July 17, 2026

California Air Resources Board
1001 I Street
Sacramento, CA 95814

Submitted via CARB comment portal: https://ww2.arb.ca.gov/public-comments/comment-log-drive-forward-light-duty-vehicle-program-june-2026-workshop

RE: Hyundai's Comments to the Drive Forward Light-Duty Vehicle Program

Dear CARB Staff:

Hyundai Motor North America ("Hyundai") appreciates the opportunity to comment on the California Air Resources Board's ("CARB") Public Workshop on Drive Forward Light-Duty Vehicle Program held on June 22, 2026.

Hyundai is a top-selling car brand in the United States and offers customers a diverse portfolio of powertrains, including gasoline, plug-in hybrid, hybrid, electric, and fuel-cell vehicles. Guided by Hyundai's vision of *Progress for Humanity*, the company is committed to expanding sustainable mobility solutions that meet the evolving needs of consumers while reducing environmental impacts. Electrification is key to this future and as such, Hyundai is targeting 3.3 million electrified vehicles by 2030 globally.[1] Meanwhile, electrified powertrains will comprise 77% of North American sales by the end of this decade.

Hyundai would like to thank the CARB staff for their dedication in developing and implementing the innovative *MyFirstEV* rebate program. *MyFirstEV* is an important tool that helps narrow the gap between today's EV sales lag and the standards set forth in the Drive Forward Light-duty proposal. As we are aware, policies at the federal level have shifted EV demand downward nationally, even in California. States have, so far, not been able to adequately fill the gap. This slowdown in EV demand creates a very real struggle to attract early majority EV buyers. While *MyFirstEV* is a step in the right direction, additional enablers will be necessary to maintain momentum toward the state's electrification goals.

Standard Phase-In by MY 2038 for Criteria Emissions and GHG

Due to current market conditions and importantly future market unknowns, we recommend against accelerating full phase-in of the fleet average standards to MY 2036 for both criteria

[1] Hyundai Motor Company Unveils Bold 2030 Vision and product Roadmap at 2025 CEO Investor Day. Hyundai Releases. September 18, 2025.

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emissions and GHG standards.

Greenhouse Gas (GHG) Standard

As proposed, the GHG standards are challenging. In setting the GHG fleet average standard and footprint curves, we ask that CARB consider the proposed NHTSA vehicle classifications[2] which if approved will recategorize many light-truck vehicles as passenger cars. This change alone adds a significant increase in stringency. Coupled with the elimination of off-cycle and air conditioning credits means that the GHG standards as proposed are significantly more stringent than they appear. We strongly recommend against the elimination of off-cycle credits and air conditioning credits as significant investments have been made in these technologies and they do have a real emissions impact that should not be discounted. Additionally, we recommend early action GHG credits for ZEVs. This will help foster ZEV sales while providing time for the market to ramp up ZEV adoption rates. Lastly, we strongly recommend continuing the Averaging, Banking and Trading program as it provides automakers with flexibilities to meet market demand.

ZEV0 Bin Certification

Thank you for the revision to the plug connector requirement from SAE J1772 (CCS) to SAE J3400 (NACS). Hyundai has rolled out NACS on all our vehicles starting MY 2025 as has many other major automakers. Additionally, we appreciate CARB coordinating with CEC on all vehicle and charging high-level communication standards and kindly request that this coordination continue so that standards are streamlined as much as possible.

ZEV Program

We recommend that PHEVs and EREVs remain included in the ZEV definition. It will take time for the market to catch up with the EV adoption rates experienced prior to September 2025, and automakers should receive a benefit for the positive environmental impact that is contributed by PHEVs and EREVs. We support banking and trading and would like the option to trade with BEV-only automakers. Due to the struggle that S177 states have with meeting CA level ZEV penetration rates, we strongly request that a pooling option be included. We would also like to explore additional optional flexibilities such as those in 1962.4 including a modified version of the environmental justice provisions. We are happy to provide details in a future meeting. Additionally, we strongly recommend early action credits.

Window Sticker

The best outcome is to have one joint label with EPA that includes the additional information

[2] 90 Fed Reg. 56,438 (Dec. 5, 2025)

requested by CARB. At a minimum, we want to ensure that there is consistency with EPA's Monroney label. For example, the city, highway and combined should match to curb customer confusion. We also request that the proposed regulation includes an alternative QR code only option so customers can easily view this information on their smart phones to minimize cluttering up the vehicle windows with too many stickers.

