May 24, 2019

VIA ELECTRONIC SUBMISSION

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Attn: Docket No. NHTSA-2018-0067
Docket No. NHTSA-2017-0069
Docket No. EPA-HQ-OAR-2018-0283

Re: Supplemental Comments of Center for Biological Diversity, Environmental Defense Fund, Natural Resources Defense Council, Public Citizen, Inc., and Union of Concerned Scientists on the Environmental Protection Agency's and National Highway Traffic Safety Administration's Proposed Rule: The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks, 83 Fed. Reg. 42,986 (Aug. 24, 2018)

The Center for Biological Diversity, Environmental Defense Fund ("EDF"), Natural Resources Defense Council, Public Citizen, Inc., and Union of Concerned Scientists ("Commenters") respectfully submit this supplemental comment and attachment on the Environmental Protection Agency's ("EPA") and the National Highway Traffic Safety Administration's ("NHTSA") Proposed Rule: The Safer Affordable Fuel-Efficient ("SAFE") Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, 83 Fed. Reg. 42,986 (Aug. 24, 2018) ("Proposed Rule" or "Proposal"). The supplemental comment, attachment,[1] and additional attached materials must be considered as part of this on-going rulemaking as they contain material that is "of central relevance to the rulemaking."[2]

[1] A Department of Transportation regulation issued in 1977 established a 15-page limit for public comments and petitions submitted to the agency. 49 C.F.R. § 553.21; *see also* 42 Fed. Reg. 58,949 (Nov. 14, 1977). The validity of that regulation has never been adjudicated, and Commenters believe it to be unlawful on its face and as applied to this case. In an abundance of caution, Commenters are including an attachment to the public comment with the remainder of our discussion. *See, e.g.*, EPA & NHTSA, Proposed Rulemaking To Establish Light Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 74 Fed. Reg. 49,454, 49,455 (Sept. 28, 2009) ("[Y]ou may attach necessary additional documents to your comments. There is no limit on the length of the attachments.").

[2] 42 U.S.C. § 7607(d)(4)(B)(i); *see also id.* § 7607(d)(7)(A) (providing that such material forms part of the administrative record for judicial review); Proposed Rule, 83 Fed. Reg. 42,986, 43,471 (Aug. 24, 2018) (citing 49 C.F.R. § 553.23 (committing that "[l]ate filed comments will be considered to the extent practicable")).

Since the Trump Administration closed the comment period on its Proposed Rule in October 2018, automakers and suppliers have continued to develop and implement technologies to reduce vehicle greenhouse gas (GHG) emissions and improve fuel efficiency. Recent reports and announcements confirm that investments in advanced technology are creating jobs and supporting economic growth, while also reducing emissions and fuel consumption. The Trump Administration's efforts to roll back the current Clean Car Standards are deeply harmful and at odds with the extensive record of progress on tackling light-duty vehicle GHG emissions.

This comment reviews a range of new materials that further underscore that the current Clean Car Standards are eminently achievable as well as beneficial for the American economy. It then reviews new examples of additional flaws in the Proposed Rule's development.

Contents of Comment:

Commenters respectfully submit the information contained herein into the SAFE rulemaking docket and reiterate that the agencies must withdraw the fatally flawed Proposed Rule. Please contact Erin Murphy, emurphy@edf.org, 202-572-3525, if you have any questions regarding this comment.

Respectfully submitted,

CENTER FOR BIOLOGICAL DIVERSITY
ENVIRONMENTAL DEFENSE FUND
NATURAL RESOURCES DEFENSE COUNCIL
PUBLIC CITIZEN, INC.
UNION OF CONCERNED SCIENTISTS

ATTACHMENT 1

I. Clean car progress promotes economic strength.

New announcements and analysis released after the close of the comment period have further underscored that clean car progress yields economic investment and strength in the United States. These materials build on the extensive record of economic benefits of the Clean Car Standards that is already before the agencies. Even the Trump Administration's own analysis finds that the Proposal's rollback of the existing standards would cost as many as 60,000 jobs.[3]

In recent months, major automakers have announced numerous major investments in U.S. production of more fuel-efficient, less-polluting cars and light trucks. These investments further underscore that advancing clean car technologies fosters economic strength.

- General Motors announced earlier this year that the company plans to invest $22 million at its Spring Hill, Tennessee manufacturing plant "to build 6.2L V-8 engines with GM's advanced Dynamic Fuel Management technology," which is "the industry's first cylinder deactivation technology."[4]

- GM recently announced a $300 million investment in its Orion Township assembly plant in Michigan "to produce a new Chevrolet electric vehicle." This investment is expected to bring "400 new jobs to the Orion plant."[5]

- Ford recently announced plans to invest $850 million in its Flat Rock, Michigan assembly plant, which will support production of the company's "next-generation" of battery electric vehicles. [6] This commitment is part of a $900 million investment in Ford's southeast Michigan "manufacturing footprint" that is expected to create 900 direct new jobs.[7]

- Earlier this year, Volkswagen announced that it plans to invest $800 million in expanding its Chattanooga factory to build the next generation of electric vehicles.[8] This expansion

[3] Proposed Rule, 83 Fed. Reg. 42,986, 43,265, Table VII-5 (Aug. 24, 2018).
[4] Press Statement, General Motors, GM to Invest $22 Million in Spring Hill Plant for Advanced Engine Technology (Jan. 24, 2019), https://media.gm.com/media/us/en/gm/news.detail.print.html/content/Pages/news/us/en/2019/jan/0124-springhill.html.
[5] Press Statement, General Motors, GM to Invest $300 Million, Add 400 Jobs at Michigan Plant for New Chevrolet Electric Vehicle (Mar. 22, 2019), https://media.gm.com/media/us/en/gm/news.detail.print.html/content/Pages/news/us/en/2019/mar/0322-orion.html.
[6] Press Statement, Ford, Ford Adds 2nd North American Site to Build Battery Electrics; Michigan Workers to Make Its First Autonomous Vehicles (Mar. 20, 2019), https://media.ford.com/content/fordmedia/fna/us/en/news/2019/03/20/ford-adds-2nd-north-american-site-to-build-battery-electrics.html.
[7] *Id.*
[8] Press Statement, Volkswagen, Volkswagen plans to produce EVs in America starting in 2022 (Jan. 14, 2019), http://newsroom.vw.com/vehicles/volkswagen-plans-to-produce-evs-in-america-starting-in-2022/.

is expected to create "1,000 jobs in Tennessee and elsewhere in the United States."[9] The Chattanooga plant will be Volkswagen's North American hub for all-electric vehicles.[10]

In addition, a recent academic publication from researchers at Indiana University and Syracuse University, funded by the Auto Alliance,[11] finds that the existing Clean Car Standards yield long-term benefits for U.S. economic well-being. This study, Graham et al., *The Macroeconomic Effects of 2017 Through 2025 Federal Fuel Economy and Greenhouse Gas Emissions Standards*, finds that the current standards have positive long-run effects, saving consumers money at the pump because they encourage automakers to produce more fuel-efficient vehicles.[12] The study concludes that "[f]reezing the standards at 2020 levels"—as the Proposed Rule would do—"results in much lower levels of long-term gains."[13] In particular, the study concludes that the existing standards will result in significant job growth in the United States, adding over 200,000 jobs *more* than what would occur under the Proposed Rule by 2035.[14]

An important caveat to the Graham et al. study is that its finding of limited short-term negative impacts from the existing Clean Car Standards is driven by problematic assumptions and must be viewed in a broader context. Crucially, a 2018 study by Synapse Energy Economics identified a variety of issues with an earlier, analogous 2017 study by Carley, Graham et al. that indicated that the 2017 study likely understated the benefits of the existing standards.[15] In response to the Synapse report, the Carley, Graham et al. authors issued several corrections to their 2017 study.[16]

Looking at impacts in the automotive sector and the wider economy, the Synapse study found that the existing standards would lead to both short- and long-term employment increases. Synapse projected that the standards would add over 100,000 jobs by 2025 and more than 250,000 jobs by 2035, and that the standards would increase GDP by $13.6 billion in 2025 and $16.1 billion in 2035.[17]

