Comments of the National Coalition for Advanced Transportation

On EPA's Request for Comment on Reconsideration of the Final Determination of the Mid-Term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022–2025 Light-Duty Vehicles; Request for Comment on Model Year 2021 Greenhouse Gas Emissions Standards

82 Fed. Reg. 39,551

EPA Docket No. EPA–HQ–OAR–2015–0827

October 5, 2017

Submitted via Regulations.gov

Introduction and Executive Summary

The National Coalition for Advanced Transportation ("NCAT" or "Coalition") submits these comments in response to the Environmental Protection Agency's ("EPA") and National Highway Traffic Safety Administration's ("NHTSA") Request for Comment on Reconsideration of the Final Determination of the Mid-Term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022–2025 Light-Duty Vehicles; Request for Comment on Model Year 2021 Greenhouse Gas Emissions Standards, Docket No. EPA–HQ–OAR–2015–0827, 82 Fed. Reg. 39,551 (Aug. 21, 2017) ("Request for Comments").

NCAT is a coalition of companies that support electric vehicle and other advanced transportation technologies and related infrastructure, including business leaders engaged in energy supply, transmission and distribution; vehicle and component design and manufacturing; and charging infrastructure, battery and other energy-storage technology design, production and implementation, among other activities. Electric and other advanced vehicles and related technologies and infrastructure provide major economic and energy security benefits, and U.S. leadership in this space is critical to our economic health, global competitiveness and environmental quality. NCAT supports government initiatives that provide regulatory, financial and other support for emerging electric and other clean vehicle technologies, as well as related infrastructure, to compete in the marketplace—including but not limited to federal and state vehicle standards. The Coalition recognizes the critical role that States play in adopting and implementing vehicle standards that support advanced technologies, and supports an approach that provides regulatory certainty and stable, long-term signals to guide investment by many different stakeholders.

NCAT's key comments, set forth in detail below, are as follows:

- NCAT strongly urges EPA not to consider or undertake revision of the Model Year ("MY") 2021 standards. Revision to the MY 2021 standards is unwarranted, could not be justified under the Clean Air Act ("CAA"), would create needless and harmful regulatory uncertainty, and would undermine the effectiveness of EPA's and NHTSA's policy and stakeholder engagement process with regard to the MY 2022-2025 standards.

- If EPA wishes to reach a determination that the MY 2021 and/or MY 2022-2025 standards are no longer appropriate, such determination constitutes a rulemaking under CAA Section 202(a) that must meet all applicable requirements of the CAA and/or the Administrative Procedure Act ("APA") and EPA regulations and other applicable statutes and Executive Orders. Among other requirements, the agency would have to issue a new proposed determination and provide an opportunity for public notice and comment and public hearing before it is finalized. A determination that the standards are no longer appropriate, especially to the extent it relies on any new information, analysis or reasoning not previously offered for public comment, would not be a "logical outgrowth" of EPA's original proposal and would violate the notice-and-comment and public hearing requirements of CAA Section 307(d), the APA to the extent independently applicable, and/or EPA's 2012 regulations specific to the mid-term evaluation. In addition, if EPA wishes to reverse course with regard to the

November 2016 Mid-Term Evaluation Proposed Determination and the January 2017 Final Determination, it would be required to provide "a more detailed justification than what would suffice for a new policy created on a blank slate," especially to the extent that "its new policy rests upon factual findings that contradict those which underlay its prior policy" and given that its "prior policy has engendered serious reliance interests that must be taken into account." *See FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).

- The MY 2022-2025 standards remain appropriate under CAA Section 202(a). NCAT recognizes the procedural concerns that auto manufacturers and other stakeholders have raised with regard to the January 2017 Mid-Term Evaluation Final Determination. While EPA's reconsideration process affords the agency with the opportunity to receive additional information, undertake further analysis, and ensure more rigorous and complete engagement and coordination with NHTSA, the record before EPA supports the conclusion that the current MY 2022-2025 standards remain appropriate under Section 202(a). New information and analysis available since the rule was adopted in 2012 further strengthens the basis of this conclusion, including but not limited to substantial advances in technology, cost reductions and consumer options for electric and other advanced technology vehicles, and additional information on the economic, energy security and environmental benefits of such vehicles.

- To the extent EPA opts to reconsider the MY 2022-2025 standards, NCAT strongly urges the agency to ensure that any proposed revisions fully recognize and support the role of electric vehicles ("EVs") and other advanced technology vehicles; preserve the overall stringency and benefits of the harmonized National Program; and recognize and support the critical continuing role of state vehicle standards. Incentives for electric and advanced technology vehicles are affected by the overall stringency and structure of the standards, and by the specific provisions they include to address such vehicles—including how such vehicles are credited and whether and how upstream emissions are attributed to such vehicles. If EPA decides to reopen the standards, NCAT encourages the agency to focus on targeted changes and innovative policy approaches that will preserve and enhance program benefits to the greatest extent possible, including with regard to electric and advanced technology vehicles, while improving regulatory flexibility and reducing costs. Further, NCAT underscores the critical role that state standards play in supporting electric and advanced technology vehicles and related infrastructure investments. NCAT supports the continuation of the harmonized National Program and urges EPA to avoid undermining state authority or existing state standards—both in order to maintain their effectiveness and to avoid divergence in regulatory requirements, conflict or litigation that could create regulatory uncertainty for businesses and weaken market signals for investors. NCAT stands ready to dialogue with other stakeholders and to assist EPA and the Administration in the development of policy approaches that support these outcomes.

I. APPLICABLE LEGAL FRAMEWORK

A. Clean Air Act Section 202(a)

CAA Section 202(a)(1) directs EPA to promulgate standards for emissions of air pollutants from any class or classes of new motor vehicles or new motor vehicle engines which cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare. 42 U.S.C. § 7521(a)(1). Following the Supreme Court's decision in *Massachusetts v. EPA*, 549 U.S. 497 (2007), holding that greenhouse gases ("GHGs") are within the CAA's definition of "air pollutant", *id.* at 528-29, EPA in 2009 issued an Endangerment Finding for GHGs.[1] This finding obligated EPA to set GHG emissions standards for motor vehicles,[2] which EPA promulgated for light-duty vehicles in rulemakings in 2010 for MY 2012-2016 and in 2012 for MY 2017-2025 ("2012 Rule").[3]

EPA considers several factors when setting vehicle emission standards under CAA Section 202(a). The vehicle emissions standards set by EPA are technology-based and are premised on a finding of technological feasibility. *Natural Res. Def. Council, Inc. v. EPA*, 655 F.2d 318, 322 (D.C. Cir. 1981). Relatedly, EPA considers the lead time for the standards. *See* 42 U.S.C. § 7521(a)(2) (standards must take effect after the period EPA "finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period."). EPA has interpreted Section 202(a) to allow the agency to set technology-forcing standards. *E.g.*, 77 Fed. Reg. at 62,673 (2012 Rule). EPA must also consider the cost to entities directly subject to the standards. *See, e.g., Motor & Equip. Mfrs. Ass'n Inc. v. EPA*, 627 F.2d 1095, 1118 (D.C. Cir. 1979). EPA considers safety in setting standards, and CAA Section 202(a)(4) prohibits use of emissions controls to comply with the standards if they "will cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation or function." 42 U.S.C. § 7521(a)(4).

B. Regulatory Requirements Applicable to the MTE

In the 2012 Rule that set MY 2017-2025 standards, EPA promulgated regulations providing for a mid-term evaluation ("MTE") through which EPA, before April 1, 2018, would determine whether the vehicle GHG emissions standards established for MY 2022-2025 are appropriate in light of the record before the EPA at that time. 40 CFR § 86.1818-12(h). The MTE process includes an opportunity for public comment before EPA makes this determination. In the event that EPA determines the MY 2022-2025 standards are not appropriate, EPA must initiate a rulemaking to revise the standards, to be either more or less stringent as appropriate. *Id.*

EPA must consider the information available on the factors relevant to setting GHG emission standards under CAA Section 202(a), including but not limited to:

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[1] EPA, Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,499 (Dec. 15, 2009).

[2] *See* 42 U.S.C. § 7521(a)(1).

[3] EPA & NHTSA, 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 Fed. Reg. 62,624 (Oct. 15, 2012).

(i) the availability and effectiveness of technology, and appropriate lead time for introduction of technology;

(ii) the cost on the producers or purchasers of new motor vehicles/engines;

(iii) the feasibility and practicability of the standards;

(iv) the impact of the standards on reduction of emissions, oil conservation, energy security, and fuel savings by consumers;

(v) the impact of the standards on the automobile industry;

(vi) the impacts of the standards on automobile safety;

(vii) the impact of the GHG emission standards on CAFE standards and a national harmonized program; and

(viii) the impact of the standards on other relevant factors. 40 CFR § 86.1818-12(h)(1).

EPA must make the MTE determination based on a record that includes the Draft Technical Assessment Report ("TAR"), and public comments on the TAR and appropriateness of the standards. 40 CFR § 86.1818-12(h)(2). EPA, NHTSA and the California Air Resources Board ("CARB") issued the TAR in July 2016.[4] In November 2016, based on the TAR, public comments, and the record before the agency, EPA issued a proposed determination that the MY 2022-2025 standards remained appropriate under CAA Section 202(a).[5] In January 2017, EPA issued a final determination ("2017 MTE Final Determination") confirming the MY 2022-2025 are appropriate and will be maintained going forward.[6]

In its Request for Comments, EPA requested comments and information on the following additional areas for MY 2022-2025:

"The impact of the standards on compliance with other air quality standards;

The extent to which consumers value fuel savings from greater efficiency of vehicles;

[4] EPA, NHTSA & CARB, Draft Technical Assessment Report: Midterm Evaluation of Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards for Model Years 2022-2025 (July 2016), *available at* https://nepis.epa.gov/Exe/ZyPDF.cgi/P100OXEO.PDF?Dockey=P100OXEO.PDF ("TAR").

[5] EPA, Proposed Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards under the Midterm Evaluation (Nov. 2016) at 35-55, *available at* https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100Q3DO.pdf ("Nov. 2016 MTE Proposed Determination").

[6] EPA, Final Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards under the Midterm Evaluation (Jan. 2017), *available at* https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100QQ91.pdf ("Jan. 2017 MTE Final Determination").

The ability for OEMs to incorporate fuel saving technologies, including those with 'negative costs,' absent the standards;

The distributional consequences on households;

The appropriate reference fleet;

The impact of the standards on advanced fuels technology, including but not limited to the potential for high-octane blends;

The availability of realistic technological concepts for improving efficiency in automobiles that consumers demand, as well as any indirect impacts on emissions;

The advantages or deficiencies in EPA's past approaches to forecasting and projecting automobile technologies, including but not limited to baseline projections for compliance costs, technology penetration rates, technology performance, etc.;

The impact of the standards on consumer behavior, including but not limited to consumer purchasing behavior and consumer automobile usage behavior (*e.g.* impacts on rebound, fleet turnover, consumer welfare effects, etc.); and

Any relevant information in light of newly available information."

82 Fed. Reg. at 39,553.

C. Administrative Procedure Act and CAA Section 307

The Administrative Procedure Act ("APA") provides that a reviewing court will set aside an agency action if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law." 5 U.S.C. § 706(2)(A). Under CAA Section 307(d), the arbitrary and capricious standard of review applies to a court's review of a rulemaking under CAA Section 202(a). 42 U.S.C. § 7607(d); *see also, e.g., Natural Res. Def. Council, Inc. v. EPA*, 655 F. 2d at 328. As explained in Section I.D, *infra*, the MTE determination is a rulemaking under Section 202(a) and is subject to all procedural requirements for such a rulemaking. Even if EPA were instead to frame its determination as an adjudication (as it did in the 2016 MTE Proposed Determination and 2017 MTE Final Determination now being reconsidered), and that position were ultimately upheld, the determination would be subject to the arbitrary and capricious/not in accordance with law standard of review.

Under this standard, "the agency must examine the relevant data and articulate a satisfactory explanation for its action including 'a rational connection between the facts found and the decision made.'" *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (internal citations omitted). The U.S. Court of Appeals for the D.C. Circuit has recognized in the CAA Section 202(a) standards context that their "examination of the record must be searching, for the necessity to review agency decisions, if it is to be more than a meaningless exercise, requires enough steeping in technical matters to determine whether the agency has exercised a reasoned discretion." *Natural Res. Def. Council, Inc. v. EPA*, 655 F. 2d at 328 (internal citations and quotations omitted). While a court will not substitute its own judgment

for that of the agency, the reviewing court has a "duty to consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." *Id.* Importantly, a "permissible statutory construction under *Chevron* [*U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984)] is not always reasonable under *State Farm*: [a court] might determine that although not barred by statute, an agency's action is arbitrary and capricious because the agency has not considered certain relevant factors or articulated any rationale for its choice.'" *Republican Nat'l Comm. v. FEC*, 76 F.3d 400, 407 (D.C. Cir. 1996) (internal citations omitted).

