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September 27, 2021

The Honorable Michael S. Regan  
Administrator  
Environmental Protection Agency  
Office of the Administrator 1101A  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20004

The Honorable Steven Cliff  
Acting Administrator  
National Highway Traffic Safety Administration  
United States Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, DC 20590

**Re: Comments of Nissan North America, Inc. to “Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards,” (Docket ID No. EPA-HQ-OAR-2021-0208 and FRL 8469-02-OAR, RIN 2060-AV13) and “Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks,” (Docket ID No. NHTSA-2021-0053; RIN 2127-AM34)**

Dear Administrator Regan and Acting Administrator Cliff:

Nissan North America, Inc., on behalf of itself and its parent company, Nissan Motor Co., Ltd. (collectively “Nissan”), submits these comments on the proposed rules titled “Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards” (“Proposed GHG Rule”) and “Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks” (“Proposed CAFE Rule”).<sup>1</sup>

Nissan strongly supports the long-term electrification, fuel efficiency, and carbon neutrality goals of the U.S. Environmental Protection Agency (“EPA”) and the National Highway Traffic Safety Administration (“NHTSA”). Policy actions by federal, state, and local governments to invest in and accelerate electric vehicle (“EV”) market expansion are vital to realizing these

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<sup>1</sup> These comments solely represent the views of Nissan.

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shared goals. Nissan encourages EPA and NHTSA to maintain support for expanded market measures such as purchase incentives and infrastructure development, which encourage adoption of zero-emission vehicles (“ZEVs”). Nissan further encourages EPA and NHTSA to continue to offer and expand incentives for the development, manufacture, and sale of EVs, including credit multipliers, A/C and off-cycle credits, as well as to expand CAFE credit trading and extend GHG credit life. Nissan also encourages the agencies to maintain and expand the compliance flexibilities built into the existing GHG and CAFE programs in order to allow the automotive industry to continue investing heavily in meeting and exceeding these goals.

Moreover, Nissan encourages EPA and NHTSA to continue their efforts to coordinate the federal GHG emission and CAFE standards with the GHG and ZEV standards set by the California Air Resources Board (“CARB”), to develop a harmonized national program for automotive certification. In particular, Nissan believes it is important for EPA to work with CARB to clarify the relationship between the federal GHG standards, the California GHG standards, and the Framework Agreements between CARB and several automakers. Close coordination between these three regulatory entities would ensure that manufacturers can focus on developing the cleanest, most fuel efficient, and most affordable vehicles rather than on compliance with uncertain and unnecessarily fragmented regulatory programs.

## **I. Background**

Nissan is a global automobile manufacturer offering a full line of light-duty vehicles in the U.S. (including full-size pickup trucks and SUVs) and throughout the world, with U.S. sales of nearly 900,000 vehicles in calendar year 2020. Nissan currently has four manufacturing facilities in the U.S. (Smyrna, TN vehicle assembly plant; Decherd, TN Infiniti powertrain plant; Decherd, TN Nissan powertrain plant; and Canton, MS vehicle assembly plant). These four manufacturing facilities have a total annual production capacity of over one million vehicles and produce the engines for nearly all of the Nissan and Infiniti vehicles produced in the U.S. Nissan also has other facilities in the U.S., including Nissan North America’s Corporate Headquarters in Franklin, Tennessee, and research centers, regional sales offices, training centers, and financial service offices throughout the U.S. Nissan directly employs more than 19,000 U.S. employees (including 14,000 manufacturing jobs) and creates tens of thousands of additional jobs at U.S. Nissan/Infiniti dealerships.

## II. Support for the Administration’s Electrification and Carbon Neutrality Goals

As an industry leader and early developer of advanced technologies, including EVs, Nissan strongly supports the Biden Administration’s long-term electrification and carbon neutrality goals. Though advancements in gasoline powered/internal combustion engine (“ICE”) vehicles are an important element of improving fuel efficiency and achieving immediate GHG goals, the development and widespread adoption of EVs is essential to more substantial, long-term reductions—and even elimination—of tailpipe emissions. Nissan is a pioneer in vehicle electrification, launching the world’s first mass-market EV, the LEAF, in 2010. To date, Nissan has sold over 500,000 units of its pure EV LEAF worldwide, with over 5 billion miles driven. Since the LEAF launched through model year 2020, CO<sub>2</sub> emissions related to Nissan’s portfolio of vehicles have decreased by roughly 17 percent. Nissan also continues to work with industry coalitions and authorities to develop infrastructure and raise public awareness about the benefits of EVs.

