

**DOCKETED**

<b>Docket Number:</b>	19-AB-2127
<b>Project Title:</b>	Implementation of AB 2127 Electric Vehicle Charging Infrastructure Assessments
<b>TN #:</b>	236925
<b>Document Title:</b>	Alliance for Automotive Innovation Comments on AB 2127 Assessment Report
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Alliance for Automotive Innovation/Dan Bowerson
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	2/26/2021 3:56:53 PM
<b>Docketed Date:</b>	2/26/2021

*Comment Received From: Dan Bowerson*  
*Submitted On: 2/26/2021*  
*Docket Number: 19-AB-2127*

## **Auto Innovators Comments on AB 2127 Assessment Report**

Please find the attached comments from the Alliance of Automotive Innovation on California Energy Commission's AB 2127 Assessment Report.

*Additional submitted attachment is included below.*

February 26, 2021

Hon. Patricia Monahan  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814

**Re: Docket No. 19-AB-2127, Comments of the Alliance for Automotive Innovation on the Workshop on Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment**

Dear Commissioner Monahan:

The Alliance for Automotive Innovation (“Auto Innovators”)<sup>1</sup> thanks the California Energy Commission (CEC) for the opportunity to provide comments on the Electric Vehicle Charging Infrastructure Assessment as per Assembly Bill 2127 (“AB 2127”).

Auto Innovators represents automakers that collectively produce over 99 percent of the new cars and light trucks sold in the United States, tier one original equipment suppliers, and technology and other automotive companies. Auto Innovators is committed to supporting and implementing policies and programs that help support transportation electrification, including battery electric, plug-in hybrid, and hydrogen fuel cell technologies.

Automakers have invested tens of billions of dollars over the last ten years in every facet of EV technology – from batteries to fuel cell stack design and production, electric motors to battery cell controllers, vehicle types and capabilities, etc. Our industry’s investment in vehicle electrification is estimated to reach over \$250 billion globally by 2025.<sup>2</sup> Due to this massive industry investment, around 130 electric vehicle models are expected by 2025, with more options to meet a wider variety of customer

---

<sup>1</sup> Formed in 2020, the Alliance for Automotive Innovation is the singular, authoritative, and respected voice of the automotive industry. Focused on creating a safe and transformative path for sustainable industry growth, the Alliance for Automotive Innovation represents the manufacturers producing nearly 99 percent of cars and light trucks sold in the U.S. The newly established organization, a combination of the Association of Global Automakers and the Alliance of Automobile Manufacturers, is directly involved in regulatory and policy matters impacting the light-duty vehicle market across the country.

<sup>2</sup> AlixPartners. “Betting Big in Electrification and Autonomous.” *Global Automotive Outlook 2018 – EMEA Release* (June 2018). [https://iwk-cp.com/wp-content/uploads/2018/07/Automotive-Global-Outlook-2018-European-version\\_IWK\\_FINAL.pdf](https://iwk-cp.com/wp-content/uploads/2018/07/Automotive-Global-Outlook-2018-European-version_IWK_FINAL.pdf).

needs. However, automotive industry investments alone are not enough to ensure increased market penetration for electrified vehicles. Increasing customer demand for EVs is necessary, and time and time again studies have shown that purchase incentives and available charging/refueling infrastructure are key parameters to increasing customer demand. We see the AB 2127 report as vitally important in making sure that infrastructure and vehicle targets are well-aligned.

### **Infrastructure and vehicle targets must be aligned.**

Auto Innovators appreciates the updates that are being made to the AB 2127 report to assess the EV charging infrastructure needed to meet Governor Newsom’s Executive Order for 100 percent ZEV sales by 2035, N-79-20.<sup>3</sup> The report shows that while California is leading the U.S. in EV charging infrastructure, the state has a long way to meet its targets. These updates highlight the urgency and importance of building out EV charging infrastructure to meet California’s ambitious targets.

	2025	2030	
	B-16-2012 / B-48-18	B-48-18	N-79-20*
Target - PEVs	1,500,000	5,000,000	8,000,000
Target - Chargers to meet PEV Demand	250,000	968,000	1,500,000
Status - L2 & DCFC (Available & Planned)	188,000	188,000	188,000
Charger Gap from Target to Status	62,000	780,000	1,312,000
* ARB estimate of vehicles necessary in 2030 to meet N-79-20 target in 2035			
Directed from EO			

Figure 1 California EV charging infrastructure status and targets to meet B-48-18 and N-79-20.<sup>4</sup>

<sup>3</sup> Executive Order N-79-20, <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-text.pdf>

<sup>4</sup> California Energy Commission Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment, [Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment - Analyzing Charging Needs to Support Zero-Emission Vehicles in 2030 \(Staff Report\)](#)

The AB 2127 report indicates that the electric vehicles are on track to meet targets, but increased infrastructure is necessary if California is to meet its ambitious targets.

California is on track to surpass its goal of 1.5 million ZEVs on state roadways by 2025 but is behind in providing the charging infrastructure needed to support the growing PEV population... Charging infrastructure deployment is lagging vehicle sales, and this gap may stymie progress toward 5 and 8 million ZEVs by 2030.<sup>5</sup>

We commend CEC for recognizing the gap in EV charging infrastructure necessary to meet Governor Newsom's targets. As noted above, this gap has grown significantly with the goals set out in Executive Order N-79-20, rendering the earlier charging targets for 2025 outdated and highlighting a need for even greater near-term infrastructure deployment.

