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September 16, 2020 California Energy Commission Dockets Office, MS-4 1516 Nineth Street Sacramento, CA 95814-5512

Subject: Docket 20-IEPR-02 Comments on Commissioner Workshop on Plans for Updating the California Energy Demand 2019-2030 Forecast, Session 2: Electric Vehicle **Adoption and Charging Scenarios**

The Union of Concerned Scientists (UCS) appreciates the opportunity to provide comments on Electric Vehicle Adoption and Charging Scenarios in the Commissioner Workshop on Plans for Updating the California Energy Demand 2019-2030 Forecast conducted by the California Energy Commission (CEC) on August 26, 2020. UCS appreciates the effort the CEC puts into analyzing scenarios for zero emission vehicle (ZEV) and charging deployment as part of the energy demand forecast. Those scenarios are used widely by other agencies and stakeholders to promote and plan for ZEV deployment. Accordingly, we urge the CEC to select scenarios for ZEV deployment for the 2020 Integrated Energy Policy Report (IEPR) Update that better reflect the ambition of the state's air quality and climate goals than the scenarios presented in past iterations of the IEPR. Presenting core scenarios in the IEPR that fall short of state goals is incompatible with CEC supporting those goals.

Forecasts and scenario analyses of pathways to achieve California's greenhouse gas goals indicate a high level of electrification is necessary by 2030 and beyond.¹ Similarly high levels of ZEV deployment will be necessary across vehicle sectors in regions that suffer the highest pollution burdens to meet air quality goals. The CEC ZEV deployment forecasts should use these goals as a north star toward which the EV deployment scenarios track. While the exact number of light-duty ZEVs required to meet climate and air quality goals can be debated, Executive Order (EO) B-48-18 provides a specific numerical backstop for minimum number of electrified vehicles California must have on its roads by 2030: five million light-duty ZEVs.²

¹ See, e.g., SCE Pathway 2045 Appendices at 5, Available at

https://www.edison.com/content/dam/eix/documents/our-perspective/201911-pathway-to-2045-white-paperappendices.pdf; Amber Mahone et. al., Achieving Carbon Neutrality in California (Aug 2020), Energy and Environmental Economics, Inc. at 43, available at https://ww2.arb.ca.gov/sites/default/files/2020-08/e3 cn draft report aug2020.pdf

² EO B-48-18 (January 26, 2018) ordered "that all State entities work with the private sector and all appropriate levels of government to put at least 5 million zero-emission vehicles on California roads by 2030." Available at

Even though CEC adoption of the 2019 IEPR postdates E.O. B-48-18 by two years, the Low, Mid, and High scenarios in that report all fall short of the five million light-duty ZEV target.³ Only the Aggressive and Bookend scenarios reach five million or more ZEVs by 2030. It is particularly concerning that scenarios called "Mid" and "High" would fail to meet the ZEV deployment target. The names suggest those scenarios might be appropriate for making contingent regulatory and planning decisions, but the myopic ZEV deployments resulting from those scenarios pose the risk of perpetuating the scenarios' lack of ambition and frustrating the achievement of the state's goals.

Fortunately, the California Public Utilities Commission (CPUC) recently declined to be persuaded that the CEC Mid forecast from the 2017 IEPR⁴ was a reasonable basis for scaling utility EV programs, as some stakeholders argued. In its decision on Southern California Edison's Charge Ready 2 Program, the CPUC rejected those arguments, noting the Mid scenario is "unambitious and could potentially inhibit the ability to meet the 5 million ZEVs by 2030 goals."⁵ Instead, CPUC opted to use the Aggressive ZEV deployment scenario its decision to scale the Charge Ready 2 program,⁶ siding with stakeholders arguing in favor of a program that would be compatible with state goals. CPUC's decision to use a forecast that showed at least five million light-duty ZEVs in 2030 was the appropriate choice, though it was debated by stakeholders. Regulatory proceedings at CPUC and elsewhere would be more streamlined and productive if the majority of CEC-authored scenarios did not fail to meet state goals.

While the number of ZEVs deployed by 2030 are not listed in the slide showing ZEV scenarios from the Electric Vehicle Adoption Workshop,⁷ the title of the slide "ZEV Scenarios See Limited Change" suggests the 2020 IEPR Update could perpetuate problems created by past unambitious IEPR forecasts. Instead, the CEC can improve upon the scenarios presented by including the effect of state climate and air quality goals in the scenario construction. Accordingly, CEC should assume that climate and air quality goals will lead to further regulatory, legislative, and other policy actions that will accelerate progress on ZEV deployment over the forecasted period. That way, regulatory actions (including the CEC IEPR process, itself, and CPUC utility program evaluations) and legislative actions can create reinforcing progress to clean the air and stabilize the climate.

Appropriate ambition in scenario development is not an issue limited to forecasting light-duty ZEVs. Appropriate ambition applies to medium- and heavy-duty ZEV deployment as well. In their comments on the Commissioner Workshops on Plug-In Electric Vehicle Charging

 $[\]frac{https://www.ca.gov/archive/gov39/2018/01/26/governor-brown-takes-action-to-increase-zero-emission-vehicles-fund-new-climate-investments/index.html}{\label{eq:climate-investments}}$

³ 2019 IEPR at 236.

⁴ The 2017 IEPR was the most recent one with a ZEV deployment forecast at the time the evidentiary record was collected in fall of 2018.

⁵ D.20-08-045 at 49.

⁶ Ibid.

⁷ 20-IEPR-03 Presentation – Transportation Energy Demand IEPR Forecast 2020 IEPR Update at slide 6.

Infrastructure, Earthjustice discusses the scale of medium- and heavy-duty ZEV deployment needed to meet state goals.⁸ UCS supports Earthjustice's recommendations.

In conclusion, UCS appreciates the CEC's effort to develop and analyze ZEV deployment as part of the IEPR update process. We look forward to continuing to engage with the CEC and other stakeholders to further the state's progress toward meeting its air quality and climate goals.

Respectfully submitted,

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⁸ Earthjustice Comments re: Docket No. 20-IEPR-02 Commissioner Workshops on Plug-in Electric Vehicle Charging Infrastructure.