

**DOCKETED**

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**PG&E Comments on EVI-Pro in AB 2127 Second Assessment Workshop**

*Additional submitted attachment is included below.*



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California Energy Commission  
Deputy Director Hannon Rasool  
Fuel and Transportation Division  
Docket Number 19-AB-2127  
715 P Street  
Sacramento, CA 95814

**Re: Pacific Gas and Electric Company Comments on the Electric Vehicle Infrastructure Projections in Assembly Bill 2127 Second Assessment Workshop (Docket Number 19-AB-2127)**

Deputy Director Rasool,

Pacific Gas and Electric Company (PG&E) appreciates the California Energy Commission (CEC)'s time to host a workshop on March 16 to explain the Electric Vehicle Infrastructure Projections (EVI-Pro) 3 model's methodology, inputs and assumptions, outputs, described changes, planned scenarios, and updates to the analysis from the first assessment to the second assessment.

PG&E supports the efforts to develop a second Assembly Bill (AB) 2127 Assessment, and the opportunity to provide feedback on the EVI-Pro model's inputs and assumptions. PG&E offers the following comments to the model's inputs:

**1- PG&E is Concerned with Sudden Electric Vehicle (EV) Charging Increase at Hour Beginning (HB) 0 in System Level EVs Load Profiles.**

For the proposed EV load profile (slide 22 of the CEC's presentation),<sup>1</sup> PG&E is concerned the weekday and weekend profiles illustrate unlikely charging behavior. PG&E would not expect to see the sudden charging increase from approximately 600 to 1,200 Megawatts (MW) shortly before HB 0 to approximately 5,400 MW at HB 0. PG&E's conveyed similar concerns during a March 10 meeting with the CEC and the California Public Utilities Commission (CPUC) on the EV load shape used in the CEC's high electrification demand scenario.

Based on behavioral consideration (such as force of habit to plug in and charge when EV drivers arrive home in the evening) and actual load data from EV-2A customers, PG&E would expect a system-wide EV load profile to show a more gradual ramp up during the evening hours, rather than a sudden load increase at HB 0. PG&E understands the logic behind the sudden increase is based on three

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<sup>1</sup> EVI-Pro in Assembly Bill 2127 Second Assessment Workshop held on March 16, 2022.

<https://efiling.energy.ca.gov/getdocument.aspx?tn=242348>

assumptions: a) the vast majority of EV charging occurs at residential buildings on a Level 2 charger; b) the majority of the drivers are on a time-of-use (TOU) rate, which decreases at midnight (i.e., an EV rate rather than a solar-optimized rate); and c) drivers postpone charging their EVs until midnight, because that is when current EV electricity tariffs decrease to the off-peak period. However, even positing the assumptions above, if electricity system managers (e.g., utilities, the California Independent System Operator (CAISO), or the CPUC) foresee that current electricity tariffs lead to a sudden increase of over 4,000 MW at HB 0, they would likely try to modify the system's attributes (or electric rates) to avoid that outcome.

System level considerations aside, PG&E notes that at a more geospatially granular level, there may be greater charging variation than is represented in a system level load shape; consequently, PG&E recommends that for grid-planning purposes, it is more appropriate to use a load shape different from that of a system level load shape.

## **2- PG&E Supports the CEC 2021 Integrated Energy Policy Report (IEPR) EV Load Shape for System-level Planning**

For system-level planning, PG&E supports using the CEC 2021 IEPR EV load shape. As mentioned above, PG&E also conveyed support during a March 10 meeting with the CEC and CPUC on the EV load shape used in the CEC's high electrification demand scenario. PG&E expects the system level EV load shape will feature a gradual ramp-up of charging in the evening hours, such as the CEC 2021 IEPR EV load shape demonstrates.

PG&E appreciates the CEC's efforts to develop a second Assembly Bill (AB) 2127 Assessment, and the opportunity to provide feedback on the EVI-Pro model's methodology and inputs. Please do not hesitate to contact me if you have any questions.

Sincerely,

/s/  
Licha Lopez