Of particular significance in EPA's reconsideration of the 2017 MTE Final Determination and evaluation of the MY 2021 standards, an agency must provide a "reasoned analysis" when making a change in policy. *See State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29 at 57. As the Supreme Court has explained, "the agency need not always provide a more detailed justification than what would suffice for a new policy created on a blank slate," but "[s]ometimes it must – when, for example, its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests that must be taken into account." *FCC v. Fox Television Stations, Inc.*, 556 U.S. at 515-16 ("In such cases it is not that further justification is demanded by the mere fact of policy change; but that a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy.") (internal citations omitted). Such would be the case for any EPA decision to reverse course with regard to the MTE determination for MY 2022-2025 and *a fortiori* with regard to the MY 2021 standards.

D. Procedural Requirements for MTE Final Determination and Any Additional Rulemakings

EPA's regulations governing the mid-term evaluation process require EPA to determine whether the MY 2022-2025 standards are appropriate under Section 202(a) and the regulations specify that "[a]n opportunity for public comment shall be provided before making such determination." 40 CFR § 86.1818-12(h). Further, NCAT takes the position, consistent with those taken by the Alliance of Automobile Manufacturers and certain other stakeholders in comments on the November 2016 Proposed Determination, that EPA's MTE determination is a rulemaking subject to applicable requirements under the CAA and APA.[7] EPA took the position in the Proposed Determination and Final Determination that its action constituted an adjudication because it was not proposing to change the MY 2022-2025 standards, no new "policy-type rules or standards" would result and the "current regulatory status quo" would be "unchanged and unaltered."[8] Even if EPA were correct that the January 2017 MTE Final Determination was an

[7] *See* Comments of Alliance of Automobile Manufacturers on EPA Proposed Determination, Docket No. EPA-HQ-OAR-2015-0827-6156 (Dec. 30, 2016) at 11-13, *available at* https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0827-6156; Comments of Global Automakers on EPA Proposed Determination, Docket No. EPA-HQ-OAR-2015-0827-6194 (posted to docket Jan. 4, 2017) at 8-12, *available at* https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0827-6194.

[8] EPA, Nov. 2016 MTE Proposed Determination at 2-3 n.14; *see also* EPA, Jan. 2017 MTE Final Determination at 11 n.20; EPA, Final Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards under the Midterm Evaluation Response to Comments (Jan. 2017) at 8-11, *available at* https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100QQ9Y.pdf ("Jan. 2017 MTE Final Determination Response to Comments").

adjudication, those arguments would not apply if EPA instead determines to reach a MTE determination to revise the MY 2022-2025 standards. Under EPA's own regulations, any such determination would have prospective legal and policy consequences, obligating the agency to revise currently binding agency regulations and requiring the initiation of a new notice-and-comment rulemaking process. If EPA wishes to reach a determination that the MY 2022-2025 standards are no longer appropriate under CAA Section 202(a), this would require a reopening, augmentation and reassessment of the record underpinning the existing rule as well as the application of the law to that record, and would have the legal consequence of obligating the agency to make changes. There is no question that any such determination would constitute a "rule," which the APA defines as "an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy."[9]

EPA has made clear that its authority for the MTE determination is CAA Section 202(a),[10] such that the determination constitutes "the promulgation or revision of [a] regulatio[n] under section [202]" and is covered by the requirements of CAA Section 307(d).[11] Accordingly, EPA must meet all of the procedural requirements for a rulemaking under the CAA Section 307(d), including conducting a public hearing allowing interested persons to comment on a new proposed determination, and to submit "rebuttal and supplementary information" to the record for 30 days after the hearing.[12] The public hearing held on September 6, 2017, does not satisfy this requirement, as this hearing focused on EPA's request for comment on its reconsideration (announced on August 10, 2017 and published in the Federal Register on August 21, 2017), rather than on a proposed determination that the MY 2022-2025 standards are no longer appropriate.

Regardless of the legal status of EPA's MTE determination or the September 6, 2017 public hearing, if EPA wishes to reach a final determination that the MY 2022-2025 standards are no longer appropriate under Section 202(a), the agency must issue a new proposed determination to that effect and provide an opportunity for public comment and public hearing before it is finalized. A determination that the standards are no longer appropriate, especially to the extent it relies on any new information, analysis or reasoning not previously offered for public comment, would not be a "logical outgrowth" of EPA's original proposal and would violate the notice-and-comment requirements of CAA Section 307(d), the APA to the extent independently applicable, and EPA's 2012 regulations specific to the MTE. EPA's November 2016 Proposed Determination supported only a determination that the MY 2022-2025 standards should be maintained or made more stringent. To the extent EPA wishes to change course at this juncture, it must provide the public with a full and fair opportunity for meaningful comment on relevant new information, legal interpretations or policy reasoning or approaches on which it proposes to rely.[13]

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[9] 5 U.S.C. § 551(4).

[10] *See* 77 Fed. Reg. at 62,786 (2012 Rule).

[11] 42 U.S.C. § 7607(d)(1)(K).

[12] *Id.* § 7607(d)(5).

[13] *See, e.g., Conn. Light & Power Co. v. NRC*, 673 F.2d 525, 530-31 (D.C. Cir. 1982) ("If the notice of proposed rule-making fails to provide an accurate picture of the reasoning that has led the agency to the proposed rule, interested parties will not be able to comment meaningfully upon the agency's proposals. . . . In order to allow for useful criticism, it is especially important for the agency to identify and make available technical studies and data that it has employed in reaching the decisions to propose particular rules. . . . An agency commits serious procedural

As provided in EPA's regulations and as required by the CAA and APA, if EPA makes a final determination that the current MY 2021 and/or MY 2022-2025 standards are not appropriate, EPA must then initiate one or more new notice-and-comment rulemakings to revise the existing standards. Such rulemaking(s) must provide adequate time for stakeholder involvement and notice and comment and must provide adequate lead time for any changes to the existing standards. Such rulemaking(s) must comply with all relevant legal requirements, including those established by the CAA, the Small Business Regulatory Enforcement Fairness Act, the Environmental Research and Development Demonstration Act (which requires EPA to make any proposed regulation and relevant scientific and technical information available to the Science Advisory Board so that the Board can provide advice and comments on the adequacy of the scientific and technical basis for the proposal), and the Endangered Species Act (which requires consultation with the U.S. Fish and Wildlife Service and National Marine Fisheries Service for actions that "may affect" federally listed endangered or threatened species or result in the destruction or adverse modification of designated critical habitat of such species). The requirements of applicable Executive Orders must also be satisfied, including those for economic analysis under Executive Order 12866 and consultation with State and local officials under Executive Order 13132.

II. EPA SHOULD NOT RECONSIDER THE MY 2021 STANDARDS

In its Request for Comments, EPA asks for comment on the continued appropriateness of the MY 2021 light-duty vehicle GHG standards based on the application of the factors described in its notice for evaluation of the MY 2022-2025 standards, or any other factors that commenters believe are appropriate. 82 Fed. Reg. at 39,553. NCAT strongly urges EPA not to consider or undertake revision of the MY 2021 standards. Revision to the MY 2021 standards is unwarranted, could not be justified under the CAA, would create needless and harmful regulatory uncertainty, and would undermine the effectiveness of the rulemaking process for the MY 2022-2025 standards.

First, for the same reasons set forth in Section III below with regard to the MY 2022-2025 standards (but *a fortiori*), the MY 2021 standards are amply supported by a well-developed record. There is no reasoned basis for concluding that the standards are no longer appropriate under CAA Section 202(a). For the same reasons set forth below with regard to the MY 2022-2025 standards, if anything, more recent information and analysis support making the MY 2021 standards more stringent, not less.

Second, reconsidering the MY 2021 standards would create uncertainty and impose resulting costs on manufacturers and others in industry that are relying on the standards. One of the significant benefits of the 2012 Rule was the substantial lead time that it provided, to support long-term planning, research and development and investments in development and commercialization of technologies to meet the standards. EPA has never revised an already-adopted vehicle standard under Section 202(a) for a particular model year. To do so now would be an unprecedented and severely damaging step for businesses in the near term. Further, it would

error when it fails to reveal portions of the technical basis for a proposed rule in time to allow for meaningful commentary."); *Ass'n of Private Sector Colls. & Univs. v. Duncan*, 681 F.3d 427, 461 (D.C. Cir. 2012) ("[A] final rule fails the logical outgrowth test and thus violates the APA's notice requirement where 'interested parties would have had to divine [the agency's] unspoken thoughts, because the final rule was surprisingly distant from the proposed rule.") (internal citations omitted).

create a negative precedent, seriously undermining regulatory certainty and businesses' ability to make investments in reliance on the stability of EPA standard-setting going forward. Finally, any change to the MY 2021 standards is certain to be challenged in court, further increasing uncertainty for businesses affected by the standards.

Third, reconsideration of the MY 2021 standards presents the prospect for needless divergence from and conflict with existing state standards. EPA has stated repeatedly its support for a "harmonized" national program that does not require manufacturers to meet different standards at the federal and state levels. Separate from EPA's MTE process, California has already completed its Midterm Review of its MY 2022-2025 standards under California state law—including the Low-Emission Vehicle ("LEV") III and Zero-Emission Vehicle ("ZEV") standards that have been adopted by a group of States accounting for nearly a third of the U.S. market for new vehicles—and has concluded that these standards remain appropriate and should be maintained.[14] California plainly has no intention of reconsidering its MY 2021 standards, so any revision of federal standards presents the prospect of needless divergence in federal and state standards—creating inefficiencies and adverse consequences for consumers and manufacturers.

Changing the existing MY 2021 standards would be a wasteful expenditure of agency and stakeholder resources. As noted above, revision of the standards would of course require a notice and comment rulemaking and clear record-based justification for departure from well-documented prior findings—taking account of the broad array of new record information on improved technologies, reduced costs, increased benefits of the standards, and so on. Changing the MY 2021 standards would require completion of the rulemaking on a very tight time frame. To the extent EPA seeks to undertake any such rulemaking in tandem with a NHTSA revision to the MY 2021 CAFE standards, the Energy Policy and Conservation Act ("EPCA") would require completion of the rulemaking (at least for MY 2021) one year earlier than would otherwise be required for MY 2022 and later years (*i.e.*, by April 2019, instead of April 2020).[15] EPCA's 18-month lead-time requirement applies equally to the initial promulgation of standards and to the promulgation of revised standards. Based on past experience with the pace of past annual CAFE rulemakings at NHTSA, this would effectively require proposal of the MY 2021 standards at least a year (if not more) in advance, just months from now. EPA and NHTSA would have to undertake the full regime of intensive analysis and consultation required to support such a rulemaking in an extraordinarily expedited time frame—including National Environmental Policy Act analysis, economic analysis required under Executive Order 12866, the Endangered Species Act, analysis of small business impacts under the Regulatory Flexibility Act, and consultation with State and local officials under Executive Order 13132, among other requirements. Near-term focus on revising the MY 2021 standards would require EPA and NHTSA to rush through analysis and decision making for MY 2021 standards that have major effects on the auto industry and across the economy—increasing the likelihood of mistakes and increasing litigation risk. Diverting scarce analytical and other resources to this rushed effort would negatively impact EPA's and

[14] *See* CARB, Resolution 17-3, "Advanced Clean Cars Midterm Review" (Mar. 24, 2017) at 15-17, *available at* https://www.arb.ca.gov/msprog/acc/mtr/res17-3.pdf; *see also* CARB, "California's Advanced Clean Cars Midterm Review: Summary Report for the Technical Analysis of the Light Duty Vehicle Standards" (Jan. 18, 2017) at ES-3–ES-9, *available at* https://www.arb.ca.gov/msprog/acc/mtr/acc_mtr_finalreport_full.pdf ("MTR Technical Report").

[15] *See* 49 U.S.C. § 32902(a) (requiring NHTSA to set CAFE standards at least 18 months before the beginning of each model year).

NHTSA's ability to focus priority on the task before them—which for NHTSA includes timely adoption of MY 2022-2025 standards. All of this would undermine the agencies' ability to develop well-considered, fully-supported decisions and stakeholders' ability to effectively participate in and inform this process.

III. THE MY 2022-2025 STANDARDS REMAIN APPROPRIATE UNDER CAA SECTION 202(A)

NCAT recognizes the procedural concerns that were raised by auto industry and other stakeholders with regard to the January 2017 MTE Final Determination—including concerns about the adequacy of time for public comment on the proposed determination and the level of coordination with NHTSA in relation to its process for setting MY 2022-2025 CAFE standards, which should be harmonized to the greatest degree possible with EPA's GHG standards. NCAT supports EPA's use of discretion to initiate the reconsideration process for the MTE Final Determination (MY 2022-2025), which affords EPA the opportunity to receive additional information, undertake further analysis, and ensure more rigorous and complete engagement and coordination with NHTSA. As detailed below, however, the record before EPA supports the conclusion that the current MY 2022-2025 standards remain appropriate under Section 202(a). Further, new information and analysis available since the rule was adopted in 2012 further strengthens the basis of this conclusion. This includes information on substantial advances in technology, cost reductions and consumer options for electric and other advanced technology vehicles, as well as economic and energy security benefits from such vehicles. NCAT accordingly urges EPA to maintain the existing standards. As argued in Section IV, *infra*, if EPA opts to reopen the standards, it should ensure that any changes are appropriately targeted, preserve the overall stringency and benefits of the standards, including for electric and other advanced technology vehicles, and do not undermine state vehicle standards.