Auto Innovators also applauds CEC for using grid distribution planning tools, such as EDGE, in developing EV charging needs. As more EVs enter the market, it will be even more critical to use integration tools to analyze the impact of EVs to the grid. This will help ensure a robust and sustainable market for EVs.

Auto Innovators hopes that the learnings from electricity modeling tools, including transmission and distribution, can be used to inform avoided cost calculations. These could serve as a basis for a new revenue stream to OEMs, aggregators, and others for providing vehicle-grid services, such as managed charging, which could delay or obviate the need for costly grid upgrades. At current, there is no uniform means by which OEMs, aggregators, and others can access a revenue stream for VGI across all California utilities. Without this revenue stream, creating a sustainable business model and market for VGI will remain a challenge that no number of technical standards will resolve.

---

<sup>5</sup> California Energy Commission Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment, [Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment - Analyzing Charging Needs to Support Zero-Emission Vehicles in 2030 \(Staff Report\)](#)

## **Vehicle Grid Integration communication protocols need to be flexible.**

Ever-increasing numbers of electrified vehicle platforms will be entering the market in the near future, but at this stage the EV market remains very much nascent. Because the market is still growing and more models with different connected and “smart” technologies will be deployed to create exciting and useful innovations for the customer, it is imperative that mandates do not hinder new market development.

IEEE 2030.5 (using telematics, WiFi, or PLC), OpenADR2 (using telematics or Wi-Fi), Open Charge Point Protocol (OCPP), and ISO 15118 (using Wi-Fi or PLC) are standard protocols that can enable important Vehicle Grid Integration (VGI) functions and use cases; these should not be looked upon as a single solution for communications between the EV and the charger. Mandating a specific communication protocol, or path, at this stage of the EV market has the potential to add cost to the vehicle and/or charger. A specific protocol can lock out early models of EVs from utilizing newer stations. Additionally, the industry is working to enhance known vulnerabilities in existing standards to improve security and performance. Instead of proposing a mandate, we recommend that California allow the EV and EVSE industries to evolve and determine the communication protocol that makes the most sense for the customer. We agree with the 2017 California Public Utilities Commission VGI Communication Protocols Working Group Report which stated, “markets, protocols, and technology are rapidly developing and at this time we do not want to preclude any protocols or use cases that can deliver VGI value.”<sup>6</sup> It is premature for the draft report to recommend adopting ISO 15118 as a single technological solution.

## **Continued funding will be critical for increased infrastructure deployment.**

Given the charging infrastructure gap identified in the AB 2127 assessment report, it is clear that continued state support will be crucial for infrastructure deployment. Auto Innovators appreciates CEC’s creative thinking on new approaches and modeling. However, we also want to stress the need in the near-term to prioritize CEC’s existing infrastructure deployment programs: CALeVIP for EV

---

<sup>6</sup> VGI Communication Protocol Working Group Energy Division Staff Report, October 2018, <https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442460144> at 18.

charging and AB 8 for hydrogen. Both programs should be fully funded, and both need continual updating to ensure smooth operation and to account for technological innovation and lessons learned.

Given the need to accelerate deployment and make the most of state investments, we'd like to reiterate past comments on ways to improve program function. As we noted in comments to Docket No. 17-EVI-01, the program is continuously oversubscribed with slow project timelines, which delays the timing of expanding necessary infrastructure. We therefore recommend that CEC examine options to make the process operate smoother so as to increase the number of available chargers in the near-term. Some potential opportunities for the program to run smoother would be to require applicants to do some due diligence in advance with utilities and sites in order to reduce attrition and look at the applicant cap requirements to see if there is an opportunity to improve the ability of owner-operators to leverage CALeVIP.

As stated in Chapter 7, CEC also correctly acknowledges that existing and new California EV infrastructure incentive programs should be adjusted to accommodate new business models like EV ride-hailing fleets. In the AB 2127 Workshop, UC Davis stated: "High travel intensity of EVs driven for Uber and Lyft ride-hailing services is leading to a requirement for public fast charging several times than what exists today."<sup>7</sup> Beyond public fast charging, privately-owned and operated DC fast chargers leveraged for ridesharing applications can also support rapid electrification and broader state electrification targets. These chargers and associated EV ride-hail fleets can not only provide more members of the public with sustainable transportation, regardless of EV ownership or access to a charger, but can also do so efficiently through higher utilization and a shared vehicle service model. Updating outdated program requirements within CalEVIP to accommodate those innovative business models, and creating new incentive programs that directly contemplate light duty EV ride-hailing fleet use cases, will be an important step in advancing EVs.

---

<sup>7</sup> UC-Davis presentation at CEC AB 2127 Workshop, February 4, 2021, <https://efiling.energy.ca.gov/GetDocument.aspx?tn=236627&DocumentContentId=69641>

## Conclusion

Auto Innovators appreciates the opportunity to provide these comments on the CEC AB 2127 EV charging infrastructure assessment report. The AB 2127 assessment report will be used by multiple California agencies to identify EV and charging needs; therefore, it is imperative that the information in the report is up-to-date and accurate. We commend the CEC for the development of the AB 2127 report and accepting stakeholder comments. Auto Innovators looks forward to working with the CEC and other stakeholders to implement policies that will help California meet its ambitious targets.

Respectfully submitted,



Dan Bowerson  
Alliance for Automotive Innovation  
2000 Town Center, Suite 625  
Southfield, MI 48075  
Phone: (248) 327-1777  
[DBowerson@autosinnovate.org](mailto:DBowerson@autosinnovate.org)