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**FILED**

02/25/22

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

02:39 PM

R1812006

Order Instituting Rulemaking to  
Continue the Development of Rates and  
Infrastructure for Vehicle Electrification.

Rulemaking 18-12-006

**ASSIGNED COMMISSIONER'S RULING ADDING  
STAFF PROPOSAL TO THE RECORD AND  
INVITING PARTY COMMENTS**

**Summary**

In February 2020, California Public Utilities Commission (Commission) Energy Division staff issued the draft Transportation Electrification Framework (TEF) proposing policy and process changes to the Commission's review of utilities' transportation electrification proposals. In light of the legislative and market changes since issuance of the draft TEF, this ruling invites party comments on a new Energy Division staff proposal (Staff Proposal), included as an attachment to this ruling. The Staff Proposal responds to outstanding issues, stakeholder comments, and market developments since the draft TEF was released. The Staff Proposal does not affect investments on the utility-side of the meter.

Comments on the new Staff Proposal, in addition to those filed earlier in this proceeding, will be utilized to form a proposed decision on the outstanding elements of this proceeding. Section 5 of this ruling provides the schedule and page limits for filing comments.

## **1. Procedural Background**

The instant rulemaking was established by the Commission on its own motion by an Order Instituting Rulemaking (OIR) issued on December 19, 2018. After protests and responses to the OIR, a prehearing conference was held on March 1, 2019 to discuss issues, scope, and schedule of the proceeding. The assigned Commissioner issued a Scoping Memo and Ruling (Scoping Ruling) on May 2, 2019, setting the issues to be considered throughout this proceeding. Among other things, the scoping memo held that a TEF was needed to address a multitude of issues related to utility investments in transportation electrification (TE), including establishing targets specific to State policy goals, cost-effective metrics, marketing, education and outreach efforts, and rate design principles.

One of the goals of the instant proceeding is to provide a framework for the Commission to consider utility investments and rates related to zero emission vehicles. As such, the OIR authorized the Commission's Energy Division to develop a framework for utility transportation electrification investments moving forward. After months of stakeholder engagement, the Commission's Energy Division released the draft TEF via Administrative Law Judge ruling on February 3, 2020.<sup>1</sup> Given the 12 unique topics within the draft TEF, parties were requested to file comments in stages. Because of the length (more than 200 pages) and technical nature of the draft TEF, parties requested and were granted more time between opening and reply comment rounds.<sup>2</sup>

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<sup>1</sup> Draft TEF Ruling available at:

<https://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=326172086>

<sup>2</sup> See Rulemaking 18-12-006 docket for a complete list of rulings modifying the comment schedule for the draft TEF.

Several workshops were held after the issuance of the draft TEF to engage party discussions on how to move forward with the draft TEF. On March 23, 2020, a remote workshop was held to discuss topics related to Chapter 3.1 (Investor-Owned Utility (IOU) Transportation Electrification Plan (TEPs) Development), Chapter 4 (IOU Roles in TE), and Chapter 5 (Near-Term Priority Investment Areas) of the draft TEF. On April 20, 2020, a remote workshop was held on Chapter 4 (IOU Roles in TE); and on June 8 and 9, 2020, a remote workshop was held on Chapter 3.4 (scorecards, targets, metrics, and reporting requirements).

Most recently the Commission held an en banc on October 13, 2021 to discuss the role of ratepayer funding in accelerating TE. To date, the Commission has authorized approximately \$1.8 billion dollars to be invested in various TE programs and pilots. One of the goals of the en banc was to have a public dialogue regarding the level of ratepayer investments in TE and how that level of investment positions California in meeting its Electric Vehicle (EV) adoption goals.

Since the issuance of the draft TEF, the Commission has adopted the following decisions in this proceeding: Decision (D.) 20-09-025, clarifying the status of electric vehicle charging service providers as public utilities; D.20-12-027, concerning the low carbon fuel standard holdback revenue utilization; D.20-12-029, concerning the implementation of Senate Bill (SB) 676 and vehicle-grid integration strategies; D.21-07-028, setting near-term priorities for TE investments by the IOUs; D.21-12-030, clarifying near-term priority TE investments; and D.21-12-033, extending the interim policy on common treatment for excess plug-in electric vehicle charging costs.