A. The Record Supports EPA's January 2017 MTE Final Determination that the MY 2022-2025 Standards Remain Appropriate Under CAA Section 202(a)

The record upon which EPA relied to reach the January 2017 MTE Final Determination—including the TAR, public comments on the TAR and appropriateness of the standards, the Technical Support Document, and other key information and studies such as the National Academy of Sciences' 2015 study of the cost, effectiveness and deployment of fuel economy technologies[16]—supports the agency's determination that the current MY 2022-2025 standards remain appropriate under CAA Section 202(a), and should therefore remain in force.

First, the MTE record shows that EPA's existing MY 2022-2025 standards are feasible at reasonable cost and that they provide adequate lead time to manufacturers. EPA's own analysis shows that compliance with these standards can be achieved through a number of different technology pathways predominantly reflecting the use of technologies already in commercial

[16] National Research Council of the National Academies, "Cost, Effectiveness and Deployment of Fuel Economy Technologies for Light Duty Vehicles" (June 2015), *available at* https://www.nap.edu/catalog/21744/cost-effectiveness-and-deployment-of-fuel-economy-technologies-for-light-duty-vehicles.

production.[17] In addition, in the Proposed and Final Determinations and Technical Support Document, EPA substantiated its expectations that technological innovation would continue, and considered future technological developments when there was reliable evidence in the record that those technologies could be implemented by 2025.[18]

For example, EPA's prior determination included the following findings, which are fully supported by the record before the agency:

- Compliance with the existing standards can be achieved through a number of different technology pathways primarily reflecting application of technologies already in commercial production.[19]

- The standards can be met largely through advances in gasoline vehicle technologies, requiring only very low levels (2-3 percent) of penetration of strong hybrids and EVs (plug-in and battery EVs) to meet the standards.[20]

- Estimated per vehicle costs for complying with the MY 2025 standards are in the range of $875, considerably lower than the $1,100 per vehicle costs EPA estimated and found reasonable at the time it adopted the standards in 2012.[21]

- Given the rapid pace of industry innovation, there are and will continue to be emerging technologies available in the MY 2022-2025 time frame that could perform appreciably better and at potentially lower cost than the technologies in EPA's assessment.[22]

- Lead time for the standards is adequate, given that EPA first established the standards in 2012—13 years before the MY 2025 standards—and the demonstrated pace of industry innovation in meeting and exceeding the standards.[23]

Second, the record supports EPA's conclusion that the existing standards will achieve significant reductions in GHG emissions and oil consumption, and result in significant net economic benefits to consumers and the public.

- In the January 2017 MTE Final Determination, EPA found that that over the vehicle lifetimes the MY 2022-2025 standards will reduce GHG emissions by an

[17] EPA, Jan. 2017 MTE Final Determination at 3-4, 18, 22.

[18] *Id.* at 4, 19-20.

[19] *Id.* at 3-4, 18.

[20] *Id.* at 3-5, 12, 18, 24, 25.

[21] *Id.* at 4, 24.

[22] *Id.* at 4, 23-24.

[23] *Id.* at 22-24.

estimated 540 million metric tons and reduce oil consumption by 1.2 billion barrels.[24]

- EPA projected that these standards will reduce oil consumption by 50 billion gallons and save consumers nearly $92 billion in fuel cost over the lifetime of MY 2022-2025 vehicles.[25]

- EPA found that the existing MY 2022-2025 standards will yield net benefits of nearly $100 billion (using a 3 percent discount rate), greatly outweighing the costs.[26]

- These benefits include substantial fuel savings for consumers. For instance, considering the payback of an average MY 2025 vehicle meeting the standards as compared to an average MY 2021 vehicle, EPA found that consumers who finance their vehicle with a 5-year loan would see a payback within the first year. (About 86 percent of new vehicles are acquired using financing, with an average loan term of less than 6 years.)[27] Consumers that pay cash would see a payback within 5 years. Overall, consumers would receive $1,650 in net savings over the lifetime of their vehicles.[28] *See also infra* Section III.F.

EPA further concluded that the current standards would not have an adverse impact on the auto industry, noting that, notwithstanding that fuel prices are lower than when the standards were adopted in 2012, manufacturers have over-complied with the standards for the first four years of GHG standards and at the same time have increased new vehicle sales for seven straight years and sold a record number of new vehicles in 2016.[29] EPA concluded that while the standards are likely to have some effect on employment, the effect (whether positive or negative) is likely to be small enough that it would not be possible to distinguish it from other factors, notably macroeconomic conditions and their effect on sales.[30] The agency also analyzed the impact of the standards on safety and found no evidence of adverse effects.[31]

Finally, EPA concluded that the current state of technology and pace of technology development and implementation could support adoption of *more stringent* standards for MY 2022-2025. However, in deciding to maintain the MY 2022-2025 standards at the current levels, EPA recognized the importance of regulatory certainty and stability, the industry's need for long-term planning as lead time is required to accomplish significant redesigns, and NHTSA's and

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[24] *Id.* at 6.

[25] *Id.* at 24.

[26] *Id.* at 6, 24, 30.

[27] *Id.* at 7. *See also* Melinda Zabritski, "State of the Automotive Finance Market: A look at loans and leases in Q2 2017," Experian, at 11, *available at* http://www.experian.com/assets/automotive/quarterly-webinars/2017-Q2-SAFM_recording.pdf.

[28] EPA, Jan. 2017 MTE Final Determination at 7, 24.

[29] *Id.* at 8, 25.

[30] *Id.* at 26.

[31] *Id.* at 27.

CARB's decision-making as part of the harmonized national program.[32] The importance of regulatory stability and harmonization with NHTSA and state standards continues to counsel in favor of maintaining the current MY 2022-2025 standards. As argued in Section IV below, these same considerations support limiting any changes to the standards to targeted fixes that enhance flexibility while preserving the overall stringency and benefits of the standards.

B. There Have Been Substantial Technology Advances and Cost Reductions Since the Standards Were Adopted—Supporting the Achievability and Reasonableness of the MY 2022-2025 Standards

As summarized above, there have been substantial advances in non-EV engine and vehicle technologies since 2012, and available analysis supports EPA's prior conclusion that manufacturers will rely on advanced gasoline vehicles as the predominant technologies to meet the MY 2025 standards, without significant reliance on electrification.[33] However, there also have been substantial advances in EV and other advanced transportation technologies and corresponding decreases in costs since the existing MY 2022-2025 standards were adopted in 2012, particularly with regard to batteries.

Examples of information on advancing technologies and falling costs, for both conventional and advanced technologies, include the following:

- In March 2017, CARB completed its Mid-Term Review of its Advanced Clean Cars Program, determining that no adjustments to the stringency of the standards are warranted.[34] The technical report supporting CARB's review includes an exhaustive analysis of the feasibility, cost and impacts of the MY 2022-2025 standards. CARB concludes, *inter alia*, that:
    - Manufacturers are over-complying with the GHG standards and over 1300 conventional vehicle model configurations already meet 2020 or later GHG standards with a conventional gasoline powertrain.[35]
    - Current MY 2022-2025 standards can be readily met at the same or lower cost than originally projected when the standards were adopted in 2012, predominantly with gasoline engines and transmission technologies.[36]
    - Battery technology has improved and battery costs have fallen dramatically (due to reduced material costs, manufacturing improvements, and higher manufacturing volumes). "Manufacturers are announcing longer range, more capable BEVs [battery EVs] and PHEVs [plug-in hybrid EVs] on widely diverse platforms, and within segments with high overall sales (i.e., cross-overs, mid-size cars). The most expensive components are also developing quickly and

[32] *Id.* at 8, 27-28.

[33] *Id.* at 3, 13.

[34] CARB, Resolution 17-3, *supra* note 14; *see also* CARB, MTR Technical Report, *supra* note 14.

[35] CARB, MTR Technical Report, *supra* note 14 at ES-2.

[36] *Id.* at ES-5.

improving in most ways: they are safer, cheaper, and more energy dense resulting in higher energy content battery packs."[37]

- In addition to improvements in the battery, manufacturers are announcing battery EVs that will be equipped with higher powered fast charging, reducing charging times.[38]

- In comparison with the 25 EV models offered today, manufacturers have announced more than 70 unique models to be released in the next five model years.[39]

- For battery EVs, a step change is occurring with multiple vehicles expected with 200+ miles of range at prices closer to conventional vehicles (even before state and federal incentives), with the first of these being launched in the very near term.[40]

- Recent analysis by the International Council on Clean Transportation ("ICCT") concluded that conventional engine and vehicle technologies can cost-effectively provide 8-10 percent greater efficiency improvements than is reflected in the most recent EPA analysis, that conventional technologies (without substantial reliance on electrification) could achieve the current MY 2022-2025 standards, and that compliance costs for the existing MY 2025 standards will be 34-40 percent lower than projected by EPA in its most recent MTE analysis.[41]

- The average price of battery packs used in EVs, which currently account for about half the cost of EVs, fell 73 percent from 2010 to 2016, and are continuing to drop.[42]

- The same ICCT study cited above concluded that, primarily because of rapid developments in battery pack technologies, EV costs will be reduced by $4,300-$5,300 of dollars per vehicle by 2025 compared to EPA estimates in support of the MY 2017-2025 standards. ICCT concludes that battery costs of $140/kWh is a realistic estimated value by 2025, as compared with EPA estimates of $180-200/kWh.[43]

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[37] *Id.* at ES-3, 41.

[38] *Id.* at ES-41.

[39] *Id.* at ES-3.

[40] *Id.* at ES-6.

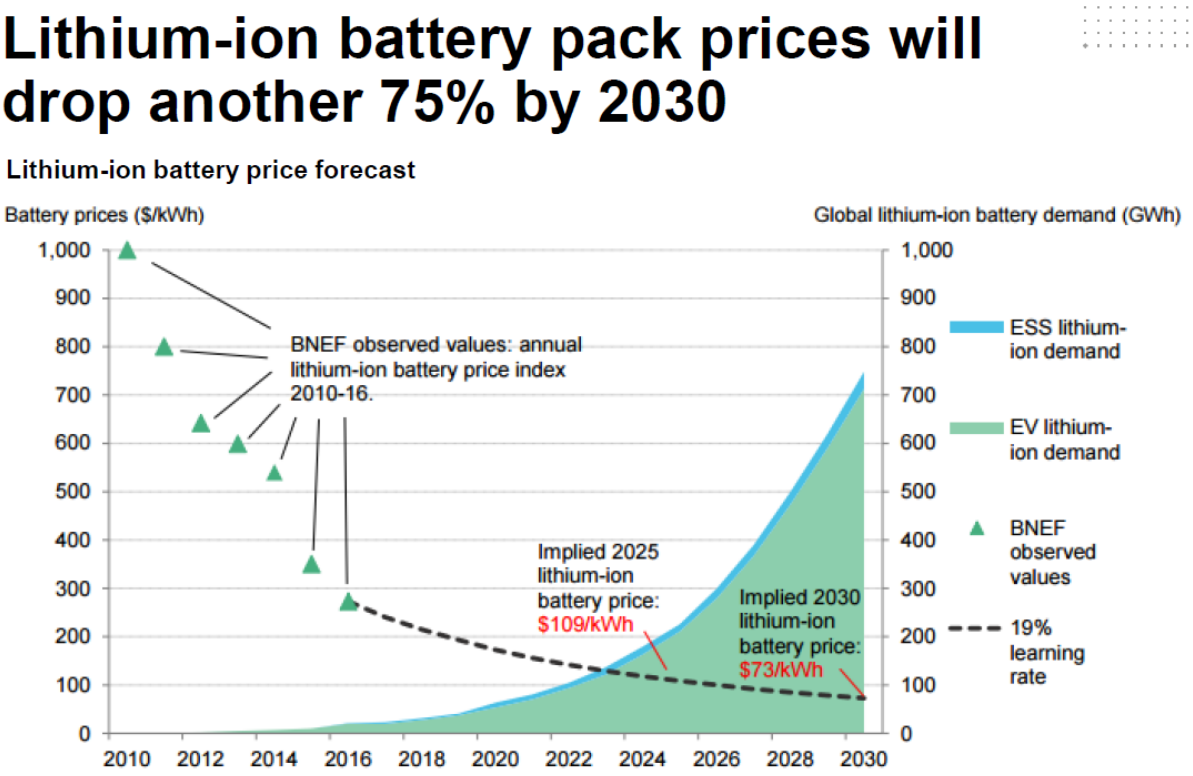
[41] ICCT, "Efficiency Technology and Cost Assessment for U.S. 2025-2030 Light-duty Vehicles" (Mar. 2017) at iv, *available at* http://www.theicct.org/US-2030-technology-cost-assessment.

