will nationwide gasoline and diesel vehicle buyers cover these costs? If so, under what authority will New York impose these costs on consumers nationwide? How much do these costs increase the price of gasoline and diesel vehicles? Also, if state ZEV sales mandates increase and battery minerals become more scarce, the value of ZEV credits are certain to increase significantly; however, NYSDEC does not consider these costs.
- EPA GHG “multiplier” credits for EVs. These credits give an extra manufacturing subsidy to EV makers to meet EPA’s GHG standards, despite EPA having no authority to do so, and are not based on any real-world avoided emissions. NYSDEC does not estimate the costs of this subsidy to the extent that its proposal increases EV sales. Similarly, NYSDEC does not consider that if EPA’s GHG multiplier credits are determined to be unlawful and/or rescinded by regulation, the value of the ZEV credits must necessarily increase to offset them. NYSDEC should provide an estimate of the costs of these subsidy payments as a result of the proposal and which party(ies) will incur the costs of these subsidies, such as New York buyers of gasoline and diesel vehicles and/or nationwide purchasers of gasoline and diesel vehicles.

⁴⁹ RIS 52 (emphasis added).

⁵⁰ Revised Regulatory Flexibility Analysis for Small Businesses and Local Governments 3-4 (emphasis added).



- Corporate Average Fuel Economy (CAFE) “multiplier” credits. Automakers and the National Highway Traffic Safety Administration (NHTSA) seem to be applying a long-expired incentive originally created to spur the commercial availability of EVs. This treatment allowed automakers to divide the gallon of gasoline equivalent for alternative fuel vehicles, including EVs, by 0.15, effectively producing a 6.67 multiplier of fuel economy credits. While this provision expired in 2004, NHTSA appears to be continuing to apply it.⁵¹ In other words, EVs have been receiving at least 667% of the real-world fuel economy they achieve on the road and EV manufacturers have been selling these credits to manufacturers of gasoline and diesel vehicles. NYSDEC should provide an estimate of the incremental costs of these subsidy payments as a result of the proposed rule and which party(ies) will incur the costs of these subsidies, such as New York buyers of gasoline and diesel vehicles and/or nationwide purchasers of gasoline and diesel vehicles.
- NYSDEC fails to consider that gasoline and diesel drivers pay significant federal and state liquid fuel taxes, comprising more than 60 cents per gallon on average of total fuel costs, to fund building and maintenance of federal and state roads, bridges, and even bicycle lanes. Conversely, EV drivers pay nothing or close to nothing. There are no federal taxes on electricity and most states either exempt most classes of electricity purchases from state taxes or apply de minimis taxes well below 1 percent. Gasoline and diesel drivers also pay higher registration fees and excise taxes in many states. NYSDEC must account for how ACCII will shrink the pool of gasoline and diesel vehicles paying taxes and the corresponding shortfall in tax receipts. This is a real and material cost that both California and NYSDEC have ignored.

Finally, NYSDEC ignores the fact that California and New York are very different states. New York has only about one-third as many vehicles as California, with EV registrations making up only a fraction of one percent of New York’s fleet.⁵² Unlike California, therefore, New York will effectively be starting from scratch and attempting to match California’s goal of mandating EVs as *one hundred percent* new sales by 2035. Completely transforming New York’s fleet in a short time will have severe distributional effects that NYSDEC has not acknowledged. Because New York City has unusually low car ownership compared to the rest of the country,⁵³ NYSDEC is placing the responsibility for full EV adoption disproportionately onto the state’s suburban, small-town, and rural populations.

ZEVs are more expensive on average than their ICE vehicle counterparts and unaffordable for many households—in the first calendar quarter of 2022, the average price of the top-selling light-duty BEV in

⁵¹ See National Highway Traffic Safety Administration, “Alternative Fuels in CAFE Rulemaking,” presentation to SAE International (2015), https://www.nhtsa.gov/sites/nhtsa.gov/files/2015sae-powell-altfuels_cafe.pdf.

⁵² See Nestor Gilbert, The Number of Cars in the US in 2022/2023: Market Share, Distribution, and Trends (Finances Online Jan. 9, 2023), *available at* <https://financesonline.com/number-of-cars-in-the-us/> (last visited Feb. 26, 2023) (citing some 31.2 million registered cars for CA and 11.4 million for NY); Electric Vehicle Registrations by State, U.S. Department of Energy, Alternative Fuels Data Center, *available at* <https://afdc.energy.gov/data/10962> (last visited Feb. 26, 2023) (“This chart shows the vehicle registration counts of all-electric vehicles (EVs) by state as of December 31, 2021.”) (listing 51,870 registrations for NY, compared to 563,070 for CA, which the chart notes is “approximately 39% of EVs nationwide”).

⁵³ See CEOs for Cities, New York City’s Green Dividend (Apr. 2010), at 1, *available at* https://www.nyc.gov/html/dot/downloads/pdf/nyc_greendividend_april2010.pdf (last visited Feb. 26, 2023) (“New Yorkers own fewer than a third as many cars per capita as the average U.S. urban resident (about 23 per 100 residents compared to about 77 per 100 in most urban areas).”).



the U.S. was about \$20,000 more than the average price of top-selling ICE vehicles.⁵⁴ The price disparity has not improved, with the average price of light-duty EVs near \$66,000 in August 2022 and continuing to rise.⁵⁵ By contrast, the median per capita and household incomes in New York are approximately \$75,157 and \$43,208, respectively.⁵⁶ Per New York Department of Transportation's ("NYDOT's") August 2022 NEVI Plan, "[n]early 13% of [New York's] population lives in poverty."⁵⁷ EV barriers to low-income stakeholders include, but are not limited to: limited driving/battery range; inability to charge in different housing and work situations; high price points to purchase, maintain, and insure EVs; availability of replacement parts and qualified mechanics, as well as ease and cost of repairs; and unpredictability regarding future electricity costs.

NYDOT has highlighted practical challenges inherent to EV adoption in its 2022 NEVI Plan. Per NYDOT, "[a]lthough much of [New York]'s population lives in metropolitan areas, most of the State's geography is rural in nature."⁵⁸ For example, "[a] drive from Montauk, on the easternmost area of Long Island, to Niagara Falls, in the western portion of the State, stretches more than 520 miles and requires a 9-hour drive."⁵⁹ Additionally, "[w]here development densities are extremely high, access to land and appropriate levels of electric power to support DCFC [Direct Current Fast Charging] can be challenging [in New York]; where development is low, particularly in areas that are extremely remote, access to three-phase power and cellular service for charging stations can also be a challenge."⁶⁰ "In such rural areas, DCFC are not likely to be profitable in the near-term due to limited traffic volumes which are expected to result low usage levels."⁶¹ Additionally, according to NYDOT:

"[R]esearch conducted by New York State's Department of Public Service (DPS) to identify immediate and long-term actions to best support ZEV market growth in New York State revealed the following related to publicly accessible DCFC:

- The costs to "make-ready" a site for EV charging present an economic barrier to EV charging station developers. This includes electrical transformer upgrades, trenching and boring for conduits, conductors, poles, and towers.
- For upstate DCFC station locations, where electric vehicle adoption rates are lower than the downstate New York City Metropolitan area, the expected

⁵⁴ Registration-weighted average retail price for the 20 top-selling BEVs and ICE vehicles in the U.S. S&P Global, *Tracking BEV prices – How competitively-priced are BEVs in the major global auto markets?*, May 2022.

⁵⁵ Andrew J. Hawkins, *EV prices are going in the wrong direction*, THE VERGE, Aug. 24, 2022, <https://www.theverge.com/2022/8/24/23319794/ev-price-increase-used-cars-analysis-iseecars>; *see also*, Justin Banner, *The Cheapest Ford F-150 Lightning Pro Sees Another Price Increase to Nearly Sixty Grand*, MOTORTREND, Dec. 15, 2022, <https://www.motortrend.com/news/2023-ford-f-150-lightning-pro-price-increase-msrp/>.

⁵⁶ Estimates as of July 1, 2021, representing the income over the past 12 months, in 2021 dollars. U.S. Census Bureau, *Quick Facts – New York*, <https://www.census.gov/quickfacts/fact/table/NY,US/PST045222>.

⁵⁷ New York Department of Transportation ("NYDOT"), *New York State National Electric Vehicle Infrastructure Formula Program Plan* [hereinafter NEVI Plan], at 9 (August 2022) <file:///C:/Users/LQCSBH/AppData/Local/Temp/1/MicrosoftEdgeDownloads/7c7f9687-ec50-4c17-85ad-18275e06a3bc/National-Electric-Vehicle-Infrastructure-Formula-Program-Deployment-Plan.pdf>.

⁵⁸ NEVI Plan at 11.

⁵⁹ NEVI Plan at 17.

⁶⁰ NEVI Plan at 14.

⁶¹ *Id.*



charging station utilization during the initial ten-year period of operation are estimated to result in negative 10-year net present value and initial return on investment, even with make-ready support.”⁶²

NYSDEC falls short in communicating such challenges, and representing the concerns of stakeholders associated with singular reliance on electrified transport in its assessment of ACC II.

C.2 NYSDEC’s analysis of economic impacts

NYSDEC’s consumer-impact analysis is notably thin. It makes multiple assumptions with little or no support.

NYSDEC notes that “[CARB’s] analysis assumes all compliance costs are passed on to California vehicle purchasers.” NYSDEC then asserts: “*It can be assumed* the net cost in New York would be similar, or slightly less, due to economies of scale with the addition of the New York fleet.”⁶³ But this is hardly a reasonable assumption. Without a comparison of the respective state of California’s and New York’s electrical grids and the relative status of repairs to these grids that are underway, New York has no justification for this “cut and paste” analysis. Additionally, New York’s climate differs from California’s, with its colder weather negatively impacting charging efficiency and EV range, affecting both individual and systemic cost analyses.⁶⁴ Indeed, NYSDEC *nowhere* notes that its state’s climate differs from California’s climate, let alone analyzes the implications of this difference. Cold climate conditions like those experienced in New York have been shown to significantly reduce the battery range and efficiency of BEVs.⁶⁵ According to New York Department of Transportations’ NEVI Plan dated August 2022, “[v]ery cold temperatures (below 30 degrees Fahrenheit) have a significant effect on electric battery and charging performance. Charging is much slower in cold temperatures, and DCFC may only charge at a fraction of their rated speed in cold temperatures. Further, all-wheel drive vehicles are more popular in snowy climates. These vehicles have lower range than identical vehicles with front or rear wheel drive, which could trigger the need for additional charging.”⁶⁶

⁶² NEVI Plan at 29.

⁶³ RIS 70 (emphasis added).

⁶⁴ See, e.g., Sean Tucker, Study: All EVs Lose Range in the Cold, Some More Than Others (Kelley Blue Book Dec. 29, 2022), available at <https://www.kbb.com/car-news/evs-lose-range-in-the-cold/> (last visited Feb. 26, 2023) (“Range loss is a significant concern for electric vehicle (EV) owners. Refueling an EV takes longer, and public charging stations can be hard to find in many parts of the country. That scarcity requires EV owners to plan longer trips around recharging points — and to know they’ll need to stop more frequently when the mercury drops.”); Paul Shepard, Quantifying the Negative Impact of Charging EVs in Cold Temperatures (EEPower Aug. 8, 2018), available at <https://eepower.com/news/quantifying-the-negative-impact-of-charging-evs-in-cold-temperatures/> (last visited Feb. 26, 2023) (“[A] new study on charging in cold temperatures suggests that industry and EV drivers still face charging challenges. The reason: cold temperatures impact the electrochemical reactions within the cell, and onboard battery management systems limit the charging rate to avoid damage to the battery. . . . [R]esearchers at Idaho National Laboratory looked at data from a fleet of EV taxis in New York City and found that charging times increased as temperatures dropped.”).

⁶⁵ See Jon Witt, *Winter & Cold Weather EV Range Loss in 7,000 Cars*; RECURRENT, Dec. 12, 2022, <https://www.recurrentauto.com/research/winter-ev-range-loss>; see also *20 popular EVs tested in Norwegian winter conditions*, NORWEGIAN AUTOMOBILE FEDERATION, Mar. 12, 2020, <https://www.naf.no/elbil/aktuelt/elbiltest/ev-winter-range-test-2020/>.

⁶⁶ NEVI Plan at 18.



NYSDEC also has failed to quantify the cost to utility ratepayers associated with subsidized EV charging rates by ratepayers that do not own or operate EVs. These rates and rate schedules are discriminatory and prohibited by federal and state law. For example, NY’s largest utility offers below-market rates to EV owners: “Electric vehicle owners on the residential time-of-use rate are eligible for a reduced monthly customer charge. Instead of \$21.46, you’ll be charged \$17.00 if you email us a copy of your electric vehicle registration document together with your account number annually every March. If you have an electric-vehicle-only meter and fail to submit your vehicle registration document together with your account number annually, your account may revert to a small business rate, which has a higher monthly customer charge of \$28.10.”⁶⁷ NYSDEC cannot justify ACC II as cost-effective when the state is providing owners and operators of electric vehicles and trucks with below-market rates compared other electricity customer classes. These rates are discriminatory, preferential and do not reflect the cost of providing electric service as required under federal and state law. In doing so, NYSDEC’s proposal arbitrarily ignores the massive costs of upgrading the electric distribution system to serve EVs, including replacements and upgrades of transformers, circuits, conductors, substations, transmission, and generation.

Indeed, one utility that provides service to parts of New York has determined that EVs will require that every highway passenger plaza must be able to supply as much power as a sports stadium (5 MW) by 2030, and that of a small town (20 MW) by 2035 and that truck stops would require more than 30 MW of power capacity, an amount typical for a large industrial plant, by 2045. NYSDEC has failed to consider, let alone account for any of these costs and the associated emissions with building out and maintaining this new infrastructure. Notably, the study was specifically designed to represent forecasted electric demands if New York State achieves its “goals to achieve 30% zero-emission MHDV sales by 2030 and 100% by 2045.”⁶⁸

NYSDEC further notes that “[t]he effects of general cost increase due to the likelihood of out-of-state or used [light- and medium-duty vehicle] purchases have been shown to be unpredictable,” and that “pre-buy” is “highly uncertain and may vary due to the dynamics of the industry,” before concluding, in a *non sequitur* with no apparent connection to these acknowledgments of uncertainty, that it “believes a ‘no-buy’ scenario under which consumers choose to reduce purchasing of new vehicles regulated under the proposed regulation is unlikely.”⁶⁹ Indeed, there is increasing evidence that regulations like ACC II, to mandate EV sales—along with the aforementioned cross-subsidies from gasoline and diesel vehicle buyers—are leading manufacturers to abandon sales of the least expensive and higher fuel economy gasoline and diesel vehicles that do not receive similar subsidization. Cox Automotive found that “in December 2017, automobile makers produced 36 models priced at \$25,000 or less. Five years later, they built just 10,” pushing low-income buyers out of the new-car market and into the used-car market. Conversely, in December 2017 automobile manufacturers offered 61 models for sale with sticker prices

⁶⁷ See conEdison, “Rate Options for EV Owners Charging at Home,” <https://www.coned.com/en/our-energy-future/technology-innovation/electric-vehicles/electric-vehicle-drivers/electric-vehicles-and-your-bill>.

⁶⁸ See National Grid, “Electric Highways” (November 2022), <https://www.nationalgrid.com/document/148616/download>.

⁶⁹ RIS 70-71.



of \$60,000 or higher and in December 2022, they offered 90.⁷⁰ Regulations like ACC I and ACC II are primary drivers of this trend toward eliminating affordable vehicles and NYSDEC must account for these market impacts to lower-income car buyers.

NYSDEC also has failed to, and must, account for how the costs of its mandate will significantly reduce the total sales of new automobiles, significantly delay fleet turnover, create large incentives to maintain and operate older gasoline and diesel vehicles, and increase the amount of NOx and VOC and PM2.5 emissions from the mobile fleet compared to not implementing the ACCII mandate. To the extent NYSDEC estimates any health benefits from its mandate, this estimate could show that its mandate will produce a net increase in NOx emissions, VOC emissions, and PM2.5 emissions.

