

Mail-Out #ECARS 19-02

TO: Automobile and Engine Manufacturers

FROM: Analisa Bevan, Assistant Division Chief

DATE: March 1, 2019

SUBJECT: MANDATORY AND VOLUNTARY SURVEYS FOR FUEL CELL-, BATTERY-, PLUG-IN HYBRID-, ELECTRIC VEHICLE PRODUCTION PLANS

---

Pursuant to requirements and goals of the Low Emission Vehicle regulations (LEV),<sup>1</sup> the California Air Resources Board (CARB) is conducting mandatory and voluntary surveys on production plans for fuel cell electric vehicles (FCEVs), fuel cell plug-in electric vehicles (FC-PEVs), full-function battery electric vehicles (BEVs), and plug-in hybrid electric vehicles (PHEVs). Please respond with the requested information by April 2, 2019.

The individual survey data received from respondents will be kept confidential as provided under State law. The data you provide will be aggregated with information from other manufacturers to help the State plan for zero emission vehicle (ZEV) infrastructure and guide funding for the Clean Vehicle Rebate Project (CVRP). This information may also be used to inform future regulatory efforts. Please note that inaccurate reporting may affect the State's ability to adequately fund and plan for alternative fuel vehicles.

CARB is requesting information on your proposed production plans for FCEVs, FC-PEVs, BEVs, and PHEVs for the model years 2020, 2021, and 2022. In addition, we are asking you to voluntarily provide production plans for model years 2023, 2024, and 2025.

When projecting your electric vehicle deployments, please consider the following ZEV policy and fiscal highlights:

- In January 2018, Executive Order B-48-18 directed the state government to work with the private sector and other appropriate levels of government to support deployment of at least 5 million ZEVs and PHEVs in California by 2030

---

<sup>1</sup> Automobile and engine manufacturers are required to submit information pursuant to part 1, section H.3.2 of the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," amended September 2, 2015.

and installation of 200 hydrogen fueling stations and 250,000 EV chargers by 2025.

- In October 2015, the Clean Energy and Pollution Reduction Act of 2015 (SB 350) was signed into law. This legislation encourages electric utility investment in programs to accelerate widespread transportation electrification (e.g., PEV infrastructure). To date, the State's investor owned utilities have approved or proposed projects to invest over \$1 billion in transportation electrification.
- AB 8, signed into law in September 2013, requires the California Energy Commission (CEC) to allocate \$20 million or up to 20 percent of available Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP) funds annually for hydrogen refueling infrastructure. This allocation will continue until there are at least 100 hydrogen-fueling stations, the market for hydrogen as a transportation fuel reaches sustainability, or the legislation expires in 2024. AB 8 also extended ARFVTP, which to date has awarded \$94.9 million for EV charging infrastructure.
- Currently in California there are 39 open retail hydrogen stations and an additional 25 stations in various stages of development. The specific status of all publically funded hydrogen stations can be found in the Governor's Office of Business and Economic Development (GO-Biz) tracking tool:

<https://app.smartsheet.com/b/publish?EQBCT=fac4e342471c43209456f6263f8968aa>

### **Battery Electric and Plug-in Hybrid Vehicles**

We are requesting that automobile manufacturers provide projected California sales and lease figures of BEVs and PHEVs for the 2020, 2021, and 2022 model years. Projections should specify the model year, manufacturer, vehicle name, vehicle type and class, net (usable) and gross battery size (kilowatt-hours [kWh]), fuel economy (kW-hours per 100 miles), projected all electric range, on-board charger size (kW), presence of direct current fast charge (DCFC) port, and the maximum allowable DCFC power (kW). Please use Attachment 1 and Attachment 2 for responses.

### **Fuel Cell Electric Vehicles and Fuel Cell Plug-in Electric Vehicles**

We are also requesting that automobile manufacturers provide projected California sales and lease figures of FCEVs and FC-PEVs for the 2020, 2021, and 2022 model years. In addition, for manufacturers who currently produce FCEVs, we request an update on the number of model year 2019 FCEVs sold, leased, or expected to be sold or leased in calendar year 2019. Please use Attachment 3 for responses.

In this year's survey, CARB is only requesting statewide fuel cell deployment projections. CARB had previously requested county-level projections to inform location-based fueling and capacity analyses. CARB will instead utilize the station deployment scenario portrayed in the California Fuel Cell Partnership's 2018

publication *The California Fuel Cell Revolution* (<https://cafcp.org/sites/default/files/CAFCCR.pdf>). For more information on the revolution document and station recommendations, please refer to the *Annual Evaluation of Fuel Cell Electric Vehicle Deployment and Hydrogen Fuel Station Network Development* from June 2018 ([https://www.arb.ca.gov/msprog/zevprog/ab8/ab8\\_report\\_2018\\_print.pdf](https://www.arb.ca.gov/msprog/zevprog/ab8/ab8_report_2018_print.pdf)).

For reference, information on the specific location and capacity of current and planned stations is contained in Attachment 4. A map of California showing the locations and development status of these stations is provided in Attachment 5.

### **Voluntary Data Request**

As mentioned, CARB will use the regulatory required production data for infrastructure and incentive planning. In order to facilitate longer term planning efforts, we are additionally requesting BEV, PHEV, FCEV and FC-PEV production data for model years 2023, 2024, and 2025. This voluntary survey data can be entered on the same data sheets as the mandatory survey. We recognize that long-term production data may be somewhat speculative; please keep in mind that there are no penalties for failing to meet these long-term projections.

CARB is also asking for voluntary information about FCEV deployment plans in the Section 177 States. Further information is provided in Attachment 6.

To assist in completing this survey, a list of vehicle classes is provided in Attachment 7. For all projected numbers, please provide a single best estimate, not a range. Also note that staff is requesting projections based on *model year*.

The requested information should be submitted by April 2, 2019 via email to [Gerhard.Achtelik@arb.ca.gov](mailto:Gerhard.Achtelik@arb.ca.gov) and a hard copy mailed to the following address:

Mr. Gerhard Achtelik, Manager  
Emissions Compliance, Automotive Regulations and Science (ECARS) Division  
California Air Resources Board  
Post Office Box 2815, MS 3E  
Sacramento, CA 95812-2815

The required and voluntary information provided in response to this request will be kept confidential, pursuant to Title 17, California Code of Regulations, Section 91011, to ensure that the competitive position of each manufacturer is not compromised. Automobile manufacturers will be surveyed annually to update their previous projections and to add additional model year projections.

If you have any questions, please contact Marissa Williams, Air Pollution Specialist, at (916) 322-5848, or by email at [marissa.williams@arb.ca.gov](mailto:marissa.williams@arb.ca.gov).

Attachments (7)

cc: Joshua Cunningham, Branch Chief  
Advanced Clean Cars Branch  
Emissions Compliance, Automotive  
Regulations and Science Division

Gerhard Achtelik Jr., Manager  
Zero Emission Vehicle Infrastructure Section  
Emissions Compliance, Automotive  
Regulations and Science Division

Marissa Williams, Air Pollution Specialist  
Zero Emission Vehicle Infrastructure Section  
Emissions Compliance, Automotive  
Regulations and Science Division