[42] Michael Leibreich, Bloomberg New Energy Finance Summit (Apr. 25, 2017) at 53, *available at* https://data.bloomberglp.com/bnef/sites/14/2017/04/2017-04-25-Michael-Liebreich-BNEFSummit-Keynote.pdf; *see also* McKinsey & Company & Bloomberg New Energy Finance, "An Integrated Perspective on the Future of Mobility" (Oct. 2016) at 15-16, *available at* https://www.bbhub.io/bnef/sites/4/2016/10/BNEF_McKinsey_The-Future-of-Mobility_11-10-16.pdf.

[43] ICCT, Efficiency Technology and Cost Assessment, *supra* note 41 at 11, 15.

- GM has stated that its current battery costs for the Chevy Bolt at $145 per kWh and projects that it will achieve costs of approximately $100 per kWh by 2022.[44]

- A recent study by Bloomberg New Energy Finance projects that the cost of batteries will decrease by 77 percent between 2016 and 2030. As a result, this study concluded that EVs will be less expensive to buy than conventional gasoline vehicles by 2025 in the U.S. [45] This up-front cost parity point does not take into consideration the fuel savings over the lifetime of EV use as compared to gasoline vehicle use, which (as discussed *infra* at Section III.D) is substantial.



Source: Bloomberg New Energy Finance[46]

- As reflected in Tesla's comments on EPA's MTE, battery technologies are considerably more advanced and less costly than reflected in the July 2016 Draft Technical Assessment Report.[47] Tesla underscored that it is on track to achieve an additional 30

[44] Melissa Burden, "GM trims battery costs, aims to make profitable EVs," *Detroit News* (May 11, 2017), http://www.detroitnews.com/story/business/autos/general-motors/2017/05/11/profitable-evs/101531172/.

[45] Jess Shankleman, "Pretty Soon Electric Cars Will Cost Less Than Gasoline" (May 26, 2017), https://www.bloomberg.com/news/articles/2017-05-26/electric-cars-seen-cheaper-than-gasoline-models-within-a-decade; Jess Shankleman, "The Electric Car Revolution Is Accelerating" (July 6, 2017), https://www.bloomberg.com/news/articles/2017-07-06/the-electric-car-revolution-is-accelerating.

[46] Michael Leibreich, Bloomberg New Energy Finance Summit, *supra* note 42 at 54.

[47] Tesla, Comments on Draft Technical Assessment Report (Sept. 26, 2016) at 2-3, Docket No. EPA-HQ-OAR-2015-0827-4173, *available at* https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0827-4173.

percent reduction in battery costs as it ramps up large-scale battery production at its Gigafactory, that EPA's estimates of battery capacity required to achieve 200 miles of range are overstated, that Tesla's non-battery component costs are lower by double-digit percentages in comparison with figures considered in the draft TAR, and that warranty reserve costs in the TAR are overstated.[48] Tesla is separately filing comments in response to EPA's Request for Comments with updated information.

- An independent analysis commissioned by the Environmental Defense Fund found that, even without assuming increased penetration of EV technologies, a target of 30 grams per mile more stringent than EPA's MY 2025 target can be met cost effectively with the same advanced gasoline vehicle technologies projected to be used for the existing standards, and that lifetime fuel savings of $2700 from the more stringent standards would more than offset the $1579 per vehicle cost, without including society monetized benefits.[49] An updated version of this analysis, published in February 2017, confirmed these findings and concluded that a number of key conventional technologies are underutilized, that these technologies could achieve standards significantly more stringent than the existing standards, and that fuel savings would exceed increased average vehicle price by a factor of nearly three even for standards 90 grams per mile more stringent than the current standards for MY 2025.[50]

C. Consumer Acceptance, Demand and Affordability Have Further Improved Since the Standards Were Adopted

The record before EPA supports the agency's earlier determination that the current standards would not have an adverse impact on the auto industry or vehicle sales. EPA observed that, notwithstanding that fuel prices are lower than when the standards were adopted in 2012, manufacturers have over-complied with the standards for the first four years of GHG standards and at the same time have increased new vehicle sales for seven straight years and sold a record number of new vehicles in 2016.[51] In addition to strong demand for conventional vehicles meeting increasing standards, demand for EVs and other advanced technology vehicles is strong and growing—particularly as manufacturers increasingly move towards broader vehicle offerings with improved range, and at costs closer to (and soon at parity with) those of comparable conventional vehicles.

Sales of EVs in the U.S. have continued to grow at a high rate, and demand for EVs is projected to increase substantially over the MY 2022-2025 period and into the future beyond then.

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[48] *Id.*

[49] *See* Comments by Environmental Defense Fund on EPA's Proposed Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emission Standards under the Midterm Evaluation (Dec. 30, 2016) at 12, Docket No. EPA-HQ-OAR-2015-0827-6201, *available at* https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0827-6201.

[50] Tom Cackette & Rick Rykowski, "Technical Assessment of CO2 Emission Reductions for Passenger Vehicles in the Post-2025 Timeframe" (Feb. 2017), *available at* https://www.arb.ca.gov/lispub/comm/bccomdisp.php?listname=accmidterm2017&comment_num=39&virt_num=37

[51] EPA, Jan. 2017 MTE Final Determination at 8, 25.

Over the 2012 to 2016 period, plug-in EV sales tripled according to data compiled by Inside EVs.[52] In 2015, American consumers bought over 115,000 EVs, more than double the number purchased in 2012 notwithstanding lower gasoline prices. These sales included over 20 EV model types available from 15 different makers.[53] 2016 sales of EVs jumped by 37 percent year over year—to over 159,000 vehicles—and the number of offerings increasing to 30 different models.[54] Overall, U.S. EV sales have grown 32 percent annually on average from 2012-2016 and 45 percent over the year ending June 2017.[55] Projected U.S. sales of EVs vary widely, but virtually all market analysts predict substantial increases in consumer demand. The U.S. Energy Information Administration ("EIA") projects light-duty EV and hydrogen fuel cell vehicle sales will increase to about 1.5 million in 2025.[56] A recent study by the Edison Electric Institute and Institute for Electric Innovation projects that in the U.S. annual sales of plug-in electric vehicles ("PEVs") will exceed 1.2 million vehicles in 2025 and the total number of PEVs on the road will reach 7 million by 2025.[57] A July 2017 Bloomberg New Energy Finance global study "expect[s] an inflection point in adoption between 2025 and 2030, as EVs become economical on an unsubsidized total cost of ownership basis across mass-market vehicle classes."[58] A September 2017 study by Energy Innovation projects rapid growth in the EV market share with EVs projected to make up 65 percent of new U.S. light-duty vehicle sales by 2050.[59] Even lower end projections have recently been revised upwards.[60]

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[52] The total number of plug-in vehicles sold in the U.S. was 52,607 in 2012 and 158,614 in 2016. Inside EVs, "Monthly Plug-In Sales Scorecard," https://insideevs.com/monthly-plug-in-sales-scorecard/ (last visited Oct. 4, 2017).

[53] U.S. Dep't of Energy, "Revolution…Now: The Future Arrives for Five Clean Energy Technologies – 2016 Update" (Sept. 2016) at 10, *available at* https://energy.gov/sites/prod/files/2016/09/f33/Revolutiona%CC%82%E2%82%ACNow%202016%20Report_2.pdf

[54] Robert Rapier, "U.S. Electric Vehicle Sales Soared In 2016" (Feb. 5, 2017), *available at* https://www.forbes.com/sites/rrapier/2017/02/05/u-s-electric-vehicle-sales-soared-in-2016/#5cbf58be217f.

[55] Jeffery Rissman, Energy Innovation, "The Future of Electric Vehicles in the U.S." (Sept. 2017) at 1, *available at* http://energyinnovation.org/wp-content/uploads/2017/09/Future-of-EVs-Research-Note_FINAL.pdf?utm_source=newsletter&utm_medium=email&utm_campaign=newsletter_axiosgenerate&stream=politics.

[56] U.S. EIA, "Annual Energy Outlook 2017 with projections to 2050" (Jan. 5, 2017) at 97-98, *available at* https://www.eia.gov/outlooks/aeo/pdf/0383(2017).pdf.

[57] Adam Cooper & Kellen Schefter, Edison Electric Institute and the Institute for Electric Innovation, "Plug-in Electric Vehicle Sales Forecast Through 2025 and the Charging Infrastructure Required" (June 2017) at 1, http://www.edisonfoundation.net/iei/publications/Documents/IEI_EEI%20PEV%20Sales%20and%20Infrastructure%20thru%202025_FINAL%20(2).pdf.

[58] Bloomberg New Energy Finance, "Electric Vehicle Outlook 2017 – Executive Summary" (July 2017) at 2, *available at* https://data.bloomberglp.com/bnef/sites/14/2017/07/BNEF_EVO_2017_ExecutiveSummary.pdf.

[59] Jeffery Rissman, The Future of Electric Vehicles in the U.S., *supra* note 55 at 3.

[60] David Roberts, "The world's largest car market just announced an imminent end to gas and diesel cars," Vox (Sept. 13, 2017), https://www.vox.com/energy-and-environment/2017/9/13/16293258/ev-revolution.

As just one indicator of growing consumer awareness of and interest in EVs, Tesla recently announced that over 500,000 consumers had placed a $1000 deposit with the company for the company's recently released Model 3 EV sedan.[61]

Manufacturers are offering more types of EVs, with increasing range, making EVs increasingly attractive to consumers. In 2017, there were 27 electric vehicle options and 19 plug-in hybrid electric vehicle options available according to FuelEconomy.gov.[62] Most new battery electric vehicles ("BEVs") have ranges of about 100 miles on a fully charged battery, and an increasing number of models have ranges over 200 miles. (Ninety percent of all household vehicle trips in the U.S. cover less than 100 miles, according to the U.S. Department of Transportation.[63]) U.S. manufacturers Tesla and GM have begun delivery of new models—the Model 3 and Chevy Bolt, respectively—that offer over 200-mile range in an all-electric vehicle with starting retail prices in the range of $35,000 (Tesla Model 3) and $37,500 (Chevy Bolt EV) before application of tax credits.[64] The MY 2018 all-electric Nissan Leaf, scheduled for delivery starting in early 2018, will have a range of 150 miles, a range of new features and a starting retail price of under $30,000 before tax credits.[65] As a recent report by McKinsey & Company found significant increase in the estimated range for EVs since 2013: "For example, base models of the Nissan Leaf and Tesla Model S grew from 75 and 208 miles per charge in 2013 to about 107 and up to 249 miles in 2017, respectively."[66]

Several major global manufacturers have announced plans to scale up their offerings of EVs significantly in the coming years, including vehicles across a variety of price levels and with substantially increased range.

- GM announced on October 2, 2017 that in the next 18 months, it will introduce two new all-electric vehicles, which will be the first of at least 20 new all-electric vehicles that will launch by 2023. GM's Executive Vice President of Product Development, Purchasing and Supply Chain stated in connection with this announcement that "General Motors believes in an all-electric future."[67]

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[61] Fred Lambert, "Elon Musk confirms Model 3 reservations have surged to over half a million," electrek (July 29, 2017), https://electrek.co/2017/07/29/elon-musk-confirms-model-3-reservations-have-surged-to-over-half-a-million/.

[62] U.S. DOE & EPA, "Hybrids, Diesels, and Alternative Fuel Cars," https://www.fueleconomy.gov/feg/alternatives.shtml (last visited Sept. 25, 2017). For a few vehicle models there are several different options listed for a particular model.

[63] U.S. DOE, "Electric-Drive Vehicles" (Sept. 2017) at 2, *available at* https://www.afdc.energy.gov/uploads/publication/electric_vehicles.pdf.

[64] Tesla Model 3, https://www.tesla.com/model3 (last visited Sept. 25, 2017); Chevy Bolt EV, http://www.chevrolet.com/byo-vc/client/en/US/chevrolet/bolt-ev/2017/bolt-ev/trim (last visited Sept. 25, 2017).

[65] Nissan, "Nissan Leaf," https://www.nissanusa.com/electric-cars/2018-leaf/ (last visited Sept. 25, 2017).

[66] McKinsey & Company, "Electrifying insights: How automakers can drive electrified vehicle sales and profitability" (Jan. 2017) at 11, *available at* https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/electrifying-insights-how-automakers-can-drive-electrified-vehicle-sales-and-profitability (citing Department of Energy (www.FuelEconomy.gov), EPA).