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[9] *Id.*
[10] *Id.*
[11] The Auto Alliance is one of the major trade associations in the U.S. for automakers, lobbying on behalf of automakers who build 70% of all cars and light trucks sold domestically. *See* Auto Alliance, *About the Alliance*, https://autoalliance.org/about-the-alliance/ (last visited May 22, 2019).
[12] Graham et al., *The Macroeconomic Effects of 2017 Through 2025 Federal Fuel Economy and Greenhouse Gas Emissions Standards*, Journal of Policy Analysis and Management, Vol. 00, No. 0, 1–31 (2019).
[13] *Id.* at 2.
[14] *Id.* at 26, Table 5.
[15] Allison et al., *Clean Cars and Job Creation: Macroeconomic Impacts of Federal and State Vehicle Standards*, Synapse Energy Economics (Mar. 27, 2018), http://www.synapse-energy.com/sites/default/files/Cleaner-Cars-and%20Job-Creation-17-072.pdf ("Synapse Energy Economics 2018") (critiquing Carley et al., *A Macroeconomic Study of Federal and State Automotive Regulations*, Indiana University School of Public & Environmental Affairs (Mar. 2017), https://spea.indiana.edu/doc/research/working-groups/auto-report-032017.pdf).
[16] *See* Letter from John Graham, Indiana University, to EPA & NHTSA (Jan. 18, 2018) (supplying "corrected technical information about our March 2017 report"), https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0827-10998; Letter from John Graham, Indiana University, to EPA & NHTSA (Feb. 13, 2018) (supplying "additional corrections to technical information in our March 2017 report"), https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0827-11001.
[17] Synapse Energy Economics 2018, at ES-2; *see also* California Air Resources Board, Analysis in Support of Comments of the California Air Resources Board (CARB) on the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (Oct. 26, 2018), Docket ID NHTSA-2018-0067-

The 2019 Graham et al. publication, however, still reflects flawed assumptions that drive their findings of limited short-term negative impacts. In particular, their underlying model does not allow incorporation of vehicle financing, such that short-term employment effects are artificially sensitive to changes in vehicle price. In reality, the large majority of new car buyers finance their purchase.[18] Had the Graham et al. study accurately reflected vehicle financing, the benefit-to-cost ratio would presumably have reflected mitigated up-front consumer costs in the short-term. Thus, the 2019 Graham et al. study further underscores that the existing Clean Car Standards are beneficial for the economy.

Finally, we note that analysis published by the Energy Information Administration concluded that the current fuel economy and GHG emission standards, when compared to a flatlining of standards at MY2021 levels, would lead to an *increase* in new vehicle sales through 2050, contrary to NHTSA's findings.[19] At a minimum, the EIA analysis conclusively demonstrates that sales effects of the standards are so uncertain that the federal government itself cannot determine with confidence if the effect is to increase or decrease sales. Given this fundamental uncertainty, it is arbitrary to rely on projected sales effects to justify a rollback of the standards and a dismissal of the mandates the agencies were given by their respective statutes to reduce harmful pollution and improve fuel economy.

II. Automakers continue to make rapid progress in advancing emissions-reducing technologies for internal combustion engine vehicles.

In the last several months alone, automakers have rolled out new vehicle iterations in the U.S. that are equipped with innovative technology combinations that reduce emissions and improve fuel economy. These examples further belie the Proposed Rule's unfounded, pessimistic assumptions regarding emission reduction and fuel efficiency potential. Among these vehicle iterations are:

- The 2020 GMC Acadia will be available with a new 2.0L four-cylinder turbocharged engine with Active Fuel Management ("AFM") technology, an advanced cylinder deactivation system that shuts down cylinders in the vehicle's engine in real-time to

11873, https://www.regulations.gov/document?D=NHTSA-2018-0067-11873; CARB, Compilation of Expert Reports on Specific Subjects, https://ww2.arb.ca.gov/expert-reports-specific-subjects-vehicle-technology-vmt-scrappage-consumer-behavior-traffic-safety (including Allison et al., *Assessment of Macroeconomic Impacts from Federal SAFE Proposal*, Synapse Energy Economics (Oct. 22, 2018)).

[18] EPA, Proposed Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards under the Midterm Evaluation, at ES-6 (Nov. 2016).

[19] Energy Information Administration, *Annual Energy Outlook 2018*, Table: Light-Duty Vehicle Sales by Technology Type ("Total Vehicle Sales," Reference case v. No new efficiency standards case), https://www.eia.gov/outlooks/aeo/data/browser/#/?id=48-AEO2018&region=1-0&cases=ref2018~effrelaxall&start=2016&end=2050&f=A&linechart=~~ref2018-d121317a.26-48-AEO2018.1-0~effrelaxall-d030918a.26-48-AEO2018.1-0~ref2018-d121317a.52-48-AEO2018.1-0~effrelaxall-d030918a.52-48-AEO2018.1-0&map=effrelaxall-d030918a.4-48-AEO2018.1-0&sourcekey=0.

reduce energy losses when conditions do not require full power, as well as a 9-speed transmission, variable valve timing and stop-start technology.[20]

- The 2020 Ford Explorer models will include an all-new Ford Explorer Hybrid vehicle available with a 3.3L V6 engine and a new 10-speed modular transmission, available in both all-wheel-drive and rear-wheel-drive.[21] One important development is that the electric motor was integrated into the transmission, reducing cost and space requirements. Green Car Reports estimates that the 2020 hybrid could see an improvement of 4 mpg over the previous model year Explorer.[22]

- The all-new 2020 Hyundai Palisade SUV is powered by an "Atkinson-cycle 3.8-liter V6, dual [Continuous Variable Valve Timing], direct-injected engine, for excellent power and efficiency."[23] The increased adoption of Atkinson-cycle, high compression ratio engines continues to demonstrate that automakers are actively adopting this cost-effective technology, and that the agencies' artificial constraints on HCR in their fleet projections are without any rational basis.[24]

- The 2020 Toyota Corolla includes a "completely-new 2.0-liter Dynamic-Force direct-injection inline four-cylinder engine" on the SE and XSE configurations that delivers more performance using less fuel by relying on a combination of high 13:1 compression ratio, direct fuel injection combining direct and secondary port injectors, high-speed combustion, and electric-motor controlled variable valve-timing.[25] The Corolla also offers a Continuously Variable Transmission, which (according to Toyota), along with the Dynamic Force engine, adds an estimated three more combined mpg – even accounting for the fact that Toyota added 37 horsepower over the previous models.[26] Toyota is also making the 2020 Corolla available as a hybrid-electric vehicle for the first

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[20] General Motors Company, *Introducing the 2020 GMC Acadia: Boulder Design, Innovative Technology, and Versatile*, https://www.gmc.com/gmc-life/suvs/introducing-the-2020-acadia (last visited May 22, 2019).
[21] Press Release, Ford, All-New Ford Explorer Goes Faster and Further with Performance-Tuned ST and No-Compromise Hybrid (Jan. 14, 2019), http://s22.q4cdn.com/486913353/files/doc_downloads/2020-ford-explorer-st-and-hybrid-press-release.pdf.
[22] Bengt Halvorson, *2020 Ford Explorer Hybrid will carry a price tag over $50k*, Green Car Reports (Feb. 19, 2019), https://www2.greencarreports.com/news/1121540_2020-ford-explorer-hybrid-will-carry-a-price-tag-over-50k.
[23] Press Release, Hyundai, All-New 2020 Hyundai Palisade Mid-size SUV Makes its Global Debut at the 2018 Los Angeles Auto Show (Nov. 28, 2018), https://www.hyundainews.com/en-us/releases/2658.
[24] *See, e.g.*, Comment of International Council on Clean Transportation ("ICCT") on the SAFE Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, EPA-HQ-OAR-2018-0283-5456, NHTSA-2018-0067-11741, Appendix at I-2 to I-12 (Oct. 26, 2018), https://www.theicct.org/sites/default/files/ICCT%20public%20comments%20NHTSA2026%20NPRM%2025oct2018.pdf.
[25] Press Release, Toyota, Performance and Design Highlight the All-New 2020 Toyota Corolla (Feb. 26, 2019), https://pressroom.toyota.com/releases/driving+and+design+highlight+the+all+new+2020+toyota+corolla.htm.
[26] *Id*.

time.[27] The hybrid configuration is rated at an unadjusted 77.2 mpg,[28] vastly surpassing its 2025 target of 56.5 mpg.[29]

- Mazda announced this month that it will be introducing a new 48-volt mild hybrid vehicle as part of its strategy for the 2020 to 2025 time period.[30] There have been multiple developments on lower cost, 48-volt hybrid systems, illustrating that the efficiency and performance benefits of these systems more than offset the incremental cost.[31]

- The 2019 Range Rover Sport and the 2020 Range Rover, both of which are coming to market later this year from Jaguar Land Rover, will have 48-volt systems that provide hybrid functions and add an electric compressor to assist the turbocharger, allowing engine downspeeding and additional engine downsizing to further improve efficiency and performance.[32]

- The incoming CEO of Daimler, Ola Källenius, recently announced that as part of Daimler's electrification strategy, "[e]very single combustion engine that we will have will get a 48-volt mild hybrid system."[33]