Instead, after repeatedly noting fundamental uncertainties (which it does not try to qualitatively analyze much less quantify), NYSDEC manages to say what overall purchase scenarios are “unlikely.” (Note that what NYSDEC is deeming “unlikely” is, in fact, the prospect that consumers will reduce their purchases of more expensive goods—which would seem to be axiomatically likely, at least in the absence of any explanation to the contrary.)

NYSDEC concedes ZEVs cost more up front, but asserts that “total cost of ownership is *likely* to be lower” than that of internal combustion engine-driven cars due to operational, fuel, and maintenance savings.⁷¹ Again, without an analysis of the differences between New York’s and California’s existing and projected future charging infrastructure, and without consideration of the costs of the aforementioned cross-subsidies or an analysis of how many ZEV owners are expected to use commercial charging stations as compared to charging at home, NYSDEC has not justified its wholesale reliance on CARB’s analysis and has not presented meaningful analysis of the impacts that adopting ACC II is likely to have *for New York*.

NYSDEC claims to be “unaware of any significant adverse impact to jobs and employment opportunities because of previous revisions” to its car standards.⁷² NYSDEC does not indicate whether it looked into any such possible impacts. AFPM urges NYSDEC to consider, at a minimum, the impact from previous rounds of regulation on auto mechanics and disruption from squandering of sunk costs in the petroleum supply chain.⁷³

By way of example, NYSDEC’s Revised Job Impact Statement concedes that “[t]he proposed amendments to the regulations may adversely impact jobs and employment opportunities in New York State.”⁷⁴ Extrapolating from CARB’s estimates, NYSDEC estimates that there will be an approximate net loss of 43,214 jobs in the state of New York by 2040.⁷⁵ Yet NYSDEC proceeds to state that “[t]he

⁷⁰ See Marketwatch, “Are we witnessing the demise of the affordable car? Automobile makers have all but abandoned the budget market” (February 28, 2023), “<https://www.marketwatch.com/story/are-we-witnessing-the-demise-of-the-affordable-car-automakers-have-all-but-abandoned-the-budget-market-a68862f0>.”

⁷¹ RIS 71 (emphasis added).

⁷² Job Impact Statement 1.

⁷³ See also, e.g., Jim Barrett & Josh Bivens, The stakes for workers in how policymakers manage the coming shift to all-electric vehicles (Economic Policy Institute Sept. 22, 2021), *available* at <https://www.epi.org/publication/ev-policy-workers/> (last visited Feb. 22, 2023); Carlos Waters, How electric vehicle manufacturing could shrink the Midwestern job market (CNBC Sept. 4, 2022), *available* at <https://www.cnbc.com/2022/09/04/ev-manufacturing-may-shrink-us-midwest-auto-parts-trade.html> (last visited Feb. 22, 2023) (researchers estimate “electric vehicles could require 30% less manufacturing labor when compared with conventional cars”)

⁷⁴ NYSDEC, *Revised Job Impact Statement*, at 1, https://www.dec.ny.gov/docs/air_pdf/emer218ACC2.pdf.

⁷⁵ NYSDEC, *Regulatory Impact Statement*, at 63-64, https://www.dec.ny.gov/docs/air_pdf/emer218ACC2.pdf.



proposed adoption of the ACC II regulation is not expected to result in any significant impact to employment.”⁷⁶ New York stakeholders should have been afforded an opportunity to evaluate the data, costs, and assumptions underlying ACC II before NYSDEC proceeded with an emergency rulemaking.

NYSDEC does not expect adoption of ACC II “to have adverse impacts on car dealers,” and expects “no change in the competitive relationship with out-of-state businesses.”⁷⁷ This seems to assume, with no evidence cited, that no New York dealer competes for business with any dealer in a state that has not adopted ACC II. Even assuming this assumption made sense for California, with its vast spaces and lengthy, often rugged border areas separating it from neighboring states, it does not for New York. New York is considerably more compact, and the greater New York City area, especially, borders on densely populated areas of other states where cross-border competition for car sales is self-evidently a concern.

NYSDEC concedes vehicle purchasers will pay more for new ZEVs, particularly due to the cost of battery packs, but “[i]ncreased ZEV purchase costs *are expected to be* offset in part by state and federal purchase rebates and reduced operation and maintenance costs.”⁷⁸ As discussed above, NYSDEC has done no analysis of the details of these rebate policies, their expected duration, and the impact if they do not endure. Additionally, NYSDEC appears to have entirely disregarded the cost of battery replacement, which needs to be done more often than the purchase of a new vehicle itself. Similarly, NYSDEC ignores all costs associated with recalls of unreliable, mandated vehicles. Consumers and society both bear real costs from this, as well as from associated waste and recycling impacts.⁷⁹

NYSDEC “estimates” that adoption of ACC II will have a “directionally similar” employment impact to the one suggested in CARB’s analysis.⁸⁰ NYSDEC then attempts a crude, back-of-the-envelope calculation of employment impacts for New York, by simply multiplying CARB’s figures by the ratio of New York’s and California’s light duty sales and total non-farm statewide employment figures—both of which it asserts are 0.53, the latter with reference to federal Bureau of Labor Statistics and state Department of Labor data, the former with no citation at all.⁸¹ It does this to project total employment impacts, as well as sector-specific impacts.⁸² Again, “[NYS]DEC estimates that ACC II will have a directionally similar impact on employment for reasons like those assumed by California.”⁸³ Here, at least, NYSDEC is refreshingly forthright: it has not done a real analysis of the employment impacts on its state, deferring instead to CARB both for figures and methodology.

Elsewhere, in the impact document specifically addressing jobs, NYSDEC concedes that employment at gas stations, repair shops, and parts retailers “may be adversely impacted,” but “anticipate[s] that any

⁷⁶ *Id.* at 72.

⁷⁷ Revised Job Impact Statement 3; *see also* Rural Area Flexibility Analysis 3, Regulatory Flexibility Analysis for Small Businesses and Local Governments 5.

⁷⁸ Regulatory Flexibility Analysis for Small Businesses and Local Governments 2 (emphasis added).

⁷⁹ Significant environmental impacts arise from the ZEV lifecycle, including raw material acquisition and processing, and battery production, transport, disposal, and recycling. *See, e.g.,* Perry Gottesfeld, *Electric cars have a dirty little recycling problem—batteries*, CANADA’S NATIONAL OBSERVER, Jan. 22, 2021, <https://www.nationalobserver.com/2021/01/21/opinion/electric-cars-have-dirty-little-recycling-problem-their-batteries>.

⁸⁰ RIS 58.

⁸¹ RIS 59.

⁸² RIS 59, 62.

⁸³ RIS 62.



losses in these sectors will be offset by” jobs in EV charging and tech training.⁸⁴ This is not a reasonable assumption, absent substantiation. Auto mechanics for traditional cars are typically engaged for a full workday. The employment needs for monitoring and maintaining an EV charging station are, on their face, likely to differ. NYSDEC should compare the employment profile of an EV charging station as compared to that of maintenance and refueling jobs at ICE service stations. Without conducting meaningful analysis, NYSDEC’s “anticipation” of an “offset” is not rational.

C.3 NYSDEC’s analysis of criteria pollutant emissions

NYSDEC’s analysis of criteria pollutants in the Regulatory Impact Statement is facially deficient.

NYSDEC first presents a table purporting to show “California Statewide ACC II Upstream Emissions Relative To Baseline” for each calendar from 2026 through 2040 for the criteria pollutants NO_x and PM_{2.5}.⁸⁵ Although NYSDEC does not specify this on the table itself, its discussion elsewhere in the Statement suggests that these figures are a result of California’s use of “CARB’s EMFAC2021 and Vision models.”⁸⁶ These tables appear to show a reduction of 0.07 tons per day of NO_x emissions in 2026, increasing to 6.62 tons per day in 2040, and a reduction of zero tons per day of PM_{2.5} emissions in 2026, increasing to 0.92 tons per day in 2040.

Another table purports to show the same range of figures (again, *for California*) “includ[ing] vehicle, fuel production, and fuel delivery emissions.”⁸⁷ These figures are higher than the ones in the previous table: NO_x reductions of 0.59 tons per day in 2026, rising to 27.96 tons per day in 2040, and PM_{2.5} reductions of 0.03 tons per day in 2026, rising to 1.39 tons per day in 2040.

A third table, finally, purports to show California’s “Statewide Wells-to-Wheels Emission Benefits” from ACC II.⁸⁸ These figures are, again, for the most part higher than the previous tables: NO_x reductions of 0.7 tons per day in 2026, rising to 34.6 tons per day in 2040, and PM_{2.5} reductions of 0.0 tons per day in 2026, rising to 2.3 tons per day in 2040.

NYSDEC offers no narrative discussion of these values, and no explanation of the tables’ origins beyond the reference to “CARB’s EMFAC2021 and Vision models” mentioned above. NYSDEC describes “EMFAC2021” only as “a California-specific emissions model,” and the “Vision” model as being “used to estimate upstream emissions from transportation fuel and electric power industries.”⁸⁹ Both statements are supported only by footnotes to the general landing page for the respective models, providing the

⁸⁴ Job Impact Statement 2.

⁸⁵ RIS 41, Table 26.

Note that, while the heading of this table suggests that the figures represent “upstream” emissions reduction predictions, NYSDEC does not explain the difference between these figures and those on the following table, whose label indicates that its figures “include[] vehicle, fuel production, and fuel delivery emissions.” NYSDEC needs to clarify whether these tables represent different forms of “upstream” estimates or whether Table 26 is mislabeled and instead contains a “tailpipe” estimate. This lack of clarity prevents informed comment.

⁸⁶ RIS 36.

⁸⁷ RIS 42, Table 27.

⁸⁸ RIS 43, Table 28.

⁸⁹ RIS 36.



public no way to assess whether these tables actually represent a valid LCA or to interrogate the assumptions and inputs used.⁹⁰

In any event, these California tables are irrelevant to analyzing the effects of adopting ACC II on criteria pollutant emissions *in New York*. Without conducting a thorough and transparent LCA NYSDEC cannot demonstrate the true impact of adopting ACC II on criteria emissions *in New York*. This is particularly the case in light of differences between the two states' electric grids, a fundamental difference affecting emissions impacts which NYSDEC should have explicitly accounted for and analyzed. Instead, NYSDEC does exactly the opposite. As discussed in more detail in Section C.4 below, it assumes without analysis or accounting for costs that New York will have an entirely renewable-powered grid by 2040, and apparently views this assumption as relieving it from any obligation to meaningfully analyze the criteria pollutant emissions resulting from the impact of EV mandates on its *actually existing* grid. Indeed, as threadbare as is the California analysis that NYSDEC presents, its New York analysis manages to be even more deficient.

First, NYSDEC informs the reader that “New York State emission benefits and WTW [well-to-wheels] benefits resulting from proposed adoption of ACC II are based on ICCT MOVES3 modeling.”⁹¹ But whereas NYSDEC supported its reference to California’s models with at least a footnote to websites discussing those models generally, here *for its own model*, its footnote reads only “Add footnote[.]”⁹² The reader is left completely in the dark as to how NYSDEC derived the tables purporting to show New York emission benefits.

Those tables are two. First, a table purports to show “New York Annual ACC II Benefits Compared to Business-as-Usual Scenario,” in a similar format to the prior tables for California.⁹³ These tables appear to show a reduction of 0.13 tons per day of NO_x emissions in 2026, increasing to 4.31 tons per day in 2040, and a reduction of 0.01 tons per day of PM_{2.5} emissions in 2026, increasing to 0.41 tons per day in 2040.⁹⁴

Second, a table purports to show “Cumulative ACC II Emissions Benefits Compared to Business-as-Usual Scenario, 2025-2040 (NYS Model Year 2026 Implementation).”⁹⁵ This table indicates for NO_x 1,065 tons of emissions reduced by 2030; 4,25 tons by 2035; and 11,594 tons by 2040; for PM_{2.5}, the table indicates 87 tons by 2030; 445 tons by 2035; and 1,153 tons by 2040. (These numbers differ from the numbers presented in the Regulatory Impact Statement Summary and the *New York State Register* notice, as explained below.) Notably, this appears to reflect a cost of more than one million dollars per ton of NO_x emissions reduced, and ten million dollars per ton of PM_{2.5} reduced—figures that are orders of magnitude what the federal EPA generally considers “cost-effective” emissions reductions.⁹⁶

⁹⁰ See RIS 36 nn.22, 23 (linking respectively to <https://arb.ca.gov/emfac/> and <https://ww2.arb.ca.gov/resources/documents/vision-scenario-planning>).

⁹¹ RIS 44.

⁹² RIS 44 n.24.

⁹³ RIS 45, Table 30.

⁹⁴ Notably, these final figures are lower than what appears to be the corresponding figures for the California Table, RIS 41, Table 26.

⁹⁵ RIS 46, Table 31.

⁹⁶ See N.Y.S. Reg. (Dec. 28, 2022), at 40 (“The average annual and incremental costs of ACC II ZEV and LEV IV



The Regulatory Impact Statement's presentation raises multiple unanswered questions regarding this information. Does NYSDEC mean to imply a difference between the New York tables and California tables because the former are "Compared to Business-as-Usual Scenario" whereas the latter are "Relative to Baseline?" And why does NYSDEC refer to "New York state emission benefits *and WTW benefits*"—the latter term implying something considering more than merely direct, tailpipe emissions—when neither of the New York emissions tables use the acronym "WTW" or otherwise indicate consideration of emissions other than from the tailpipe? This inscrutable presentation prevents informed comment.

The benefits claim presented in NYSDEC's proposal in the *New York State Register* reads as follows:

New York emission benefits and WTW benefits resulting from proposed adoption of ACC II are based on ICCT MOVES3 modeling. The cumulative emissions benefits (2025-2040) of ACC II relative to a business-as-usual scenario are 15,231 tons of NO_x, 1,373 tons of PM_{2.5}, and 190 million metric tons of carbon dioxide equivalent.⁹⁷

These claims lack citation. They appear to be taken verbatim from NYSDEC's Regulatory Impact Statement Summary document.⁹⁸ These numbers are found nowhere in the Regulatory Impact Statement itself, nor in any of the other documents bundled together with it on NYSDEC's website. And they differ, with no explanation, from the figures presented in the tables in the Statement, as set forth above.⁹⁹ It is impossible to provide informed comment on these issues of central relevance to this rulemaking.

In addition, EVs also result in a significant increase in tire wear and associated particulate matter emissions in the areas where they operate. Neither California nor New York has evaluated these emissions.

Torque loads on drive tires will increase not only thanks to the higher output of electric motors compared to internal combustion engines, but also because regenerative braking will impart torsional forces on tires in the opposite direction. This will affect tire tread wear as well as sidewalls. And it will be more of a consideration in high stop-and-go applications — the exact type of local delivery operations that many see as one of the best applications for electric vehicles. "Higher torque on the drive axle will result in higher wear rate," says Hinnerk Kaiser,

regulations in New York State from 2026 to 2040 are estimated to be approximately \$1.1 billion and \$1,629 respectively. The Total cumulative costs are estimated to be approximately \$16.1 billion by 2024 [sic.]); 87 Fed. Reg. at 74,718/2 (supplemental proposal in rulemaking regulating volatile organic compound and methane emissions from oil and gas facilities) ("[T]he EPA proposes to find that cost-effectiveness values up to \$5,540/ton of VOC reduction are reasonable for controls that we have identified as BSER [the best system of emission reduction] and within the range of what the EPA has historically considered to represent cost effective controls for the reduction of VOC emissions. Similarly, for methane, the EPA finds the cost-effectiveness values up to \$1,970/ton of methane reduction to be reasonable for controls that we have identified as BSER in both the November 2021 proposal and this supplemental proposal, well below the \$2,185/ton of methane reduction that EPA has previously found to be reasonable for the industry.") (footnotes omitted).

⁹⁷ N.Y.S. Reg. (Dec. 28, 2022), at 40.

⁹⁸ See Regulatory Impact Statement Summary 6.