In closing, we commend CARB staff for their efforts over the years to truly engage the community in rulemaking activities. We look forward to expanding discussion on these items in a future meeting with CARB staff. We support the comments submitted by Hyundai America Technical Center, Inc. and appreciate CARB's consideration of our comments.

Sincerely,



Gilbert Castillo
Director, Regulatory Compliance
Hyundai Motor North America

Enclosure: Hyundai America Technical Center, "Comments to the Drive Forward Light-duty Vehicle Program, Second Public Workshop (June 22, 2026)"

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Via Email: cleancars@arb.ca.gov
Via Docket: Comment Log for Drive Forward Light-duty Vehicle Program - June 2026 Workshop | California Air Resources Board

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Comments to the Drive Forward Light-duty Vehicle Program, Second Public Workshop (June 22, 2026)

Hyundai America Technical Center, Inc. (HATCI) appreciates the opportunity to provide comments in response to the California Air Resources Board's (CARB) June 22, 2026 Drive Forward Light-duty Vehicle Program workshop. HATCI is the U.S.-based research and development (R&D) company for both Hyundai Motor Company (HMC) and KIA Corporation (Kia), and together with HATCI, are collectively referred to as Hyundai Motor Group (HMG). HATCI is a member of the Alliance for Automotive Innovation (AAI) and supports the comments submitted by AAI and offers the following additional comments to address issues of particular importance to our company.

HATCI is committed to working with CARB to reduce emissions and achieve improved air quality outcomes. We believe additional engagement and technical dialogue are essential to developing durable and feasible Drive Forward regulations that also achieve meaningful environmental benefits.

Light-duty NMOG + NOx fleet average

At the June workshop, CARB proposed NMOG + NOx fleet average standards starting in MY 2031, with Zero Emission Vehicles (ZEVs) included in the fleet average calculation at 0 mg/mi. CARB explained their approach to developing the fleet average standard with the assumption that most manufacturers can achieve 20 mg/mi on Internal Combustion Engine (ICE) vehicles. Achieving SULEV20 compliance requires substantial vehicle development and validation efforts across key systems, including exhaust aftertreatment, airflow, combustion, fuel systems and durability. In addition, testing repeatability and deterioration factors must also be considered. HATCI supports continued NMOG + NOx emissions reductions. However, the proposed fleet average standard—declining from 22 mg/mi in MY 2031 to 12 mg/mi in MY 2038—presents significant technical and certification challenges. We recommend maintaining the LEV IV 30 mg/mi standard, as this provides a more balanced and achievable pathway for manufacturers.

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ZEV0 Bin

The proposed new ZEV0 bin presented at the workshop included specific certification requirements, such as minimum 200-mile 2-cycle range and requirements related to durability, warranty, labelling, charging, and data standardization. However, the proposal did not clearly address the certification status of vehicles that do not meet all ZEV0 specification, such as vehicles with an all-electric range (AER) below 200 miles- including autonomous vehicles or vehicles designed for other specialized use cases – or vehicles for which the applicable High-Level Communication (HLC) standards are not appropriate. HATCI requests CARB clarify the certification and compliance requirements applicable to vehicles that do not meet all the ZEV0 specifications, including whether such vehicles remain eligible for certification and may be legally offered for sale in California.

Credit Structure for EREVs

HATCI recommends that CARB consider treating extended-range electric vehicles (EREVs) similarly to plug-in hybrid electric vehicles (PHEVs) within any proposed credit structure. To ensure technology-neutral treatment and appropriately recognize the emissions benefits associated with electric vehicle operation, HATCI suggests CARB consider establishing equal credits based on a specified all-electric range (AER) that are consistent across PHEVs, battery electric vehicles (BEVs) and EREVs.

Particulate Matter (PM) Standard

The proposed 0.5 mg/mi PM standard beginning in MY 2031 presents significant challenges in achieving consistent and repeatable compliance during testing. HATCI aligns with the recommendation from AAI for CARB to maintain a 1 mg/mi PM standard on the FTP, and 3 mg/mi on the US06, as this mitigates the impact of test variation. If CARB proceeds with the proposed 0.5 mg/mi PM standard, HATCI strongly recommends a phased implementation rather than full applicability in MY 2031. HATCI suggests a phase-in schedule that would ideally align with the federal Tier 4 revised rulemaking to provide lead time and regulatory stability.