[67] GM Corporate Newsroom, "GM Outlines All-Electric Path to Zero Emissions" (Oct. 2, 2017), http://media.gm.com/media/us/en/gm/news.detail.html/content/Pages/news/us/en/2017/oct/1002-electric.html. *See*

- Ford in 2015 announced plans to add 13 new electrified vehicles to its product portfolio by 2020, stating that more than 40 percent of Ford's nameplates globally would be electrified by then.[68] This year, Ford announced plans to launch seven new electrified vehicles in the next five years, including an F-150 hybrid and a Mustang hybrid as well as a new fully electric SUV with an estimated range of at least 300 miles.[69]

- Volkswagen has stated its intention to introduce two more all-electric vehicles to the U.S., in addition to several others planned for the U.S. market in the next few years,[70] and to build electric versions of all 300 of its brands' models.[71]

- Volvo recently announced that it will incorporate electric technology into *all* its vehicle model offerings by 2019.[72]

- BMW stated that 12 all-electric cars and 13 hybrids will be on the market by 2025, and Jaguar Land Rover has said that its entire fleet of new vehicles will be electric or hybrid-electric starting in 2020.[73]

As manufacturers offer more vehicles with better range, and invest more heavily in marketing these vehicles, there is reason to expect concomitant expansion in consumer demand. Independent studies show that consumer awareness of EVs remains low. A 2016 University of California Davis survey of new car buyers found that over 34 percent of respondents across the U.S. could not name a single battery EV available in the market.[74] That will change as deployment, options and marketing of EVs increase. Based on a survey of consumers in the U.S., Germany, Norway, and China, a recent McKinsey & Company report found that approximately 50 percent of all consumers today are not yet familiar with EVs and related technology. As a result, the report

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also Bill Vlasic & Neal E. Boudette, "G.M. and Ford Lay Out Plans to Expand Electric Models," *New York Times* (Oct. 2, 2017), https://www.nytimes.com/2017/10/02/business/general-motors-electric-cars.html.

[68] Ford Motor Company, "Ford Investing $4.5 Billion in Electrified Vehicle Solutions, Reimagining How to Create Future Vehicle User Experiences" (Dec. 10, 2015), https://media.ford.com/content/fordmedia/fna/us/en/news/2015/12/10/ford-investing-4-5-billion-in-electrified-vehicle-solutions.html.

[69] Ford Motor Company, "Ford Adding Electrified F-150, Mustang, Transit by 2020 in Major EV Push; Expanded U.S. Plant to Add 700 Jobs to Make EVs, Autonomous Cars" (Jan. 3, 2017), https://media.ford.com/content/fordmedia-mobile/fna/us/en/news/2017/01/03/ford-adding-electrified-f-150-mustang-transit-by-2020.html.

[70] Fred Lambert, "VW confirms two new upcoming electric cars for US market: I.D. Lounge and I.D. AEROe" (June 26, 2017), https://electrek.co/2017/06/26/vw-electric-cars-i-d-lounge-and-i-d-aeroe/.

[71] Christoph Rauwald, "VW to Build Electric Versions of All 300 Models by 2030" (Sept. 11, 2017), https://www.bloomberg.com/amp/news/articles/2017-09-11/vw-ceo-vows-to-offer-electric-version-of-all-300-models-by-2030.

[72] Jack Ewing, "Volvo, Betting on Electric, Moves to Phase Out Conventional Engines," *NY Times* (July 5, 2017), https://www.nytimes.com/2017/07/05/business/energy-environment/volvo-hybrid-electric-car.html.

[73] Russ Mitchell, "BMW plans 25 all-electric and hybrid vehicles by 2025; Jaguar shows off electric E-type (Sept. 7, 2017), http://www.latimes.com/business/autos/la-fi-hy-bmw-jaguar-ev-20170907-story.html. *See also* Adam Vaughan, "Jaguar Land Rover to make only electric or hybrid cars from 2020" (Sept. 7, 2017), https://www.theguardian.com/business/2017/sep/07/jaguar-land-rover-electric-hybrid-cars-2020.

[74] Kenneth S. Kurani, *et al*, "New Car buyers' valuation of zero-emission vehicles: California," Final Report for ARB Contract 12-332 (Mar. 31, 2016), *available at* https://www.arb.ca.gov/research/apr/past/12-332.pdf.

concluded that there is "substantial latent demand for EVs" as a large share of prospective new vehicle buyers in the U.S. (29 percent) consider purchasing an EV model.[75] Results of a survey by the Consumer Federation of America show that consumer interest in purchasing an EVs is increasing, and that this interest greatest among young adults.[76]

As discussed further at Section III.D, *infra*, utilities and others are investing in EV and other alternative fueling infrastructure, making charging/refueling more convenient for consumers. Based on data from the U.S. Department of Energy ("U.S. DOE") Alternative Fuels Data Center, there were approximately 13,400 EV charging outlets in 2012 whereas there are over 50,000 EV charging outlets today located at over 19,000 different stations across the U.S.[77] In California and the other nine States that have adopted the ZEV standards, over 17,000 Level 2 and 2,100 direct current fast charger connectors have been deployed for public use.[78] In addition, today the vast majority of vehicle charging is done at private residences.[79] As a another example of the expanding charging infrastructure for EVs, since 2012 Tesla has built over 5,400 Superchargers with the goal of enabling convenient long distance travel; in parallel, Tesla has built a network of more than 9,000 Destination Charging connectors that provide hotels, resorts, and restaurants with Tesla Wall Connectors, replicating the convenience of home charging.[80] NCAT anticipates a virtuous cycle of interaction between state and federal vehicle standards that help to incentivize EVs and advanced technology vehicles, commercial availability and deployment of such vehicles, and increasing investment in charging infrastructure.

Electric and other advanced technology vehicles save consumers money relative to conventional vehicles—putting more money in the pockets of families and individuals that choose such vehicles. Electricity is much cheaper than gasoline or diesel as a vehicle fuel, as shown in the figure below from the U.S. DOE Alternative Fuels Data Center.

[75] McKinsey & Company, Electrifying insights, *supra* note 66 at 8 (citing Department of Energy (www.FuelEconomy.gov), EPA).

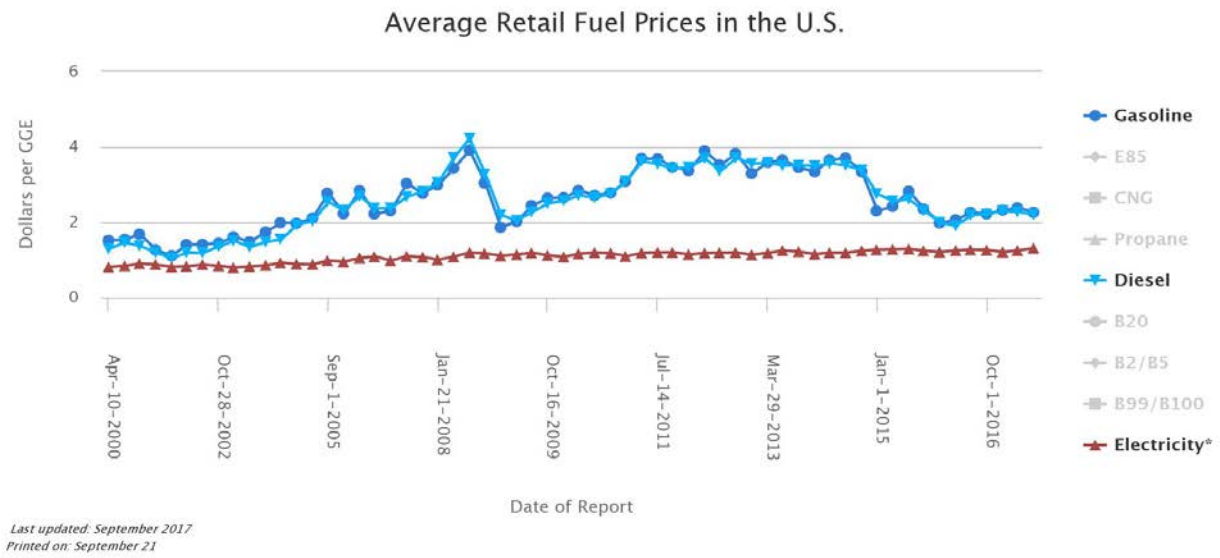
[76] Consumer Federation of America, "New Data Shows Consumer Interest in Electric Vehicles Is Growing" (Sept. 19, 2016), http://consumerfed.org/press_release/new-data-shows-consumer-interest-electric-vehicles-growing/.

[77] U.S. DOE Alternative Fuel Data Center, "Alternative Fueling Station Counts by States," https://www.afdc.energy.gov/fuels/stations_counts.html (last updated Oct. 5, 2017); U.S. DOE Alternative Fuel Data Center, "U.S. Alternative Fueling Stations by Fuel Type," https://www.afdc.energy.gov/data/10332 (last visited Sept. 25, 2017). These totals includes both public and private charging locations, but not residential electric charging infrastructure.

[78] CARB, MTR Technical Report, *supra* note 14 at ES-44.

[79] Adam Cooper & Kellen Schefter, Plug-in Electric Vehicle Sales Forecast Through 2025 and the Charging Infrastructure Required, *supra* note 57 at 7.

[80] Tesla, "Charging Is Our Priority" (Apr. 24, 2017), https://www.tesla.com/blog/charging-our-priority?redirect=no.



Source: U.S. DOE, Alternative Fuels Data Center[81] (This chart shows average monthly retail fuel prices in the United States from 2000 to 2017 in dollars per gasoline-gallon equivalents ("GGE").)

U.S. DOE estimates that electricity costs for a typical BEV range 2¢–4¢ per mile, as compared to conventional sedans for which the costs range about 10¢–15¢ per mile. For PHEVs, electricity costs range about 2¢–4¢ per mile and when running on gasoline, fuel costs range about 5¢–10¢ per mile.[82] Electric-drive vehicle owners can expect to save thousands of dollars in fuel costs over the life of the vehicle.[83] Furthermore, the price of electricity is less volatile than the price of gasoline and diesel fuels, so consumers can more reasonably forecast fuel costs over longer periods of time. Of additional benefit to consumers, BEVs typically require less maintenance than conventional vehicles and have far fewer moving parts and fewer fluids to change.[84] EVs typically had 20-40 percent lower five-year maintenance costs, based on a comparison of five EVs and comparable internal combustion engine counterparts from the same brand.[85] All in all, consumer savings on fuel can outweigh the additional upfront costs of EVs. For example, a recent study found that compared to a similar gasoline-powered vehicle, the average EV will save its owner more than $3,500 over the vehicle's lifetime even if gasoline prices remain in the range of $2.50 per gallon.[86]

In addition, as discussed above, upfront EV costs are declining considerably—primarily as a result of plummeting battery costs—making these vehicles increasingly affordable for

[81] U.S. DOE Alternative Fuel Data Center, "Fuel Prices" https://www.afdc.energy.gov/fuels/prices.html (last updated Sept. 11, 2017) (*Electric prices are reduced by a factor of 3.4 because electric motors are 3.4 times more efficient than internal combustion engines).

[82] U.S. DOE, Electric-Drive Vehicles, *supra* note 63 at 4.

[83] *Id.* at 3.

[84] *Id.* at 4.

[85] McKinsey & Company, Electrifying insights, *supra* note 66 at 15 (citing Edmunds).

[86] Frontier Group, "Drive Clean and Save: Electric Vehicles Are a Good Deal for California Consumers and the Environment" (July 2016) at 1-2, 6-7, *available at* http://environmentcaliforniacenter.org/sites/environment/files/reports/Drive%20Clean%20and%20Save%20June%202016.pdf

consumers. A recent Bloomberg New Energy Finance Report concluded that EVs and gasoline vehicles will reach cost parity in Europe and the U.S. by 2025, and that EVs will account for 54 percent of all light-duty vehicle sales globally by 2050.[87] A May 2017 report by UBS predicts that electric vehicles will be less expensive much sooner than expected, with EV prices in Europe comparable to traditionally-powered vehicles in 2018, with China expected to reach cost parity in 2023 and the U.S. in 2025. UBS also increased its forecasts for global electric car sales to 14 percent by 2025 (14.2 million vehicles).[88]

In addition to the new information discussed above in this section with respect to EV and other advanced vehicle technologies, new information about the financial benefits for consumers due to fuel savings from the existing MY 2022-2025 standards overall also supports a final determination keeping these standards in effect. For instance, a recent study by the ICCT estimates that the average new car fuel economy increase from 2021 to 2025 under EPA's currently adopted standards would save consumers on average $2,300–$2,600 in fuel costs over the lifetime of the vehicle. As presented in the figure immediately below, ICCT found that buyers of MY 2025 vehicles would fully recoup their investment in the third year of ownership for a cash purchase. Buyers who finance their vehicles (accounting for roughly 86 percent of new vehicle sales) would see a net positive cash flow starting immediately. ICCT concluded that the consumer benefits would be more than 3 times the costs of the standards under the reference fuel cost scenario, and fuel savings would be 2.4 times the costs if fuel prices stayed low.[89]

[87] Bloomberg New Energy Finance, "Electric Vehicles to Accelerate to 54% of New Car Sales by 2040" (July 6, 2017), https://about.bnef.com/blog/electric-vehicles-accelerate-54-new-car-sales-2040/; Jess Shankleman, Pretty Soon Electric Cars Will Cost Less Than Gasoline, *supra* note 45.

