January 12, 2024

Via Email: cleancars@arb.ca.gov

Via Docket: https://ww2.arb.ca.gov/public-comments/comment-log-advanced-clean-cars-ii-amendments-november-workshop

Ms. Liane Randolph, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Hyundai's Comments to the California Air Resources Board's Advanced Clean Cars II Amendments Kick-off Workshop

Dear Chair Randolph:

Hyundai Motor America ("Hyundai") appreciates the opportunity to comment on the California Air Resources Board's ("CARB") Advanced Clean Cars II ("ACC II") Amendments Kick-off Workshop held on November 15, 2023.

Hyundai's north star of Progress for Humanity pushes us to evolve from a car company to smart mobility provider that moves goods and people more efficiently and by electrification. Accordingly, we offer a full suite of clean powertrain vehicles including hybrid electric vehicles ("HEVs"), plug-in hybrid electric vehicles ("PHEVs"), battery electric vehicles ("BEVs"), and hydrogen fuel cell electric vehicles ("FCEVs") in addition to our internal combustion engine ("ICE") vehicles. Hyundai Motor Group ("HMG") will launch its first fully dedicated electrical vehicle ("EV") and battery manufacturing facilities this year.[1] Next year, HMG and SK On will also open a joint EV Battery Cell manufacturing plant to complement our battery manufacturing capabilities.[2] These investments are part of a broader effort in achieving Hyundai's global carbon-neutrality goal by 2050.

Regarding ACC II's proposed amendments, Hyundai is all in on the clean cars transition. However, there are many pieces to the puzzle that must coalesce for Hyundai and CARB to meet these ambitious goals. Mass consumer adoption, electric grid resiliency, expanded volume and improved reliability charging and hydrogen stations, and complementary policies are necessary for ACC II's success. As a partner committed to doing our part to ensure ACC II's success, this letter provides our initial feedback to the Workshop.

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[1] *"Hyundai Motor Group to Establish First Dedicated EV Plant and Battery Manufacturing Facility in the U.S."*, Hyundai Press release, May 20, 2022.

[2] Hyundai Motor Group and SK On to Establish EV Battery Cell Production Joint Venture in US. Hyundai Motor Group, Press release, 4/25/23.

Greenhouse Gas Standards

We are most concerned about redirecting resources away from electrification and back to ICE vehicles because of its impact to slow the transition to ZEVs and/or make it more costly. Our full attention toward ZEVs over the next decade is critical to delivering ACC II's success. Moreover, the ZEV rule is itself a backstop for LEV and GHG programs. Therefore, we believe backsliding concerns are minimal if not misplaced. In summary, we support our industry association, the Association for Automotive Innovation ("AFAI") comments that call for a national GHG regulation without a state counterpart. If, however, California pursues a GHG rule, we prefer alignment with the forthcoming federal GHG rule, specifically to be consistent regarding the inclusion of ZEVs in such rule.

ZEV Assurance Measures

Interoperability

HMA understands the interoperability issues as it effects our customers every day. We are working closely with AFAI on this important topic and hope to share more information with CARB in the coming months.

New Environmental Performance label

We understand CARB's concern that customers may be confused about EV range under certain driving conditions (e.g., cold temperatures) and real-world charging times based on the charging station types (Level 1, Level 2, direct current fast charging). However, we strongly advise caution on the requirement of a new label with new information that could cause additional customer confusion when compared to the existing EPA and NHTSA labeling information. We agree with AFAI's comments on this topic.

Environmental Justice

Hyundai applauds California for its leadership and commitment to Priority Communities through its ZEV Equity programs. We believe these programs represent important policy; robust and meaningful engagement by industry is important to reach these populations and deliver program success. To further support such success, we are enclosing **Attachment 1**, a concept called the Community Energy Savings Credit, for your consideration as part of the ACC II Amendments. We submitted a similar concept to the NHTSA[3] and EPA[4] rulemaking dockets. The concept draws on ACC II's Community-based Clean Mobility Program's MSRP discount structure. However, here the discount is provided on ZEVs sold to income-qualified *individuals* – rather than community organizations. Income qualifications should be set by regulation, allowing for annual Consumer Price Index ("CPI")-related adjustments. To further qualify, an individual must show proof that they scrapped their ICE vehicle (aged at least ten model years). The selling automaker then would earn

[3] 88 Fed. Reg. 56,128 (Aug. 17, 2023)
[4] 88 Fed. Reg. 29,184 (May 5, 2023)

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additional ZEVs credits for each ZEV sold through this channel. Our proposal includes reporting as well as auditing requirements.

