



Air Resources Board



Matthew Rodriguez
Secretary for
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Edmund G. Brown Jr.
Governor

Mail-Out #ECARS 17-02

TO: Automobile and Engine Manufacturers

DATE: March 1, 2017

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

Pursuant to requirements and goals of the Low Emission Vehicle regulations (LEV),¹ the Air Resources Board (ARB) 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 01, 2017.

The individual survey data received from respondents will be kept confidential as provided under State law. The information you provide will be aggregated with the information from other manufacturers and used to plan infrastructure and the Clean Vehicle Rebate Project (CVRP) and may be used to inform future regulatory efforts. Please note that underreporting of alternative fuel vehicles will impact the State's ability to adequately fund and plan for support of these vehicles as they enter the market, which in turn may adversely affect your sales.

In addition, ARB would like to engage in dialog with interested automakers on their interest in planning, development, and funding of the next generation of plug-in electric vehicle (PEV) infrastructure. Contact information for individuals in your organization who can speak to your interest in PEV infrastructure development would be appreciated.

Please provide this information on Attachment 7. Additionally, ARB is asking for information about FCEV deployment plans in the Section 177 States in this year's

¹ Automobile and engine manufacturers are required to submit information pursuant to part 1, section H.3.2 of both the "California Exhaust Emission Standards and Test Procedures for 2001 through 2014 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2009 through 2016 Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," amended December 6, 2012, and 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.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

survey. Participation in the Section 177 State data collection effort is voluntary. Further information is provided in Attachment 8.

As delineated under regulations adopted by the Board in October 2014, we are asking for your proposed production plans for FCEVs, BEVs, and PHEVs, for the model years 2018, 2019, and 2020. In addition, we are requesting you voluntarily provide production plans for model years 2021, 2022, and 2023.

As you may be aware, AB 8 (Perea, Statutes of 2013, chapter 401) was signed into law in September 2013. This legislation requires the California Energy Commission (CEC) to allocate \$20 million or up to 20 percent of available funds annually for hydrogen refueling infrastructure. This allocation will continue until there are at least 100 hydrogen-fueling stations, or the market for hydrogen as a transportation fuel reaches sustainability, or the legislation expiration in 2023.

While the AB 8 legislation does not provide specific funding targets for PEV infrastructure, it did extend the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). To date the ARFVTP has allocated over \$50 million towards EV charging infrastructure including over 7700 charging outlets or connectors.

In October 2015, the Clean Energy and Pollution Reduction Act of 2015 (SB 350) was signed into law. This legislation supports transportation electrification by encouraging electrical utility investment in programs to accelerate widespread transportation electrification (e.g. PEV infrastructure). To date, the State's three largest investor owned electric utilities have *approved* pilot projects to install or fund 12,500 PEV connectors. Recently, these same utilities have *petitioned* the California Public Utilities Commission (CPUC) to invest over \$1 billion in transportation electrification, including "tens of thousands" of new PEV connectors as part of SB 350.

Please consider these infusions of fiscal and technical resources along with policy support when projecting your fuel cell and plug-in electric vehicle deployments.

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 2018, 2019, and 2020 model years.

Projections should specify the manufacturer, model year, vehicle type and class, battery size (kilowatt-hours [kWh]), fuel economy (kW-hours per 100 miles or miles per gallon gasoline equivalent [mpgge]), projected all electric range, on-board charger size (kW), presence of Direct Current Fast Charge (DCFC) port and the maximum allowable DCFC power (kW). For projected numbers, please provide a single best estimate, not a range.

A list of vehicle classes is contained in Attachment 3. A sample format for the information requested is enclosed as Attachment 4 and Attachment 5. Please do not aggregate production numbers from previous years.

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 2018, 2019, and 2020 model years. In addition, for manufacturers who currently produce FCEVs, we request an update on the number of model year 2017 FCEVs sold, leased or expected to be sold or leased in calendar year 2017. Please provide a single best estimate, not a range of vehicles. Also, note that staff is requesting projections based on model year alone; staff will independently estimate calendar year placement, as in previous years' analyses.

Currently in California there are 25 open retail hydrogen stations, an additional 24 stations are in various stages of development, and an additional 16 stations were recently selected for funding in the CEC's most recent hydrogen station solicitation.

Information on the specific location and capacity of these stations is contained in the attachments to this letter. Attachment 1 is a list that shows open dates and capacity for individual stations, grouped by county. Attachment 2 is a map of the State of California, showing projected hydrogen fueling capacity after these stations are open. The capacity is provided on a county basis. Lastly, the specific status of all publically funded hydrogen stations can be found in the Governor's Office of Business and Economic Development (GO-Biz) produced tracking tool at:

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

Additionally, to satisfy the LEV requirements, and assist in the siting of hydrogen stations, please project the number of FCEVs and FC-PEVs by county of deployment. We recognize that geographically distributing mid and long term vehicle deployment may be somewhat speculative. To assist in this we have structured the spreadsheet to auto populate the county distribution based upon our internal CHIT modeling. The CHIT model uses metrics such as financial indicators, plug-in and hybrid vehicle registration rates, and level of educational obtainment to identify areas where early adopters of fuel cell technology are most likely to reside. If you agree with the geographic distribution of vehicles auto-populated in the spreadsheet, please enter projections in column O. If you feel the geographic distribution does not match your deployment plans you may override any of the cells in the deployment section. Please keep in mind that each cell is independent so changing a value in one cell will not affect the values in the other cells. Therefore, if you chose to manually enter geographic deployment data please make sure the summation of the number of vehicles in each county equals the total FCEV count entered in column "O".

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A sample format for the information requested is enclosed as attachment 6. Please do not aggregate production numbers from previous years.

Voluntary Data Request

As mentioned, ARB will use the regulatory required production data for infrastructure and incentive planning. In order to facilitate longer term planning efforts we are requesting BEV, PHEV, FCEV and FC-PEV production data for model years 2021, 2022, and 2023. For this voluntary exercise, we are requesting vehicle numbers and as much additional information that can be confidentially disclosed. The 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, but please keep in mind that there are no penalties for failing to meet these long term projections.

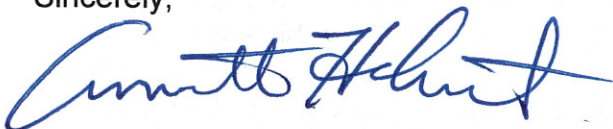
The requested information for FCEVs, BEVs, and PHEVs should be submitted by April 01, 2017 via email to Gerhard.Achtelik@arb.ca.gov and a hard copy mailed to the following address:

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

The 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 add additional model year projections.

If you have any questions, please contact Mark Siroky, Air Resources Engineer, at (916) 324-0208, or by email at Mark.Siroky@arb.ca.gov.

Sincerely,



Annette Hebert, Chief
Emissions Compliance, Automotive
Regulations and Science (ECARS) Division

Attachments (8)

cc: See next page.

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cc: Analisa Bevan
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