[88] Neil Winton, "Electric Car Price Parity Expected Next Year – Report" (May 22, 2017), https://www.forbes.com/sites/neilwinton/2017/05/22/electric-car-price-parity-expected-next-year-report/#13dff40a7922; UBS, "Q-Series UBS Evidence Lab Electric Car Teardown – Disruption Ahead?" (May 18, 2017), *available at* http://www.advantagelithium.com/_resources/pdf/UBS-Article.pdf.

[89] ICCT, "Consumer Benefits of Increased Efficiency in 2025-2030 Light-duty Vehicles in the U.S." (June 2017) at 10, *available at* http://www.theicct.org/sites/default/files/publications/US-LDV-Efficiency-Consumer-Benefits_ICCT_Briefing_21062017_vF.pdf.

ICCT Analysis of Payback Period[90]

Scenario	Year of Ownership	Vehicle Technology	Vehicle Taxes	Insurance	Maintenance	Fuel Savings	Cumulative Operational Savings
U.S. EPA 2025	1	-863	-47	-16	-6	238	-693
	2	0	0	-15	-6	232	-483
	3	0	0	-14	-5	223	-279
	4	0	0	-13	-5	213	-85
	5	0	0	-12	-5	202	5th 100
	6	0	0	-11	-5	189	274
	7	0	0	-10	-4	178	437
	8	0	0	-9	-4	166	589
ICCT 2025	1	-543	-30	-10	-7	238	-351
	2	0	0	-10	-7	232	-136
	3	0	0	-9	-7	223	3rd 72
	4	0	0	-8	-6	213	270
	5	0	0	-8	-6	202	459
	6	0	0	-7	-6	189	635
	7	0	0	-6	-5	178	801
	8	0	0	-6	-5	166	956

Figure 1. Technology costs, benefits, and payback period for the average model year 2025 vehicle purchased with cash.

Finally, increased fuel efficiency has positive distributional impacts for lower-income consumers. An in-depth recent study by David Greene and Jileah Welch concludes:

> "[F]uel economy improvements have produced greater benefits relative to income for the lower quintiles of the income distribution. The impact of increased fuel economy on the distribution of income has apparently been progressive. . . . Net benefits relative to income uniformly increase with decreasing income. In terms of total net savings, the greatest net benefits accrued to the three middle income quintiles. Estimation of the impacts of future improvements from 2015 to 2040 produces very similar results."[91]

In undertaking this analysis, the authors deliberately erred on the side of overestimating the impacts of fuel economy improvements on vehicle prices—making the conclusion with regard to distributional impacts robust.[92] Further, this analysis was based on costs from the 2015 National Academy of Sciences report, such that it does not reflect declining costs of compliance discussed above.

[90] *Id.* at 4.

[91] David L. Green & Jilleah G. Welch, "The Impact of Increased Fuel Economy for Light-Duty Vehicles on the Distribution of Income in the U.S.: A Retrospective and Prospective Analysis," Howard H. Baker Jr. Center for Public Policy White Paper 2:17 (Mar. 2017), at 5-6, *available at* http://bakercenter.utk.edu/wp-content/uploads/2017/03/WhitePaper2-2017.pdf.

[92] *Id.* at 12.

D. The MY 2022-2025 Standards Support U.S. Investment, Infrastructure Development and Job Creation

Advanced technology vehicles and related infrastructure provide a major driver for economic activity and job creation across the country. Manufacturers are investing billions of dollars in advanced vehicle technologies in connection with the EV and advanced technology vehicle plans discussed in Section III.C, *supra*, and Section III.E, *infra*. And a U.S. DOE report concluded that the development and production of EVs is contributing to the economy as "the United States is the largest market for automotive lithium-ion batteries and lithium ion battery manufacturing has added about $400 million in value to the nation's economy in 2014."[93]

Utilities and others are also making substantial investments in infrastructure to support transportation electrification. A June 2017 study by the Edison Electric Institute and Institute for Electric Innovation provides an overview of the wide range of public and commercial funding that has supported plug-in electric vehicle charging infrastructure, including from automakers, electric companies, customers, state governments, and the federal government.[94] Across the U.S., electric utilities have already invested tens of millions of dollars in EV charging infrastructure programs.[95] And utilities are developing plans to invest billions of dollars in transportation electrification infrastructure in the near future.

For example, in California, PG&E, SCE, and SDG&E are currently implementing pilot programs to install EV-related infrastructure to support up to 12,500 charging stations with total budgets up to $197 million.[96] In January 2017, these three utilities requested California Public Utility Commission approval for over a billion dollars in transportation electrification investments.[97] In addition, the Southern California Association of Governments recently issued a 2016-2040 Regional Transportation Plan that relies in part (though not exclusively) on transportation electrification strategies. Overall, this plan is projected to require investments of

[93] U.S. DOE, Revolution…Now: The Future Arrives for Five Clean Energy Technologies, *supra* note 53 at 10.

[94] Adam Cooper & Kellen Schefter, Plug-in Electric Vehicle Sales Forecast Through 2025 and the Charging Infrastructure Required, *supra* note 57 at 13 (Table A-1).

[95] M.J. Bradley & Associates, LLC, "Accelerating the Electric Vehicle Market Potential Roles of Electric Utilities in the Northeast and Mid-Atlantic States" (Mar. 2017) at Appendix A, *available at* http://www.mjbradley.com/sites/default/files/MJBA_Accelerating_the_Electric_Vehicle_Market_FINAL.pdf.

[96] California Public Utilities Commission ("CPUC"), "Zero-Emission Vehicles," http://www.cpuc.ca.gov/zev/ (last visited Sept. 25, 2017); CPUC, http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Infrastructure/RDD_and_Emerging_Programs/Alternative_Fuel_Vehicles/IOUInfrastructurePrograms.pdf (last visited Sept. 25, 2017).

[97] CPUC, "Transportation Electrification Activities Pursuant to Senate Bill 350," http://www.cpuc.ca.gov/sb350te/ (last visited Sept. 25, 2017); CPUC, http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Infrastructure/RDD_and_Emerging_Programs/Alternative_Fuel_Vehicles/SB350Applications.pdf (last visited Sept. 25, 2017).

$556 billion, including $246 billion in capital improvements; it would result in the creation of 351,000 additional jobs.[98]

Although California clearly leads the country in this area, these investments are an indicator of future opportunities across the country. EVs on the road in the U.S. today represent about 1 TWh of consumption, but according to one recent announcement this could grow to over 550 TWh by 2040[99]—providing opportunities for substantial new investments in grid modernization and associated economic activity and jobs.

With respect to the impacts of the existing EPA MY 2022-2025 standards on jobs, in the January 2017 MTE Final Determination EPA concluded that "while the standards are likely to have some effect on employment, this effect (whether positive or negative) is likely to be small enough that it will be unable to be distinguished from other factors affecting employment, especially macroeconomic conditions and their effect on vehicle sales."[100] EPA's conclusion in the January 2017 MTE Final Determination is well-supported in the existing record, including in the TAR Chapter 7, November 2016 MTE Proposed Determination Appendix at A-87–A-88, A-94–A-95, MTE Proposed Determination TSD Chapter 4.2.1, and January 2017 Response to Comments at 138-142.

However, more recent documentation of the employment benefits associated with EPA's existing MY 2022-2025 standards, including with respect to the growth in jobs relating to the expansion of EVs and other advanced technology vehicles, further bolsters this record and is summarized below. For example, in December 2016, U.S. DOE's National Renewable Energy Laboratory ("NREL") published its National Economic Value Assessment of Plug-in Electric Vehicles. NREL analyzed the impacts of the introduction of PEVs and electric vehicle supply equipment infrastructure on a variety of sectors within the U.S. economy under scenarios with different assumptions. Overall, the report concluded that "introduction of PEVs has positive impacts for nearly all economic indicators in each scenario."[101] NREL found that under its "Aggressive" and "Low Cost" scenarios, there would be an average (over 2015–2040) of approximately 51,500 to 108,400 additional jobs per year as well as an increase in GDP of $6.6 billion to $9.9 billion per year, respectively.[102]

In January 2017, CARB released the *California's Advanced Clean Cars Midterm Review Summary Report for the Technical Analysis of the Light Duty Vehicle Standards*, which presents

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[98] Southern California Association of Governments, "2016-2040 Regional Transportation Plan/Sustainable Communities Strategy" (Apr. 2016) at 8-9, *available at* http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf

[99] Smart Electric Power Alliance, "Utilities and Electric Vehicles: The Case for Managed Charging" (Apr. 2017) at 5, *available at* https://sepapower.org/resource/ev-managed-charging/ (citing Bloomberg New Energy Finance, EV sales forecast in the US 2010-2040 (May 2016)).

[100] EPA, Jan. 2017 MTE Final Determination at 26.

[101] U.S. DOE, NREL, "National Economic Value Assessment of Plug-in Electric Vehicles" (Dec. 2016) at xxiv, *available at* https://www.afdc.energy.gov/uploads/publication/value_assessment_pev_v1.pdf.

[102] *Id.* The main "Aggressive" scenario assumes approximately 73 million PEVs are deployed by 2035 (27 percent of the projected total light-duty vehicle fleet in that year), and the "Low Cost" variation on the Aggressive scenario assumes 79 million EVs by 2035 under low cost assumptions for vehicle technology and EV supply equipment. *Id.* at vii, 23, 66.

an overview of recent studies addressing the net job growth stimulated by further development of zero-emissions vehicles and plug-in electric vehicles.[103] CARB summarized the results of the review of existing literature: "[a]lthough the scenarios and assumptions behind each study vary, their results suggest that harmonized fuel economy and GHG standards will generate considerable employment benefits by 2030, ranging from 38,000 to 236,000 net jobs in California and 129,185 to 1.9 million net jobs in the U.S."[104]

In May 2017, the BlueGreen Alliance released an updated report concluding that "[m]ore than 1,200 U.S. factories and engineering facilities in 48 states—and 288,000 American workers—are building technology that improves fuel economy for today's innovative vehicles."[105]

Finally, NCAT notes that other jobs analyses that suggest negative impacts from EPA's current standards are flawed and accordingly should not be relied on. For example, as EPA is already aware, the agency recently analyzed employment modeling conducted by the U.S. Center for Automotive Research ("USCAR") and has documented how cost assumptions employed in the USCAR analysis were not supported and how, if EPA's assumptions about cost are instead used, USCAR's modeling results would instead show an *increase* in auto manufacturing jobs and total U.S. jobs as compared to the absence of the standards.[106]

E. Strong MY 2022-2025 Standards Are Essential to Maintaining U.S. Competitiveness in Global Markets

The global market for electric vehicles and other advanced technology vehicles and supporting technologies is expanding rapidly and projected to grow dramatically in the coming decades—presenting a major market opportunity for U.S. companies. Strong U.S. standards will play a critical role in helping to ensure that U.S. companies are well positioned to compete in these rapidly expanding new markets.

According to the International Energy Agency ("IEA"), the global count of electric cars surpassed 2 million vehicles in 2016 after crossing the 1 million vehicle threshold in 2015.[107] The IEA now predicts that that the electric car stock will range between 9 million and 20 million by 2020 and between 40 million and 70 million by 2025.[108] As described above, analysts are increasingly projecting that EVs will reach cost parity with conventional vehicles in China, Europe and the U.S. in the 2018-2025 time frame and could account for an increasingly substantial

[103] CARB, MTR Technical Report, *supra* note 14 at B-121–B-125.

[104] *Id.* at B-122; *see also id.* at B-122-25, Table 22 & 23.

[105] BlueGreen Alliance & NRDC, "Supplying Ingenuity II: U.S. Suppliers of Key Clean Fuel-Efficient Technologies" (May 2017) at 3, *available at* https://www.bluegreenalliance.org/resources/supplying-ingenuity-ii-u-s-suppliers-of-key-clean-fuel-efficient-vehicle-technologies/.

[106] *See* EPA Memorandum from Robin Moran to Docket EPA-HQ-OAR-2015-0827 regarding Meeting with Center for Automotive Research on April 17, 2017 (May 11, 2017), *available at* https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0827-6322.

[107] International Energy Agency, "Global EV Outlook 2017 Two Million and Counting" (2017) at 5, *available at* https://www.iea.org/publications/freepublications/publication/GlobalEVOutlook2017.pdf.