Brake Wear PM Emissions Standards

In the workshop, CARB presented considerations for regulating Non-Exhaust Emissions (NEE) from brake wear. CARB proposed an 11 mg/mi Non-or Weak Regenerative Braking Standard, and a 5 mg/mi Regenerative Braking Standard. Emission test procedures and test cycles would follow the United Nations Economic Commission for Europe (UNECE) Global Technical Regulations (GTR) 24. HATCI requests clarification of the definition of the referenced "Weak Regenerative Braking" classification category. HATCI is also interested in CARB's approach to differ from the UNECE GTR 24 for including the hybrid vehicle classification in the Regenerative Braking Standard. We request CARB provide data supporting why the proposed classification approach is necessary for CARB's regulatory proposal. Aligning with the UNECE GTR 24 would reduce test burden, eliminating the need for manufacturers to conduct parallel testing procedures. Harmonization would consolidate this into a single test protocol, reducing both time and cost while maintaining California's environmental objectives.

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E15 Fuel

CARB's proposal for attestation to emissions compliance when operating on E15 fuel requires sufficient lead time for manufacturers to complete necessary development, testing, and vehicle-level evaluations to validate emissions performance, cold-start capability, and overall compliance. We ask for CARB's consideration of adequate lead time to develop appropriate durability factors and request clear certification protocols for E15 as the compliance fuel.

High-Level Communications Standards

Effective MY 2031, CARB proposes mandating DIN SPEC 70121 and ISO 15118-2 implementation for battery electric vehicles (BEVs) and fast-charge plug-in hybrid vehicles (PHEVs). HATCI's current vehicle platform already supports DC charging under both standards and seeks three clarifications: (1) whether dual-standard certification is required or if manufacturers may demonstrate compliance through a single applicable standard; (2) specific data types, formats, and submission protocols for communicating standard conformance, as current guidance lacks sufficient definition; and (3) confirmation of mandatory test case scope, acknowledging that full compliance testing represents significant resource burden due to extensive data volume requirements and restrictive testing locations. Additionally, HATCI requests explicit definition of CARB's data governance protocols—including storage mechanisms, access controls, retention periods, and confidentiality protections for proprietary information—to ensure protection against competitive misuse and establish clear data security parameters post-submission.

BEV Window Sticker

HATCI continues to strongly urge CARB to coordinate with the EPA to create a single, unified label for all vehicles. The presence of multiple labels with similar but slightly different metrics could overwhelm and cause confusion for consumers. A single label that includes consistent, accurate and credible information on both fuel economy and ZEV metrics simplifies the decision-making process to better serve consumers.

GHG -Off-Cycle Credits and A/C Efficiency and Leakage Credits

CARB is proposing to remove off-cycle, A/C efficiency and leakage credits for ZEVs starting in MY 2031. HATCI recognizes CARB's consideration of streamlining credit mechanisms in the Drive Forward program. However, we request that CARB retain these credits as part of the GHG compliance framework. This program has encouraged investments in off-cycle technologies based on the regulatory certainty of these credits remaining available for compliance flexibility. HATCI also requests that A/C efficiency and leakage credits remain an option, as these will continue to be an incentive for the automotive industry to ensure anti-leakage designs in vehicles. HATCI also advocates for CARB to retain banking and credit trading provisions, as these are essential to providing manufacturers flexibility in compliance strategies.

Early Action Credit

HATCI supports CARB seeking input for consideration of early action credits as part of the Drive Forward program. We request CARB design the early action structure to recognize and credit manufacturer performance under current standards towards future Drive Forward requirements.

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Conclusion

HATCI appreciates CARB's consideration of these comments on the workshop. Continued technical engagement and collaboration will be critical as CARB develops the regulatory proposal. We look forward to ongoing discussions to provide information, address key considerations, and support the development of a feasible and durable Drive Forward program.

Sincerely,



Richard Willard
Director, Regulation & Certification
Hyundai America Technical Center, Inc.