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<td>Southern California Edison Company (SCE)</td>
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SCE Comments on the CEC Docket No. 17-IEPR-01: Draft IEPR

Additional submitted attachment is included below.
November 13, 2017

California Energy Commission
Docket Office, MS-4
Re: Docket No. 17-IEPR-01
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.ca.gov


Dear Commissioners:

On October 23, 2017, the California Energy Commission (Energy Commission) held a workshop to review recommendations on the 2017 Draft Integrated Energy Policy Report (IEPR). Southern California Edison (SCE) attended the workshop, has actively participated in the 2017 IEPR proceeding, and appreciates the opportunity to provide these written comments as a supplement to the comments it has provided in past workshops during the 2017 IEPR cycle. SCE generally supports the policy recommendations set forth in the Draft IEPR and thanks the Energy Commission for its obvious hard work on the 2017 IEPR.

In support of the Energy Commission’s goals to accelerate the use of Distributed Energy Resources (DERs) – and particularly the Vehicle-Grid Integration (VGI) Roadmap—SCE’s comments focus primarily on recommendations for implementing the VGI Roadmap, as well as recommendations on Data Collection processes in support of these efforts. Advancing Transportation Electrification (TE) through the rapid adoption of zero-emission vehicles (ZEVs) and the infrastructure to support their proliferation is critical to realizing the State’s long-term energy and environmental Greenhouse Gas (GHG) emission reduction goals. Supporting the adoption of ZEVs is therefore a priority for SCE. SCE has therefore collaborated closely with the California Electric Transportation Coalition (CalETC) on comments in the IEPR process, and supports CalETC’s comments on the Draft 2017 IEPR. SCE looks forward to coordinating with the Energy Commission and stakeholders to help shape and inform efforts to facilitate the VGI Roadmap priorities going forward, including the establishment of a VGI Working Group to assist in addressing barriers to VGI.

In addition to the written recommendations in this letter, SCE also provides redline edits, contained in Appendix A, for the Energy Commission’s consideration.
1. VGI Roadmap Implementation Recommendations:

SCE supports the Energy Commission’s recommendation to accelerate the use of DERs in Chapter 4 of the Draft 2017 IEPR. In particular, SCE supports updating the VGI Roadmap.\(^1\) Below, SCE provides specific recommendation on the update process and the deliverables the Energy Commission should consider including in the VGI Roadmap update.

SCE agrees with the Draft IEPR’s assessment that although using Plug-In Electric Vehicles (PEVs, or EVs) for grid management is “at least several years out,”\(^2\) PEVs have the potential to increase the electric grid’s resilience. One of the key barriers to advancing VGI has been the lack of understanding in terms of its economic value. SCE is encouraged, however, by the VGI Communications Protocol Working Group’s (VGIWG’s) efforts to assess the value of VGI, and advance the top priorities set forth in the Draft 2017 IEPR.\(^3\)

Despite their concerted efforts to date, the VGIWG and a multitude of stakeholders\(^4\) have not yet been able to determine the value of VGI. As such, SCE urges the Energy Commission to address the value barrier by dedicating increased valuation efforts and ensuring funding from existing state-agency sources is directed towards the VGIWG. The VGIWG’s progress in the valuation endeavor should be included in the proposed update to the 2014 VGI roadmap.\(^5\)

SCE therefore recommends that the IEPR include a new recommendation for the Energy Commission to repurpose and prioritize funding that has already been collected (or that is intended to be collected for purposes of advancing VGI) in support of a partnership with automakers, utilities, charging-station providers, and other stakeholders. The partnership funding should be used to (1) assess the VGI value proposition, and (2) analyze potential large-scale, multi-year demonstration projects to validate the real-world value of VGI—focusing on near-term, promising use-cases identified by the VGIWG. The working group should include: the Energy Commission, the California Public Utilities Commission, the California Independent System Operator, the California Air Resources Board, the U.S. Department of Energy, GO-Biz, as well as other interested stakeholders from the non-profit and private sectors. Based on experiences with the 2017 VGI efforts, SCE believes that funding directed specifically for expert participation in the 2018 VGIWG will be needed, and would be consistent with the Energy Commission’s prior funding of the consultants who created the 2014 VGI Roadmap.