⁹⁹ Compare Regulatory Impact Statement Summary 6 (15,321 tons NO_x; 1,373 tons PM_{2.5}), with RIS 46, Table 31 (11,594 tons NO_x; 1,153 tons PM_{2.5}). Notably, the figures for CO₂-equivalent emissions also vary, with 180 million metric tons cited in Table 31, compared to 190 in the *Register* and Summary documents.



Continental’s head of product development. “In addition, a higher share of braking torque can increase the risk of irregular wear phenomena — heel and toe wear.”¹⁰⁰

On the crucial question of what emissions benefits will result *in New York* from its proposed adoption of ACC II, NYSDEC has presented confusing and conflicting figures with no support. Even under the most lenient standard, this violates principles of notice, transparency, and rationality.

C.4 NYSDEC’s analysis of GHG emissions

NYSDEC’s GHG emissions analysis suffers from the flaws discussed above with respect to its criteria pollutant analysis, as much of the GHG analysis is presented in the same run of tables as the criteria-pollutant analysis, subject to the same unsourced, unexplained, or confusing presentation.

Fundamentally, without a thorough and transparently presented LCA, NYSDEC has no way of knowing the true GHG impact of adopting ACC II—and certainly has not presented sufficient analysis for informed public comment.

The GHG analysis contains additional flaws. First, NYSDEC concedes that “[a]doption of ACC II would reduce on-road emissions, *but would increase electric generation emissions.*”¹⁰¹ But, without any analysis, NYSDEC asserts: “New York expects to have a carbon-neutral electric grid powered by renewable sources by 2040 to comply with the CLCPA requirements.”¹⁰² (Strangely, NYSDEC appears to include this assumption into its calculation of environmental benefits, while not accounting for the enormous costs that this grid transformation will most certainly entail.) NYSDEC does not cite any specific provision of the CLCPA,¹⁰³ nor does it provide any analysis of the anticipated timeline and scale or costs for its “expect[ation]” that New York will “have a carbon-neutral grid” by 2040. Nor does it address the impact on its projections for the feasibility of a transition to an all-EV new-car fleet five years *before* that date, the impact of an aggressive EV mandate that actually starts in 2026, and on associated GHG emissions. Nor does NYSDEC discuss the recent closure of the Indian Point nuclear power facility in New York, and the consequent increased reliance on fossil fuels¹⁰⁴ that calls into question both NYSDEC’s “expect[ation]” and the assumptions underlying the adoption of the CLCPA in 2019. NYSDEC also omits analysis of the needs for battery production and replacement, and resulting carbon emissions. Battery manufacturing in China and other foreign nations, as well as associated global mining activity, are carbon-intensive activities that NYSDEC’s analysis completely omits. This failure to conduct a true LCA again places a “thumb on the scale,” obscuring the true impact of adopting ACC II.

¹⁰⁰What Will Electrification Mean for Truck Tires? - Equipment - Trucking Info, <https://www.truckinginfo.com/10151115/what-will-electrification-mean-for-truck-tires>.

¹⁰¹ RIS 65 (emphasis added).

¹⁰² RIS 65.

¹⁰³ *But see* N.Y. Envir. Conser. Law § 75-0103(13)(b) (calling for “scoping plan” to include “Measures to reduce emissions from the electricity sector by displacing fossil-fuel fired electricity with renewable electricity or energy efficiency.”).

¹⁰⁴ *See* Thomas C. Zambito, NY’s fossil fuel use soared after Indian Point plant closure. Officials sound the alarm (Journal News July 22, 2022), *available at* <https://www.lohud.com/story/news/2022/07/22/new-york-fossil-fuels-increase-after-indian-point-nuclear-plant-shutdown/65379172007/> (last visited Feb. 22, 2023); Patrick McGeehan, Indian Point Is Shutting Down. That Means More Fossil Fuel (New York Times Apr. 12, 2021), *available at* <https://www.nytimes.com/2021/04/12/nyregion/indian-point-power-plant-closing.html> (last visited Feb. 22, 2023).



For its monetization of projected health benefits from GHG emission reductions, NYSDEC says it used “COBRA” modeling, “based on ICCT MOVES3 modeling of ACC II in New York State.”¹⁰⁵ (NYSDEC does not specify whether its monetization of projected health benefits from GHG reductions also includes criteria pollutants.) The link that it provides to this modeling does not work.¹⁰⁶ And NYSDEC’s representation of its claims in table form¹⁰⁷ is puzzling: It only presents monetized benefits for 2040, not any intervening year. Moreover, in 2040, notwithstanding a tremendous, forced increase in electricity demand, NYSDEC unrealistically projects *zero* burden from “increased electric generation emissions.” Although NYSDEC’s main narrative acknowledges “increase[d] electric generation emissions,” its table does not appear to assign any cost to those emissions.

Nor does NYSDEC analyze the potential impact on fleet turnover from mandates that increase vehicle cost. This could perversely slow adoption of emission-reducing technology. Vehicle consumers likely prefer to have a full range of choices available, not to have EVs mandated, and that they do not support EV subsidies that distort the market. Without accounting for these market dynamics, NYSDEC cannot meaningfully predict the actual emissions impact of its adoption of ACC II.

D. ACC II is preempted by federal law.

Congress has not authorized federal executive agencies or states to force a transition to EVs through government mandates.¹⁰⁸ Indeed, this is a major policy question that is the subject of several lawsuits pending before the D.C. Circuit. When Congress has spoken on vehicle electrification, it has specifically prohibited EV mandates,¹⁰⁹ required studies,¹¹⁰ and provided financial incentives with strict eligibility limits based on domestic production requirements and income levels.¹¹¹ The decision to force a transition to EVs and ban the sale of ICEVs would constitute a major question of political and economic significance for which Congress must provide a clear statement; no such clear statement exists.

D.1 ACC II is expressly preempted by the Energy Policy Conservation Act.

NYSDEC lacks authority to adopt or enforce any regulation “related to” fuel-economy standards under the Energy and Policy Conservation Act (EPCA). EPCA’s broad preemption provision prevents California and NYSDEC from adopting regulations when they are “related to” fuel economy, regardless of any accompanying localized pollution benefits. This provision is self-executing, meaning that no agency action is necessary for it to be effective—the lack of a NHTSA regulation expressly preempting NYSDEC’s adoption of ACC II does not affect EPCA’s preemptive effect. This provision also contains no authority to grant a waiver of preemption.

ACC II is clearly related to fuel-economy standards. Courts have found that state regulations “relate to” federal matters when they have a “connection with” or contain a “reference to” these matters. NYSDEC’s

¹⁰⁵ RIS 65.

¹⁰⁶ See RIS 65 n.42. While this link leads to a “NO RESULTS FOUND” page, NYSDEC may be referring to the document located at <https://theicct.org/wp-content/uploads/2021/06/nys-hdv-regulation-benefits-2-may2021.pdf>. But Table 47 (RIS 66) does not appear in this document. Again, NYSDEC is providing no transparency into its claims or their support, depriving the public of any meaningful opportunity to comment.

¹⁰⁷ RIS 66, Table 47 (Annual COBRA-estimated Economic Values of New York Adopting ACC II).

¹⁰⁸ See *West Virginia v. EPA*, 142 S. Ct. 2587 (2022).

¹⁰⁹ See 49 U.S.C. § 32902(h) (prohibiting considering dedicated automobiles, which includes electric vehicles).

¹¹⁰ See Energy Independence and Security Act § 206.

¹¹¹ See generally Inflation Reduction Act.



Regulatory Impact Statement specifically discusses the fuel savings that it projects will result from this rulemaking.¹¹² NYSDEC cannot avoid EPCA’s preemptive effect by characterizing this rule as an environmental regulation despite its clear implications for fuel economy. Indeed, because emissions of the greenhouse gas carbon dioxide are “essentially constant per gallon combusted of a given type of fuel,” the fuel economy of a vehicle and its carbon-dioxide emissions are two sides of the same coin.¹¹³ Accordingly, “any rule that limits tailpipe [greenhouse gas] emissions is effectively identical to a rule that limits fuel consumption.”¹¹⁴

An EV mandate thus has more than a mere “connection with” fuel economy—it has a direct connection, and courts have had little trouble finding federal preemption of state laws promoting hybrid or electric vehicles, including in New York.¹¹⁵ New York’s adoption of ACC II “relates to” fuel economy even more clearly than the taxi rules at issue in *Metropolitan Taxicab* and is thus expressly preempted by EPCA.

D.2 ACC II conflicts with important federal statutory objectives.

A critical failing of ACC II is that in its haste to phase-out oil and gas production and refinery industries it does not consider the impact to the remainder of our energy system. ACC II will sharply curtail, if not eliminate, the demand for biofuels, and will overburden electricity supply. Nor did NYSDEC consider the impact to other essential products such as jet fuel, asphalt, sulfur, petrochemicals, and lubricants. This willful blindness places ACC II on a collision course with multiple Congressionally mandated programs expressly designed to have the opposite impact: Congress wants to increase biofuels production and ensure a reliable electricity supply. Because ACC II undermines and conflicts with the fulfillment of these Congressional objectives, it is necessarily preempted.

It is a “well-established principle that the Supremacy Clause, U.S. Const., Art. VI, cl. 2, invalidates state laws,” like ACC II, “that interfere with, or are contrary to federal law.”¹¹⁶ Even where Congress has not completely displaced state regulation in a specific area, state law is nullified to the extent that it actually conflicts with federal law. Such conflicts arise “when compliance with both state and federal law is impossible” and “when the state law ‘stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.’”¹¹⁷ The ACC II program fails on both counts and is, therefore, expressly and/or impliedly preempted by federal law.

First, Congress’ intention to increase production, distribution, and use of biofuels is expressed in no less than three statutes, which do everything from mandating biofuel blending in liquid fuel to incentivizing its production through loans and loan guarantees. EPCA includes provisions related to the integration of

¹¹² RIS 71 (“The ACC II program offers vehicles with stricter standards that can lead to fuel cost savings . . .”).

¹¹³ 75 Fed. Reg. at 25,324, 25327 (May 7, 2010).

¹¹⁴ *Delta Constr. Co. v. EPA*, 783 F.3d 1291, 1294 (D.C. Cir. 2015).

¹¹⁵ See, e.g., *Metropolitan Taxicab Bd. of Trade v. City of New York*, 615 F.3d 152, 157 (2d Cir. 2010) (holding EPCA preempts local taxi-fleet rules merely *encouraging* the adoption of hybrid taxis).

¹¹⁶ *Hillsborough Cty., Fla. v. Automated Med. Lab’ys, Inc.*, 471 U.S. 707, 712-13 (1985) (citations omitted).

¹¹⁷ *Capital Cities Cable, Inc. v. Crisp*, 467 U.S. 691, 699 (1984) (quoting *Hines v. Davidowitz*, 312 U.S.

52, 67 (1941)); see also, e.g., *Sutton 58 Assocs. LLC v. Pilevsky*, 164 N.E. 3d 984, 990 (N.Y. 2020) (“[W]hen federal and state law conflict, federal law prevails and state law is preempted. . . . Preemption of state law may occur by express statutory provision or through implication, the latter of which may be accomplished through either federal preemption of the field of a particular subject matter or the existence of an irreconcilable conflict between federal and state law.”) (internal quotation marks and citations omitted).



alternative fuels in the transportation sector and requires a “reasonable distribution” of the burden of any energy-use restrictions. The Federal Power Act provides for investment in alternative fuels through grant programs and loan guarantees. And the Energy Independence and Security Act (EISA) includes specific provisions to increase energy security through increased production of biofuels under the RFS program and requires blending of increasing volumes of biofuel and other renewable fuels.¹¹⁸ Specifically, the ACC II Program conflicts with these federal objectives and deprives federal funding programs of value by mandating complete electrification of the transportation sector. These programs set aside significant funding for the development and use of liquid fuels for transportation, with the expectation that these fuels will continue to play an important role in meeting transportation energy demand for many years.

By contrast, ACC II would eliminate any role for these alternative fuels for new vehicles in New York by requiring 100% ZEVs and PHEVs (Plug-in Hybrid Electric Vehicles) by 2035, removing a substantial portion of the demand for these fuels and depriving federal investments of significant value. This deprivation is made worse by the potential—indeed California’s expectation, which NYSDEC’s proposal has now confirmed—that other states may adopt California’s engine and motor vehicle emission standards under Section 177 of the Clean Air Act, 42 U.S.C. § 7507 and the potential that manufacturers are unlikely to produce two separate fleets (177 states vs. the rest of the country).

Further, ACC II expressly contradicts EPCA’s requirement that any burdens stemming from energy-use restrictions be reasonably distributed across all industry sectors, instead placing the entirety of the burden of these restrictions on the oil and gas production and refinery sectors of New York’s economy as NYSDEC has now proposed to do.

Second, federal policy explicitly supports “the modernization of the Nation’s electricity transmission and distribution system to maintain a reliable and secure electricity infrastructure that can meet future demand growth.” 42 U.S.C. § 17381. The ACC II program conflicts with this policy by introducing material security and reliability risks to New York’s electricity grid, and to the grid of other states who may adopt ACC II.

The rapid electrification of the transportation sector will both substantially increase electricity demand in New York and other states who may adopt ACC II and increase dependence on electricity services, amplifying the risk that the grid will be targeted for either physical or cyber-attacks. A 2021 Government

¹¹⁸ See EPCA (42 U.S.C. § 6374, requiring alternative fuel use by light duty Federal vehicles; *id.* § 6391(b) (prohibiting “[u]nreasonably disproportionate share of burden” between segments of the business community and requiring that, “[t]o the maximum extent practicable, any restriction under authorities to which this section applies on the use of energy shall be designed to be carried out in such manner so as to be fair and to create a reasonable distribution of the burden of such restriction on all sectors of the economy”)); Federal Power Act (42 U.S.C. § 16501: Commercial byproducts from municipal solid waste and cellulosic biomass loan guarantee program – loans by private institutions for the construction of facilities for the processing and conversion of municipal solid waste and cellulosic biomass into fuel ethanol; *id.* § 16503: Sugar ethanol loan guarantee program; *id.* § 16071: Grant program for the acquisition of alternative fueled vehicles or fuel cell vehicles and the installation of related infrastructure)); Energy Independence and Security Act of 2007 (EISA) (Title 42, Chapter 152, Subchapter II: Programs for investment in biofuel research and infrastructure, centered around “increasing energy security,” which is of special federal concern; 42 U.S.C. § 7545(o)(2)(B)(ii): Establishes requirements related to determining the applicable volume of cellulosic biofuel for the calendar years 2023 and later, based on considerations such as available infrastructure, consumer costs, and energy security.



Accountability Office Report found that “[t]he grid’s distribution systems face significant cybersecurity risks—that is, threats, vulnerabilities, and impacts—and are increasingly vulnerable to cyberattacks.”¹¹⁹ According to the report, these risks “are compounded for distribution systems because the sheer size and dispersed nature of the systems present a large attack surface.”¹²⁰ As demand increases due to accelerated electrification, grid security will pose a greater challenge due to additional resource buildout. Further, the report found that increased use of networked consumer devices that are connected to the grid’s distribution systems—including electric vehicles and charging stations—also potentially introduce vulnerabilities because “distribution utilities have limited visibility and influence on the use and cybersecurity of these devices.”¹²¹ ACC II will therefore introduce new vulnerabilities to the nation’s distribution system by significantly increasing the use of consumer devices.

In addition, the increased demand for electricity under New York’s proposed adoption of ACC II will worsen existing instabilities in New York’s and in the grids of states that may adopt ACC II, compromising grid reliability in direct contravention of federal policy. New York’s grid reliability is already under threat.¹²² ACC II will increase demand despite existing shortfalls, undermining federal requirements targeting increased grid reliability.

Because NYSDEC’s proposed adoption of ACC II conflicts with and presents an obstacle to clearly stated federal objectives, NYSDEC lack the authority to promulgate these regulations—and indeed is preempted from doing so.

E. Uncertainty arising from pending D.C. Circuit litigation makes it inappropriate for NYSDEC to adopt ACC II at this time.