Relatedly, we encourage CARB to consider reducing ZEV Equity program participation barriers. Most importantly, we believe increasing the amount of ZEV credits earned, and reducing (or removing) the program credit cap, will better engage industry. Additional incremental credit values recognize the significant resources the OEM is dedicating to operationalize these programs within their organizations. Removal of the current 10% cap is appropriate because there is a natural sales threshold due to each program's requirements. Eliminating these barriers will encourage greater OEM participation and therefore greater EV penetration to Priority Communities. These programs serve as the latest example of California's trailblazing history and we believe can be the cornerstone to important and overdue policies at the federal level. Hyundai is happy to meet to further discuss these ideas.

Combined Charging System (CCS) Adapter

Since May 2023, approximately 95% of the EV market has indicated a transition to the North American Charging Standard (NACS). This includes Hyundai and Genesis vehicles. Both brands announced a commitment to switching to NACS starting MY 2025. NACS is also being standardized by the Society of Automotive Engineers (SAE) as J3400. The standardization process was launched in July 2023 and the final standard is expected in June 2024. In light of these recent activities, we strongly request that CARB amend the ACC II rules to remove the CCS adapter requirement for MY 2026.

Closing

In closing, Hyundai fully endorses the comments submitted separately by AFAI and by Hyundai America Technical Center, Inc. ("HATCI"). Please see **Attachment 2.**

We appreciate CARB taking the time to hold a workshop to discuss potential ACC II amendments and we look forward to continuing this discussion over the coming year.

Sincerely,

Gilbert Castillo
Director, Regulatory Compliance
Hyundai Motor North America

Enclosures: Attachment 1: Hyundai's "Community Energy Savings Credit" concept
Attachment 2: HATCI Comments to CARB's ACC II Amendments Workshop

ATTACHMENT 1

Overview: Community Energy Savings Credit

The following represents a general program design for NHTSA's consideration.

- Concept Design: 25% MSRP Discount to eligible Low-Income Individuals
- Eligible Consumers: Income less than or equal to 2x the Federal Poverty Level*
  - Regulation to specify required income verification documents (ex: Tax Return)
- Eligible Vehicles:
  - Scrapped vehicle: ICE vehicles, 10 model years or older
  - Purchase/Lease: New PHEVs, BEVs, FCEVs
- Reporting: Annual OEM report will include applicable vehicle sales volume and certification of income, applied MSRP discount, and evidence of vehicle scrappage (personal identifying information will not be disclosed)
  - Option to require OEMs to calculate fuel savings of the scrapped versus new vehicle
- Audit: OEM and scrappage companies subject to agency audit
- Credit Earnings: Significant OEM costs and resource investments to facilitate this optional program warrant appropriate credit values. This is necessary to encourage automakers to utilize the program to promote ZEV access and affordability for low-income populations.
  - PHEVs: 1 additional credit earned
  - BEVs and FCEVs: 2 additional credits earned

*EJScreen Definition of "Low Income"

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ATTACHMENT 2

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January 11, 2024

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Via docket: https://ww2.arb.ca.gov/public-comments/comment-log-advanced-clean-cars-ii-amendments-november-workshop

Ms. Liane Randolph, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Chair Randolph,

Hyundai America Technical Center, Inc. (HATCI) appreciates the opportunity to provide comments on the proposed amendments to the Advanced Clean Cars II (ACC II) regulations discussed during the California Air Resources Board's (CARB) November 15, 2023 workshop (Workshop). HATCI is the U.S.-based research and development (R&D) branch 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 commenting on behalf of both HMC and Kia. Additionally, HATCI supports the comments submitted by the Alliance for Automotive Innovation (AFAI) regarding the ACC II amendments.

As described during the Workshop, HMG agrees with CARB's decision to wait until the U.S. Environmental Protection Agency (EPA) Multi-Pollutant Emission Standards for Model Years 2027 and Later for Light-Duty and Medium-Duty Vehicles final rule (Multi-Pollutant Rule) is issued before deciding on proposed amendments to ACC II's Green House Gas (GHG) and Low-Emission Vehicle IV (LEV IV) criteria standards.

I. GHG standards

HMG continues to make strong investments in our electrified vehicle fleet and is committed to working toward California's climate target for carbon neutrality by 2045. HMG understands CARB's desire to establish a California GHG program and ensure continued movement towards California's climate goals.