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\(^1\) See Draft 2017 IEPR at p. 141.
\(^2\) Id. at p. 120
\(^3\) Id. at p. 132; see also SCE’s Comments in Joint Utility-Automaker Letter Re: Joint Agency Staff Workshop on the Review of the Actions and Status of State-level Energy Roadmaps, June 27, 2017, 17-IEPR-12.
\(^4\) Stakeholders included five state agencies, ten automakers, four utilities, several charging station providers, and other technical experts
\(^5\) The VGIWG has made progress in developing over 75 VGI use cases, understanding the functional, non-functional and customer requirements for VGI communications between the grid and the vehicle for these use cases, mapping these requirements to existing communication protocols, developing a glossary, and other tasks.
As SCE and many other stakeholders have urged in the VGIWG, there are two key steps to be addressed for VGI, which can likely be done simultaneously:

1. A VGI value study that looks at promising services and benefit streams in the consolidated VGI benefits framework from Deliverable 1.1 of the Working Group; and

2. Large-scale VGI demonstrations by utilities and others (up to 2000 EVs) of promising use cases (Deliverable 1.2 of the Working Group) in several different charging-market segments (including public, fleet, workplace, and homes) in order to validate the VGI value in real-world implementation, including determining monetized and non-monetized benefits, costs, performance, trade-offs, and other lessons learned as well as the ability to meet technical (i.e., functional and non-functional) and customer requirements.

The VGI issue is complex and goes beyond charging equipment. In addition, automakers require a sound business case to equip their EVs with VGI communications protocols. They must determine if they want the EV to communicate to the charging station, directly to the grid, or to both. The utilities, charging station providers, aggregators, and other parties also need to understand the VGI value proposition, as discussed above. SCE’s recommendations mirror the process and steps that storage and other emerging grid technologies have experienced, but these steps require repurposed / prioritized funding and a plan with broad stakeholder buy-in.

2. **PEV Data Collection**

SCE strongly supports the Draft IEPR recommendation for Energy Commission to lead collaborative efforts with stakeholders—including researchers, local government, air districts, and utility charging infrastructure program administrator—to share data about charging-infrastructure programs. SCE agrees that such collaboration will help enhance existing program practices by allowing experts to compare and understand existing data, identify gaps, and determine how to address those gaps efficiently. Multiple forums currently exist for collecting data of PEVs, which makes it difficult to assess what gaps currently need to be filled with additional data collection. As SCE (in coordination with CalETC) mentioned in previous comments on the Title 20 data-collection pre-rulemaking, a voluntary, collaborative data collection effort is the best way to address the data needs of the state agencies, utilities, and other stakeholders for PEVs. If the stakeholder effort finds critical gaps; SCE recommends that, in the context of the Title 20 rulemaking on transportation-electrification data collection, the stakeholder group determine what next steps for collecting and assessing data to close those gaps. SCE also recommend that the commencement date of the Phase 2 Title 20 data-collection rulemaking be updated to account for the IEPR’s recommendation of this working-group process.

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7 *Id.* at p. 81.
In conclusion, SCE appreciates the Energy Commission’s consideration of these comments and looks forward to its continuing collaboration with the Energy Commission and stakeholders. Please do not hesitate to contact me at (916) 441-3979 with any questions or concerns you may have. I am available to discuss these matters further at your convenience.

Very truly yours,

Catherine Hackney
Appendix A

SCE provides the following redlined revisions to the 2017 Draft IEPR. Recommended additions to the text appear in underline, while recommended removals of text appear in strikethrough.

1) On Page XXX, Paragraph XXX, the Energy Commission states in its recommendations to, “Continue to fund research that enables the ability of DER to provide flexibility and grid services. Since utilities are not planning to enter long-term procurement contracts, limiting the ability of large-scale resources to provide electricity system flexibility, DER must fill the gap. Improved communication, control platforms, cybersecurity, and business models will be needed to accelerate customer participation in DER aggregation and in electricity markets.”

Although SCE agrees with the recommendation to continue to fund research for DER, SCE disagrees with including the statement that “utilities are not planning to enter long-term procurement contracts,” as it appears to suggest that utilities may no longer need to enter into power purchase agreements. SCE and other utilities will likely continue to require long-term procurement contracts in the future, in spite of concerted efforts to advance DER on the electric grid. As such SCE offers the following revision:

**Proposed Revision:**

“Continue to fund research that enables the ability of DER to provide flexibility and grid services. Since utilities are not planning to enter long-term procurement contracts, limiting the ability of large-scale resources to provide electricity system flexibility, DER must fill the gap. Improved communication, control platforms, cybersecurity, and business models will be needed to accelerate customer participation in DER aggregation and in electricity markets.”

2) On Page 343, Paragraph XXX, the Energy Commission, states “The delay in approval of the local capacity requirements (LCR) contracts puts the 2017 milestones at risk.” This should be clarified to indicate the specific milestone that is being referenced. SCE offers the following clarification:

**Proposed Revision:**

“The delay in approval of the local capacity requirements (LCR) contracts puts the 2017 milestones at risk the evaluation of preferred resource performance, which is informing the basis for expected future performance.”