



December 4, 2020

Clerk of the Board  
Air Resources Board  
1001 I Street  
Sacramento, CA 95814

**Subject: Hyundai Comments on CVRP - Proposed Fiscal Year 2020-21 Funding Plan**

Members of the Board:

The Hyundai Kia America Technical Center, Inc. (HATCI) appreciates the opportunity to provide feedback regarding the California Air Resources Board's (CARB) proposal for changes to the Clean Vehicle Rebate Program (CVRP) as described in the FY 2020-21 Funding Plan, [Appendix C - Updated Three-Year Plan for CVRP and the ZEV Market<sup>1</sup>](#) released Nov 6.

Based on the Funding Plan document, we understand that CARB is planning to increase the minimum label range for Plug-In Hybrid Electric Vehicles (PHEVs) from 25 miles to 30 miles. This change is one of a number of changes that CARB listed in the proposed Funding Plan, and is the only proposed change we will address in this comment.

Our comments include two proposed alternatives:

1. **Consideration of Manufacturer Suggested Retail Price (MSRP) and Adjusted Electric Range (AER) for PHEV rebates:** Maximize the impact of the CVRP budget by considering both MSRP and AER as factors.
2. **Phase-In Increase in Minimum PHEV AER:** Encourage manufacturers to continue to increase AER by providing a plan and phase-in time for increases related to CVRP eligibility.

*Impact of AER Increase on Vehicle Eligibility*

The CVRP promotes clean vehicle adoption by offering rebates of up to \$7,000 for the purchase or lease of new, eligible zero-emission vehicles, including electric, plug-in hybrid electric and fuel cell vehicles. There are currently more than 30 passenger vehicles that are eligible for the CVRP rebate including battery-electric vehicles (BEVs) such as the Hyundai Kona EV, fuel cell electric vehicles (FCEVs)

---

<sup>1</sup> CARB FY 2020-21 Funding Plan, Appendix C – Updated Three-Year Plan for CVRP and the ZEV Market



like the Hyundai Nexo, and plug-in hybrid electric vehicles (PHEVs) like the Hyundai Ioniq PHEV<sup>2</sup>. Over the last 10 years, this program has encouraged the purchase of more than 350,000 clean vehicles.<sup>3</sup>

Of the more than 30 eligible vehicles, 11 of them are PHEVs<sup>4</sup>. These versatile vehicles serve as an important bridge technology for certain customers:

- *Flexibility* – with the ability to operate using the vehicle’s battery for shorter trips and the internal combustion engine for longer trips
- *Consumer Assurance* – to customers with range anxiety, as the hydrogen fueling and battery charging infrastructure grow to meet the demand.
- *Consumer Choice* – Hyundai offers a full suite of powertrain options, including PHEVs, to meet the wide range of customer use-cases.
- *An Entry to Electrified Vehicles* – some of the most affordable electrified vehicles are PHEVs.

CARB’s proposed change to increase the minimum PHEV AER from 25 to 30 would eliminate all but four of these 11 eligible vehicles. This proposed reduction in eligible vehicles would significantly limit consumer choice, especially for lower-income consumers.

The proposed change would eliminate from the incentive program the most affordable PHEVs—in fact, all available models under \$30,000. This could result in potential electric vehicle customers choosing an internal combustion engine vehicle instead. As CARB continues to make environmental justice a priority, it is important to incentivize a variety of modestly-priced PHEVs.

#### *Proposed Alternative 1 – Consideration of MSRP AER for PHEV Rebates*

Consistent with California’s statutory goal of increasing access to zero emission and near zero emission vehicles for lower-income consumers and consumers in disadvantaged communities<sup>6</sup>, CARB should seek to maximize the impact of its budgeted investment in rebates and not merely limit the total sum of those rebates to meet budget constraints.

The efficacy of the Clean Vehicle Rebate Project (CVRP) will increase if MSRP is a factor for PHEV rebates, not merely the all-electric range of the battery. For example, a rebate of approximately \$1,000 (\$3,500 increased rebate) has much more impact on influencing consumer purchasing decisions on a vehicle with a lower MSRP than a larger one as it is a larger percentage of the total vehicle purchase price.

<sup>2</sup> CVRP Eligible Vehicles. (n.d.). Retrieved December 01, 2020, from <https://cleanvehiclerebate.org/eng/eligible-vehicles>

<sup>3</sup> Center for Sustainable Energy. (n.d.). Retrieved December 01, 2020, from <https://cleanvehiclerebate.org/eng>

<sup>4</sup> CVRP Eligible Vehicles. (n.d.). Retrieved December 01, 2020, from <https://cleanvehiclerebate.org/eng/eligible-vehicles>

<sup>6</sup> *2020 Mobile Source Strategy (Draft) [PDF]*. (11/24/2020). California Air Resources Board (CARB)



Consideration of the cost of the vehicle will also foster social justice and equity concerns by assisting consumers with lower economic means who, despite their environmental desires, would struggle to afford more expensive vehicles.