CARB noted its concern in the Workshop that the federal GHG standards alone do not prevent backsliding and requested input on anti-backsliding mechanisms. HMG is committed to moving forward with zero emission vehicles which will soon remove all risk of GHG backsliding. HMG does not believe potential backsliding mechanisms are necessary in the ACC II regulations given HMG's strong commitments to electrification, including its goal for every HMG vehicle to be fully electrified by 2040 and some brands being fully electric by 2030.

Additionally, HMG does not support the direct adoption of EPA's GHG standards for the ACC II regulations. The stringency of the EPA standards are based on the inclusion of ZEVs. It would be very difficult to meet the same standards with ICE only emission performance.

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HMG continues to support the restoration of the deemed-to-comply option. This option would significantly reduce the reporting burden experienced by manufacturers with two separate GHG standards.

HMG agrees with CARB that leakage credits should continue to be included in the ACC II regulations. HMG believes the credits will continue to be an essential incentive for the automotive industry to ensure anti-leakage designs in vehicles. HMG is an early adopter and already fully compliant with the refrigerant rule in the American Innovation and Manufacturing Act. HMG appreciates the direct leakage credits to reward early compliance but does not support additional regulations for low leak A/C systems. In addition to fully transitioning to HFO-1234yf in model year 2021, HMG also applied a seal washer to our system to further prevent leakage. HMG made these large investments with the expectation that earned credits would offset some of these costs in the future. HMG recommends that CARB does not align with EPA on the immediate elimination of leakage credits, but instead proposes a gradual phase-down which will continue to encourage manufacturers to use low-leak systems.

HMG also supports the continuation of A/C efficiency credits and off-cycle credits for BEVs, as those credits encourage the development of GHG reducing technologies and provide real world benefits.

II. Criteria Standards/ LEV IV

HMG appreciates CARB waiting for the evaluation of the Multi-Pollutant Rule to consider changes to the criteria pollutant standards. HMG looks forward to further discussion on where alignment is appropriate after reviewing the final Multi-Pollutant Rule once issued.

For consistency and reducing test burden, HMG believes it is appropriate for CARB to align certification bins with the EPA.

HMG is opposed to aligning with EPA's proposed particulate matter (PM) standard of 0.5 mg/mi in the Multi-Pollutant Rule. HMG has expressed concern with the EPA related to measurement inaccuracy in testing at this extremely low level of PM. HMG's R&D is preparing for CARB's current PM target of 1.0 mg/mi and urges CARB to maintain the current PM standard in the ACC II regulation. CARB's current target of 1.0 mg/mi is already difficult and will require significant design changes, which include adding a gasoline particulate filter (GPF) for several models. At this time, HMG does not believe a 0.5 mg/ mi standard to be reasonable or technically feasible.

III. North American Charging Standard (NACS)

HMG, with many other automakers, are quickly moving towards the North American Charging Standard (NACS) (SAE J3400, expected to be finalized around the middle of 2024). HMG strongly urges CARB to include NACS as an option to meet compliance with ACC II's charging requirements. HMG also requests that CARB eliminate the requirement for the Combined Charging System (CCS) adapter from the ACC II regulations for model year 2026. This is a time sensitive issue, as product planning is already underway for how to source and package these adapters. A final decision in summer 2025 based on CARB's current timeline for the ACCII amendments would be too late for vehicles already certified for model year 2026.

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IV. ZEV Assurance Measures - Environmental Performance (EP) Label

HMG recognizes CARB's desire to include more detailed and valuable information for potential EV consumers on the EP label. HMG strives for consumers to have clear information when making a decision to purchase an electric vehicle but urges CARB to consider the excessive burden to the manufacturer compared to the value the information brings to the consumer. HMG urges CARB to coordinate with federal agencies and align with the EPA/DOT fuel economy label. This would avoid duplicative, conflicting, and confusing labels for consumers.

If alignment is not possible, HMG suggests that CARB create metrics that can be derived from an equation for the new label rather than submitting the data from actual testing. Another option for consideration is to modify current test procedures to generate additional data rather than adding new tests. Both options could support additional label information while avoiding increased test burden.

V. Conclusion

HMG thanks CARB for the opportunity to comment and looks forward to engagement with CARB on the proposed amendments to the ACC II regulation.

Sincerely,

R. Willard

Richard Willard

Director, Certification and Regulation

Hyundai America Technical Center, Inc.