Most of the technologies identified above are unreasonably disregarded, disallowed, or overpriced in the agencies' analysis using the Volpe CAFE model developed by NHTSA—despite the fact that these technologies are effective at reducing carbon emissions.[34] For example, the Volpe model treats turbocharging and cylinder deactivation as mutually exclusive, but this technology combination is technically viable and in fact is deployed in the 2020 GMC Acadia.[35] And it appears that for the Proposed Rule, the Volpe model relied on overstated and outdated battery costs that artificially inflated the cost of the 48-volt mild hybrid system.[36]

These developments further document that, as a major automaker trade group recently stated, the reality is that automakers "are making vehicles that are measurably safer, cleaner and more

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[27] *Id.*
[28] EPA & DOE, Download Fuel Economy Data, https://fueleconomy.gov/feg/download.shtml (last visited May 22, 2019) (Unadjusted value accessed within the 2020 Datafile).
[29] Calculated with the 2020 Corolla Hybrid LE's wheelbase of 106.3 inches, front track width of 60.3 inches, and rear track width of 60.4 inches. *See* https://www.toyota.com/corolla/features/dimensions/1882/1863/1856.
[30] Hans Greimel, *Mazda aims for upscale appeal with inline-6 engines*, AUTOMOTIVE NEWS (May 13, 2019), https://www.autonews.com/future-product/mazda-aims-upscale-appeal-inline-6-engines.
[31] Comment of ICCT on the SAFE Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, Appendix at I-75 (Oct. 26, 2018).
[32] Richard Truett, *Range Rover gets its first inline-6, a high-tech powerhouse*, AUTOMOTIVE NEWS (May 13, 2019), https://www.autonews.com/cars-concepts/range-rover-gets-its-first-inline-6-high-tech-powerhouse; Comment of ICCT on the SAFE Rule, Appendix at I-21 (Oct. 26, 2018) (describing the performance and efficiency benefits of electric compressors).
[33] Urvaksh Karkaria, *Incoming Daimler CEO weighs billions in cost cuts*, AUTOMOTIVE NEWS (Apr. 28, 2019), https://www.autonews.com/executives/incoming-daimler-ceo-weighs-billions-cost-cuts.
[34] *See generally* Comment of ICCT on the SAFE Rule, Appendix Part I(A) (Oct. 26, 2018).
[35] *See id.* at 6.
[36] *Id.* at Appendix I-75.

efficient than ever before. Ours is a high-tech success story, pure and simple."[37] This progress underscores that clean car standards at least as protective as the current and augural standards are eminently achievable.

III. Automakers continue to make progress in deploying electric vehicles.

Automakers are also continuing to commit significant investments to electric vehicle technologies.

The existing Clean Car Standards for MY 2021-2025 vehicles do not require significant levels of electric vehicle deployment—as EPA, NHTSA, and CARB concluded in both the rulemaking establishing the MY 2017-2025 standards and again in the 2016 Draft Technical Assessment Report,[38] and as public comments on the Proposal documented in detail.[39] Nonetheless, the increasing deployment of zero emission vehicles further eases automakers' ability to reach the eminently achievable targets established in the Clean Car Standards while continuing to produce a range of vehicle options.

For example, earlier this year GM revealed plans for Cadillac's first electric vehicle,[40] and announced a collaboration with three electric vehicle charging networks that cover more than 31,000 charging ports.[41] In April, Ford announced a $500 million investment in electric vehicle startup Rivian, and it will use Rivian's technology to design EVs in addition to electric F-150 truck and crossover vehicles that are already in development.[42]

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[37] Mitch Bainwol, CEO of the Alliance of Automobile Manufacturers, *Check the record: Automakers do support better fuel economy*, AUTOMOTIVE NEWS (Dec. 17, 2018), https://www.autonews.com/commentary/check-record-automakers-do-support-better-fuel-economy.

[38] EPA, California Air Resources Board, NHTSA, 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 at ES-2 (July 2016), https://nepis.epa.gov/Exe/ZyPDF.cgi/P100OXEO.PDF?Dockey=P100OXEO.PDF.

[39] *See, e.g.*, Comments of Center for Biological Diversity, Conservation Law Foundation, Environmental Defense Fund, Earthjustice, Environmental Law and Policy Center, Natural Resources Defense Council, Public Citizen, Inc., Sierra Club, and Union of Concerned Scientists on the SAFE Rule, Appendix A at 43-44 (Oct. 26, 2018), https://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0283-5070.

[40] Press Statement, Cadillac, Cadillac Shows Brand's First Fully Electric EV (Jan. 13, 2019), https://media.cadillac.com/media/ca/en/cadillac/news.detail.html/content/Pages/news/ca/en/2019/Jan/0114-cadillac-ev.html.

[41] Press Statement: General Motors to collaborate with EVgo, ChargePoint and Greenlots to enhance the charging experience for customers (Jan. 9, 2019), https://media.gm.com/media/us/en/gm/news.detail.print.html/content/Pages/news/us/en/2019/jan/0109-charging.html.

[42] Sean O'Kane, *Ford will build an electric vehicle using EV startup Rivian's tech*, THE VERGE (Apr. 24, 2019), https://www.theverge.com/2019/4/24/18514031/ford-electric-pickup-truck-ev-startup-rivian-tech; Press Statement, Ford: Rivian Announces $500 Million Investment from Ford; Partnership to Deliver All-New Ford Battery Electric Vehicle (Apr. 24, 2019), https://media.ford.com/content/fordmedia/fna/us/en/news/2019/04/24/rivian-500-million-investment-ford.html.

Several studies, detailed below, suggest that electric vehicles will achieve major market penetration in coming years—including the model years covered by the agencies' Proposal. These studies indicate that declining costs, especially for batteries, will make electric vehicles equal to or cheaper than internal combustion engine-powered vehicles within the next decade.[43] These findings underscore that, if anything, the existing Clean Car Standards should be *more* ambitious. Commenters submit the following reports into the administrative record:

- **Deloitte Report, Battery Electric Vehicles: New market. New entrants. New challenges (Jan. 22, 2019).** Deloitte estimates that the electric vehicle market will reach a tipping point in 2022 when the cost of owning an electric vehicle will be "on par" with an internal combustion engine-powered vehicle.[44] According to Deloitte's research, global sales of plug-in electric cars will increase from four million in 2020 to 12 million in 2025, and to 21 million in 2030.[45]

- **McKinsey, Global Energy Perspective 2019 (Jan. 2019).**[46] The consulting firm's recent report foresees a two-thirds drop in the cost of EV battery packs by 2030. The tipping point at which EVs will be cheaper to own than internal combustion engine-powered vehicles is forecast to be reached in the early 2020s, and EV sales are expected to reach 100 million units by 2035.

- **International Council on Clean Transportation, Update on electric vehicle costs in the United States through 2030 (Apr. 2, 2019).**[47] This paper assesses battery electric vehicle costs in the 2020–2030 period, collecting the best battery pack and electric vehicle component cost data available through 2018. The paper concludes that, based on upfront costs, EV cost parity with conventional vehicles will occur in 2024-2028. EVs will become affordable for mainstream new vehicle buyers across different vehicle types and EVs will become part of the core business strategy for some automakers.

- **M.J. Bradley & Associates, Electric Vehicle Market Status (May 7, 2019).** A report by M.J. Bradley & Associates shows that automakers are currently making significant electric vehicle investments that will increase model availability, drive innovation, and reduce costs. The M.J. Bradley report projects that automakers will offer an increased number and variety

[43] M.J. Bradley & Associates, Electric Vehicle Market Status, at 11 (May 7, 2019), https://www.mjbradley.com/reports/electric-vehicle-market-status; McKinsey & Company, Global Energy Perspective 2019: Reference Case (Jan. 2019), https://www.mckinsey.com/industries/oil-and-gas/our-insights/global-energy-perspective-2019.
[44] Deloitte, Report: *New market. New entrants. New challenges. Battery Electric Vehicles* (Jan. 22, 2019), https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/manufacturing/deloitte-uk-battery-electric-vehicles.pdf.
[45] *Id*.
[46] McKinsey & Company, Global Energy Perspective 2019 (Jan. 2019), https://www.mckinsey.com/industries/oil-and-gas/our-insights/global-energy-perspective-2019.
[47] Nic Lutsey & Michael Nicholas, *Update on electric vehicle costs in the United States through 2030*, The International Council on Clean Transportation (Apr. 2, 2019), https://www.theicct.org/publications/update-US-2030-electric-vehicle-cost.

of battery electric (BEV) and plug-in hybrid (PHEV) models over the next three years.[48] In particular, its analysis shows that between 2019 and 2021, the number of EV models available in the U.S. will increase from 55 to 81 and will include a range of vehicle types that includes pick-up trucks, cross-overs, and sport utility vehicles (SUV).[49] The M.J. Bradley report also found that EVs will reach cost-parity with internal combustion vehicles between 2020 and 2025 as battery costs continue to decline.[50] Moreover, this analysis found that "by 2021 there will be at least five EV models available for under $30,000 (MSRP)" with an even greater number of models available for less than $30,000 when local, state and federal tax incentives are considered.[51]

- **Bloomberg's Electric Vehicle Outlook 2019 (May 15, 2019).** Bloomberg New Energy Finance recently updated its electric vehicle outlook, reporting that over 2 million EVs were added to the global vehicle fleet in the last year, and Bloomberg expects that 57% of all passenger vehicle sales will be electric by 2040.[52]

Such findings further controvert the Proposal's concerns regarding automakers' ability to achieve the existing Clean Car Standards.