Nissan is committed to continuing this important work. As part of its corporate sustainability efforts, Nissan is fully committed to the long-term reduction of GHGs, including through improvement of ICE technology such as Nissan ePOWER, deployment of EVs, fostering of EV charging infrastructure, and marketing of EV acceptance to support transformational change in the U.S. light-duty vehicle fleet. In January 2021, Nissan set a goal of achieving carbon neutrality across its operations and the life cycle of its products by 2050. As part of this effort, Nissan announced that every all-new Nissan vehicle offered in Japan, China, Europe, and the U.S. will be electrified by the early 2030s. Further, in August 2021, Nissan set an ambitious target that 40 percent of its U.S. vehicle sales by 2030 will be fully electric, with even more to be electrified. To build on the success of LEAF, Nissan will offer the all-electric ARIYA crossover in 2022 and will release additional new EV models and new e-POWER series hybrids in the coming years. Nissan’s innovative e-POWER system offers full electric motor drive, which will enable significant further internal combustion engine efficiency improvements and overall lower GHG emissions.

Nissan also plans to pursue further innovations and move the industry forward in the following strategic areas:

- Battery innovations, including solid-state and related technologies, to develop cost-competitive and more efficient EVs;
- Development of a battery ecosystem to support decentralized, onsite power generation for buildings with renewable energy sources, and increased collaboration with the energy sector to support the decarbonization of power grids; and

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- Manufacturing process innovations to support energy efficiency, material efficiency, and higher productivity in vehicle assembly.

Nissan is committed to helping create a carbon neutral society and accelerate the global effort against climate change. Nissan appreciates the Administration's focus on and support for advancing electrification and carbon neutrality. Nissan believes that the ambitious emission and fuel economy standards embodied in the proposed rules are important steps in driving the automotive industry towards these goals. The complimentary EV market measures discussed in the next section are an essential element of those steps and reaching the long-term goals.

### **III. Importance of EV Complementary Market Measures**

Thanks to the leadership and early investment of Nissan and others, the EV market has steadily grown over the last 10 years, albeit slower than many expected. Transitioning from long-existing and established technology takes time and significant financial investment. This responsibility must be shared among the industry, its customers, and governmental entities. Widespread adoption of EVs requires not only that the automotive industry broadly embrace investment in this technology, but also that consumers show willingness to adopt the new technology. Nissan and other industry leaders have invested billions of dollars in an effort to stimulate growth, not only investing in technology and product development but also in infrastructure and consumer outreach/education. Nissan strongly supports federal, state, and local investment in market measures to complement the efforts already in place by industry leaders such as Nissan to further encourage this shift towards EVs.

For example, Nissan believes investment in EV infrastructure and consumer incentives is essential to encouraging the growth of the EV market. In the last several years, Nissan has invested significantly in EV infrastructure and provided consumer benefits such as free public charging and credits towards charging as part of the Nissan Energy Perks program in partnership with EVgo.<sup>2</sup> While the federal and state governments have provided some consumer incentives for purchasing and leasing EVs, these incentives are not always stable and their future availability is unpredictable. Maintaining and expanding market-based governmental efforts such as tax credits and other purchase incentives, developing infrastructure, and allowing use of HOV lanes are essential to expanding the EV market share. Nissan encourages the Administration to complement the industry's efforts by continuing to offer these and other consumer incentives, and to invest in consumer education regarding the environmental and financial benefits of transitioning to EV technology. Moreover, Nissan encourages the

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<sup>22</sup> For more information about Nissan Energy Perks by EVgo, please visit <https://www.evgo.com/nissan-energy-perks/>.

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Administration to consider investing in incentives on the industry side, including manufacturing incentives and R&D incentives for vehicle manufacturers and their suppliers who invest time and considerable financial resources in making EV technology more reliable and cost-effective.

#### **IV. Continued Support for a Unified National Approach**

Nissan strongly encourages EPA, NHTSA, and CARB to develop a unified national approach to automotive regulation. In particular, Nissan echoes the points made in the letter submitted by the Alliance for Automotive Innovation (“Alliance”) to Secretary Buttigieg and Administrator Regan on June 28, 2021, regarding harmonization of CAFE and GHG light-duty vehicle standards.

A patchwork of different federal and state GHG and CAFE programs is neither effective nor efficient. In contrast, a harmonized national program maximizes both GHG and CAFE benefits on a nationwide basis while also providing regulatory certainty and minimizing unnecessary compliance burdens for the industry. Such an approach allows automakers to develop a single, unified fleet that meets all federal and state requirements while maintaining a full range of vehicle options for consumers. More importantly, a harmonized approach allows manufacturers to focus their planning and investments on achieving fuel economy improvements and emissions reductions rather than on compliance with unnecessarily fragmented regulatory standards and programs. Under a harmonized approach, environmental benefits can be achieved at a lower cost to manufacturers and consumers. Lower costs help address social equity concerns related to EV accessibility and also encourage faster fleet turnover, replacing older vehicles with more efficient, cleaner, and safer vehicles.