NYSDEC’s proposed adoption of ACC II relies on the implicit premises that California has authority to promulgate ACC II. This in turn assumes that ACC II is not preempted by the Clean Air Act, by EPCA, or by the RFS.¹²³ As we explain elsewhere in these comments, however, ACC II is in fact preempted by EPCA.¹²⁴ And litigation pending before the D.C. Circuit challenges the constitutionality of the Clean Air Act preemption-waiver mechanism as a whole, as well as its specific application in the case of California’s GHG regulations.¹²⁵

¹¹⁹ Gov’t Accountability Office, *Electricity Grid Cybersecurity: DOE Needs to Ensure Its Plans Fully Address Risks to Distribution Systems*, GAO-21-81, at 11 (Mar. 2021). Available at <https://www.gao.gov/assets/gao-21-81.pdf> (last visited Feb. 20, 2023).

¹²⁰ *Id.*

¹²¹ *Id.* at 18.

¹²² See James E. Hanley, *NYISO: New York Electric Grid Remains at Risk* (Empire Center June 15, 2022), available at <https://www.empirecenter.org/publications/nyiso-new-york-electric-grid-remains-at-risk/> (last visited Feb. 26, 2023) (“New York’s electrical grid could fail as early as 2023, if the state experiences a sustained 98-degree heat wave. . . . NYISO does not back down from the warning given in their 2021-2030 Comprehensive Reliability Plan that the state may soon reach a ‘tipping point’ where electricity production and transmission capabilities are insufficient to meet demand.”).

¹²³ See *Interv. For Pet’r Br., NRDC v. NHTSA*, Doc. 1976944 (Dec. 8, 2022) (D.C. Cir. No. 22-1080) (arguing ZEV mandates are impliedly preempted by the Renewable Fuel Standard).

¹²⁴ See *Ohio v. EPA*, No. 22-1081 (D.C. Cir. filed May 5, 2022). See also *Texas v. EPA*, No. 22-1144 (D.C. Cir. filed June 30, 2022) (challenging Department of Transportation’s Corporate Average Fuel Economy (CAFE) rulemaking, alleging violation of statutory prohibition on incorporating EV mandates into such regulations).

¹²⁵ See *Ohio v. EPA*, No. 22-1081 (D.C. Cir.).



Briefing in the D.C. Circuit on this matter is ongoing,¹²⁶ and it will be argued this Fall, with resolution by the Circuit expected in 2024. Separate and apart from all other issues raised in these comments, NYSDEC at a minimum should wait until the federal judiciary has decided these disputed issues before adopting ACC II. To rush forward with adoption now risks considerable disruption and whipsawing of regulated parties' and other stakeholders' expectations and investments, as well as wasted NYSDEC resources.

F. NYSDEC's adoption of ACC II constitutes a regulatory taking requiring just compensation.

NYSDEC's plan to eventually phase out the sales of all ICEVs constitutes a regulatory taking.¹²⁷ In determining whether a regulatory taking has occurred, "[s]everal factors are particularly relevant, including the regulation's economic effect on the landowner, the extent to which the regulation interferes with reasonable investment-backed expectations, and the character of the government action."¹²⁸

AFPM members have invested substantial amounts of money in making their refineries, terminals and distribution networks and renewable fuel facilities safe and productive and, therefore, have significant investment-backed expectations with respect to their properties, at least some of which may be forced to close as a result of NYSDEC's proposed adoption of CARB's electric vehicle mandate. New York landowners also would be harmed. Landowners across the state receive royalties from renting their land to companies. Policies that shut down oil facilities would prevent companies and New York landowners from realizing these investment-backed expectations. Thus, such adoption would constitute a regulatory taking based on its substantial interference with these expectations, and the state would be obligated to provide just compensation for companies' losses.

Therefore, as NYSDEC considers the potential costs of policies that would shut down oil facilities, it should—at a minimum—account for the estimated costs of just compensation for the loss of property use and interference with investment-backed expectations that would inevitably result.

G. California's struggles present a cautionary tale for New York.

NYSDEC should consider the implications that a strategy focused on a singular technology may have on community decision-making, consumer choice, and the unintended consequences that reliance on electrification may present, including foreign supply chain disruptions and forced labor in the production of the raw materials needed to manufacture batteries.¹²⁹

California policymaking is hardly an unqualified success story. Its climate policies—like the ZEV sales mandates—have had major inflationary impacts on gasoline and energy prices, as well as negative impacts on jobs in certain industries that are directly related to traditional fuels and vehicles.¹³⁰ While often lauded as the measuring stick for GHG emission reduction policies, California's transportation fuel

¹²⁶ See, e.g., Ford Motor Co. et al, Intervenor for Respondent Brief, Document No. 1985804 (filed Feb. 13, 2023).

¹²⁷ See N.Y. Const. art. I, § 7; U.S. Const. 5th Amend. "Both the [New York] State and Federal Constitutions require that owners receive just compensation when private property is taken for public use." *RAG Herkimer, LLC v. Herkimer Cty.*, 208 A.D.3d 1016, 1017 (App. Div. 4th Dep't 2022) (internal quotation marks omitted).

¹²⁸ *In re New Creek Bluebelt, Phase 4*, 205 A.D. 3d 808, 811 (App. Div. 2d Dep't 2022) (citation omitted).

¹²⁹ See U.S. Department of Energy, *2022 List of Goods Produced By Child Labor or Forced Labor*, at 50-51, https://www.dol.gov/sites/dolgov/files/ILAB/child_labor_reports/tda2021/2022-TVPR-List-of-Goods-v3.pdf.

¹³⁰ California Legislative Analyst's Office, *Assessing California's Climate Policies – An Overview* (Dec. 21, 2018).



prices are now the highest in the nation, averaging approximately \$4.62 per gallon of gasoline.¹³¹ According to a 2021 Report from the California Public Utilities Commission, “it is already cheaper to fuel a conventional ICE vehicle than it is to charge an EV” in the San Diego Gas & Electric Co. service area.¹³² The California Energy Commission projects that both commercial and residential electricity prices will continue to rise, reaching over \$8/gasoline gallon equivalent (“GGE”) by 2026 for the residential sector and nearly \$7/GGE for the commercial sector.¹³³ If environmental justice is truly a commitment for New York, it should carefully consider the criticisms of California’s climate approach, such as those leveled by The Two Hundred, which point out the disproportionate impacts to working and minority communities.¹³⁴

As California has faced rolling blackouts and historic energy prices, Governor Newsom in his May 2022 state budget proposal, has pivoted to the use of traditional fuel infrastructure to ensure system reliability to protect against outages.¹³⁵

Moreover, unworkable ZEV sales mandates put New York at risk of missing out on real carbon reductions available through incentivizing low-carbon liquid fuels and by encouraging the development of emerging carbon removal technologies.

H. Conclusion

NYSDEC must conduct a meaningful public notice and comment process for its complex proposal to adopt ACC II. There are significant technical, economic, and legal facts and analysis that NYSDEC has ignored or inadequately addressed in its process, in violation of the law. NYSDEC should address these process and analysis deficiencies by conducting technical working groups to foster stakeholder participation in scenario development and assessment.

Multitechnology pathways can help the state achieve faster and more certain emission reductions while expanding ways to reduce greenhouse gas emissions, to comply with the goals established by the CLPCA and other New York legislation. NYSDEC should evaluate and propose performance standards as an alternative to its proposed adoption of ACC II and its ZEV mandate.

Thank you for the consideration of our comments. AFPM would welcome the opportunity to discuss these comments and recommendations in more detail with you. Please feel free to contact us at DThoren@afpm.org with any questions or concerns.

Attachment

¹³¹ AAA, *California Average Gas Prices – Current Avg.*, <https://gasprices.aaa.com/?state=CA> (accessed Feb. 7, 2023).

¹³² CPUC, *Utility Costs and Affordability of the Grid of the Future: An Evaluation of Electric Costs, Rates, and Equity issues Pursuant to P.U. Code § 913.1*, at 116-117 (May 2021).

¹³³ CEC, “Presentation - Transportation Energy Demand Forecast,” 21-IEPR-03 (Dec. 14, 2021).

¹³⁴ See Plaintiffs’ Complaint, *The Two Hundred for Homeownership, et al. v. California Air Resources Board, et al.*, No. 1:22-CV-01474.

¹³⁵ See <https://www.ebudget.ca.gov/2022-23/pdf/Revised/BudgetSummary/ClimateChange.pdf>.



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May 26, 2023

Theresa Newman, Hearing Officer
DNREC - Office of the Secretary
89 Kings Highway, Dover, DE 19901

Via email to: DNRECHearingComments@delaware.gov

RE: Amendments to Regulation 7 DE Admin. Code 1140, Delaware's Low Emission Vehicle Program, Docket #2022-R-A-0011

A. Introduction and summary of comments.

A1. AFPM and its interest in DNREC's proposed adoption of ACC II.

The American Fuel & Petrochemical Manufacturers (AFPM) appreciates the opportunity to comment on the Delaware Department of Natural Resources and Environmental Control's (DNREC) proposed amendments to Title 7 of the Delaware Administrative Code, Section 1140 (Delaware Low Emission Vehicle Program). AFPM is a national trade association representing nearly all U.S. refining and petrochemical manufacturing capacity. AFPM members support more than three million quality jobs, contribute to our economic and national security, and enable the production of thousands of vital products used by families and businesses throughout the U.S. AFPM members are also leaders in producing lower carbon fuels, such as renewable diesel and sustainable aviation fuel.

AFPM shares DNREC's goal of reducing the carbon intensity of transportation. Indeed, our members are heavily investing in technologies and processes that will continue reducing the carbon intensity of fuels while automakers continue making improvements to the fuel efficiency of internal combustion engines. Importantly, these investments can achieve carbon intensity reductions for both new and existing vehicles without relying on a lengthy automobile fleet turnover. The reality is reducing the carbon intensity of transportation while meeting consumer needs will require a diverse mix of technologies, including liquid transportation fuels and electric vehicles. Innovation and competition among technologies will simply deliver better results for both the environment and consumers. Putting aside its serious legal and analytical infirmities, DNREC's proposal does exactly the opposite—it stifles innovation and reduces competition by ignoring the fundamental importance of liquid fuels in delivering affordable a reliable energy while reducing emissions. Delaware should withdraw this proposal.

A2. Summary of AFPM's reasons for opposing DNREC's proposal.

DNREC is proposing to adopt the California Air Resources Board's (CARB) Advanced Clean Cars (ACC) II standards, but it is preempted from doing so. DNREC must consider whether the measures called for in the California ACC II rule conflict with or are otherwise preempted by the



statutory mandates of federal legislation such as the Energy Policy and Conservation Act (EPCA); the federal Clean Air Act (CAA), including the Renewable Fuel Standard (RFS) program; and the Energy Independence and Security Act (EISA).

EPCA expressly preempts states from adopting regulations “related to” fuel economy standards, and ACC II falls squarely within that preemptive footprint. Congress did not authorize the National Highway Traffic Safety Administration (NHTSA) or the Environmental Protection Agency (EPA) to waive this express preemption.

ACC II is also expressly preempted by the CAA. Unlike EPCA, EPA may waive federal motor vehicle emissions standard preemption under the CAA under certain conditions. However, California has not obtained a preemption waiver from EPA for ACC II. Not only has California not obtained a waiver for ACC II, ACC II is also not a valid subject for an EPA waiver. As our attached comments on CARB’s ACC II proposal¹ demonstrate, ACC II and CARB’s analysis supporting it are flawed by CARB’s failure to conduct an accurate lifecycle assessment (LCA) demonstrating ACC II is needed to address compelling and extraordinary conditions or that its benefits exceed its costs. The lack of compelling and extraordinary conditions is highlighted by the fact that a recent EPA report on air quality trends shows continued improvement of ambient air quality.² Moreover, EPA has never established a National Ambient Air Quality Standard (NAAQS) to address ambient greenhouse gas (GHG) concentrations, nor any requirements for states to implement plans and rules to reduce in-state, upwind, or downwind GHG concentrations. For these reasons, CARB’s adoption of ACC II cannot qualify for a CAA preemption waiver.

Additionally, pending litigation in the D.C. Circuit challenges the CAA preemption waiver mechanism for ACC I, the predecessor to ACC II, which relies on the same purported source of authority. DNREC should wait until this litigation is resolved before adopting ACC II.

Furthermore, DNREC’s analysis supporting its proposed adoption of ACC II is arbitrary and capricious. Where it does not simply adopt CARB’s analysis wholesale without meaningfully adjusting for the differences between the two states, DNREC’s analysis contains unsupported, inaccurate assertions regarding the costs and benefits of its proposed action. DNREC’s analysis thus fails to meaningfully analyze and transparently present the actual costs and benefits of its proposed action. DNREC fails to adequately analyze whether its electric grid can handle the significant increase in demand for electricity that its adoption of ACC II will create, the lifecycle emissions impacts of expanding electricity generation and transmission, as well as electric

¹ Also available at: <https://www.arb.ca.gov/lists/com-attach/477-accii2022-AHcAdQBxBDZSeVc2.pdf> (last visited May 24, 2023).

² U.S. EPA, *Our Nation’s Air: Trends Through 2022*, available at <https://gispub.epa.gov/air/trendsreport/2023/#home> (last visited May 25, 2023).



vehicle (EV) production, the rising price of critical minerals needed for batteries, and the prospect of “leakage” as Delaware residents choose to buy non-EVs in surrounding states.³

DNREC must consider the broader geopolitical context against which it acts: the United States depends, and will necessarily continue to depend, on China and other foreign countries, for these minerals and metals (particularly copper) to produce batteries and expand the electrical grid.⁴ Adopting policies like ACC II will only increase that dependence. A transition to so-called Zero Emission Vehicles (ZEVs)⁵ would expose Delaware residents to supply chain vulnerabilities largely beyond the control of regulators. This risk is exacerbated by long supply chains⁶ and a reliance on geopolitical rivals who control those supply chains.⁷

Sections B and C of these comments discuss federal preemption of ACC II and pending litigation, while Section D addresses the constitutional barriers to adopting ACC II. DNREC’s failure to demonstrate it has legal authority to adopt ACC II is presented in Section E. In Section F, we highlight the deficiencies in DNREC’s environmental and economic analyses. Finally, Section G describes some of the unintended consequences of California’s initial foray into EV mandates under ACC I.

B. ACC II is preempted by federal law.

Congress has not authorized federal executive agencies or states to force a transition to EVs through government mandates.⁸ Indeed, this is a major policy question that is the subject of several lawsuits pending before the D.C. Circuit. When Congress has spoken on vehicle electrification, it has specifically prohibited EV mandates,⁹ required studies,¹⁰ and provided financial incentives with strict eligibility limits based on domestic production requirements and

³ See also Ramboll, Multi-Technology Pathways To Achieve California’s Greenhouse Gas Goals: Light-Duty Auto Case Study (May 31, 2022), Sec. 1.1, included in AFPM’s attached comments on California’s ACC II proposal: “CARB has not conducted a full life cycle GHG analysis for the vehicle/fuel system to assess GHG emission impacts of their proposal and alternatives. CARB did not consider the upstream fuel cycle GHG emissions from out-of-state fuel production and transportation activities for California reformulated gasoline (CaRFG) and hydrogen (H₂), and vehicle cycle GHG emissions associated with the vehicle production. These life cycle emissions are significant, particularly for battery electric vehicles (BEVs) as compared to internal combustion engine vehicles (ICEVs), due to the energy-intensive nature of producing a BEV battery. Failure to consider these GHG emissions has the effect of overstating the emissions benefits of the proposed ACC II regulation.”

⁴ As such, Delaware’s adoption of ACC II conflicts with the dormant foreign affairs preemption doctrine under the Supremacy Clause, which preempts state laws that intrude on the exclusive federal power to conduct foreign affairs.

⁵ On an LCA basis, of course, there is no such thing as a “zero-emission” vehicle, since all vehicles will have associated upstream and downstream emissions.

⁶ See 2022 Global EV Outlook (IEA May 2022) at 6-7, 178-79, available at <https://www.iea.org/reports/global-ev-outlook-2022> (last visited May 24, 2023).

⁷ *Id.*

⁸ See *West Virginia v. EPA*, 142 S. Ct. 2587 (2022).