[108] *Id.* at 6.

proportion of global vehicle sales in that time frame and beyond (14 percent by 2025 and 54 percent by 2050). [109]

In tandem with these developments, other countries representing a large proportion of global vehicles markets are increasingly moving towards aggressive low- and zero-emission vehicle standards and policies, which will shape global markets in the coming decades:

- China—which represents around 30 percent of the global auto market for passenger vehicles—recently announced it is considering a ban on cars that run on fossil fuels, indicating the government wants tighter fuel consumption controls for engines and is considering more EV sales credits.[110]

- In July 2017, the United Kingdom and France committed to banning sales of new diesel- and gasoline-fueled cars by 2040.[111]

- In June 2017, India announced its intention to sell only electric cars by 2030.[112]

- Norway has announced it will ban the sale of all fossil fuel-based cars by 2025.[113]

Global auto manufacturers are making major commitment to advanced technology vehicles, *see* supra Section III.C, and there has been substantial investment in this area already. For instance, China plans to build more than 12,000 new charging stations by 2020 to meet the demands of over 5 million PEVs.[114] Volkswagen intends to spend 20 billion euros ($24 billion) by 2030 to roll out electric versions of all 300 models, and spend another 50 billion euros ($60

[109] Neil Winton, Electric Car Price Parity Expected Next Year, *supra* note 88; UBS, Q-Series UBS Evidence Lab Electric Car Teardown, *supra* note 88; Jess Shankleman, Pretty Soon Electric Cars Will Cost Less Than Gasoline, *supra* note 45.

[110] Kenneth Rapoza, "To Promote Electric Cars, China Considers Move To Ban Gas Guzzlers" (Sept. 11, 2017), https://www.forbes.com/sites/kenrapoza/2017/09/11/to-promote-electric-cars-china-considers-move-to-ban-gas-guzzlers/#2374490551b7; Bloomberg News, "China Fossil Fuel Deadline Shifts Focus to Electric Car Race" (Sept. 10, 2017), https://www.bloomberg.com/news/articles/2017-09-10/china-s-fossil-fuel-deadline-shifts-focus-to-electric-car-race-j7fktx9z; Russ Mitchell & Jessica Meyers, "China is banning traditional auto engines. Its aim: electric car domination" (Sept. 12, 2017), http://www.latimes.com/business/autos/la-fi-hy-china-vehicles-20170911-story.html; David Roberts, The world's largest car market just announced an imminent end to gas and diesel cars, *supra* note 60.

[111] Steven Castle, "Britain to Ban New Diesel and Gas Cars by 2040" (July 26, 2017), https://www.nytimes.com/2017/07/26/world/europe/uk-diesel-petrol-emissions.html; Jack Ewing, "France Plans to End Sales of Gas and Diesel Cars by 2040" (July 6, 2017), https://www.nytimes.com/2017/07/06/business/energy-environment/france-cars-ban-gas-diesel.html.

[112] Jackie Wattles, "India to sell only electric cars by 2030" (June 3, 2017), http://money.cnn.com/2017/06/03/technology/future/india-electric-cars/index.html.

[113] Jess Staufenberg, "Norway to 'completely ban petrol powered cars by 2025'" (June 6, 2016), http://www.independent.co.uk/environment/climate-change/norway-to-ban-the-sale-of-all-fossil-fuel-based-cars-by-2025-and-replace-with-electric-vehicles-a7065616.html.

[114] Kenneth Rapoza, To Promote Electric Cars, China Considers Move To Ban Gas Guzzlers, *supra* note 110.

billion) to buy the batteries for these vehicles.[115] Mercedes-Benz plans to invest 10 billion euros ($10.8 billion) to bring more than 10 new electric cars to market by 2022.[116] In the U.S., for example, Mercedes recently announced that it will spend $1 billion to upgrade production capabilities to manufacture electric vehicles and batteries in Alabama, which will create 600 new jobs.[117] Ford announced in 2015 that it would be investing $4.5 billion in EV technologies by 2020[118] and earlier this year announced plans to invest $700 million to expand a Michigan plant into a factory that will build high-tech autonomous and electric vehicles, creating 700 new jobs.[119] On October 2, 2017, Ford announced plans to shift capital investments, including to develop more electric and hybrid cars, on top of the $4.5 billion previously announced.[120]

U.S. companies must continue to invest in advanced vehicle technologies to keep up, and strong U.S. standards play a key role in ensuring U.S. companies' competitiveness. NCAT supports an approach that helps assure U.S. leadership and provides regulatory certainty and stable, long-term signals for investment, research and development, and commercialization.

F. The Energy and Environmental Benefits of the MY 2022-2025 Standards Are Even Greater Than Projected When They Were Adopted

1. Energy Security Benefits

Electric, natural gas and hydrogen vehicles have substantial benefits in moving the U.S. transportation system towards reliance on a diverse supply of U.S.-produced energy resources, reducing reliance on imported oil, and reducing overall energy use.

Transportation fuel makes up a large portion of U.S. energy consumption and energy imports. Although U.S. production of oil is increasing, we still rely on imported oil; net imports (imports minus exports) were equivalent to roughly 25 percent of U.S. petroleum consumption in

[115] Christoph Rauwald, "VW to Build Electric Versions of All 300 Models by 2030" (Sept. 11, 2017), https://www.bloomberg.com/amp/news/articles/2017-09-11/vw-ceo-vows-to-offer-electric-version-of-all-300-models-by-2030.

[116] Reuters Staff, "Daimler accelerates electric car program" (Mar. 29, 2017), http://www.reuters.com/article/us-daimler-agm/daimler-accelerates-electric-car-program-idUSKBN1700N7.

[117] Ivana Kottasová, "Mercedes-Benz will spend $1 billion to upgrade its production capabilities in Alabama and jump-start its electric vehicle program in the U.S." (Sept. 22, 2017), http://money.cnn.com/2017/09/22/news/economy/mercedes-alabama-billion-investment-jobs/.

[118] Ford Motor Company, "Ford Investing $4.5 Billion in Electrified Vehicle Solutions, Reimagining How to Create Future Vehicle User Experiences (Dec. 10, 2015) , https://media.ford.com/content/fordmedia/fna/us/en/news/2015/12/10/ford-investing-4-5-billion-in-electrified-vehicle-solutions.html.

[119] Ford Motor Company, "Ford Adding Electrified F-150, Mustang, Transit by 2020 in Major EV Push; Expanded U.S. Plant to Add 700 Jobs to Make EVs, Autonomous Cars" (Jan. 3, 2017), https://media.ford.com/content/fordmedia-mobile/fna/us/en/news/2017/01/03/ford-adding-electrified-f-150-mustang-transit-by-2020.html.

[120] Joseph White, "Ford to cut costs $14 billion, invest in trucks, electric cars: CEO" (Oct. 3, 2017), https://www.reuters.com/article/us-ford-motor-ceo/ford-to-cut-costs-14-billion-invest-in-trucks-electric-cars-ceo-idUSKCN1C82NL.

2016, with over a third of U.S. imports coming from OPEC countries.[121] By increasing fuel economy of passenger cars and light trucks, the United States has the potential to achieve significant reductions in imported oil use, thus reducing dependence on foreign oil.

In the July 2016 TAR, based on modeling conducted by the agencies, EPA and NHTSA found that "on balance, each gallon of fuel saved as a consequence of the [Light-Duty Vehicle] GHG/fuel economy standards is anticipated to reduce total U.S. imports of petroleum by 0.9 gallons."[122] In the MTE Final Determination EPA issued in January 2017, EPA estimated that over the vehicle lifetimes the MY 2022-2025 standards will reduce oil consumption by 1.2 billion barrels (around 50 billion gallons).[123]

Large-scale expansion of advanced technology vehicles can substantially increase U.S. energy independence, while capitalizing on domestic energy resources. First, electric vehicles are far more energy efficient overall than conventional fuel vehicles. All-electric vehicles are approximately three times more efficient than internal combustion engine-powered vehicles, as most electric vehicles are rated as equivalent to more than 100 miles per gallon in terms of fuel efficiency.[124] Further, transportation electrification relies upon and supports U.S. energy production from a diverse set of fuels and sources, including natural gas, coal, nuclear and renewables. Based on data from the U.S. EIA, the top sources of electricity generation in the U.S. today are natural gas (34 percent of 2016 generation) and coal (30 percent of 2016 generation)—in which the U.S. is a leading global producer and net exporter. Nuclear power accounted for 20 percent of U.S. generation, and renewables (including hydropower, wind power, biomass, solar power, and geothermal power) accounted for 15 percent.[125] Natural gas- and hydrogen-fueled vehicles similarly capitalize on U.S. energy resources. Shifting transportation energy demand increasingly towards electricity, hydrogen and natural gas will support U.S. production of energy from this diverse and balanced set of fuel sources—increasing U.S. energy production and reducing reliance on imported oil, and price fluctuation risks.

2. Electric Grid Management Benefits

In addition to these general energy security and energy efficiency benefits, scaling up of EVs will provide substantial benefits for the management of the electric grid itself.

Importantly, by improving utilization of the existing power grid and spreading fixed costs over a larger base of sales, EV use can benefit not just EV owners, but other electricity consumers as well. For instance, as explained in Southern California Edison's recent testimony before the California Public Utilities Commission, transportation electrification can benefit all customers by spreading fixed costs across incremental load, therefore putting downward pressure on electricity

[121] U.S. EIA, "Oil Imports and Exports" (May 8, 2017), https://www.eia.gov/energyexplained/index.cfm?page=oil_imports.

[122] EPA, NHTSA & CARB, TAR at 10-23.

[123] EPA, Jan. 2017 MTE Final Determination at 6, 24.

[124] U.S. DOE, National Renewable Energy Lab, "At A Glance: Electric-Drive Vehicles" (July 2016) at 2, *available at* https://www.afdc.energy.gov/uploads/publication/electric-drive_vehicles.pdf.

[125] U.S. EIA, "Electricity Explained" (May 10, 2017), https://www.eia.gov/energyexplained/index.cfm?page=electricity_in_the_united_states.

rates, integrating renewable energy (by charging EVs when renewable energy is more abundant and their load is less costly), and improving system utilization.[126] The Electric Power Research Institute further substantiates this point in a recent study.[127]

In addition, because consumers have some flexibility with regard to the time of day at which they charge EVs, charging can be managed to rely on baseload power generation or excess renewable generation rather than drawing electricity from the grid during peak times. A number of utilities across the country are utilizing time of use rates to encourage consumers to charge EVs at off-peak times. Managing charging times for EVs will provide multiple benefits, including reducing the amount of generating capacity that needs to be built, smoothing out demand, capitalizing on times when there is abundant availability of cleaner renewable power (thus reducing "curtailment" of such resources and reducing overall emissions from electricity generation), and reducing costs for all consumers across the system.[128] In the future, EVs are expected to provide a means of facilitating storage of energy and transfer back to the grid to assist utilities in meeting peak demand—an approach referred to as vehicle grid integration.[129]

The U.S. DOE's NREL recently conducted a simulation in which a utility generates half its electricity from renewable sources. The simulated results, based on three million EVs implementing 50 percent optimized charging, demonstrated substantial annual benefits to utilities using managed charging, including: generation of $310 million in grid savings; reduction of electricity costs by 1–3 percent; reduction in peak demand by 1.5 percent; reduction in grid-related carbon dioxide emissions by 1–4 percent; and reduction in renewable curtailment by 25 percent.[130]

3. Environmental Benefits

The current MY 2022-2025 standards have substantial environmental benefits, most notably with regard to GHGs. In the January 2017 MTE Final Determination, EPA projected that "the MY2022-2025 standards will reduce GHG emissions annually by more than 230 million metric tons (MMT) by 2050, and nearly 540 MMT over the lifetime of MY2022-2025 vehicles."[131]

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[126] Southern California Edison, "Testimony of Southern California Edison Company in Support of its Application of Southern California Edison Company (U 338-E) For Approval of its 2017 Transportation Electrification Proposals" (Jan. 20, 2017), *available at* http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/F5582C9D0A9A3659882580AE007F74A4/$FILE/A1701XXX-SCE%20TE%20Testimony%201-20-17.pdf ("Transportation Electrification Proposals Testimony").

[127] Electric Power Research Institute, "The Value of Transportation Electrification Three Preliminary Case Studies of Impacts on Utility Stakeholders" (May 2016) at 1-4, 1-6, *available at* http://www.chargevc.org/wp-content/uploads/2016/10/6-EPRI%20-%20The%20Value%20of%20Transportation%20Electrification.pdf (describing transportation electrification net benefits to all customers).

[128] *See, e.g.*, CARB, MTR Technical Report, *supra* note 14 at D-25; Southern California Edison, Transportation Electrification Proposals Testimony, *supra* note 126 at 15-16; CalETC, "Evaluating Methods to Encourage Plug-in Electric Vehicle Adoption" (Oct. 2016) at 6, *available at* http://www.caletc.com/wp-content/uploads/2016/10/PIA-Incentive-Survey-Paper-CS5-final-cosmetic.pdf.

[129] *See, e.g.*, CARB, MTR Technical Report, *supra* note 14 at D-23–D-24; CalETC, Evaluating Methods to Encourage Plug-in Electric Vehicle Adoption, *supra* note 128 at 7.