As EPA and NHTSA consider potential changes to the federal GHG and CAFE programs, Nissan believes it is essential that the agencies work together to maximize compatibility and coordination of the programs. Nissan understands that, due to statutory limitations, certain programmatic elements of the GHG and CAFE programs may not be identical. Nissan encourages EPA and NHTSA to make the standards as equivalent and complementary as possible, however, by adopting appropriate regulatory adjustments where available.

Nissan also urges the Administration to work with California regulators to harmonize the federal and CARB programs to the fullest extent possible. This could be accomplished by reinstating California’s “deemed-to-comply” measures, under which vehicles that meet federal standards are “deemed-to-comply” with CARB standards. Nissan is also open to new alternative approaches for harmonizing federal and California standards, as well. Nissan encourages EPA to work proactively with CARB to clarify the relationship between federal and California standards, including between OEMs that signed on to California’s Framework Agreements and those that

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did not. In particular, harmonization amongst all three agencies (EPA, NHTSA, and CARB) will be critical if EPA restores California's Clean Air Act Waiver covering model years 2021 through 2025 California GHG standards and ZEV requirements.

For its part, EPA has self-characterized the Proposed GHG Rule as: "equivalent to the stringency of the California Framework Agreements emission reduction targets in MY 2023 and increasingly more stringent than the Framework Agreements from MY 2024 through 2026." It is critical for the industry to have a clear understanding of how EPA's Proposed GHG Rule and California's enforcement of its standards will be implemented going forward (e.g., whether a "deemed-to-comply" option will be available for compliance with California GHG requirements).

## **V. Continued Need for EV-Related Incentives**

As noted above, EV market share has not grown as rapidly as many had expected over the last 10 years. In order to encourage auto manufacturers to further invest their time and resources in EV development (and to incentivize a more rapid transition to EV fleet offerings), Nissan urges EPA to maintain the EV-related incentives available under the current GHG program.

In particular, Nissan has consistently endorsed a policy of measuring GHG emissions for all vehicles, including EVs, based on tailpipe emissions, and not including upstream emissions associated with the electricity that powers these vehicles. Nissan supports EPA in continuing to allow manufacturers to use a 0 g/mi CO<sub>2</sub> measure for all EVs without any quantity cap; however, as currently written in the regulations, this incentive would be phased out after model year 2026. Nissan encourages EPA to extend the applicability of the 0 g/mi incentive without limitation beyond model year 2026 in order to encourage manufacturer investment and widespread adoption of these alternative technologies. This is consistent with EPA's long-term goal of increasing the EV market share and with the fact that automobile manufacturers only control tailpipe emissions and have no control over the fuel source for electric power. An EV operating on electricity emits no tailpipe emissions, and automobile manufacturers should only be responsible for the emissions from the vehicles they produce. Including upstream emissions with EVs under the vehicle regulations would dis-incentivize EV production and could negatively impact automobile manufacturers' electrification efforts.

The continuation of credit multipliers also is essential to encouraging manufacturer investment in and widespread deployment of these advanced powertrain technologies. Under the current rules, the multipliers for EVs, fuel cell vehicles ("FCVs"), and plug-in hybrids ("PHEVs") are scheduled to phase out after model year 2021. Nissan supports EPA's proposal to extend the

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credit multipliers available for EVs through model year 2025. EPA's proposal is a valuable step towards incentivizing investment in these technologies; however, Nissan encourages EPA to consider extending the multipliers even further, through at least model year 2026. In its reasoning for sunsetting the multiplier incentives in model year 2025, EPA focuses exclusively on the development and availability of zero-emission technology and does not consider the full context necessary for achieving such a market shift, including availability of infrastructure and consumer demand, which have lagged behind technological advancements. EPA is also proposing an average of 2.5 g/mile per year cap on such multiplier-based credits for model years 2022 through 2025, which is more restrictive than the cap adopted under the California Framework Agreements. Extending the credit multipliers beyond model year 2025 with a cap more equivalent to that under the California Framework Agreements would incentivize manufacturers to continue investing in these technologies despite these challenges. Encouraging manufacturers to continue improving and selling zero-emission technologies will facilitate infrastructure development and consumer education that will ultimately lead to a broader market shift.