⁹ See 49 U.S.C. § 32902(h) (prohibiting considering dedicated automobiles, which includes EVs).

¹⁰ See EISA § 206.



income levels.¹¹ The decision to force a transition to EVs and ban the sale of internal combustion engine vehicles (ICEVs) would constitute a major question of political and economic significance for which Congress must provide a clear statement; no such clear statement exists.

B.1 ACC II is expressly preempted by the Energy Policy Conservation Act.

DNREC lacks authority to adopt or enforce any regulation “related to” fuel-economy standards under EPCA. EPCA’s broad preemption provision prevents California and DNREC from adopting regulations when they are “related to” fuel economy, regardless of any accompanying localized pollution benefits. This provision is self-executing, meaning that no agency action is necessary for it to be effective. Moreover, EPCA contains no authority to waive preemption.

ACC II is clearly related to fuel-economy standards. Courts have found that state regulations “relate [] to” federal matters when they have a “connection with” or contain a “reference to” these matters.¹² DNREC’s Technical Support Document (TSD) specifically analyzes the fuel savings that it projects will result from this rulemaking.¹³ DNREC cannot avoid EPCA’s preemptive effect by characterizing this rule as an environmental regulation despite its clear implications for fuel economy. Indeed, because emissions of the greenhouse gas carbon dioxide are “essentially constant per gallon combusted of a given type of fuel,” the fuel economy of a vehicle and its carbon-dioxide emissions are two sides of the same coin.¹⁴ Accordingly, “any rule that limits tailpipe [greenhouse gas] emissions is effectively identical to a rule that limits fuel consumption.”¹⁵

An EV mandate thus has more than a mere “connection with” fuel economy—it has a direct connection, and courts have had little trouble finding federal preemption of state laws promoting hybrids or EVs.¹⁶ Delaware’s adoption of ACC II “relate[s] to” fuel economy even more clearly than the New York taxi rules at issue in *Metropolitan Taxicab* and is thus expressly preempted by EPCA.

B.2 ACC II conflicts with important federal statutory objectives.

A critical failing of CARB is that in its haste to phase out oil and gas production and refining industries it did not consider the impact of ACC II to the remainder of our energy system. ACC II will sharply curtail, if not eliminate, the demand for biofuels, and will overburden the electricity supply. Nor did CARB consider the impact on other essential products such as jet fuel, asphalt, sulfur, petrochemicals, and lubricants. This willful blindness places ACC II on a collision course with multiple Congressionally mandated programs expressly designed to have the opposite impact: Congress wants to increase biofuels production and ensure a reliable

¹¹ See generally Inflation Reduction Act.

¹² See e.g., *California Restaurant Association v. City of Berkeley*, (9th Cir. April 17, 2023), available at

¹³ See TSD 99-102 (containing forth multiple tables setting forth estimates of fuel savings). See also Regulatory Flexibility Analysis and Impact Statement Form 7 (similar).

¹⁴ 75 Fed. Reg. at 25,324, 25327 (May 7, 2010).

¹⁵ *Delta Constr. Co. v. EPA*, 783 F.3d 1291, 1294 (D.C. Cir. 2015).

¹⁶ See, e.g., *Metropolitan Taxicab Bd. of Trade v. City of New York*, 615 F.3d 152, 157 (2d Cir. 2010) (holding EPCA preempts local taxi-fleet rules merely *encouraging* the adoption of hybrid taxis).



electricity supply. Because ACC II undermines and conflicts with the fulfillment of these Congressional objectives, ACC II and DNREC's adoption of ACC II are necessarily preempted.

It is a “well-established principle that the Supremacy Clause, U.S. Const., Art. VI, cl. 2, invalidates state laws,” like ACC II, “that interfere with, or are contrary to federal law.”¹⁷ Even where Congress has not completely displaced state regulation in a specific area, state law is nullified to the extent that it conflicts with federal law. Such conflicts arise “when compliance with both state and federal law is impossible” and “when the state law ‘stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.’”¹⁸ The ACC II program fails on both counts and is, therefore, expressly and/or impliedly preempted by federal law.

First, Congress's intention to increase production, distribution, and use of biofuels is expressed in no less than three statutes, which do everything from mandating biofuel blending in liquid fuel to incentivizing its production through loans and loan guarantees. EPCA includes provisions related to the integration of alternative fuels in the transportation sector and requires a “reasonable distribution” of the burden of any energy-use restrictions. The Federal Power Act provides for investment in alternative fuels through grant programs and loan guarantees. And EISA includes specific provisions to increase energy security through increased production of biofuels under the RFS program and requires blending of increasing volumes of biofuel and other renewable fuels.¹⁹ Specifically, ACC II conflicts with these federal objectives and deprives

¹⁷ *Hillsborough Cty., Fla. v. Automated Med. Lab'ys, Inc.*, 471 U.S. 707, 712-13 (1985) (citations omitted).

¹⁸ *Capital Cities Cable, Inc. v. Crisp*, 467 U.S. 691, 699 (1984) (quoting *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941)); see also, e.g., *Gonzalez v. State*, 207 A.3d 147, 154 (Del. 2019) (“Under the Supremacy Clause of the United States Constitution, federal law preempts contrary state law. In general, the types of preemption recognized by federal courts can be divided into three categories: express preemption, field preemption, and conflict preemption. Express preemption occurs when Congress preempts state law in express terms. Field and conflict preemption, by contrast, take a more contextual approach. Field preemption exists when it is clear, despite the absence of explicit preemptive language, that Congress has intended, by legislating comprehensively, to occupy an entire field of regulation and has thereby left no room for the States to supplement federal law. As for conflict preemption, even if Congress has not occupied the field, state law is naturally preempted to the extent of any conflict with a federal statute. Thus, conflict preemption exists when compliance with both state and federal law is impossible, or when state law stands as an obstacle to the accomplishment and execution of the full purposes and objective of Congress.” (internal quotation marks and citations omitted)).

¹⁹ See EPCA (42 U.S.C. § 6374, requiring alternative fuel use by light duty Federal vehicles); *id.* § 6391(b) (prohibiting “[u]nreasonably disproportionate share of burden” between segments of the business community and requiring that, “[t]o the maximum extent practicable, any restriction under authorities to which this section applies on the use of energy shall be designed to be carried out in such manner so as to be fair and to create a reasonable distribution of the burden of such restriction on all sectors of the economy”); Federal Power Act (42 U.S.C. § 16501: Commercial byproducts from municipal solid waste and cellulosic biomass loan guarantee program – loans by private institutions for the construction of facilities for the processing and conversion of municipal solid waste and cellulosic biomass into fuel ethanol); *id.* § 16503: Sugar ethanol loan guarantee program; *id.* § 16071: Grant



federal funding programs of value by mandating complete electrification of the transportation sector. These programs set aside significant funding for the development and use of liquid fuels for transportation, with the expectation that these fuels will continue to play an important role in meeting transportation energy demand for many years.

By contrast, DNREC's adoption of ACC II would eliminate any role for these alternative fuels for new vehicles in Delaware by requiring 100% EVs and PHEVs (Plug-in Hybrid Electric Vehicles) by 2035, removing a substantial portion of the demand for these fuels and depriving federal investments of significant value. This deprivation is made worse by the potential—indeed California's expectation, which DNREC's proposal (and New York State's adoption) has now confirmed—that other states may adopt California's engine and motor vehicle emission standards under CAA Section 177, 42 U.S.C. § 7507, and the potential that manufacturers are unlikely to produce two separate fleets (177 states vs. the rest of the country).

Further, ACC II expressly contradicts EPCA's requirement that any burdens stemming from energy-use restrictions be reasonably distributed across all industry sectors. Instead DNREC's adoption of ACC II will place the entirety of the burden of these restrictions on the oil and gas production and refining sectors of Delaware's economy.

Second, federal policy explicitly supports “the modernization of the Nation's electricity transmission and distribution system to maintain a reliable and secure electricity infrastructure that can meet future demand growth.”²⁰ The ACC II program conflicts with this policy by introducing material security and reliability risks to California's electricity grid, and to the grid of Delaware and other states who may adopt ACC II.

Rapidly electrifying the transportation sector will both substantially increase electricity demand in Delaware and other states that may adopt ACC II and increase dependence on electricity services, amplifying the risk that the grid will be targeted for either physical or cyber-attacks. A 2021 Government Accountability Office Report found that “[t]he grid's distribution systems face significant cybersecurity risks—that is, threats, vulnerabilities, and impacts—and are increasingly vulnerable to cyberattacks.”²¹ According to the report, these risks “are compounded for distribution systems because the sheer size and dispersed nature of the systems present a large attack surface.”²² As demand increases due to accelerated electrification, grid reliability will pose a greater challenge due to additional resource buildout. As recently reported by the

program for the acquisition of alternative fueled vehicles or fuel cell vehicles and the installation of related infrastructure; EISA (Title 42, Chapter 152, Subchapter II: Programs for investment in biofuel research and infrastructure, centered around “increasing energy security,” which is of special federal concern); 42 U.S.C. § 7545(o)(2)(B)(ii): Establishes requirements related to determining the applicable volume of cellulosic biofuel for the calendar years 2023 and later, based on considerations such as available infrastructure, consumer costs, and energy security.

²⁰ 42 U.S.C. § 17381.

²¹ Gov't Accountability Office, *Electricity Grid Cybersecurity: DOE Needs to Ensure Its Plans Fully Address Risks to Distribution Systems*, GAO-21-81, at 11 (Mar. 2021), *available at* <https://www.gao.gov/assets/gao-21-81.pdf> (last visited May 16, 2023).

²² *Id.*



North American Electric Reliability Corporation, while electricity supply has improved in 2023 versus 2022, several operating regions are still at risk during periods of peak demand.²³ Further, the report found that increased use of networked consumer devices that are connected to the grid’s distribution systems—including EVs and charging stations—also potentially introduce vulnerabilities because “distribution utilities have limited visibility and influence on the use and cybersecurity of these devices.”²⁴ ACC II will therefore introduce new vulnerabilities to the nation’s distribution system by significantly increasing the use of consumer devices.

In addition, the increased demand for electricity under Delaware’s proposed adoption of ACC II will worsen existing instabilities in Delaware’s grid and in the grids of states that may adopt ACC II, compromising grid reliability in direct contravention of federal policy. ACC II will increase demand despite existing shortfalls, undermining federal requirements targeting increased grid reliability.

Because DNREC’s proposed adoption of ACC II conflicts with and presents an obstacle to clearly stated federal objectives, DNREC lacks the authority to promulgate these regulations—and indeed is preempted from doing so.

C. DNREC should wait until pending D.C. Circuit litigation is concluded before adopting ACC II.

DNREC’s proposed adoption of ACC II presumes that California has authority to promulgate ACC II. This in turn assumes that ACC II is not preempted by the CAA, by EPCA, or by the RFS.²⁵ As we explain elsewhere in these comments, however, ACC II is in fact preempted.²⁶ And litigation pending before the D.C. Circuit challenges the constitutionality of the CAA preemption-waiver mechanism as well as its specific application in the case of California’s motor vehicle GHG emission regulations.²⁷

Briefing in the D.C. Circuit on this matter recently concluded, and it will be argued this Fall. The Circuit may not resolve the matter until well over a year from now, with potential Supreme Court *certiorari* proceedings to follow. Separate and apart from all other issues raised in these comments, DNREC at a minimum should wait until the federal judiciary has decided these disputed issues before adopting ACC II. To rush forward with adoption now risks considerable disruption and whipsawing of regulated parties’ and other stakeholders’ expectations and investments, as well as wasted DNREC resources.

²³ 2023 Summer Reliability Assessment, North American Electric Reliability Corporation, (May 17, 2023).

²⁴ *Id.* at 18.

²⁵ See Interv. For Pet’r Br., *NRDC v. NHTSA*, Doc. 1976944 (Dec. 8, 2022) (D.C. Cir. No. 22-1080) (arguing EV mandates are impliedly preempted by the Renewable Fuel Standard).

²⁶ See generally *Ohio v. EPA*, No. 22-1081 (D.C. Cir. filed May 5, 2022). See also *Texas v. EPA*, No. 22-1144 (D.C. Cir. filed June 30, 2022) (challenging Department of Transportation’s Corporate Average Fuel Economy (CAFE) rulemaking, alleging violation of statutory prohibition on incorporating EV mandates into such regulations).

²⁷ See *Ohio v. EPA*, No. 22-1081 (D.C. Cir.).



D. DNREC’s adoption of ACC II constitutes a regulatory taking requiring just compensation.

DNREC’s plan to eventually phase out the sales of all ICEVs constitutes a regulatory taking.²⁸ In determining whether a regulatory taking has occurred, courts consider “a complex of factors, including (1) the economic impact of the regulation on the landowner; (2) the extent to which the regulation interferes with reasonable investment-backed expectations; and (3) the character of the government action.”²⁹

AFPM members invested substantial amounts of money in making their refineries, terminals and distribution networks, and renewable fuel facilities safe and productive and, therefore, have significant investment-backed expectations with respect to their properties, at least some of which may be forced to close because of DNREC’s proposed adoption of CARB’s EV mandate. Delaware landowners also would be harmed. Landowners across the state receive compensation from renting their land to companies. Policies that shut down facilities in the petroleum supply chain would prevent companies and Delaware landowners from realizing these investment-backed expectations. Thus, adopting ACC II would constitute a regulatory taking based on its substantial interference with these expectations, and the state would be obligated to provide just compensation for companies’ losses.

Therefore, as DNREC considers the potential costs of policies that would shut down oil facilities, it should—at a minimum—account for the estimated costs of just compensation for the loss of property use and interference with investment-backed expectations that would inevitably result.

E. The provisions of law DNREC cites do not authorize DNREC to adopt ACC II

E.1 The provisions of state law DNREC cites do not support its proposal.

DNREC relies on two Delaware statutory provisions as authority for its proposed adoption of ACC II: 7 Del. C. Chapter 60 Environmental Control §§ 6010, 6703.³⁰ Neither provision, in fact, supports the proposal.

First, Section 6010 is simply a general rulemaking statute. It provides that DNREC has rulemaking authority but does not speak to the specific issues involved in this rulemaking. We do

²⁸ See Del. Const. art. I, § 8 (“ . . . nor shall any person's property be taken or applied to public use without the consent of his or her representatives, and without compensation being made”); U.S. Const. Amend. V (“nor shall private property be taken for public use, without just compensation.”). See also *Brown v. Legal Found. of Washington*, 538 U.S. 216, 231-32 n.6 (2003) (“Often referred to as the Just Compensation Clause, the final Clause of the Fifth Amendment provides: ‘nor shall private property be taken for public use, without just compensation.’ It applies to the States as well as the Federal Government.”).

²⁹ *Delmarsh, LLC v. Environmental Appeals Board*, 277 A.3d 281, 294 (Del. 2022) (cleaned up).

³⁰ See Start Action Notice ¶ 3 (citing § 6010 only); Proposal ¶ 4 (citing both Sections); Regulatory Flexibility Analysis and Impact Statement Form 6 (citing § 6703 only); TSD 23-24 (citing both, as well as §§ 6002, 6043, which set forth definitions, findings, and purpose but do not mention vehicles at all, let alone a ZEV mandate, and § 6003, which provides that activities discharging air contaminants require a permit but likewise does not mention vehicles generally or ZEVs specifically).



not contest that DNREC has authority as a general matter to issue environmental regulations, but nothing in this provision expressly supports adopting ACC II or any other form of EV sales mandate.

Second, Section 6703 reads in full:

The Department shall have the power to formulate and promulgate, amend and repeal codes, rules and regulations establishing standards and requirements for the control of air contaminants from motor vehicles.

While this establishes that DNREC has authority over this subject area, it provides no substantive support for this proposal, for two reasons.

First, EVs do not “control” the emission of air contaminants from motor vehicles. The rulemaking’s TSD itself notes as much, stating “By definition, Zero Emitting Vehicles (ZEV) produce no exhaust emissions under any possible operational mode.”³¹ EVs do not *control* emissions; they shift emissions from the tailpipe to emissions associated with electricity generation and battery production. DNREC has not identified any reason why Section 6703 supports adoption of an EV mandate.