Supporting less expensive vehicles will also advance technological adoption. To gain broad market acceptance a technology must move from sales to a limited market of motivated and interested consumers who tend both to have higher incomes and less price sensitivity, to a mass market of consumers without such strong initial interest or capacity. A program that optimizes for appeal to mass-market consumers should foster greater market acceptance.

### *Proposed Alternative 2 –Phase-In Increase in Minimum PHEV AER*

We understand and support CARB’s intention to increase the electrification of transportation and increase the number of miles driven that are electrified. Hyundai has announced aggressive electrification plans with an eco-focused line-up of 13 models in 2022, which includes three PHEVs.<sup>7</sup> Hyundai is committed to playing a large role in the electric vehicle market globally, in the US, and in California. However, the EV market is still nascent. Many EV customers confirm that rebates and incentives were critical to their purchase decisions.<sup>8</sup>

CARB’s Mobile Source Strategy document includes PHEV’s as an important component to help California reach the goal of 100% ZEVs by 2035. The modelling shows that PHEV AER is expected to continue to increase, reaching 52 miles AER for passenger cars and 28 miles AER for light trucks by 2035<sup>9</sup>. In order to maintain consumer interest in PHEVs while these vehicles move towards cost parity with ICE vehicles, rebates are critical.

---

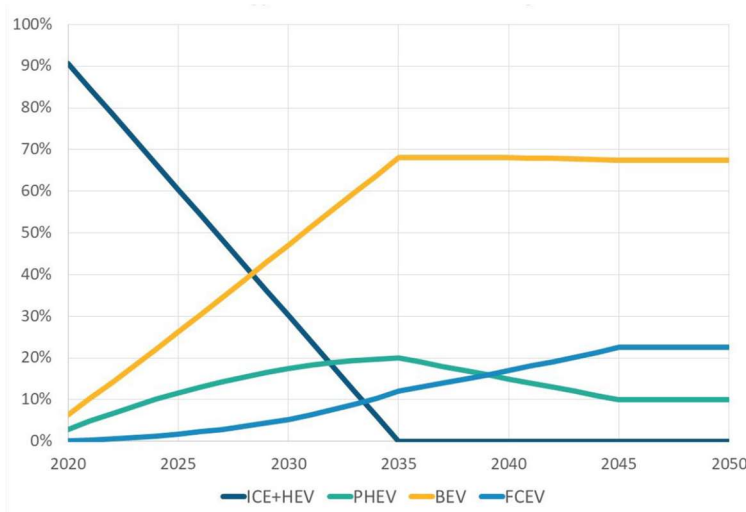
<sup>7</sup> Hyundai to Expand Electrified, Eco-focused Line-up to Ten Models in 2022. (n.d.). Retrieved December 01, 2020, from <https://www.hyundainews.com/en-us/releases/3194>

<sup>8</sup> *Fiscal Year 2020-21 Funding Plan on Clean Transportation Incentives - Appendix C: Updated Three-Year Plan for CVRP and the ZEV Market* [PDF]. (n.d.). California Air Resources Board (CARB). Ref. Figure 7

<sup>9</sup> *Workshop Discussion Draft 2020 Mobile Source Strategy* [PDF]. (09/30/2020). California Air Resources Board (CARB).



## LDV Sales Fractions by Technology Type<sup>10</sup>



Sufficient lead-time is needed for manufacturers to increase the PHEV AER. A minimum of two to three years of development time will be required to increase battery capacity, a requirement for increasing electric range.

We recommend CARB develop a long term plan to phase in any AER increase, allowing manufacturers opportunity to increase AER, if possible. This long-term plan should continue to include rebates for PHEVs as long as other electrified vehicles continue to receive incentives through the CVRP program.

We appreciate your consideration of our comments on the proposed increase in PHEV AER for CVRP eligibility. We look forward to working with CARB throughout the process to update the rebate program. If you have any questions, please contact Noelle Baker, HATCI Senior Environmental Engineer, at 734-337-2500.

Sincerely,

~ Signed ~

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

cc: Richard Corey, Executive Officer  
Steven Cliff, Deputy Executive Officer  
Lucine Negrete, Branch Chief, Innovative Strategies Branch, Mobile Source Control Division

<sup>10</sup> 2020 Mobile Source Strategy (Draft) [PDF]. (11/24/2020). California Air Resources Board (CARB)