HYUNDAI MOTOR GROUP

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July 17, 2026

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

California Air Resources Board
1001 I Street
Sacramento, CA 95814

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.