Second, even if Section 6703 did not preclude an EV mandate, DNREC’s analysis does not actually demonstrate that adopting ACC II will control, i.e., reduce carbon dioxide emissions in the aggregate, given the flaws in its technical analysis. As we explain in Section F of these comments and in our attached comments on CARB’s ACC II proposal, in the absence of a proper and thorough lifecycle GHG emissions analysis, neither CARB nor DNREC can demonstrate the *aggregate* GHG impact of ACC II.

Our attached comments on CARB’s ACC II proposal include a study from Ramboll that evaluated whether alternative vehicle technology and fuel pathways could achieve lifecycle GHG emission reductions similar to or greater than the ACC II proposal. Unlike CARB’s and DNREC’s partial analyses, Ramboll evaluated the full lifecycle impacts of EV technologies under the ACC II proposal to more completely and properly characterize the potential near-term and long-term GHG emissions performance. Ramboll considered other pathways that would not require a replacement of the entire transportation infrastructure system, and that would also not require the wholesale transformation of electric energy production and distribution infrastructure on an unprecedented short time scale. Instead, these other pathways would allow battery, hydrogen, and lower-carbon intensity gaseous and liquid fueled vehicles to compete to achieve California’s GHG targets for light-duty transportation in the quickest and most cost-effective manner while addressing emissions from the existing fleet. Ramboll’s conclusions showed that CARB’s attributions of GHG reductions to its proposed ACC II regulation were incomplete and emphasized the need for CARB to conduct a full lifecycle GHG emission assessment to quantify the cradle-to-grave effects of the draft ACC II proposal. CARB did not remedy these

³¹ TSD 44.



inadequacies in its analysis before adopting ACC II, and DNREC’s own analysis suffers from the same deficiencies.

Even if CARB’s analysis included the carbon emissions associated with battery production and had been otherwise adequate (which, as our comments on its proposal demonstrated, it was not), DNREC cannot simply rely on CARB. DNREC must conduct an adequate LCA of the effects of adopting ACC II on statewide GHG emissions. An adequate LCA would consider factors such as the mix of the fuel base for electricity supplied to the grid on which Delaware’s EVs will charge,³² expected miles traveled by Delaware drivers, Delaware temperature trends throughout the year and their effect on charging needs and battery capabilities, and many other state-specific factors.

E.2 The provisions of federal law DNREC cites do not support its proposal.

DNREC repeatedly cites the “identity” provision of CAA § 177, 42 U.S.C. § 7507, as justifying, or even *requiring*, it to adopt ACC II. Troublingly, the materials in DNREC’s rulemaking docket repeatedly mischaracterize CAA § 177, and the related preemption-and-waiver provision in CAA § 209, 42 U.S.C. § 7543.³³

³² To the extent that DNREC relies on assumptions about residential charging patterns and an anticipated transition to decentralized renewable energy as bases for its apparent view that adopting ACC II will reduce statewide GHG emissions without placing undue stress on the state’s grid, we note that most residential charging will occur at night, when solar power is unavailable and wind power is greatly diminished. These facts underline the deficiencies in DNREC’s analysis and the failure to demonstrate that adopting ACC II will in fact result in the emissions outcome that DNREC projects.

³³ The proposal claims that “Section 177 of the Clean Air Act requires that Delaware standards must be identical to the California standards.” (Proposal 1). For its part, the TSD asserts that “California can adopt motor vehicle standards as described in [CAA] section 209, . . . and other states can adopt the California standards as described in Section 177.” (TSD 24). Elsewhere, the TSD claims:

Congress granted the State of California a preemption waiver permitting that state alone to adopt stricter standards. Congress further granted other states the authority under the CAA to adopt any emissions standards adopted by California. Thus, while states other than California cannot choose to implement their own vehicle emissions standards, they do have the power to adopt California standards in place of the applicable federal standards.

TSD 31-32; *see also id.* at 38 (“As mentioned previously, Section 177 of the Clean Air Act allows California to adopt their own motor vehicle emissions standards . . .”).

The “Start Action Notice” in DNREC’s docket makes an even more egregious mischaracterization of federal law, citing CAA § 177 in response to the form question “IS THIS PROPOSED REGULATORY ACTION REQUIRED AS A RESULT OF FEDERAL STATUTE OR REGULATION?” SAN 2022-01, para. 4. (The SAN also cites 40 CFR 52.426 as “requiring” this rulemaking. This is not the case; this regulation approving certain Delaware State Implementation Plan (SIP) provisions has not been substantively amended since 2012 and makes no reference to the adoption of California standards, let alone to ACC II (which dates to 2022).)

These are flatly incorrect descriptions of federal law. CAA § 209 allows California to *apply to EPA* for preemption waivers. However, California can only adopt and enforce its own vehicle regulations. Other states can only choose whether to remain under federal standards or to adopt California’s standards *once EPA has granted a waiver for those California standards* and the state meets other statutory criteria.



Section 177 is unambiguous, and DNREC’s repeated misstatements are impossible to square with its text, which reads in relevant part “any state ... may adopt and enforce ... standards ... if such standards are identical to the California standards *for which a waiver has been granted* for such model year”³⁴

First, DNREC’s reliance on CAA §177 is misplaced, as that provision only allows states to adopt California vehicle standards once California has obtained a preemption waiver from EPA for those standards and the state meets the other statutory criteria. CAA § 177 therefore not only provides no support for DNREC’s proposal, but in fact highlights that DNREC’s proposal is preempted by federal law.

As EPA’s Administrator recently confirmed in a Congressional hearing, California had at the date of the hearing not even applied for, let alone obtained, an EPA waiver of CAA preemption for ACC II; indeed, California has only applied for this waiver within the past few days.³⁵ Section 177 on its face therefore provides no authority for DNREC to adopt ACC II, and any such adoption would be preempted by the CAA³⁶ unless and until EPA grants a preemption waiver for ACC II and Delaware meets the other statutory criteria.³⁷

Notably, the EPA Administrator said seconds later at the same hearing that he does not support a ban on ICEVs by 2035, casting political doubt on California’s ability to obtain a waiver for ACC II.

³⁴ CAA § 177, 42 U.S.C. § 7507 (emphasis added).

³⁵ See David Shepardson, California seeks EPA approval to ban sales of new gasoline-only vehicles by 2035 (Reuters May 23, 2023), available at <https://www.reuters.com/business/autos-transportation/california-seeks-us-approval-end-gas-only-new-vehicle-sales-by-2035-2023-05-23/> (last visited May 24, 2023). See also Videorecording of U.S. House of Representatives, Energy & Commerce Committee, Environment, Manufacturing, and Critical Materials Subcommittee Hearing: “The Fiscal Year 2024 Environmental Protection Agency Budget” (May 10, 2023), available at <https://energycommerce.house.gov/events/environment-manufacturing-and-critical-materials-subcommittee-hearing-the-fiscal-year-2024-environmental-protection-agency-budget> (video also available at <https://youtu.be/qDSTertIK78>) (last visited May 24, 2023). At 45:40, Administrator Regan states, “We have not received the waiver [request] you’re referencing. . . . The State of California hasn’t submitted a waiver [request] for [Advanced] Clean Cars [II] to the EPA.”

³⁶ See CAA § 209(a), 42 U.S.C. § 7543(a). Indeed, CAA § 209(a) preempts states from both “adop[ting]” and “enforc[ing]” a motor vehicle standard unless EPA issues a preemption waiver. Accordingly, this regulatory action is premature and unlawful.

³⁷ See *Am. Auto. Mf’rs Ass’n v. Comm’r, Mass. Dep’t. of Env’tl Prot.*, 998 F. Supp. 10, 17-18 (D. Mass. 1997) (“A state regulation relating to control of emissions from new motor vehicles or engines can survive pre-emption if, in accordance with [Clean Air Act] § 177, it adopts and enforces standards which are ‘identical to the California standards’ for which the EPA has granted a waiver ‘for such model year.’ *But a state may not either adopt or enforce a standard which does not meet these requirements.* Put another way, under § 177, a state can pass regulations only if it accepts as the basis for its regulations a California “standard” which has been granted a waiver in accordance with § 209(b).”) (citation omitted) (emphasis added) (granting summary judgment for plaintiff and holding preempted Massachusetts state ZEV production, delivery, and reporting requirements).



Second, ACC II is a California rulemaking establishing additional provisions of California's regulatory code, which are separate code sections for separate model years whose text explicitly provides that they are severable from the remainder of California's car-emissions regulations.³⁸ DNREC identifies no valid reason for why it could not retain the aspects of California's vehicle regulations that it has already adopted without also adopting ACC II,³⁹ especially since CAA Section 177 allows other states to adopt California's standards if "such standards are identical to the California standards for which a waiver has been granted for such model year."⁴⁰ Indeed, DNREC's interpretation of "identity" seems to have evolved without notice. In 2014, Delaware opted into California's GHG tailpipe and criteria pollutants but did not adopt its ZEV mandate. DNREC's historical approach to California's motor vehicle emission standards confirms that the identity requirements of the CAA do not require the State to adopt *every* California standard, especially where each is declared severable.

Third, DNREC could have repealed its existing regulatory requirements resulting from its prior adoption of portions of ACC I, thus harmonizing with existing *federal* standards. CAA § 177 *allows* states to adopt California's standards under certain circumstances but does not *require* them to do so.

In short, not only does CAA § 177 fail to support DNREC's proposed adoption of ACC II, but the federal statutory provision in fact *preempts* adoption at this stage.

F. DNREC's analysis in support of its proposal is arbitrary and capricious.

For the reasons set forth below, DNREC's proposed adoption of ACC II is arbitrary and capricious.

F.1 DNREC's analysis regarding cars, car components, and their costs lacks factual support and is based on unwarranted assumptions.

DNREC repeatedly makes assumptions and predictions with no or inadequate support regarding cars, car components, and the costs of both. It mostly relies on CARB's analysis:

This section will present an overview of current zero emitting vehicle technology and provide information to dispel many of the concerns raised by the public at the November and December public workshops held by the Department which include range anxiety,

³⁸ See CARB, Notice of Public Hearing to Consider Proposed Advanced Clean Cars II Regulations (Mar. 29, 2022), at 7, *available at* <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/notice.pdf> (last visited May 24, 2023) ("The proposed amendments do not encompass substantive updates to CARB's existing greenhouse gas emission standards that are part of the existing ACC program in Section 1961.3 of title 13 of the California Code of Regulations.").

On the severability of ACC II, *see* Cal. Code Regs. tit. 13, § 1961.4(h) ("*Severability*. Each provision of this section is severable, and in the event that any provision of this section is held to be invalid, the remainder of both this section and this article [i.e., Approval of Motor Vehicle Pollution Control Devices (New Vehicles)] remains in full force and effect."); *id.* § 1962.4(o) (same).

³⁹ See 87 Fed. Reg. 14,332, 14,332/1 (Mar. 14, 2022) ("rescind[ing] EPA's 2019 waiver withdrawal, thus bringing back into force the 2013 ACC program waiver").

⁴⁰ 42 U.S.C. § 7507(1).



battery costs and disposal as well as vehicle costs compared to gasoline or diesel fueled products. *Additional information on ZEV technology, market trends, batteries, durability, and technology costs are found in Attachment A – CARB Initial Statement of Reasons Appendix G.*⁴¹

Considering DNREC’s heavy reliance on CARB’s analysis, we attach hereto and incorporate herein by reference our comments on CARB’s ACC II proposal and New York State’s rulemaking adopting ACC II. Below we identify flaws in DNREC’s own statements and analysis.

For example, DNREC states:

The electric vehicle market has seen a significant increase in available models since the Nissan Leaf and Chevrolet Volt 2010 market introductions. Currently, the market has increased from one to 60 models offered through 2021. This rapid market growth and expansion of product offerings over the past decade is expected to accelerate significantly in the next five years.⁴²

DNREC provides no support for its “expect[ation]” that technological progress will increase the EV fleet sufficient to meet the requirements of its proposed adoption of ACC II.⁴³ This is not a meaningful analysis of either feasibility or the important value of consumer choice. Moreover, DNREC fails to consider whether the myriad direct and indirect federal and state subsidies required to bring current and future EVs into the marketplace are sufficient for EV sales and technology to be feasible, or whether these subsidies can even reasonably be expected to continue in their current state throughout the ramp-up required over the next decade and beyond under ACC II.

Similarly, with respect to battery costs, DNREC asserts that “the decrease in battery cost[] increases the likelihood of a viable solution for all market segments.”⁴⁴ DNREC here repeats CARB’s mistake, providing inadequate analysis of the question whether the likely future supply and demand trends for critical minerals and other battery components will allow for the necessarily massive supply ramp-up in conjunction with continued falling prices on which its analysis relies. Indeed, DNREC *admits* that the source on which it relies for its expectations regarding future battery cost trends warns of serious problems in the medium term and beyond:

⁴¹ TSD 45 (emphasis added). *See also id.* (“Looking to the future of electric drive technologies in the 2026 to 2035 timeframe, it is anticipated there will be even greater efficiency improvements, longer ranges, and comparable vehicle offerings and capabilities across all passenger car and truck categories and comparable costs to ICE vehicles *as summarized further in California’s Initial Statement of Reasons - Appendix G.*”) (emphasis added).

⁴² TSD 46 (footnotes omitted).

⁴³ Analyst data suggests that automobile manufacturers are unlikely to produce as many EVs as they had hoped. *See e.g.*, Keith Naughton, Ford CEO Sticks to ‘Crazy High’ EV Goal, Bloomberg News (May 19, 2023), available at <https://www.bloomberg.com/news/articles/2023-05-19/ford-ceo-pitches-50-billion-ev-plan-to-challenge-tesla#xj4y7vzkg> (last visited May 26, 2023).

⁴⁴ TSD 59.



While prices for key battery metals like lithium, nickel and cobalt have moderated slightly in recent months, Bloomberg New Energy Finance (BNEF) expects average battery pack prices to remain elevated in 2023 at \$152/kWh (in real 2022 dollars). BNEF expects battery price [*sic*] to start dropping again in 2024, when lithium prices are expected to ease as more extraction and refining capacity comes online. Based on the updated observed learning rate, BNEF's 2022 Battery Price Survey predicts that average pack prices should fall below \$100/kWh by 2026. *This is two years later than previously expected and will negatively impact the ability for automakers to produce and sell mass-market EVs in areas without subsidies or other forms of support. Higher battery prices could also hurt the economics of energy storage projects.*⁴⁵

The source DNREC cites is not alone in raising these concerns. Ample research and commentary warn that critical mineral and battery component supply issues will form a major obstacle to the type of EV ramp-up its proposed adoption of ACC II assumes will happen seamlessly. Indeed, lithium-ion battery pack prices have in fact recently begun to *rise*, even before the true impacts of ACC II are felt.⁴⁶ To meet the mandates set by ACC II, the original equipment manufacturers

⁴⁵ TSD 60 (emphasis added).

