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California Energy Commission
Docket Office, MS-4
Re: Docket No. 20-IEPR-01
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.ca.gov

Re: Southern California Edison Company's Comments on the California Energy Commission Docket No. 20-IEPR-01: Draft 2020 Integrated Energy Policy Report (IEPR) Update, Volume I

Dear Commissioners:

On January 6, 2020, the California Energy Commission (CEC) released the *Draft 2020 Integrated Energy Policy Report Update, Volume I* (*Draft 2020 IEPR Update*), which focuses on California's transportation future and the transition to zero-emission vehicles (ZEVs). Southern California Edison (SCE) appreciates the opportunity to submit comments on the draft report. In general, SCE supports the recommendations set forth in the *Draft 2020 IEPR Update*. The recommendations recognize the importance of building out charging infrastructure, aligning charging behavior with grid needs, and expanding access and prioritizing communities most impacted by transportation pollution. SCE offers additional insight for consideration as the CEC finalizes the report.

I. California needs all hands on deck to accelerate the charging infrastructure market and put the state on a path to achieving its climate and environmental goals.

As the *Draft 2020 IEPR Update* states, "[t]o reach the levels of transportation electrification required by Governor Newsom's Executive Order N-79-20, California will need charging infrastructure that is ubiquitous, easy-to use, and smartly integrated into the grid."[1] In fact, the CEC's recent *Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment Staff Report* (*AB 2127 Staff Report*) estimates that California will need greater than 1.5 million chargers by 2030 to support the eight million ZEVs expected under the new Order,[2] which requires 100% ZEV sales by 2035. With only 67,000 chargers statewide,[3] California must accelerate the market rapidly if it is to enable this policy and support the state's decarbonization and air quality goals.

[1] *Draft 2020 IEPR Update*, p. 76.
[2] *AB 2127 Staff Report*, p. 1.
[3] *Draft 2020 IEPR Update*, p. 7.

California's charging infrastructure market is supported by state agency funding, utility programs, and private investment.[4] SCE agrees with the *Draft 2020 IEPR Update* that the state agency and utility role in deploying charging infrastructure will evolve over time as the market matures and private investments can meet a greater portion of the need.[5] For example, at an appropriate time in the future, utility EV infrastructure programs are likely to shift more towards providing primarily utility distribution infrastructure and focus less on behind the meter activities. However, utility programs may still be necessary to provide behind-the-meter infrastructure and incentives for hard-to-reach segments. In the meantime, there is a beneficial role for all market participants, including utilities, and it's important to note that utility programs are multifaceted in their support for widespread transportation electrification. In addition to administering its charging infrastructure programs, SCE provides infrastructure and vehicle purchase incentives, offers favorable rates for vehicle charging, conducts education and outreach activities, and supports research and development projects.

As currently drafted, the *Draft 2020 IEPR Update* implies utility investment in charging infrastructure must be fully replaced by private investment. However, utility programs are beneficial to the growth of the market and will continue to play a role in the future. Therefore, SCE recommends striking the second paragraph in the section titled "Identify the Role of Utilities' Investments in Supporting Charging Infrastructure" and replacing it with the following language:

> "Utility investment in charging infrastructure will continue to play a vital role in accelerating transportation electrification until private investments can meet a greater portion of the need. As the market matures, utility investment at the appropriate time in the future may shift more towards providing primarily utility distribution infrastructure and focus less on behind-the-meter activities. However, utility programs may still be necessary to provide behind-the-meter infrastructure and incentives for hard-to-reach transportation segments that have larger barriers to electrification."

The *Draft 2020 IEPR Update* also asserts that utility programs may become a less cost-effective use of ratepayer funds because they focus on supporting charging needs through distribution infrastructure expansion and do not consider solutions involving vehicle-grid integration (VGI), which could be more cost-effective.[6] First, SCE considers affordability paramount if California is to achieve its decarbonization goals through clean power and electrification. As such, we must continue to be thoughtful stewards of ratepayer funds. If VGI strategies mature and present less expensive and reliable alternatives to traditional distribution system upgrades, SCE will integrate them into our programs. In fact, the California Public Utilities Commission (CPUC) recently ordered the utilities to do just that.[7] In all future transportation electrification applications, the utilities must identify opportunities for automated load management and other VGI strategies.