IV. The latest research by EPA experts must be considered and reflected in any final rule.

EPA experts continue to release new technical assessments and other research related to light-duty vehicle emissions, as detailed below. These materials further demonstrate EPA expertise in vehicle emissions as well as further developments in greenhouse gas emission-reduction technology that must be brought to bear in the current rulemaking. EPA's failure to docket its own assessments before the close of the comment period precluded meaningful public comment on these materials.[53] To the extent any final rule fails to address, explain, analyze, and incorporate the findings of EPA's assessments, it would arbitrarily fail to address highly relevant information. It would also reflect an unlawful delegation to NHTSA of EPA's duty to rely on its own expertise in setting GHG vehicle emission standards and would be arbitrary and capricious.[54]

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[48] M.J. Bradley & Associates, Electric Vehicle Market Status, at 9 (May 7, 2019), https://www.mjbradley.com/reports/electric-vehicle-market-status.
[49] *Id.* at 3.
[50] *Id.* at 11, 12.
[51] *Id.* at 3.
[52] BloombergNEF, Electric Vehicle Outlook 2019 (May 15, 2019), https://about.bnef.com/electric-vehicle-outlook/. (Note: Full report is behind a paywall, but is submitted to the administrative record with this comment.)
[53] *See* 5 U.S.C. § 553(b); 42 U.S.C. § 7607(d)(3); Executive Order 12,866 § 6(a)(3)(E).
[54] *See* Comments of Center for Biological Diversity, Conservation Law Foundation, Environmental Defense Fund, Earthjustice, Environmental Law and Policy Center, Natural Resources Defense Council, Public Citizen, Inc., Sierra Club, and Union of Concerned Scientists on the SAFE Rule, Appendix A Section III(A) (Oct. 26, 2018), https://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0283-5070.

EPA's National Center for Advanced Technology ("NCAT") regularly conducts assessments of "the effectiveness of advanced low emission and low fuel consumption technologies for a broad range of key light-duty vehicles, engines and transmissions."[55] The Center uses state-of-the-art testing equipment, certified to industry standards, to document engine performance in complete engine maps, perform analyses of technology effectiveness, and generate information needed for complete vehicle simulations with the ALPHA tool.[56] That data is also used to develop inputs to the OMEGA model, which was developed by EPA experts to inform analysis that helped establish the technical foundation for the Clean Car Standards. EPA states on the agency's website that, "[f]ollowing EPA's commitment to transparency," it publishes the test data packages, as well as technical publications and presentations about its technology benchmarking.[57]

However, EPA failed to timely update its website with recent studies. For example, the two Honda 1.5L L15B7 test data packages listed below appear to have been posted on EPA's website in February 2019—well after the close of the comment period on the Proposed Rule—but the test reports were completed in April and May of 2018, months before the Proposed Rule was published. In fact, nine studies were published between April 2018 and October 2018 (that is, the months leading up to and comprising the NPRM's public comment period), yet *none* of them were uploaded to the website until long after the comment period had closed. This stands in contrast to EPA's historical practice: the four studies on the website that were published in or before March 2018 were each uploaded within one month of publication.

These assessments regarding achieved efficiency performance and projected opportunities for further improvement are of "central relevance" to the process of setting appropriate greenhouse gas emission standards for light-duty vehicles.[58] For example, EPA and NHTSA extensively detailed the importance of assessing technology effectiveness for both agencies' compliance models in the Joint Final Technical Support Document accompanying the 2012 Final Rule.[59] The data contained in the test packages listed below—for engines, transmissions, and complete vehicles—is essential to understand the operation of emission-reduction technologies that are being deployed in automaker fleets, and to develop baselines for EPA's vehicle simulation tool that projects the effectiveness of forthcoming technologies.[60] EPA staff publish peer-reviewed technical papers, such as the ones listed below, to explain the result of the agency's

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[55] EPA, Benchmarking Advanced Low Emission Light-Duty Vehicle Technology, https://www.epa.gov/vehicle-and-fuel-emissions-testing/benchmarking-advanced-low-emission-light-duty-vehicle-technology (last visited Apr. 28, 2019).

[56] *Id.*; *see also* EPA & NHTSA, Joint Technical Support Document: Final Rulemaking for 2017-2025 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards at 5-24, EPA-420-R-12-901 (Aug. 2012) (explaining that EPA recently upgraded its testing infrastructure at the National Vehicle and Fuel Emissions Laboratory, which is where NCAT is located).

[57] *Id.*

[58] 42 U.S.C. § 7607(d)(4)(B)(i).

[59] EPA & NHTSA, Joint Technical Support Document, Section 3.3: "How did the agencies determine effectiveness of each of these technologies?" (Aug. 2012).

[60] *See* EPA, Technical Support Document: Proposed Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards under the Midterm Evaluation, Section 2.3.3, at 2-231, EPA-420-R-16-021 (Nov. 2016) (describing in detail how EPA conducted vehicle benchmarking and used the results to support its Midterm Evaluation and Proposed Determination).

benchmarking tests to the broader technical community.[61] The use of benchmarking studies has been an important part of the agencies' process for developing and reviewing greenhouse gas emission and fuel economy standards. For example, in support of its Proposed Determination for the Midterm Evaluation, EPA explained that it had verified the benefits of an emission-reducing technology option—the Advanced Atkinson Tech Package—by benchmarking an existing engine, and that EPA explained those results in a peer-reviewed SAE paper.[62]

Moreover, EPA is explicitly obligated under Clean Air Act Section 307(d)(4)(B)(i) to docket these documents "as soon as possible after their availability."[63] Yet it appears that the agency has failed to include these assessments in the rulemaking docket at all. EPA's failure to docket these documents is contrary to Section 307(d)(4)(B)(i). EPA adhered to this requirement in past rulemakings by adding its technology benchmarking assessments to the administrative record for the Clean Cars rulemakings, and updating the docket regularly as such additional reports were published.[64]

Commenters submit the following relevant technology assessments conducted by EPA staff into the administrative record.[65] The agencies must address, explain, analyze, and incorporate these studies as part of their analysis for any final rule. To the extent the agencies decline to rely on these studies in a final rule, they must justify and explain any such decision.[66]

Test Data Packages from Benchmarking

Engine Test Data

1. 2018 Toyota 2.5L A25A-FKS Engine Tier 2 Fuel – Test Data Package – Dated 04- 08- 19 (NCAT report dated 3/13/2019) (published online April 2019)
2. 2018 Toyota 2.5L A25A-FKS Engine Tier 3 Fuel – Test Data Package – Dated 04- 08- 19 (NCAT report dated 3/13/2019) (published online April 2019)
3. 2016 Mazda 2.5L Turbo Skyactiv-G Engine Tier 2 Fuel – Test Data Package – Dated 03-13-19 (NCAT report dated 3/13/2019) (published online March 2019)
4. 2016 Mazda 2.5L Turbo Skyactiv-G Engine Tier 3 Fuel – Test Data Package – Dated 03-13-19 (NCAT report dated 3/13/2019) (published online March 2019)

[61] *See id.* at 2-232.
[62] *Id.* Section 2.3.4.1.8.1, at 2-303.
[63] 42 U.S.C. § 7607(d)(4)(B)(i).
[64] *See, e.g.*, SAE Article: Nissan's new 2012 hybrid system aims for 1.8-L efficiency with a 3.5-L V6 (Feb. 15, 2010), https://www.regulations.gov/document?D=EPA-HQ-OAR-2010-0799-0034 (published in EPA's Light-Duty Phase 2 rulemaking docket on Oct. 13, 2010); EPA National Center for Advanced Technology, 2014 Ram 1500 HFE 845RE Transmission Test Report (June 14, 2016), https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0827-0667 (published in EPA's Mid-Term Evaluation docket on July 26, 2016); EPA National Center for Advanced Technology, 2013 Chevrolet Malibu 6T40 Transmission Test Report (June 14, 2016), https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0827-0666 (published in EPA's Mid-Term Evaluation docket on July 26, 2016).
[65] All of these records, unless otherwise noted, are published on EPA's website: https://www.epa.gov/vehicle-and-fuel-emissions-testing/benchmarking-advanced-low-emission-light-duty-vehicle-technology.
[66] *Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 42-43 (1983) (stating that an agency must consider all "relevant factors," and "examine the relevant data and articulate a satisfactory explanation for its action").