⁴⁶ BloombergNEF, Lithium-ion Battery Pack Prices Rise for First Time to an Average of \$151/kWh (Dec. 6, 2022), *available at* <https://about.bnef.com/blog/lithium-ion-battery-pack-prices-rise-for-first-time-to-an-average-of-151-kwh/> (last visited May 24, 2023) (“Rising raw material and battery component prices and soaring inflation have led to the first ever increase in lithium-ion battery pack prices since [Bloomberg] began tracking the market in 2010. After more than a decade of declines, volume-weighted average prices for lithium-ion battery packs across all sectors have increased to \$151/kWh in 2022, a 7% rise from last year in real terms. The upward cost pressure on batteries outpaced the higher adoption of lower cost chemistries like lithium iron phosphate (LFP). [Bloomberg] expects prices to stay at similar levels next year, further defying historical trends.”); Graham Evans, A reckoning for EV battery raw materials (S&P Global Mobility Oct. 31, 2022), *available at* <https://www.spglobal.com/mobility/en/research-analysis/a-reckoning-for-ev-battery-raw-materials.html> (last visited May 24, 2023) (“Geopolitical turbulence and the fragile and volatile nature of the critical raw-material supply chain could curtail planned expansion in battery production—slowing mainstream electric-vehicle (EV) adoption and the transition to an electrified future. Soaring prices of critical battery metals, as observed in the following chart from S&P Global Commodity Insights, are threatening supplier and OEM profit margins. This situation has quickly translated into increased component and vehicle prices, according to new analysis from S&P Global Mobility Auto Supply Chain & Technology Group. . . . S&P Global Mobility research clearly indicates that established battery raw material supply and processing operations under mainland Chinese ownership will continue to deliver much of the world's supply of lithium-ion batteries and their constituent key elements.”); Mark P. Mills, The “Energy Transition” Delusion: A Reality Reset (Manhattan Institute Aug. 2022), at 8, 10, *available at* https://media4.manhattan-institute.org/sites/default/files/the-energy-transition-delusion_a-reality-reset.pdf (last visited May 24, 2023) (“In the complex calculus of energy policies, the decarbonization road map also creates problematic realignments in energy supply chains. Start with the facts that the U.S. today is dependent on imports for 100% of some 17 minerals that are already listed as critical for national and economic security and that, for 28 other critical minerals, U.S. imports account for more than half of existing domestic demand. Factories that assemble batteries or solar hardware in this country would be equivalent to assembling conventional automobiles domestically but importing all the key components and all the fuel. . . . Today, the energy sector uses less than 15% of the various critical minerals that are



(OEMs) must secure adequate amounts of raw materials in a short time. With the projected supply and demand gap that many analysts foresee, pricing of critical minerals will remain volatile as occurred through the early 2020s. Morgan Stanley estimates EV makers will need to increase prices by 25 percent to account for rising battery prices.⁴⁷ Battery raw materials are not commodities, they are classified as specialty chemicals, so pricing should not be analyzed according to traditional commodity pricing structures, especially given that these supplies are geographically concentrated in areas with geopolitical instabilities.

DNREC points to various federal and state subsidies and incentives to suggest they will offset higher vehicle and infrastructure costs that will result from adopting ACC II.⁴⁸ DNREC does not analyze whether this state of affairs is likely to last and, if it does not, what would be the implications for the cost analysis and overall viability of the regulatory program, let alone whether California, Delaware or any state has the authority to create ZEV credits, the costs of which are borne by gasoline vehicle buyers in other states (without their knowledge).⁴⁹ Moreover, DNREC does not consider the market implications of an increasing percentage of vehicle sales depending on cross-subsidies from a shrinking number of gasoline vehicle buyers. DNREC must account for the following costs and market impacts which currently are ignored in its proposal:

- Zero-emission vehicle credits, or “ZEV credits.” These credits are a currency created by the State of California to provide supplemental subsidies to achieve their EV sales mandate. DNREC must disclose the cost of this incremental subsidy that manufacturers of EVs require to entice buyers to meet state EV sales mandates. If buyers wanted EVs, the ZEV credit price would be \$0, but California and other states explicitly decided to not collect this data from automakers, so the public has no information about the costs of this

also used for other purposes. But if transition goals were achieved, that share rises from 40% to 70% (at least). Just the pursuit of such an increase and shift in commodities usage would lead to higher and more volatile prices. Even in these early days of potential radical increases in demand, lithium prices are already up nearly 1,000% over the past two years, along with copper trading in a range that’s double the long-run history, nickel trading at a five-year high after coming down from recent peaks, and aluminum prices at a 10-year high. Again, this is the case with SWB [solar, wind, and battery] meeting only a few percentage points of total global energy needs. Escalating mineral demands further will escalate their prices, which will have two macroeconomic impacts: it will increase the costs of the SWB hardware itself—thereby inflating the costs of already expensive transition policies—and it will increase the costs of other manufactured goods competing for the same minerals. The latter is broadly inflationary, and the former reverses the assumption built into all transition forecasts, i.e., that the SWB hardware inevitably becomes cheaper.”).

⁴⁷ See James Thornhill, Morgan Stanley Flags EV Demand Destruction as Lithium Soars (Bloomberg Mar. 24, 2022), available at <https://www.bloomberg.com/news/articles/2022-03-25/morgan-stanley-flags-ev-demand-destruction-as-lithium-soars> (last visited May 24, 2023).

⁴⁸ TSD 79-83.

⁴⁹ ACC II is largely funded on the backs of gasoline (and diesel) car buyers, through hidden state ZEV (and EPA EV GHG multipliers and NHTSA CAFE EV multipliers) credit transfers and payments between automakers, without any communication of these costs to consumers. This scheme violates Federal (and State) laws that prohibit unfair or deceptive acts or practices in or affecting commerce.



scheme. DNREC must disclose who is paying the costs of the ZEV credits. Will Delaware gasoline and diesel vehicle buyers cover the costs of ZEV credits for EV sales in the state, i.e., will the MSRP of a gasoline pickup truck in Delaware be higher than the MSRP of a gasoline pickup truck in a state without an EV sales mandate and ACC II? If so, by how much? Or will nationwide gasoline and diesel vehicle buyers cover these costs? If so, under what authority will Delaware impose these costs on consumers nationwide? How much do these costs increase the price of gasoline and diesel vehicles? Also, if state EV sales mandates increase and battery minerals become scarcer, the value of ZEV credits are certain to increase significantly; however, DNREC does not identify or consider these costs. For example, one analyst estimated the value of ZEV credits at \$3,236 per credit.⁵⁰ Under California's rule, ZEV credits are awarded based on the size of the battery (i.e., the bigger the vehicle, the bigger the subsidy) and a typical EV receives 3 or more ZEV credits. Using Linn's estimate, every EV sale mandated by the State of Delaware will impose a hidden cost of approximately \$10,000 on gasoline vehicle buyers nationwide.⁵¹

- EPA GHG “multiplier” credits for EVs. These credits give an extra manufacturing incentive to EV makers to meet EPA's GHG standards, despite EPA having no authority to do so, and are not based on any real-world avoided emissions. DNREC does not estimate the costs of this subsidy to the extent that its proposal increases EV sales. Similarly, DNREC does not consider that if EPA's GHG multiplier credits are determined to be unlawful and/or rescinded by regulation, the value of the aforementioned ZEV credits must necessarily increase to offset them. DNREC should provide an estimate of the costs, which will be borne by purchasers of gasoline and diesel vehicles.
- Corporate Average Fuel Economy (CAFE) “multiplier” credits. Automakers and NHTSA are applying a long-expired incentive originally created by the Alternative Motor Fuels Act of 1988 to spur the commercial availability of alternative motor fuel vehicles (fueled with ethanol, methanol, or natural gas). This treatment allowed automakers to divide the gallon of gasoline equivalent for alternative fuel vehicles by 0.15, effectively producing a 6.67 multiplier of fuel economy credits. The Energy Policy Act of 1992 expanded the covered fuels to “alternative fuels,” to also include LPG, hydrogen, coal-derived liquid fuels, other non-alcohol biofuels, and electricity. While this provision expired in either 1994 or 2004, depending upon one's interpretation, NHTSA continues to apply it to EVs.⁵² In other words, EVs have been receiving credit for at least 667% of the real-world

⁵⁰ See Joshua Linn, *Balancing Equity and Effectiveness for Electric Vehicle Subsidies* (Resources for the Future Jan. 2022) available at https://media.rff.org/documents/WP_22-7_January_2022.pdf (last visited May 24, 2023).

⁵¹ This estimate is currently spread across roughly 19 gasoline car buyers for every 1 EV buyer (assuming BEVs are 5% market share of new sales); however, as EV mandates like Delaware's increase and the gasoline and diesel vehicle buyer pool shrinks, these costs will compound at an increasing rate.

⁵² See National Highway Traffic Safety Administration, “Alternative Fuels in CAFE Rulemaking,” presentation to SAE International (2015), available at https://www.nhtsa.gov/sites/nhtsa.gov/files/2015sae-powell-altfuels_cafe.pdf (last visited May 24, 2023).



fuel economy they achieve on the road and EV manufacturers have been selling these credits to manufacturers of gasoline and diesel vehicles.⁵³ We note that the U.S. Department of Energy (DOE) recently proposed to eliminate this multiplier when calculating the petroleum equivalence factor for EVs.⁵⁴ DNREC should provide an estimate of the incremental costs of these subsidy payments and of the effect of a potential decision by DOE to remove the 667% multiplier.

- Tax Revenue Implications. DNREC observes that “Between 2026 and 2040, the [state] government [under adoption of ACC II] would potentially lose \$216 million in revenue if other revenue sources are not found to replace the motor fuel tax.”⁵⁵ Such tax revenue, and its federal counterpart, generally goes to fund building and maintenance of federal and state roads, bridges, and even bicycle lanes. Conversely, EV drivers pay nothing or close to nothing. There are no federal taxes on electricity and most states either exempt most classes of electricity purchases from state taxes or apply de minimis taxes well below 1 percent. Gasoline and diesel drivers also pay higher registration fees and excise taxes in many states. DNREC must deploy meaningful analysis, absent in its proposal, as to how ACC II will shrink the pool of gasoline and diesel vehicles paying taxes and the corresponding shortfall in tax receipts. This is a real and material state impact that California ignored in its proceeding adopting ACC II. DNREC has acknowledged it but has not meaningfully analyzed the ripple effects that will ensue from this loss of revenue.

Finally, DNREC ignores that California and Delaware are vastly different states. Delaware is the second smallest of the contiguous states, while California is the second largest. Delaware is surrounded by larger states with greater populations and options for its residents to purchase vehicles in states without the all-EV mandate DNREC proposes to adopt. This means that Delaware adopting an all-EV mandate before neighboring states makes the state much less likely to achieve the expected benefits of this rulemaking.

⁵³ A 2015 NHTSA presentation to SAE, and a NHTSA CAFE Credit Model Documentation report, show how credits are being calculated for EVs despite not generating any real-world fuel savings or real-world fuel economy improvement. See https://www.nhtsa.gov/sites/nhtsa.gov/files/2015sae-powell-altfuels_cafe.pdf; https://www.nhtsa.gov/sites/nhtsa.gov/files/2022-04/Model-Documentation_CAFE-MY-2024-2026_v1-tag.pdf; https://one.nhtsa.gov/cape_pic/home/ldreports/manufacturerPerformance. Per the NHTSA information above, since MY2017 standards were ~35mpg and MY2017 Tesla FE performance (with multipliers) was 518.7 mpg, and since Tesla sold ~46,979 MY2017 vehicles in the U.S., then Tesla in MY2017 generated 227 million excess credits. If the market-value of these credits is ~\$5.50 per 0.1 mpg shortfall per vehicle under the MY2017 CAFE standard of ~35 mpg, then these credits were worth approximately \$1.25 billion, or \$26,600 per EV that Tesla sold. [Calculation of estimated value: Credits = (518.7 – 35) x 46979 x 10 x CAFE Penalty of \$5.50 per 0.1 mpg shortfall per vehicle]. Tesla may have banked, traded, or sold these credits. Tesla MY2022 sales in the U.S. were 484,351 and the CAFE civil penalty is now \$15 per 0.1 mpg shortfall per vehicle.

⁵⁴ The Department of Energy has acknowledged that EV fuel economy is significantly overstated and has proposed certain modifications to the petroleum equivalency factor. See 88 Fed. Reg. 21,525 (April 11, 2023).

⁵⁵ TSD 106.



DNREC's own record, in the form of opinion research appended to the TSD, suggests that Delaware's residents are not likely to adopt EVs.⁵⁶ These data show that only 4% of respondents currently own or lease an EV, that 63% percent say they are not likely to choose an EV the next time they purchase or lease a car, and that only 9% are "very likely to do so." Even assuming, for the sake of argument, that California's new ACC II all-EV mandate will achieve the penetration *in California* that California predicts, Delaware's adopting that mandate is facially unlikely to have a comparable result in Delaware. DNREC has not acknowledged or analyzed the impact of the differences between its drivers' preferences and California's.

EVs are more expensive on average than their ICEV counterparts and unaffordable for many households. In the first calendar quarter of 2022, the average price of the top-selling light-duty BEV in the U.S. was about \$20,000 more than the average price of top-selling ICEV.⁵⁷ The price disparity has not improved, with the average price of light-duty EVs near \$66,000 in August 2022 and continuing to rise.⁵⁸ No state, federal agency or automaker publicly shares the cost of state ZEV credits, EPA GHG multiplier credits, nor NHTSA CAFE EV multiplier credits. The documentation in note 53, *supra* suggests that buyers of gasoline vehicles are subsidizing each EV by more than \$25,000, increasing the true average cost of every EV sold to over \$90,000. By contrast, the median household and per capita incomes in Delaware are approximately \$72,724 and \$38,917, respectively.⁵⁹ Additional EV barriers to low-income stakeholders include but are not limited to: limited driving/battery range; inability to charge in different housing and work situations; high price points to purchase, maintain, and insure EVs; availability of replacement parts and qualified mechanics, as well as ease and cost of repairs; and unpredictability regarding future electricity costs.

F.2 DNREC's analysis of economic impacts is woefully inadequate.

To analyze the economic impacts of adopting ACC II, DNREC again relies on CARB's analysis.⁶⁰ We incorporate by reference our attached comments on CARB's ACC II proposal. We further note that Delaware's wholesale reliance on CARB's analysis by itself makes DNREC's proposal arbitrary and capricious, since an analysis of how adopting ACC II would harm or benefit the citizens of *Delaware* cannot be properly conducted by a wholesale reliance

⁵⁶ Appendix A (at 16) to Appendix C to the TSD.

⁵⁷ Registration-weighted average retail price for the 20 top-selling BEVs and ICE vehicles in the U.S. S&P Global, *Tracking BEV prices – How competitively-priced are BEVs in the major global auto markets?* May 2022.

⁵⁸ Andrew J. Hawkins, EV prices are going in the wrong direction (The Verge Aug. 24, 2022), *available at* <https://www.theverge.com/2022/8/24/23319794/ev-price-increase-used-cars-analysis-iseecars> (last visited May 24, 2023); *see also* Justin Banner, Latest Ford F-150 Lightning Price Hike Hands Chevy Silverado EV a \$20K Advantage--The least-expensive electric F-150 Lightning now costs \$4,000 more than it did late last year (Motortrend Mar. 30, 2023), *available at* <https://www.motortrend.com/news/2023-ford-f-150-lightning-pro-price-increase-msrp/> (last visited May 24, 2023).

⁵⁹ Estimates as of July 1, 2022, U.S. Census Bureau, Quick Facts – Delaware, *available at* <https://www.census.gov/quickfacts/DE> (last visited May 24, 2023).

⁶⁰ TSD 107 ("Delaware is utilizing the CARB economic cost-benefit analysis in this Technical Support Document (TSD) to demonstrate the economic costs and benefits of ACC II.").



on an analysis of ACC II's impacts on another state, particularly one as different from Delaware as California.

First and foremost, without a comparison of the respective state of California's (CAISO) and Delaware's (PJM) electrical grids and the relative status of repairs to these grids that are underway, DNREC has not meaningfully analyzed whether the assumptions underlying CARB's analysis of ACC II apply to its own proposed adoption of ACC II.

Adopting an EV mandate will spike demand for electricity, placing even further upward pressure on electric rates and threatening reliability. Notably, a major Delaware utility recently requested massive rate hikes.⁶¹ DNREC's TSD acknowledges this risk and provides the plaintive statement "Delmarva Power and the Co-op are committed to reliability and want to ensure that customers have the power they will need today and in the future."⁶² But the proposal and its supporting documents provide no meaningful reassurance that this will be the case if ACC II is adopted.

Additionally, Delaware's climate differs from California's, with its colder weather negatively impacting charging efficiency and EV range, affecting both individual and systemic cost analyses.⁶³ Indeed, DNREC notes *nowhere* that its state's climate differs from California's climate, let alone analyzes the implications of this difference.⁶⁴ According to New York Department of Transportations' National Electric Vehicle Infrastructure (NEVI) Plan dated August 2022:

⁶¹ Mark Eichmann, Delmarva Power proposes 'one of the largest' rate hikes in its history (WHYY Dec. 18, 2022), *available at* <https://whyy.org/articles/delmarva-power-rate-hike-2023/> (last visited May 24, 2023).