The overall adoption of EVs remains relatively low today in spite of the billions invested by the automobile industry on technology and product development and other market actions. Many market barriers to mass EV adoption, such as cost parity and lack of consumer acceptance, continue to exist. These barriers must be overcome in an expedited manner in order to reach the longer term goal of a carbon neutral future. EV-related regulatory incentives, such as production multipliers and tailpipe-only calculations, are effective tools to ease such barriers and would encourage accelerated production of EVs. Without these incentives, transforming the current EV market would become more challenging and could place the Administration's long-term carbon neutral goals in jeopardy.

Further, Nissan believes the ambitious standards proposed by EPA and NHTSA would likely require more electrification than estimated by the agencies. While the level of EV market development and implementation of critical EV market policies remains uncertain, considering more stringent standards than proposed is premature during this rulemaking time period. Nissan therefore urges the agencies to refrain from adopting more stringent standards than proposed for the period covering through model year 2026. Instead, the agencies, industry, and other stakeholders must focus their efforts on fostering the EV market in order to build a strong foundation for longer-term success in transforming the market.

## VI. Short-Term Flexibilities Necessary for Near-Term Challenges

Nissan supports the maintenance and expansion of compliance flexibilities for manufacturers under both the GHG and CAFE programs. The automotive industry development cycle is planned several years in advance, and manufacturers have already accounted for these credits in their fleet planning. Given the myriad supply chain issues and uncertainties affecting the automotive industry, and indeed the world, as a result of the COVID-19 pandemic and the semiconductor shortage, compliance flexibilities are critical for withstanding the current challenges facing the industry and for ensuring that manufacturers can continue to invest in developing EV and other clean technologies, particularly in the near term as the market for zero-emission technologies continues to become established. Some of the key flexibilities that Nissan encourages EPA and NHTSA to consider are discussed below.

**Air Conditioning (A/C) Leakage and Efficiency and Off-Cycle Credits.** Nissan supports EPA's proposal to increase the cap on menu-based credits from 10 g/mile to 15 g/mile. Nissan also supports NHTSA's proposal to maintain the A/C efficiency credit program and to increase the cap on off-cycle menu credits in a manner equivalent to the changes proposed by EPA. Additionally, Nissan supports EPA's stated position that the off-cycle credits and A/C credits do not sunset under the current program and are intended to remain a part of the program through model year 2026 and beyond. Nissan urges EPA to maintain this position and not implement any future regulatory action to sunset or phase out these credit provisions. As acknowledged by EPA in the Proposed GHG Rule, these credits are an important source of emissions reductions, which cannot be measured properly on 2-cycle testing. These credits represent concrete improvements in fuel consumption and GHG emissions that manufacturers have worked hard to achieve. Reducing or removing the credits available for such improvements would be disruptive to product planning and would discourage further innovation. EPA and NHTSA should continue to recognize these real-world achievements and should allow continued use of these credits to further incentivize increasing efficient and advanced technologies through model year 2026 and beyond.

Nissan opposes EPA and NHTSA's proposal to update the menu technology definitions, with respect to Active Engine and Transmission warm-up menu credits and passive Cabin Ventilation menu credits. The proposed change would no longer allow systems that capture heat from the coolant circulating in the engine block prior to the opening of the thermostat to qualify for the Active Engine and Active Transmission warm-up menu credits. It would also require a separate alternative application process for seeking Cabin Ventilation credits for the open dash vent system. Making such modifications to meet the new proposed definition for these credits would require sufficient time to develop and implement the relevant technology. For example, making



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changes to the coolant flow paths in the cylinder head and block would likely require casting changes, full design review activity, and durability testing. These are long lead-time activities and would also drain critical resources needed for electrification efforts. Additionally, eliminating the availability of credits for these currently accepted technologies would also impact the stringency level for manufacturers that have already included such credits in their fleet development and compliance planning. Manufacturers need sufficient lead time in their planning process; the design process for model year 2023 vehicles began years ago and was based on an understanding of the current credit technology definitions. The agencies should consider appropriate lead time requirements in implementing such definition changes, which should not take effect until at least the next rulemaking cycle (model year 2027+).

If EPA chooses to adopt the menu technology definition update as proposed or at a later time, EPA should continue to allow reduced credit value for the technologies meeting the current definitions. The proposed approach would likely increase the number of alternative methodology applications by OEMs seeking partial credits for Active Engine and Transmission warm-up technology credits and Cabin Ventilation credits. Allowing partial credits on the menu for the technologies meeting the current definitions would streamline the application process.