5. 2016 Honda 1.5L L15B7 Engine Tier 2 Fuel - Test Data Package - Dated 02-04-19 (NCAT report dated 5/10/2018) (published online February 2019)
6. 2016 Honda 1.5L L15B7 Engine Tier 3 Fuel - Test Data Package - Dated 02-04-19 (NCAT report dated 4/4/2018) (published online February 2019)
7. 2013 Ford 1.6L EcoBoost Engine Tier 2 Fuel - Test Data Package - Dated 10-25-18 (NCAT report dated 10/18/2018) (published online December 2018)
8. 2013 Ford 1.6L EcoBoost Engine LEV III Fuel - Test Data Package - Dated 10-25-18 (NCAT report dated 10/18/2018) (published online December 2018)
9. 2014 Chevrolet 4.3L EcoTec LV3 Engine Tier 2 Fuel - Test Data Package - Dated 10-25-18 (NCAT report dated 8/8/2018) (published online December 2018)
10. 2014 Chevrolet 4.3L EcoTec LV3 Engine LEV III Fuel - Test Data Package - Dated 10-25-18 (NCAT report dated 6/7/2018) (published online December 2018)
11. 2015 BMW 3.0L N57 Engine Diesel Fuel - Test Data Package - Dated 06-11-18 (NCAT report dated 6/4/2018) (published online December 2018)

Transmission Test Data

12. 2013 GM 6T40 Transmission - Test Data Package - Dated 05-09-19 (NCAT report dated 5/9/2019) (published online May 2019)
13. 2014 FCA HFE 845RE Transmission - Test Data Package - Dated 04-09-19 (NCAT report dated 4/9/2019) (published online May 2019)
14. 2014 GM 6L80 Transmission - Test Data Package - Dated 12-13-18 (NCAT report dated 12/12/2018) (published online December 2018)

Vehicle Test Data

15. 2014 Dodge Charger 3.6L 845RE Vehicles Tier 2 Fuel - Test Data Package - Dated 04-15-19 (NCAT report dated 4/3/2019) (published online April 2019)
16. 2014 Dodge Charger 3.6L W5A580 Vehicles Tier 2 Fuel - Test Data Package - Dated 04-15-19 (NCAT report dated 4/3/2019) (published online April 2019)
17. 2013 Chevrolet Malibu 1LS Vehicle Tier 2 & 3 Fuels - Test Data Package - Dated 09-25-18 (NCAT report dated 9/17/2018) (published online December 2018)
18. 2013 Mercedes E350 BlueTEC Vehicle Diesel Fuel - Test Data Package - Dated 10-25-18 (NCAT report dated 7/5/2018) (published online December 2018)

Technical Publications and Presentations Concerning Benchmarking

19. Kargul, J., Stuhldreher, M., Barba, D., Schenk, C. et al., "Benchmarking a 2018 Toyota Camry 2.5-Liter Atkinson Cycle Engine with Cooled-EGR," SAE Technical Paper 2019-01-0249, 2019, doi:10.4271/2019-01-0249.
20. Barba, D., "Benchmarking a 2018 Toyota Camry 2.5-Liter Atkinson Cycle Engine with Cooled-EGR" presented at SAE WCX, Detroit, MI, April 9-11, 2019.
21. Bohac, S., "Benchmarking and Characterization of a Full Continuous Cylinder Deactivation System" presented at SAE WCX, Detroit, MI, April 10-12, 2018.

Additional Technical Publications by EPA Staff[67]

22. de Souza, F., Raeesi, A., Belzile, M., Caffrey, C. et al., "Investigation of Drag Reduction Technologies for Light-Duty Vehicles Using Surface, Wake and Underbody Pressure

[67] These publications are not posted to EPA's Vehicle Technology Benchmarking page, *see supra* n.65, but are available at the links provided in-text and are appended to this comment.

Measurements to Complement Aerodynamic Drag Measurements," SAE Technical Paper 2019-01-0644, 2019, available at https://doi.org/10.4271/2019-01-0644.
23. Wang, Y., Conway, G., McDonald, J., and Birckett, A., "Predictive GT-Power Simulation for VNT Matching to EIVC Strategy on a 1.6 L Turbocharged GDI Engine," SAE Technical Paper 2019-01-0192, 2019, https://doi.org/10.4271/2019-01-0192.
24. Lee, S., Fulper, C., McDonald, J., and Olechiw, M., "Real-World Emission Modeling and Validations Using PEMS and GPS Vehicle Data," SAE Technical Paper 2019-01-0757, 2019, https://doi.org/10.4271/2019-01-0757.

V. The current Administration is misrepresenting the impact of the Proposed SAFE Rule, and is failing to adequately disclose communications about the Proposal.

Commenters also raise a separate, significant concern regarding the administration's mischaracterization and omission of information central to the development and evaluation of the current rulemaking.

First, we note with concern certain new gaps in the rulemaking docket. According to news reports, White House officials met with auto executives twice in recent months to press automakers to support the Administration's plan to roll back the Clean Car Standards.[68] The Administration, however, has failed to disclose those meetings in the rulemaking dockets, or document any attendees or information exchanged. Such disclosure of any meetings during the comment period or prior to rule release is required by law to ensure a complete administrative record and avoid "leav[ing] the notice-and-comment proceeding and the political proceeding disconnected from one another and mak[ing] the notice-and-comment process look like no more than a smokescreen."[69] Furthermore, regardless of any White House participation, the agencies with statutory responsibility—EPA and NHTSA—must still "reach [a] decision strictly on the merits and in the manner prescribed by statute, without reference to irrelevant or extraneous considerations."[70]

In addition to the meetings described above, Commenters are concerned that the agencies may have had further undocketed interactions with auto industry representatives about the Proposed Rule. Records obtained through the Freedom of Information Act by EDF document multiple

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[68] *See* Ryan Beene, *White House Warns Carmakers on Emissions in Tense Call*, BLOOMBERG (Mar. 6, 2019), https://www.bloomberg.com/news/articles/2019-03-06/white-house-to-automakers-it-s-trump-or-california-on-emissions; Maxine Joselow, *White House to huddle again with automakers on rollback*, E&E NEWS (Mar. 22, 2019), https://www.eenews.net/eenewspm/2019/03/22/stories/1060128083.

[69] *U.S. Telecomms. Ass'n v. FCC*, 855 F.3d 381, 413 (D.C. Cir. 2017) (Srinivasan, J., concurring in the denial of rehearing en banc). "Executive Branch personnel are not exempt from the requirement of [42 U.S.C.] § 7607(d)(4)(B)(i), that all written materials received from 'any person' during the comment period shall be placed in the docket." *Sierra Club v. Costle*, 657 F.2d 298, 404 n.519 (D.C. Cir. 1981); *Ad Hoc Metals Coal. v. Whitman*, 227 F. Supp. 2d 134, 140-41 (D.D.C. 2002) (finding that comments submitted after meetings between EPA and regulated industry stakeholders must be added to the administrative record, particularly where other meeting records were previously added to the record, and that it is appropriate to supplement the record when information arises after the close of the comment period but "prior to promulgation of a final rule and with a sufficient amount of time remaining that the ultimate decision can be influenced").