[130] U.S. DOE, NREL, "Connecting Electric Vehicles to the Grid for Greater Infrastructure Resilience" (Apr. 20, 2017), https://www.nrel.gov/news/program/2017/connecting-electric-vehicles-to-the-grid-for-greater-infrastructure-resilience.html.

[131] EPA, Jan. 2017 MTE Final Determination at 24.

EPA determined that "[t]hese projected GHG reductions associated with the MY2022-2025 standards are significant compared to total light-duty vehicle GHG emissions of 1,100 MMT in 2014."[132]

With specific regard to EVs and advanced technology vehicles, any analysis conducted by EPA must recognize that increasingly clean power generation and natural gas production means that environmental benefits of advanced technology vehicles are even greater than projected at the time of the 2012 rulemaking. Projections of "upstream" emissions associated with electricity generation or natural gas generation must fully reflect current and projected shifts in the electricity generation portfolio towards lower-emitting resources—including the impacts of low natural gas prices, falling renewable generation costs, existing federal and state standards, and new local, state and regional policies (such as California's recent extension of its GHG cap-and-trade program, strengthening of renewable portfolio standards in many states including California and Oregon, decisions to increase the stringency of the Regional Greenhouse Gas Initiative, and others). Section IV.C, *infra*, addresses the important role that EVs play for States to meet their environmental obligations, including with respect to reductions in non-GHG air pollutants.

In estimating the environmental benefits or costs of any changes to the MY 2022-2025 standards, it will be important for the agency to utilize defensible estimates of the monetized benefits of greenhouse gas emissions reductions (or disbenefits of emissions increases), as well as appropriate quantification (including monetization where possible) of co-benefits (or disbenefits) from changes in conventional air pollutant emissions, including criteria pollutants and air toxics.

IV. ANY PROPOSED REVISIONS TO THE MY 2022-2025 STANDARDS SHOULD FULLY RECOGNIZE AND SUPPORT ADVANCED TECHNOLOGY VEHICLES, PRESERVE OVERALL STRINGENCY AND BENEFITS, AND PRESERVE STATE REGULATORY AUTHORITY

As set forth above, NCAT's position is that the existing MY 2022-2025 standards remain appropriate and that revision of the standards at this time is not warranted. NCAT recognizes, however, that some auto manufacturers have raised concerns with the feasibility of the standards and have sought near-term adjustments to increase flexibility and improve harmonization between EPA and NHTSA standards and that EPA may decide to propose revisions to the standards to address these concerns. To the extent the agency opts to do so, NCAT strongly urges the agency to ensure that the proposed revisions fully recognize and support the role of EVs and other advanced technology vehicles; preserve the overall stringency and benefits of the harmonized National Program; and recognize and support the critical continuing role of state vehicle standards. NCAT stands ready to dialogue with other stakeholders and to assist the agency in the development of innovative policy approaches to support these outcomes.

A. Any Proposed Revisions Should Recognize and Support EVs and Other Advanced Technology Vehicles

NCAT's members have a strong interest in ensuring that the federal vehicle standards provide sustained market signals for investment in, and development and deployment of, EVs and

[132] *Id.*

other advanced technology vehicles. The impact of federal standards is driven by two primary factors: the overall stringency and structure of the standards and the treatment of EVs and advanced technology vehicles through specific crediting and emissions attribution mechanisms.

With regard to the overall stringency and structure of the standards, it is critical that any new analysis undertaken by EPA reflect new information on advanced technology vehicles. First, as set forth above, the availability and cost of these technologies has improved much more quickly than was projected when the standards were adopted in 2012. Second, as these technologies' performance and affordability continue to improve, consumer demand and acceptance are increasing. For all these reasons, EVs and other advanced technology vehicles have the potential to play a substantially greater role shaping the feasibility and cost of the standards than was the case when the 2012 standards were finalized. As discussed above, the benefits of these technologies—in terms of emission reductions, energy savings and energy security, and broader economic benefits—have also improved and should be reflected in any new analysis undertaken by EPA.

As a general matter, the more stringent federal standards are, the greater the incentives for advanced technology vehicles. In addition, EPA included certain policy mechanisms in the MY 2022-2025 standards that relate specifically to these technologies—including crediting for EVs, fuel cell vehicles and compressed natural gas vehicles, as well as how emissions (including "upstream" emissions) are attributed to EVs and hydrogen-fueled fuel cell vehicles. NCAT strongly supports crediting mechanisms to incentivize these "game-changing" technologies and fully recognize their increasing emission reduction benefits vis-à-vis conventional engine technologies. Ultimately, achievement of the major economic, consumer, energy security and environmental benefits of these technologies will depend on a significant "scaling up" of their deployment. NCAT believes that the U.S. and global market stands at an inflection point. It is important for EPA to include robust incentives for these technologies to ensure that they break through and gain sustained momentum. Achievement of that momentum is critical to widespread availability and market penetration, which in turn will ensure their full benefits to consumers and the environment are achieved. The mechanisms in the existing MY 2022-2025 standards certainly should not be weakened in any way. Nevertheless, NCAT believes there are opportunities to further improve these mechanisms, and stands ready to assist EPA in the development of policy options should EPA decide to reconsider the standards.

B. Any Proposed Revisions Should Maintain Overall Stringency and Benefits of the Standards to the Greatest Extent Possible

A number of the concerns raised by auto manufacturers with regard to the current standards relate to flexibility and harmonization with the NHTSA CAFE standards. Among other things, the manufacturers have separately petitioned both NHTSA and EPA to undertake rulemaking to make programmatic adjustments to increase flexibility and harmonization. NHTSA partially granted the petition, indicating that it will address the requested changes in the MY 2022-2025 rulemaking.[133] EPA has stated in response that it "intends to work with the Petitioners and other stakeholders in the future as we carefully consider the requests made in the June 2016 petition,"

[133] NHTSA, Grant of Petition for Rulemaking, 81 Fed. Reg. 95,553 (Dec. 28, 2016).

but has not publicly stated what process or timeframe it intends to use to do so.[134] Other manufacturer concerns may relate to the pace of technology improvement required by the standards and potential interactions with cost and consumer demand, with a particular focus on standards for light-duty trucks. To the extent EPA determines to address any of these concerns, NCAT encourages the agency to do so in a targeted manner that optimizes between preservation of the program's overall stringency and benefits and maximizing flexibility and cost-reduction. The broader and more aggressive the changes that are proposed, the more difficult they will be to sustain in light of governing legal standards and the record before the agency. Any substantial weakening of the standards could result in a divergence in federal and state standards and is likely to provoke conflict and litigation—which ultimately would detract from the broadly shared objectives of regulatory harmonization and certainty.

NCAT believes that further use of innovative policy mechanisms within the standards could help to increase flexibility while maintaining and enhancing program benefits to the greatest extent possible. These include, but are not limited to, crediting and emissions attribution mechanisms for advanced technology vehicles. It also includes treatment of these vehicles and crediting flexibilities under NHTSA's companion CAFE standards. Again, NCAT stands ready to assist EPA and the Administration more broadly in the development of policy options and supporting information should the agency decide to reconsider the standards.

C. The Administration Should Recognize and Support State Authority and Existing State Standards

NCAT strongly supports California and the Section 177 States' existing GHG (LEV III) and ZEV standards, and the States' fundamental authority to adopt these and similar standards in the future. In granting California a waiver for its Advanced Clean Car Program regulations (including LEV III GHG and ZEV standards), EPA recognized clearly that California is legally entitled to the waiver.[135] As a legal, factual and record matter, there is no basis for undermining that determination or the underlying record or rationale.

As a practical, economic and policy matter, state vehicle standards play an essential role in driving the development and deployment of advanced technology vehicles. California and the other nine States that have adopted California's ZEV regulations account for nearly 30 percent of all new vehicle sales in the United States. These standards accordingly provide essential support for investment in development and deployment of EVs and other advanced technology vehicles, not just in the Section 177 States, but nationally as well. Any undermining of state authority, accordingly, could have a significant adverse impact on the prospects for transportation electrification and deployment of advanced vehicle technologies across the country—undermining business opportunities for utilities, manufacturers, and infrastructure companies.

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[134] EPA, Nov. 2016 MTE Proposed Determination at 34.

[135] EPA, California State Motor Vehicle Pollution Control Standards; Notice of Decision Granting a Waiver of Clean Air Act Preemption for California's Advanced Clean Car Program and a Within the Scope Confirmation for California's Zero Emission Vehicle Amendments for 2017 and Earlier Model Years, 78 Fed. Reg. 2112 (Jan. 9, 2013), *available at* https://www.gpo.gov/fdsys/pkg/FR-2013-01-09/pdf/2013-00181.pdf.

Further, for California and the Section 177 States in particular, the standards are critical to address local and regional air pollution problems, which in many cases are severe. Approximately 123 million Americans lived in counties with pollution levels above the primary national ambient air quality standards ("NAAQS") in 2016.[136] In many areas of the country, pollution from vehicles are the leading source of poor air quality. Electric and other zero emission vehicles are a critically important, cost-effective strategy to reduce such air pollution, particularly in areas with severe air quality problems. These vehicles—both light-duty and heavy duty—can reduce both conventional air pollution and carbon emissions by as much as 70 percent relative to gasoline-fueled vehicles.[137] On average across the United States, annual emissions per vehicle are substantially lower for all electric vehicles as compared to gasoline vehicles. The emissions reductions are even greater in geographic areas that use relatively low-polluting energy sources for electricity generation.[138]

State standards also play a key role in supporting major infrastructure and economic development plans in these States. NCAT's members and other businesses have made significant investments and are implementing long-term business strategies that depend upon continued implementation of the ZEV regulations, and on the continued vitality of the state authorities upon which the regulations are based.

NCAT urges EPA and the Administration to avoid any policy decisions that would in any way undermine California and other States' authority. Any such action would undermine the substantial economic and other benefits of state standards, and would also likely provoke conflict and litigation that increase regulatory uncertainty and business risk. NCAT encourages EPA and the Administration to engage the States in discussion of how best to harmonize federal and state standards, including optimizing flexibility and environmental performance, going forward. NCAT stands ready to participate constructively in any such engagement.

Finally, NCAT notes that as an analytical matter, California's and the Section 177 States' existing standards should be reflected in the baseline (reference case) for any analysis undertaken in connection with a new Proposed or Final Determination or any proposed revisions to the existing MY 2021-2025 standards. It is a fundamental tenet of sound analysis and a requirement of Office and Management and Budget and EPA guidelines that the potential effects of any proposed policies or policy changes should be analyzed in relation to existing policies that are in force and would apply in the absence of the proposed policy.[139] There can be no dispute that California's

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[136] U.S. EPA, "Air Quality - National Summary" (July 24, 2017), https://www.epa.gov/air-trends/air-quality-national-summary.

[137] *See*, *e.g.*, Southern California Edison, Transportation Electrification Proposals Testimony, *supra* note 128 at 9-10; Union of Concerned Scientists & The Greenlining Institute, "Delivering Opportunity: How Electric Buses and Trucks Can Create Jobs and Improve Public Health in California" (2016) at 2-3, *available at* http://www.ucsusa.org/sites/default/files/attach/2016/10/UCS-Electric-Buses-Report.pdf.

[138] U.S. DOE Alternative Fuels Data Center, "Emissions from Hybrid and Plug-In Electric Vehicles" https://www.afdc.energy.gov/vehicles/electric_emissions.php (last updated May 28, 2017) (see comparison of electricity sources and annual vehicle emissions, on a national average and state-by-state basis).

[139] *See*, *e.g.*, OMB Circular A-4, "Regulatory Analysis" (Sept. 17, 2003) at 15, *available at* https://www.whitehouse.gov/omb/memoranda_m03-21 ("This baseline should be the best assessment of the way the world would look absent the proposed action."); *see also* EPA, Guidelines for Preparing Economic Analyses, Chapter 5, "Baseline" (Dec. 2010), *available at* https://yosemite.epa.gov/ee/epa/eerm.nsf/vwAN/EE-0568-05.pdf/$file/EE-0568-05.pdf.

and the Section 177 States' standards (including the LEV III GHG standards and ZEV standards) are currently in effect and would otherwise apply. As EPA previously explained in response to comments from auto industry stakeholders, "because these ZEVs are already required by separate laws in California and nine other States, these vehicles will be part of the reference fleet by virtue of those requirements. The federal standards thus would not be imposing additional requirements or costs to these vehicles, nor would the federal standards result in benefits which would not otherwise occur. To avoid double counting, EPA thus considered these ZEV vehicles to be part of the reference fleet, and projected the number of electrified vehicles thus included."[140] This reasoning is correct and there is no defensible basis for excluding California and other States' existing ZEV and LEV III standards from the baseline of any additional analysis undertaken by EPA or NHTSA.

Conclusion

The National Coalition for Advanced Transportation appreciates the opportunity to submit these comments in response to EPA's Request for Comments, and looks forward to providing further input in the future.

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[140] EPA, Jan. 2017 MTE Final Determination Response to Comments at 99-100.