The *Draft 2020 IEPR Update* should be amended to refrain from assuming utility programs will unnecessarily favor grid upgrades to serve charging needs. SCE recommends

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[4] *Draft 2020 IEPR Update*, p. 77.
[5] *Draft 2020 IEPR Update*, p. 90.
[6] *Draft 2020 IEPR Update*, pp. 92-94.
[7] Decision 20-12-029: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M355/K794/355794454.PDF.

striking the last two sentences of the first paragraph in the section titled "Create Market Opportunities for Accelerating Charging Infrastructure and VGI" and replacing them with a discussion of how utility programs will evolve to include VGI strategies as they mature.

II. Accelerating transportation electrification will require new planning processes to enable proactive grid upgrades that support medium- and heavy-duty vehicle charging needs.

In addition to the estimates discussed above, the CEC's *AB 2127 Staff Report* also estimates that California will need 157,000 direct current (DC) fast chargers by 2030 to support the 180,000 medium- and heavy-duty (MD/HD) ZEVs expected under Executive Order N-79-20,[8] which requires 100% MD/HD ZEV operations by 2035 or 2045, depending on the application. With only 5,000 DC fast chargers statewide,[9] the state needs significant additional investment in charging infrastructure and the associated grid infrastructure to accelerate deployment of MD/HD ZEVs to reach California's decarbonization and air quality goals.

MD/HD electric vehicle charging needs will significantly increase electricity demand in concentrated areas (e.g., near warehouses, ports, and transit hubs), which will likely require large grid upgrades that could take up to seven or more years to operationalize. To avoid such barriers, utilities must carry out proactive grid upgrades that are initiated well before the charging demand actually materializes. The *AB 2127 Staff Report* concurs, stating "…California's IOUs [investor-owned utilities] should proactively plan to accommodate MD/HD fleets, including through grid upgrades or other mitigative action."[10] However, current planning requirements do not allow for such proactive investments. The CPUC requires the electric utilities to use the CEC's demand forecast for distribution system planning. Given the state of the market, the forecast does not reflect enough MD/HD transportation electrification to meet state goals. Unfortunately, this becomes a self-fulfilling prophecy because electric utilities cannot make the necessary grid upgrades to support electrification if widespread electrification does not appear in the CEC's demand forecast, and the market is unlikely to accelerate unless customers have confidence that grid upgrades will not hinder or delay their infrastructure needs.

Although the *AB 2127 Staff Report* acknowledges this need, the *Draft 2020 IEPR Update* should include a discussion of these issues, given its influential role in advancing California energy policy. In addition, the *Draft 2020 IEPR Update* should include a recommendation for the CEC's demand forecast to provide a scenario showing the impact of widespread transportation electrification to meet the state's environmental goals. The report should also include a recommendation for the CEC and the CPUC, armed with this new planning scenario, to explore these issues with stakeholders in ongoing CPUC planning proceedings such as Distribution Resources Planning (DRP)[11] and Integrated Resource Planning (IRP),[12] with the goal of empowering electric utilities and the CPUC to make the necessary proactive grid upgrades to support MD/HD transportation electrification.

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[8] *AB 2127 Staff Report*, p. 4.
[9] *Draft 2020 IEPR Update*, p. 78.
[10] *AB 2127 Staff Report*, p. 66.
[11] Rulemaking 14-08-013: https://www.cpuc.ca.gov/General.aspx?id=5071.
[12] Rulemaking 20-05-003: https://www.cpuc.ca.gov/irp/.

III. Conclusion

SCE thanks the CEC for consideration of the above comments and looks forward to continuing its partnership with stakeholders in the annual IEPR process, including the upcoming 2021 IEPR. Please do not hesitate to contact me at (415) 929-5518 with any questions or concerns you may have. I am available to discuss these matters further at your convenience.

Very truly yours,

/s/

Dawn Anaiscourt