[70] *D.C. Fed'n of Civic Ass'ns v. Volpe*, 459 F.2d 1231, 1248 (D.C. Cir. 1971).

meetings between DOT officials and automakers about the rollback that occurred while the agency was developing the Proposed Rule.[71] DOT has not released equivalent records for the time period since the publication of the Proposed Rule. EDF is taking legal action to obtain these records and make them public.[72] Commenters reiterate that the agencies must disclose in the rulemaking docket stakeholder meetings between the rule proposal and finalization.[73]

Second, EPA Administrator Wheeler is repeatedly misrepresenting the climate impacts of the Proposed Rule. In several recent instances, Administrator Wheeler has incorrectly claimed that the SAFE rulemaking does not meaningfully affect GHG emissions. Testifying before a U.S. Senate committee, he stated that the final version of the Proposed Rule "will reduce CO2 emissions on par with what the Obama administration['s]" Clean Car Standards would achieve, and in testimony before a U.S. House committee, Administrator Wheeler stated that "the CO2 reductions [with the SAFE Rule] are pretty similar to what the Obama Administration would have . . . gotten under their proposal."[74]

The Administrator's wholly inaccurate statements regarding the climate impacts of his agency's rulemaking only underscore that EPA's consideration of the Proposal's climate impacts is irrational, arbitrary, and capricious, as our earlier comments further underscore.[75] The Administration's own Proposal acknowledged that carbon pollution from cars and pickup trucks will rise by billions of tons under its recommended alternative.[76] Moreover, analysis conducted by EDF using NHTSA's own Volpe model concluded that even the significant impacts estimated by the administration were a dramatic underestimate of the Proposal's climate pollution

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[71] On April 26, 2017, DOT Secretary Elaine Chao and Jeffrey Rosen met with General Motors CEO Mary Barra about the CAFE standards. *See* Attachment 2 (containing calendar records of Secretary Chao and Deputy Secretary Rosen obtained through FOIA). On February 13, 2018, Deputy Secretary Rosen, NHTSA Deputy Administrator Heidi King, NHTSA counsel Jonathan Morrison, and other agency staff met with David Schwietert, Executive Vice President of the Auto Alliance, regarding "CAFE/Mid Term Review matters." *Id.* On March 13, 2018, Secretary Chao, Deputy Secretary Rosen, and NHTSA Deputy Administrator King met with General Motors CEO Mary Barra to discuss the timing of the Mid-Term Evaluation of the Clean Car Standards. *Id.*

[72] *See* Complaint for Declaratory and Injunctive Relief, *Envtl. Defense Fund v. Dep't of Transportation*, No. 1:18-cv-03004-TNM (D.D.C., filed Dec. 19, 2018), http://blogs.edf.org/climate411/files/2018/12/EDF_Complaint_DOT_FOIA_12_19_18.pdf.

[73] *Sierra Club v. Costle*, 657 F.2d 298, 402 (D.C. Cir. 1981) ("[U]nless oral communications of central relevance to the rulemaking are also docketed in some fashion or other, information central to the justification of the rule could be obtained without ever appearing on the docket, simply by communicating it by voice rather than by pen, thereby frustrating the command of section 307 that the final rule not be 'based (in part or whole) on any information or data which has not been placed in the docket . . . .'" (quoting 42 U.S.C. § 7607(d)(6)(C)).

[74] Testimony of EPA Administrator Wheeler, U.S. House Energy & Commerce Committee, Hearing on "The Fiscal Year 2020 EPA Budget" (Apr. 9, 2019), https://energycommerce.house.gov/committee-activity/hearings/hearing-on-the-fiscal-year-2020-epa-budget; Testimony of Administrator Wheeler, U.S. Senate Appropriations Committee, Hearing (Apr. 3, 2019) (stating that "our CAFE Standard, which we also plan to finalize later this spring or early summer, will reduce CO2 emissions on par with what the Obama administration" would achieve).

[75] *See* Comments of the Center For Biological Diversity, Conservation Law Foundation, Earthjustice, Environmental Defense Fund, Environmental Law and Policy Center, Natural Resources Defense Council, Public Citizen, Inc., Sierra Club, Union of Concerned Scientists on The Proposed Safer Affordable Fuel-Efficient (Safe) Vehicles Rule For Model Years 2021-2026 Passenger Cars And Light Trucks, Docket Nos. NHTSA-2018-0067, EPA-HQ-OAR-2018-0283 (Oct. 26, 2018).

[76] *See* NHTSA, Draft Environmental Impact Statement for the SAFE Vehicles Rule for MY 2021-2026 Passenger Cars and Light Trucks at Appendix D, Tables D-9, D-10 (July 2018).

impacts.[77] Unless the agencies finalize a rule that is drastically different than the Proposed SAFE Rule—which would render the rulemaking procedurally deficient[78]—Administrator Wheeler's statements grossly misrepresent the climate impacts of the Trump Administration's rollback effort.

[77] *See* Comments of Environmental Defense Fund on NHTSA's Draft Environmental Impact Statement for the Proposed SAFE Rule for Model Year 2021-2026 Passenger Cars and Light Trucks, Part II(A)(1) (Oct. 26, 2018), https://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0283-5764.

[78] *See Horsehead Res. Dev. Co. v. Browner*, 16 F.3d 1246, 1268 (D.C. Cir. 1994) (stating that an agency's description of a proposed rule "must provide sufficient detail and rationale for the rule to permit interested parties to participate meaningfully" in the notice and comment process); 5 U.S.C. § 553(b)(3).

ATTACHMENT 2

The enclosed records are excerpts from the calendars of DOT Secretary Elaine Chao and Deputy Secretary Jeffrey Rosen, containing records of the following meetings, as discussed in Attachment 1 at 13 n.71:

- **April 26, 2017**: DOT Secretary Chao and Jeffrey Rosen met with General Motors CEO Mary Barra about the CAFE standards.
- **February 13, 2018**: Deputy Secretary Rosen, NHTSA Deputy Administrator Heidi King, NHTSA counsel Jonathan Morrison, and other agency staff met with David Schwietert, Executive Vice President of the Auto Alliance, regarding "CAFE/Mid Term Review matters."
- **March 13, 2018**: Secretary Chao, Deputy Secretary Rosen, and NHTSA Deputy Administrator King met with General Motors CEO Mary Barra and VP for Public Policy Dan Turton to discuss the timing of the Mid-Term Evaluation of the Clean Car Standards.

These records were obtained through a Freedom of Information Act request submitted by Environmental Defense Fund.[1] For ease of review, yellow highlighting has been added to these records to indicate the meetings described above.

[1] *See* EDF, Press Release: EDF Sues Department of Transportation for Failure to Release Public Records (Dec. 19, 2018), https://www.edf.org/media/edf-sues-department-transportation-failure-release-public-records (providing links to the original FOIA requests and legal complaint).

Kania, Adriana (OST)

Subject: SecretaryScheduler (OST) Calendar

SecretaryScheduler (OST) Calendar
SecretaryScheduler@dot.gov
Saturday, April 1, 2017 – Sunday, April 30, 2017
Time zone: (UTC-05:00) Eastern Time (US & Canada)
(Adjusted for Daylight Saving Time)

April 2017

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Busy | Tentative | Free
Out of Office | Working Elsewhere | Outside of Working Hours

April 2017

Sat, Apr 1

All Day	50th Anniversary of DOT
Before 8:00 AM	**Free**
8:00 AM – 8:30 AM	Private Appointment
8:30 AM – 9:00 AM	**Free**
9:00 AM – 9:25 AM	Residence/ Private Appointment SecretaryScheduler (OST)
9:25 AM – 9:30 AM	**Free**
9:30 AM – 10:30 AM	Private Appointment
10:30 AM – 10:45 AM	Private Appointment
10:45 AM – 12:00 PM	**Free**
12:00 PM – 12:05 PM	Private Appointment
12:05 PM – 12:20 PM	**Free**
12:20 PM – 1:40 PM	Private Appointment
1:40 PM – 1:45 PM	**Free**

Attachment 2, p2

☐	**After 8:30 PM**	**Free**

Wed, Apr 26

☐	All Day	Administrative Professionals Day United States
☐	All Day	(b) (6)
☐	**Before 8:00 AM**	**Free**
■	8:00 AM – 8:15 AM	Residence/DOT
☐	**8:15 AM – 8:30 AM**	**Free**
■	8:30 AM – 9:00 AM	Sr Staff Meeting Secretary's Office SecretaryScheduler (OST)
■	9:00 AM – 9:30 AM	Scheduling Meeting Secretary's Office SecretaryScheduler (OST)
■	9:30 AM – 10:00 AM	Private Appointment
☐	**10:00 AM – 10:35 AM**	**Free**
■	10:35 AM – 10:45 AM	Drop by: Todd meeting with Judge Dan Mosley, Chief Executive of Harlan County S-2 Conference Room
■	10:45 AM – 11:30 AM	Meeting with Mary Barra, CEO GM Secretary's Office SecretaryScheduler (OST)
■	11:20 AM – 11:30 AM	DOT/National Gallery of Art
■	11:30 AM – 1:30 PM	Senate Spouses First Lady's Lunch National Gallery of Art, East Building SecretaryScheduler (OST)
■	1:30 PM – 1:45 PM	National Gallery of Art/Residence
☐	**1:45 PM – 2:35 PM**	**Free**
■	2:35 PM – 2:55 PM	Residence/WH
☐	**2:55 PM – 3:00 PM**	**Free**
■	3:00 PM – 3:45 PM	WH Local Media Day/100 Days Media **WH Indian Treaty Room** **SecretaryScheduler (OST)**
☐	**3:45 PM – 4:00 PM**	**Free**
■	**4:00 PM – 4:15 PM**	**WH/DOT**
☐	**4:15 PM – 4:30 PM**	**Free**
■	**4:30 PM – 5:15 PM**	**Meeting with James Lentz, CEO Toyota Motor North America** **Secretary's Office** **SecretaryScheduler (OST)**
■	**5:15 PM – 5:45 PM**	**Meeting with Gwinnett Chamber of Commerce** **Lincoln Conference Room** **SecretaryScheduler (OST)**
☐	**5:45 PM – 6:00 PM**	**Free**
■	**6:00 PM – 6:30 PM**	**Wrap Up** **Secretary's Office** **SecretaryScheduler (OST)**