**GHG Credit Life.** In general, Nissan supports EPA’s proposal to extend the life of GHG credits generated between model years 2016 and 2020 under the averaging, banking, and trading (“ABT”) provisions; however, Nissan encourages EPA to go further. EPA’s current proposal offers only a one-year extension for credits generated between model years 2017 through 2020, and no extension for credits generated after model year 2020. The ABT mechanism has been a key compliance flexibility under the GHG regulations and would become more necessary under the increasingly stringent standards in the future. Extending credit life would enable automobile manufacturers to invest appropriate resources at the appropriate time without eroding overall industry GHG benefits. EPA should therefore extend the life of all model year 2015 and later GHG credits through at least model year 2026 to provide manufacturers with necessary compliance flexibility. Extending the applicable life of GHG credits attained by overachieving the standards with the early introduction and ever-growing use of ZEVs would be consistent with the Administration’s environmental policy. Early production of EVs has played an important role in laying the ground for the initial EV market. Such early action was instrumental for the long-term future of the EV market, and allowing the use of credits generated by such early environmental action is appropriate.

**CAFE Reporting Template.** To the extent NHTSA is proposing to modify the CAFE Reporting Template, Nissan suggests the agency consider steps to streamline the template and remove unnecessary/additional detail that is not directly relevant to the applicable reporting

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requirements. The data requested in the new NHTSA Reporting Template is extensive and substantially increases the resources required in the data preparation process. Some of the data, however, is not necessary for calculating CAFE compliance values or determining CAFE compliance. For example, much of the in-depth powertrain specification data is not essential for CAFE compliance and reporting purposes and should be excluded from the Reporting Template.

**CAFE Credit Trading and Transfer Rules.** EPA's GHG credit trading program allows for the unrestricted and unlimited transfer of GHG credits between a manufacturer's car and light truck fleet. NHTSA's CAFE program, however, effectively prohibits the banking or carrying forward of transferred CAFE credits, treating them differently than credits initially generated as part of the relevant fleet. Nissan urges NHTSA to reconsider this restriction. Once transferred, credits should be considered part of the receiving fleet, and should be able to be carried forward or backward to the same extent as the credits originally generated by that fleet. Consistent with the goal of harmonization with the GHG program, NHTSA should: (1) ease the credit transfer limit; and (2) change the definition of "transfer" under the CAFE program at 40 C.F.R. § 536.3 to be consistent with EPA's GHG credit transfer program, as originally expressed in the 2010 preamble to the proposed rulemaking for the 2017-2025 GHG/CAFE standards. Additionally, Nissan urges NHTSA to reconsider the proposal to require a CAFE Credit Reporting Template. As currently proposed, the template is time-consuming and requests highly sensitive information, including monetary and non-monetary terms of credit trading contracts. To the extent such sensitive and confidential information relating to credit trades and transactions is collected by NHTSA, Nissan urges the agency to maintain confidentiality and limit the public disclosure of such information.

**Autonomous and Connected Vehicle Credits.** Nissan strongly believes that autonomous and connected vehicles are the future of the industry, and an important tool in increasing consumer and pedestrian safety. Continued investment by both the industry and the government is critical to the development of this technology. Nissan encourages EPA to work with NHTSA to establish a federal regulatory framework to incentivize manufacturers to develop technologies that offer environmental benefits, including awarding credits to manufacturers for producing vehicles with safe and proven connected or automated technology. The Proposed GHG Rule and Proposed CAFE rule make no mention of autonomous vehicles or the potential positive impact such vehicles could have in the pursuit of vehicle emissions reductions.

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## VII. Endorsement of Comments from the Alliance for Automotive Innovation

As a member of the Alliance, Nissan fully endorses the comments on the Proposed GHG Rule and Proposed CAFE Rule submitted separately by the Alliance. In particular, Nissan highlights several points from the Alliance's comments, including:

- Support EV market development measures
- Oppose adoption of more stringent standards than proposed due to lead time concerns and EV market uncertainty
- Support compliance flexibilities
- Support coordination and harmonization between EPA and NHTSA.

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Nissan appreciates the opportunity to comment on the proposed rules. Nissan strongly supports the Administration's efforts to promote electrification and carbon neutrality, and looks forward to working with EPA and NHTSA toward a safer and cleaner world. Nissan also encourages the agencies to work closely with each other and with CARB to provide regulatory certainty and harmony among the relevant federal and state programs. Nissan believes that government incentives and support for EVs and continued compliance flexibilities under both EPA's GHG and NHTSA's CAFE programs are essential to encourage manufacturer investment and widespread consumer adoption of EV technology not only through model year 2026, but also for achieving the Administration's long-term GHG and fuel savings goals. As such, Nissan supports the continuation and expansion of existing EV incentives and compliance flexibilities to further encourage investment in these vehicles.

Respectfully Submitted,



Tracy Woodard  
Director  
Government Affairs