⁶² TSD 76 ("The reliability of Delaware's electric grid is paramount for supporting a ZEV fleet. Outages must be minimal if the state's infrastructure is to support thousands of new EVs on Delaware's roads. Delmarva Power and the Co-op are committed to reliability and want to ensure that customers have the power they will need today and in the future.").

⁶³ *See, e.g.*, Sean Tucker, Study: All EVs Lose Range in the Cold, Some More Than Others (Kelley Blue Book Dec. 29, 2022), *available at* <https://www.kbb.com/car-news/evs-lose-range-in-the-cold/> (last visited May 24, 2023) ("Range loss is a significant concern for electric vehicle (EV) owners. Refueling an EV takes longer, and public charging stations can be hard to find in many parts of the country. That scarcity requires EV owners to plan longer trips around recharging points — and to know they'll need to stop more frequently when the mercury drops."); Paul Shepard, Quantifying the Negative Impact of Charging EVs in Cold Temperatures (EEMPower Aug. 8, 2018), *available at* <https://eepower.com/news/quantifying-the-negative-impact-of-charging-evs-in-cold-temperatures/> (last visited May 24, 2023) ("[A] new study on charging in cold temperatures suggests that industry and EV drivers still face charging challenges. The reason: cold temperatures impact the electrochemical reactions within the cell, and onboard battery management systems limit the charging rate to avoid damage to the battery. . . . [R]esearchers at Idaho National Laboratory looked at data from a fleet of EV taxis in New York City and found that charging times increased as temperatures dropped.").

⁶⁴ *See* Jon Witt, Winter & Cold Weather EV Range Loss in 7,000 Cars (Recurrent Dec. 12, 2022), *available at* <https://www.recurrentauto.com/research/winter-ev-range-loss> (last visited May 24, 2023); *see also* 20 popular EVs tested in Norwegian winter conditions (Norwegian Automobile Fed'n Mar. 12, 2020), *available at* <https://www.naf.no/elbil/aktuelt/elbiltest/ev-winter-range-test-2020/> (last visited May 24, 2023).



[v]ery cold temperatures (below 30 degrees Fahrenheit) have a significant effect on electric battery and charging performance. Charging is much slower in cold temperatures, and direct-current fast-charging (DCFC) facilities may only charge at a fraction of their rated speed in cold temperatures. Further, all-wheel drive vehicles are more popular in snowy climates. These vehicles have lower range than identical vehicles with front or rear wheel drive, which could trigger the need for additional charging.⁶⁵

There is increasing evidence that regulations like ACC II, which mandate EV sales—along with the cross-subsidies from gasoline and diesel vehicle buyers—are leading manufacturers to abandon sales of the least expensive and higher fuel economy gasoline and diesel vehicles that do not receive similar subsidization. Cox Automotive found that “in December 2017, automobile makers produced 36 models priced at \$25,000 or less. Five years later, they built just 10,” pushing low-income buyers out of the new-car market and into the used-car market. Conversely, in December 2017 automobile manufacturers offered 61 models for sale with sticker prices of \$60,000 or higher and in December 2022, they offered 90.⁶⁶ Regulations like ACC I and ACC II are primary drivers of this trend toward eliminating affordable vehicles and DNREC must account for these market impacts to lower-income car buyers.

DNREC vaguely refers to “other policies and programs” that “will be needed” not only in its own state but in other states as well to ensure that lower-income and frontline communities benefit from its proposal to adopt ACC II, tacitly conceding that the proposal itself will not benefit these communities:

While the proposed ACC II regulations will advance equity, a whole-of-government approach is needed to maximize access, ensure affordability, and direct benefits to low-income and frontline communities. Thus, other policies and programs beyond ACC II will be needed in California and Section 177 of the CAA states to ensure these communities benefit from and have direct access to ZEVs.⁶⁷

The only substantive claim DNREC makes here to support its assertion that “the proposed ACC II regulations will advance equity” is a claim that they will reduce vehicle emissions. For the

⁶⁵ New York Department of Transportation (NYDOT), New York State National Electric Vehicle Infrastructure Formula Program Plan, at 18 (Aug. 2022). Additionally, charging infrastructure reliability is an issue DNREC must investigate. *See e.g.* Iulian Dnistran, InsideEvs (Feb. 2023) (“According to J.D. Power’s Electric Vehicle Experience Public Charging Study, quoted by Automotive News, the number of failed charging attempts grew from 15 percent in the first quarter of 2021 to more than 21 percent by the third quarter of 2022. At worst, almost 2 in 5 visits to chargers – or 39% – were unsuccessful last year.”).

⁶⁶ *See* Sean Tucker, Are we witnessing the demise of the affordable car? Automobile makers have all but abandoned the budget market (MarketWatch Feb. 28, 2023), *available at* <https://www.marketwatch.com/story/are-we-witnessing-the-demise-of-the-affordable-car-automakers-have-all-but-abandoned-the-budget-market-a68862f0> (last visited May 24, 2023).

⁶⁷ TSD 115.



reasons stated herein, DNREC has not conducted the analysis necessary to show that overall pollutant reductions will occur. As with other issues such as grid reliability and shifting emissions from the tailpipe to emissions associated with electricity generation, DNREC does little more than acknowledge a serious issue and state in general, aspirational terms what would be required to actually address that issue. This is not rational rulemaking.

Similarly, DNREC's analysis of employment impacts is virtually nonexistent:

While a transition to electric vehicles will likely result in a decrease in some jobs/industries such as automotive repair and maintenance, other industries are expected to increase as a result of the transition. Examples include electric power generation, transmission, and distribution, and chemical manufacturing. Additional jobs involving charger installation and maintenance are expected to be generated.⁶⁸

This is not a meaningful analysis. Auto mechanics for traditional cars are typically engaged for a full workday. The employment needs for monitoring and maintaining an EV charging station are, on their face, likely to differ. DNREC should compare the employment profile of an EV charging station as compared to that of maintenance and refueling jobs at ICEV service stations. Without conducting meaningful analysis, DNREC has no way to compare the decreases it anticipates in some sectors with the increases it anticipates in others.

DNREC also completely ignores other real-world costs, such as higher insurance premiums for EVs and a higher propensity for insurers to 'total' an EV involved in a minor traffic accident, due to both high repair costs and fire risk and associated liabilities.

F.3 DNREC's analysis fails to fully assess the emissions impacts of ACC II.

DNREC asserts that "[t]he proposed amendments will result in reduced NO_x, PM_{2.5} and GHG emissions."⁶⁹ But without a proper and thorough LCA, DNREC cannot substantiate this assertion. This is because an all-EV mandate will significantly increase demand for electricity, requiring careful consideration of emissions resulting from generation of that electricity in order to determine the magnitude of overall changes in emissions. Moreover, the composition of the energy mix that will be used to generate additional electricity is unclear. DNREC's discussion acknowledges this issue, but does not resolve it:

A full-scale transition to ZEVs will require continued careful coordination between state and federal leadership, utilities, energy regulators and the public to protect against increases in "upstream" emissions at power plants that threaten the health of other communities far from roadways.⁷⁰

⁶⁸ TSD 109.

⁶⁹ TSD 36.

⁷⁰ TSD 88.



DNREC goes on to note the centrality of the utility sector to this issue, which again only highlights that its overall conclusion that adopting ACC II will in fact reduce emissions is ungrounded:

Implementing ACC II, coupled with state and local renewable power goals, are critical steps in protecting public health, preserving a sustainable climate, and bringing the transportation sector to a truly zero emission future. Existing state and national renewable energy policies are already resulting in changes to the electricity grid that are curbing dependence on harmful fossil fuels in favor of cleaner technologies. Ongoing efforts will be needed to ensure that clean, non-combustion renewable energy is the dominant source of power going forward. A full-scale transition to ZEVs will require continued careful coordination between state and federal leadership, utilities, energy regulators and the public in order to protect against increases in “upstream” emissions at power plants that threaten the health of other communities far from roadways. Utilities play an important role here in cleaning up the power grid. They also play an important role in supporting the ZEV market, including by providing special electricity rates for plug-in vehicle customers, investing in charging infrastructure and promoting the benefits of ZEVs to customers.

This discussion does not provide any reason to support DNREC’s apparent belief that changes in the utility sector will ensure that adoption of ACC II will result in a net emission reduction.

Elsewhere, DNREC relies on a general reference to the state’s prospective generation-mix requirements as support for a blanket restatement that adopting ACC II will reduce emissions:

The Renewable Portfolio Standard as amended in 2021 requires that by 2040, up to forty percent of the state’s electricity supplied to customers is generated from renewable sources which include wind, solar, geothermal, ocean energy and fuel cells. As Delaware’s electricity is generated from more and more zero emitting resources, shifting vehicles to electric power will further reduce air pollution.⁷¹

These aspirational gestures towards what *needs* to happen to ensure overall emissions will be reduced cannot substitute for a sufficient demonstration that these things *will* happen. Moreover, since Delaware has joined a regional power market, one which has a high concentration of coal, gas and oil-fired power plants that supply most of the electricity to every customer in Delaware, the in-state power mix is not representative of the GHG-related emissions associated with in-state power consumption. Without a true, robust LCA such as that conducted by Ramboll on CARB’s ACC II proposal (and attached hereto), DNREC cannot demonstrate that its proposal will achieve its stated objectives even directionally, let alone in terms of magnitude.

“Leakage” is of particular concern in Delaware, a small state surrounded by larger ones, and near in particular to dense centers of population in those other states. This fundamental difference between Delaware and California undermines multiple aspects of DNREC’s reliance on CARB’s analysis. Increased electric demand resulting from an EV mandate is likely to result in shifting

71 TSD 66.



emissions from areas outside Delaware’s regulatory control, both because of grid interconnection⁷² and because Delaware EV drivers are more likely to charge their cars in other states than are California drivers. This undermines DNREC’s analysis of whether the ACC II implementation rate is feasible as a threshold matter, as well as what its emissions impacts will be. DNREC needs to conduct an analysis from the ground up based around Delaware’s situation, rather than throwing superficial gestures on top of a wholesale adoption of CARB’s work.

DNREC’s review of emission impacts also completely ignores the higher tire wear, more frequent tire replacement costs, and associated particulate emissions from EVs.⁷³

G. California’s struggles present a cautionary tale for Delaware.

DNREC has not adequately considered the implications that a strategy focused on a singular technology may have on community decision-making and consumer choice, or the unintended consequences that reliance on electrification may present, including foreign supply chain disruptions and forced labor in the production of the raw materials needed to manufacture batteries.⁷⁴

California policymaking is hardly an unqualified success story. Its policies—like the EV sales mandates—have had major inflationary impacts on gasoline and energy prices, as well as negative impacts on jobs in certain industries that are directly related to traditional fuels and vehicles.⁷⁵ While often lauded as a laboratory for GHG emission reduction policies, California’s transportation fuel prices are now the highest in the nation, averaging approximately \$4.81 per

⁷² DNREC notes this fact but does not analyze its implications for emissions: “Delaware’s electricity comes from electric generating units located throughout the state *and the Mid-Atlantic region*. The fuels these units use to generate electricity is either natural gas, coal, nuclear or renewable energy.” TSD 66 (emphasis added).

⁷³ See, e.g., Fred Lambert, Goodyear unveils new tire for electric cars to reduce wear from powerful instant torque (Electrek Mar. 8, 2018), available at <https://electrek.co/2018/03/08/goodyear-tire-electric-cars-reduce-wear-instant-torque/> (last visited May 24, 2023); Emissions Analytics, Super Size EV Automotive's obesity crisis (“The excess weight of BEVs is likely to lead to 8.6 mg/km of additional tyre particulate mass emissions....”), available at <https://www.emissionsanalytics.com/news/super-size-ev-automotives-obesity-crisis> (last visited May 24, 2023).

⁷⁴ See U.S. Department of Energy, *2022 List of Goods Produced By Child Labor or Forced Labor*, at 50-51, available at https://www.dol.gov/sites/dolgov/files/ILAB/child_labor_reports/tda2021/2022-TVPRA-List-of-Goods-v3.pdf (last visited May 24, 2023). DNREC acknowledges that “[m]any commentators at the public workshops expressed concerns about the labor practices used in foreign countries for the mining of the minerals mentioned.” TSD 61. Its response to these concerns is to note that the State of Delaware cannot regulate overseas labor practices, and to cite various efforts and directives from the United States government to address this issue—while not analyzing at all whether these measures have had or are likely to have any effect on the problem, and while correctly noting that “Globally, China controls most of the market for processing and refining cobalt, lithium, rare earths and other critical minerals.” *Id.* 61-62. In other words, DNREC acknowledges that the people of Delaware have a serious concern about the human rights implications of a ZEV mandate, acknowledges that this is in fact a real threat, and says “we sure hope someone will do something about this.” This is not a serious analysis of this grave issue.

⁷⁵ California Legislative Analyst’s Office, *Assessing California’s Climate Policies – An Overview* (Dec. 21, 2018).



gallon of gasoline.⁷⁶ According to a 2021 Report from the California Public Utilities Commission, “it is already cheaper to fuel a conventional ICE vehicle than it is to charge an EV” in the San Diego Gas & Electric Co. service area.⁷⁷ The California Energy Commission projects that both commercial and residential electricity prices will continue to rise, reaching over \$8/gasoline gallon equivalent (“GGE”) by 2026 for the residential sector and nearly \$7/GGE for the commercial sector.⁷⁸ Delaware should carefully consider the criticisms of California’s policies, such as those leveled by *The Two Hundred*, which point out the disproportionate impacts to working and minority communities.⁷⁹

As California has faced rolling blackouts and historic energy prices, Governor Newsom, in his May 2022 state budget proposal, pivoted to the use of traditional fuel infrastructure to ensure system reliability to protect against outages.⁸⁰

Moreover, unworkable EV sales mandates put Delaware at risk of missing out on the real carbon intensity reductions available through incentivizing low-carbon liquid fuels and by encouraging the development of emerging carbon removal technologies.

H. Conclusion

Federal law preempts DNREC from adopting ACC II in multiple respects. Separate and apart from this issue, even if DNREC had the ability to adopt ACC II, DNREC must conduct a meaningful public notice and comment process for its complex proposal before doing so. There are significant technical, economic, and legal facts and analysis that DNREC has ignored or inadequately addressed in its process, rendering its proposal arbitrary and capricious. DNREC should address these procedural and analytical deficiencies by conducting technical working groups to foster stakeholder participation in scenario development and assessment.

Multi-technology pathways can help the state achieve faster and more certain emission reductions while expanding ways to reduce greenhouse gas emissions. DNREC should evaluate and propose performance standards as an alternative to its proposed adoption of ACC II and its EV mandate.

⁷⁶ AAA, *California Average Gas Prices – Current Avg.*, available at <https://gasprices.aaa.com/?state=CA> (last visited May 24, 2023).

⁷⁷ CPUC, *Utility Costs and Affordability of the Grid of the Future: An Evaluation of Electric Costs, Rates, and Equity issues Pursuant to P.U. Code § 913.1*, at 116-117 (May 2021), available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/office-of-governmental-affairs-division/reports/2021/senate-bill-695-report-2021-and-en-banc-whitepaper_final_04302021.pdf (last visited May 24, 2023).

⁷⁸ CEC, “Presentation - Transportation Energy Demand Forecast,” 21-IEPR-03 (Dec. 14, 2021).

⁷⁹ See Plaintiffs’ Complaint, *The Two Hundred for Homeownership, et al. v. California Air Resources Board, et al.*, No. 1:22-CV-01474 (E.D. Cal. filed Nov. 14, 2022).

⁸⁰ See <https://www.ebudget.ca.gov/2022-23/pdf/Revised/BudgetSummary/ClimateChange.pdf> (last visited May 24, 2023).



Thank you for the consideration of our comments. AFPM would welcome the opportunity to discuss these comments and recommendations in more detail with you. Please feel free to contact us at DThoren@afpm.org with any questions or concerns.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Don Thoren". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Don Thoren
Vice President

Attachments