Attachment 2, p3

	Henry, DeLynn (OST) <delynn.henry@dot.gov>	Required
	Inman, Todd (OST) <todd.inman@dot.gov>	Required
	Burr, Geoff (OST) <geoff.burr@dot.gov>	Required
	Furman, Jon (OST) (jon.furman@dot.gov) <jon.furman@dot.gov>	Required
	Genero, Laura (OST) (Laura.Genero@dot.gov) <Laura.Genero@dot.gov>	Required

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Time 10:35 AM – 10:45 AM
Subject Drop by: Todd meeting with Judge Dan Mosley, Chief Executive of Harlan County
Location S-2 Conference Room
Show Time As Busy

Time 10:45 AM – 11:30 AM
Subject Meeting with Mary Barra, CEO GM
Location Secretary's Office
Show Time As Busy
Staff: G Burr/
Attendees:
Contact: Tori Barnes (b) (6)

CAFÉ, AV, Safety

Attendees	**Name <E-mail>**	**Attendance**
	SecretaryScheduler (OST) <SecretaryScheduler@dot.gov>	Organizer
	Burr, Geoff (OST) <geoff.burr@dot.gov>	Required
	Rosen, Jeff (OST) <jeff.rosen@dot.gov>	Required
	Deputy Scheduler <DeputyScheduler@dot.gov>	Required

Time 11:20 AM – 11:30 AM
Subject DOT/National Gallery of Art
Show Time As Busy

Time 11:30 AM – 1:30 PM
Subject Senate Spouses First Lady's Lunch
Location National Gallery of Art, East Building
Show Time As Busy
Categories Important

Attendees	**Name <E-mail>**	**Attendance**
	SecretaryScheduler (OST) <SecretaryScheduler@dot.gov>	Organizer

Baker, Carrie L (OST)

Subject: Deputy Scheduler Calendar

Deputy Scheduler Calendar
DeputyScheduler@dot.gov
Thursday, February 01, 2018 – Wednesday, February 28, 2018
Time zone: (UTC-05:00) Eastern Time (US & Canada)
(Adjusted for Daylight Saving Time)

February 2018

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

Busy Tentative Free
Out of Office Working Elsewhere Outside of Working Hours

February 2018

Thu, Feb 1

Before 8:00 AM	**Free**
8:00 AM – 8:30 AM	**Free**
8:30 AM – 9:00 AM	Senior Staff Meeting Secretary's Conference Room Deputy Scheduler
9:00 AM – 9:30 AM	Weekly (Non-Career) Staff Meeting ConfRm-HQ-Lincoln Room (OST) Burr, Geoff (OST)
9:30 AM – 10:15 AM	Pre-Brief for Principals Committee Meeting (9 Feb) 5th Floor SCIF Deputy Scheduler
10:15 AM – 11:00 AM	**Free**
11:00 AM – 12:00 PM	Desk Time
12:00 PM – 1:30 PM	Lunch
1:30 PM – 2:15 PM	FW: St. Croix Discussion AOA Conference Room - (b) (6)

■	5:00 PM – 6:00 PM	Budget Rollout Lincoln Room SecretaryScheduler (OST)
■	6:00 PM – 6:30 PM	Wrap Up Secretary's Conference Room SecretaryScheduler (OST)
☐	**After 6:30 PM**	**Free**

Tue, Feb 13

☐	**Before 8:00 AM**	**Free**
☐	**8:00 AM – 8:30 AM**	**Free**
■	8:30 AM – 9:00 AM	Senior Staff Meeting Secretary's Conference Room Deputy Scheduler
■	8:40 AM – 9:00 AM	DOT/FAA (800 Independence Ave SW) Deputy Scheduler
■	9:00 AM – 12:10 PM	MAC Meeting AOA Conference Room Elwell, Daniel <AWA>
■	12:10 PM – 12:30 PM	FAA/EEOB 210 (Diplomatic Reception Room) Deputy Scheduler
■	12:30 PM – 1:30 PM	CAFE-GHG Discussion EEOB 210 - Diplomatic Reception Room Chalkey, Richard J. EOP/WHO
■	1:30 PM – 2:00 PM	EEOB/DOT Deputy Scheduler
☐	**2:00 PM – 2:30 PM**	**Free**
■	2:30 PM – 3:00 PM	Meeting w/David Schwietert (Auto Alliance Group) Deputy Secretary's Conference Room (1200 New Jersey Ave SE) Deputy Scheduler
☐	**3:00 PM – 3:30 PM**	**Free**
■	3:30 PM – 4:00 PM	Meeting with Lance Fritz - Chairman, Union Pacific Secretary's Conference Room SecretaryScheduler (OST)
■	4:00 PM – 4:30 PM	PREP: IATA Aviation Day w/Deputy Secretary Rosen & Jeff Shane Deputy Secretary's Office (1200 New Jersey Ave SE) Deputy Scheduler
■	4:30 PM – 5:00 PM	DOT/Capitol Building (Rm S218) Deputy Scheduler
■	5:00 PM – 5:40 PM	Senate Appropriations meeting Capitol Building S128 Deputy Scheduler
■	5:40 PM – 6:00 PM	Capitol/DOT Deputy Scheduler

Shareak, Noaa (OST) (noaa.shareak@dot.gov) <noaa.shareak@dot.gov>	Required
Motor Pool (b) (6)	Required

Time 2:30 PM – 3:00 PM
Subject Meeting w/David Schwietert (Auto Alliance Group)
Location Deputy Secretary's Conference Room (1200 New Jersey Ave SE)
Show Time As Busy

From: Rosen, Jeff (OST)
Sent: Wednesday, February 07, 2018 12:16 PM
To: David Schwietert (b) (6) >
Cc: Deputy Scheduler <DeputyScheduler@dot.gov <mailto:DeputyScheduler@dot.gov> >
Subject: RE: Meeting request - per Dep Secretary Rosen

Yes, let's get together. Sooner is better, so can we try for next week? I've copied Carrie, so let's try to find a convenient time. Thanks.

Jeff

From: David Schwietert
(b) (6)
Sent: Wednesday, February 07, 2018 11:55 AM
To: Rosen, Jeff (OST) <jeff.rosen@dot.gov <mailto:jeff.rosen@dot.gov> >
Subject: FW: Meeting request - per Dep Secretary Rosen

Deputy Secretary Rosen,

I know things haven't slowed down for you so far this year but I wanted to reconnect understanding that you floated a willingness/desire to sit down with myself and a few others from the Alliance late last year to discuss in more detail various CAFE/Mid Term Review matters.

I understand that the DOT process, as well as coordination with EPA and the White House is moving forward but I wanted to check in with you to see if we could find time in the near future to connect.

Mitch Bainwol and I were both able to connect with the Secretary when she was at the Detroit auto show and some of our members who were able to send CEOs/Executives appreciated her time and the discussion on AV and fuel economy issues.

I just figured with the earlier announcement by Heidi

King of an NRPM coming out at the end of March (which I understand isn't necessarily the case), we felt it could be mutually beneficial to connect as NHTSA continues its modeling work that will inform the EPA process in hopes of a coordinated action later this year.

