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Mary Nichols, Chair Air Resources Board 1001 I Street Sacramento, CA 95814

Subject: ARB Board Meeting January 23, 2020: Item 20-2-6: Policy Recommendations to Increase the Use of Zero-Emissions Vehicles Per Senate Bill 498

Chair Nichols and Board Members:

Hyundai-Kia America Technical Center Inc. (HATCI) appreciates the opportunity to comment on behalf of Hyundai Motor Company and Kia Motor Corporation on the recommendations contained within the "Draft: Assessment of CARB's Zero-Emission Vehicle (ZEV) Programs Per Senate Bill 498". [1] SB 498 directs CARB to both review its current ZEV programs and also to provide recommendations to increase the use of ZEVs.

California has demonstrated a longstanding commitment to building a strong ZEV market in the state. The state has invested hundreds of millions of dollars in consumer purchase incentives, electric charging and hydrogen refueling infrastructure, state policy development and market-building mechanisms, and programs to encourage consumer awareness and ZEV adoption. These state programs assure that California continues to lead the nation in electric vehicles sales, which reached nearly $8\%^{[2]}$ in 2018, while the 50-state average was $2.1\%^{[3]}$ in the same time period. Actions outlined in the SB 498 report to boost the state ZEV market through additional dedicated investment in the programs, will further enhance California's leadership and continue to help remove barriers to the ZEV market.

California Air Resources Board. "Draft: Assessment of CARB's Zero-Emission Vehicle Programs Per Senate Bill 498." 2019. https://ww2.arb.ca.gov/sites/default/files/2019-12/SB%20498%20Report%20Draft%20121719.pdf
[2] Inside EVs. "Electric Cars Outsell Hybrids in California: Tesla Model 3 Tops in Class." 2019. https://insideevs.com/news/342956/electric-cars-outsell-hybrids-in-california-tesla-model-3-tops-in-class/
[3] Inside EVs. "US Plug-In Electric Car Sales Charted: December 2018." 2019. https://insideevs.com/news/342380/us-plug-in-electric-car-sales-charted-december-2018/

Hyundai and Kia are aggressively increasing our ZEV portfolio to meet future mobility needs, and help address the impact of transportation on air quality. The Hyundai brand has committed to increase our alternatively fueled vehicle lineup from five vehicles today to 13 by 2022, including six sedans and seven SUVs. Kia just announced a \$25 billion investment to support a portfolio of 11 EV models and a goal of 25% eco-friendly vehicles (hybrid, plug-in hybrid, battery electric, and fuel cell electric vehicles) by 2025. Hyundai is also leading the market in fuel cell electric vehicle (FCEV) development, with the second generation of our fuel cell vehicle, the Hyundai NEXO, now available in California.

HATCI supports many of the recommendations for ZEV program improvements contained in Chapter 8 of the referenced report as cited below:

1. Incentives and Pricing Strategies

HATCI supports the three recommendations in this category.

The first recommendation would "Provide predictable and expanded funding for CARB's incentive programs". Studies have shown that rebates play a significant role in motivating the purchase of electric vehicles. [4] This funding can help bridge the gap between the current total cost of ownership of gasoline vehicles and electric vehicles until the two powertrains reach cost-parity. Funding should be straight-forward and simple to understand, and should also cover all vehicles purchases for the entire year.

The second recommendation provides increased funding for priority populations to access ZEVs. Hyundai and Kia offer some of the most affordable ZEV on the market today and are well-positioned to help move older, higher-emitting vehicles off the road and contribute to improved air quality conditions in these under-served areas. Increased funding will further help in expanding the ZEV market in priority areas.

Finally, HATCI supports the reports recommendation of employing pricing strategies to promote ZEVs. The various programs ARB is considering, including sales tax exemptions, could play an important part in reducing barriers to EV adoption if thoughtfully deployed.

^[4] UC Davis. "Credits and Rebates Play a Key Role in Building Consumer Market for Cleaner Electric Vehicles." 2017. https://its.ucdavis.edu/wp-content/uploads/Credits-and-Rebates-Gil-Tal.pdf

2. Fuel Costs

HATCI supports the report recommendation to include renewable hydrogen in transportation electrification plans. FCEVs are one of several important options in a portfolio of ZEV solutions for different use-cases. Hydrogen fuel should receive funding comparable to the investment in electric charging for BEVs.

According to the Hydrogen Council's report "Path to Hydrogen Competitiveness", "the gap between the costs of hydrogen technologies and their lowest cost low-carbon alternative will require funding in order to bring hydrogen to scale and, consequently, cost parity." ^[5] This report provides outlines the best use of funding to achieve cost competitiveness of renewable hydrogen.

In addition, HATCI supports development of renewable energy production for electric-powered vehicles.

3. ZEV Refueling Infrastructure

HATCI supports the recommendation to extend ZEV infrastructure investment beyond 2023. As California continues to move towards its ambitious ZEV targets, the increase in ZEVs on the road will need to be matched, if not led by, the fueling infrastructure development for both hydrogen fueling and electric vehicle charging.

In addition, California should prioritize investment in both workplace charging subsidies and a publicly-reliable state DC supercharger network. Data from Hyundai and Kia shows our customers primarily charge their vehicles at work and at home. Acceptance of public charging will increase if there is a reliable fast-charging network available.

In addition, Hyundai supports expansion of hydrogen infrastructure for both light-duty and heavy-duty applications. Light-duty and heavy-duty FCEV are complementary and will help accelerate the adoption of FCEV vehicles in general. Light-duty FCEV volume helps lower fuel cell component cost through higher amortization, which benefits both light-duty and heavy-duty applications. Heavy-duty FCEV volume helps lower hydrogen fuel cost through increased fuel demand (significantly higher than light-duty), which also benefits both applications. We support both equally.

Hydrogen Council. "Path to Hydrogen Competitiveness - A Cost Perspective." 2020. https://hydrogencouncil.com/wp-content/uploads/2020/01/Path-to-Hydrogen-Competitiveness Full-Study-1.pdf

4. Local Policies

HATCI supports the recommendation to incentivize local governments to implement policies encouraging ZEV use. Local governments are often best equipped to understand the most effective methods of promoting EV adoption and use because of knowledge of fuel prices, consumer characteristics, availability of charging stations, travel distances, and vehicle diversity. These methods may include policies such as access to high occupancy vehicle lanes, preferential parking, and free charging.

5. Fleet Adoption

HATCI supports the recommendation of establishing zero-emission mileage requirements in mobility fleets, such as through the development of the Clean Miles Standard. We ask that the agency make every effort in this rulemaking to encourage the use of FCEVs.

6. Outreach and Education

Both Hyundai and Kia are actively involved in efforts to increase EV awareness. The report's recommendation to dedicate additional state funding for consumer education campaigns aligns with our company goals to remove barriers to EV adoption and also reduce the impact of transportation on air quality.

Additionally, HATCI supports the recommendation to increase funding for training for inspectors, planners, and builders of ZEV infrastructure. Consistent charging and hydrogen refueling experiences will continue to eliminate range anxiety and concerns about charging availability. And permit streamlining will reduce unnecessary delays in infrastructure development.

We appreciate the dedication that California continues to show in development of the ZEV market in the state. Thank you for your consideration of these comments. If you have any questions, please feel free to contact Noelle Baker, Senior Engineer, Regulatory Affairs, at nbaker@hatci.com or (734) 337-2230.

Sincerely,

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Deborah Bakker, Director Regulatory Affairs Hyundai America Technical Center, Inc.