Please let me know what you think is possible and we can certainly work to accommodate what your schedule allows

Thanks,

Dave

Attendees	Name <E-mail>	Attendance
	Deputy Scheduler <DeputyScheduler@dot.gov>	Organizer
	Kopko, Matthew (OST) (matthew.kopko@dot.gov) <matthew.kopko@dot.gov>	Required
	David Schwietert (b) (6)	Required
	Morrison, Jonathan (NHTSA) <Jonathan.Morrison@dot.gov>	Required
	Owens, James (OST) <James.Owens@dot.gov>	Required
	Bradbury, Steven (OST) <Steven.Bradbury@dot.gov>	Required
	King, Heidi (NHTSA) <heidi.king@dot.gov>	Required

Time 3:30 PM – 4:00 PM
Subject Meeting with Lance Fritz - Chairman, Union Pacific
Location Secretary's Conference Room
Show Time As Busy

Staff: S2
Attendees: Lance Fritz - Chairman, President, and CEO , Union Pacific Railroad
Cameron Scott - Executuve Vice President and Chief Operating Officer, Union Pacific Railroad Mike Rock - Vice President, External Relations, Union Pacific Railroad

Contact: Mike Rock
marock@up.com<mailto:marock@up.com>
(b) (6) – Mike Cell

Two main topics for the meeting. One is to give the Secretary an update on the company and the economy,

Edwards, Sara (OST)

Subject: SecretaryScheduler (OST) Calendar

SecretaryScheduler (OST) Calendar
SecretaryScheduler@dot.gov
Thursday, March 01, 2018 – Saturday, March 31, 2018
Time zone: (UTC-05:00) Eastern Time (US & Canada)
(Adjusted for Daylight Saving Time)

March 2018

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Busy | Tentative | Free
Out of Office | Working Elsewhere | Outside of Working Hours

March 2018

Thu, Mar 1

All Day	2018 State of the Coast Guard Address National Press Club
Before 8:00 AM	**Free**
8:00 AM – 8:30 AM	Private Appointment
8:30 AM – 9:00 AM	Private Appointment
9:00 AM – 9:30 AM	**Free**
9:30 AM – 10:00 AM	Residence/Senate
10:00 AM – 12:00 PM	Senate EPW Hearing - Infrastructure Principles Hearing Dirksen Room 406 SecretaryScheduler (OST)
12:00 PM – 12:30 PM	Senate/DoT
12:30 PM – 1:00 PM	**Free**
1:00 PM – 1:30 PM	AV 3.0 Summit at DoT DoT West Atrium SecretaryScheduler (OST)
1:30 PM – 2:00 PM	DoT/DoL
1:50 PM – 3:00 PM	DoL Induction Ceremony of President Ronald Reagan DOL Hall of Honor: 200 Constitution Ave NW,

Secretary's Office
SecretaryScheduler (OST)

■	2:15 PM – 3:30 PM	Hearing Prep: Senate Commerce/House THUD (Infrastructure/1yr on Job/Budget) Secretary's Conference Room SecretaryScheduler (OST)
■	3:30 PM – 4:00 PM	Interview with (b) (6) - FAA Administrator Candidate Secretary's Office SecretaryScheduler (OST)
☐	**4:00 PM – 4:15 PM**	**Free**
■	4:15 PM – 4:30 PM	Call with Senator Deb Fischer Dial: (b) (6) - Senator Personal Cell SecretaryScheduler (OST)
■	4:30 PM – 5:00 PM	Int'l Trip Planning Meeting Secretary's Office SecretaryScheduler (OST)
■	5:00 PM – 6:00 PM	Personnel Meeting Secretary's Conference Room SecretaryScheduler (OST)
■	6:00 PM – 6:30 PM	Wrap Up Secretary's Conference Room SecretaryScheduler (OST)
☐	**6:30 PM – 7:30 PM**	**Free**
■	7:30 PM – 8:30 PM	Private Appointment
☐	**After 8:30 PM**	**Free**

Tue, Mar 13

☐	All Day	FYI: 14th Yale Washington CEO Caucus 101 Constitution Ave NW
☐	All Day	(b) (6)
☐	**Before 8:00 AM**	**Free**
☐	**8:00 AM – 8:30 AM**	**Free**
■	8:30 AM – 9:00 AM	Private Appointment
☐	**9:00 AM – 9:30 AM**	**Free**
■	9:30 AM – 10:00 AM	Weekly Modal Administrator's Meeting Lincoln Conference Room SecretaryScheduler (OST)
■	10:00 AM – 10:45 AM	Meeting with Tony Tan, GIC Board Member and Former President of Singapore Secretary's Office SecretaryScheduler (OST)
☐	**10:45 AM – 11:30 AM**	**Free**
■	11:30 AM – 12:00 PM	Women's History Month Event Keynote DOT West Atrium SecretaryScheduler (OST)
☐	**12:00 PM – 1:00 PM**	**Free**
■	1:00 PM – 2:00 PM	Lunch with Borge Brende and WEF Attendees WH Ward Room SecretaryScheduler (OST)

☐	**2:00 PM – 3:00 PM**	**Free**
■	3:00 PM – 3:30 PM	Meeting with Mary Barra - GM CEO Secretary's Conference Room SecretaryScheduler (OST)
☐	**3:30 PM – 3:45 PM**	**Free**
■	3:45 PM – 4:45 PM	Hearing Prep: Senate Commerce Hearing - 1yr on the Job/Infrastructure Secretary's Conference Room SecretaryScheduler (OST)
■	4:45 PM – 5:00 PM	Call with Governor Bill Walker - Alaska Dial: (b) (6) - Scheduler Janice Direct Line SecretaryScheduler (OST)
☐	**5:00 PM – 6:00 PM**	**Free**
■	6:00 PM – 6:30 PM	Wrap Up Secretary's Conference Room SecretaryScheduler (OST)
☐	**6:30 PM – 7:00 PM**	**Free**
■	7:00 PM – 8:00 PM	Private Appointment
☐	**8:00 PM – 9:00 PM**	**Free**
■	9:00 PM – 9:30 PM	Hearing Prep Call Dial: (b) (6) SecretaryScheduler (OST)
☐	**After 9:30 PM**	**Free**

Wed, Mar 14

☐	**Before 8:00 AM**	**Free**
☐	**8:00 AM – 8:15 AM**	**Free**
■	8:15 AM – 8:45 AM	Private Appointment
☐	**8:45 AM – 9:00 AM**	**Free**
■	9:00 AM – 9:30 AM	Private Appointment
☐	**9:30 AM – 10:00 AM**	**Free**
■	10:00 AM – 1:00 PM	Senate Commerce Hearing - Infrastructure Principles/1 Yr on the Job Dirksen 106 SecretaryScheduler (OST)
☐	**1:00 PM – 2:30 PM**	**Free**
■	2:30 PM – 3:00 PM	Follow Up Discussion Secretary's Conference Room SecretaryScheduler (OST)
☐	**3:00 PM – 3:15 PM**	**Free**
■	3:15 PM – 3:45 PM	DCA Slot Exemptions Briefing Secretary's Confereence Room SecretaryScheduler (OST)
■	3:40 PM – 3:45 PM	Senator Dean Heller
☐	**3:45 PM – 4:00 PM**	**Free**
■	4:00 PM – 4:30 PM	Summary of INFRA Grants Briefing Secretary's Conference Room SecretaryScheduler (OST)

Recipient of awards and honours, including: Commander, Royal Norwegian Order of St Olav (2005); Cavaliere Di Gran Croce, Italy (2005); "Gift to the Earth", WWF (2004).

Attendees	Name <E-mail>	Attendance
	SecretaryScheduler (OST) <SecretaryScheduler@dot.gov>	Organizer
	Burr, Geoff (OST) (geoff.burr@dot.gov) <geoff.burr@dot.gov>	Required

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Time 3:00 PM – 3:30 PM
Subject Meeting with Mary Barra - GM CEO
Location Secretary's Conference Room
Show Time As Busy

Attendees: Mary Barra – GM, CEO
Dan Turton – GM NA VP, Public Policy
Contact: Chantelle Tolliver
(b) (6)
(b) (6) – Office
(b) (6) – Cell

Attendees	Name <E-mail>	Attendance
	SecretaryScheduler (OST) <SecretaryScheduler@dot.gov>	Organizer
	Deputy Scheduler <DeputyScheduler@dot.gov>	Required
	King, Heidi (NHTSA) <heidi.king@dot.gov>	Required

Time 3:45 PM – 4:45 PM
Subject Hearing Prep: Senate Commerce Hearing - 1yr on the Job/Infrastructure
Location Secretary's Conference Room
Show Time As Busy
Categories Important

Attendees	Name <E-mail>	Attendance
	SecretaryScheduler (OST) <SecretaryScheduler@dot.gov>	Organizer
	Burr, Geoff (OST) (geoff.burr@dot.gov) <geoff.burr@dot.gov>	Required
	Burthey, Grover (OST) <grover.burthey@dot.gov>	Required
	Deputy Scheduler <DeputyScheduler@dot.gov>	Required
	Genero, Laura (OST) <Laura.Genero@dot.gov>	Required
	Kan, Derek (OST) <derek.kan@dot.gov>	Required
	McInerney, Marianne (OST) <marianne.mcinerney@dot.gov>	Required