In addition to the decisions issued in this proceeding since February 2020, the Commission adopted several decisions in TE ratesetting applications. Decisions authorizing TE investments since the issuance of the draft TEF include: D.20-08-045, authorizing Sothern California Edison Company (SCE) \$436 million for the utility's Charge Ready 2 infrastructure and market education programs; and D.21-04-014, authorizing San Diego Gas & Electric Company (SDG&E) \$43.5 million for the Power Your Drive Extension program.

In addition to the decisions listed above, the Commission has adopted several resolutions implementing TE policies. In 2021, the Commission's Energy Division issued Resolutions (Res) E-5167<sup>3</sup> and E-5168<sup>4</sup> to implement the requirements of Public Utilities Code § 740.19 regarding utility-side distribution costs. Res E-5167 and E-5168 authorize the IOUs' new EV infrastructure rules and associated Memorandum Accounts. Pursuant to these new rules, ratepayers cover the cost-of-service line extensions and electrical distribution infrastructure for separately metered EV charging for customers other than those in single-family residences.<sup>5</sup> Costs related to utility-side distribution will be recovered through the IOUs' respective general rate cases.<sup>6</sup> Res E-5175 (issued in December 2021) clarified Electric Vehicle Service Equipment (EVSE) communication protocol requirements and other details related to SCE Charge Ready 2 EVSE qualification processes.

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<sup>3</sup> Res E-5167 is available at:  
<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M413/K566/413566906.PDF>.

<sup>4</sup> Res E-5168 is available at:  
<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M414/K618/414618951.PDF>.

<sup>5</sup> Pub. Util. Code § 740.19.

<sup>6</sup> Pub. Util. Code § 740.19; Res E-5167 at 2 to 4.

### **1.1. Changes Since Issuance of Draft TEF**

Shortly after the draft TEF was issued, California declared a state of emergency due to the COVID-19 pandemic. Since then, transportation and other social patterns have changed significantly – including program implementation of authorized IOU TE programs.

As for legislation, on September 30, 2020, the Governor signed Assembly Bill (AB) 841 (Stats. 2020, ch. 372), which required each IOU to design and deploy all electrical distribution infrastructure on the utility side of the customer's meter for all customers installing separately metered infrastructure to support charging stations, other than those in single-family residences. This represents a major policy shift since the issuance of the draft TEF, as the new approach incorporates utility-side TE investment into the IOUs' general rate case proceedings rather than individual program applications. Section 1.2 below provides more information on these developments. Given this shift, the remaining TEF issues and this Staff Proposal pertain only to behind-the-meter (BTM) TE costs.

In September 2020, Governor Newsom issued Executive Order (EO) N-79-20 requiring that all new light-duty vehicle sales be zero-emission by 2035 and all new medium- and heavy-duty vehicle sales be zero-emission by 2045. Pursuant to the EO and AB 2127 (Ting, 2018), the California Energy Commission (CEC) issued its inaugural Electric Vehicle Charging Infrastructure Assessment in July 2021. The CEC estimates that by 2030 California may need up to 1.2 million EV chargers to support an estimated eight million light-duty EVs and an additional 157,000 chargers to support medium- and heavy-duty EVs.

As noted, the Commission has authorized more than \$1.8 billion in ratepayer dollars on TE investments to date. This amount does not include the

significant utility-side investment we expect to result from the implementation of AB 841 and other necessary utility-side upgrades, and the significant investment from Low Carbon Fuel Standard revenue.<sup>7</sup> Of the \$1.8 billion that the Commission has authorized, the IOUs have spent approximately \$316 million to date, or approximately 17.5 percent. There is a significant amount of funding still available.

In addition to substantial ratepayer investments, billions of dollars in federal and state funds have been approved to build out California's TE infrastructure since the release of the draft TEF. As a result of the federal Infrastructure Investment and Jobs Act of 2021, for instance, California will receive \$383 million in funding for TE infrastructure. The Act authorizes an additional \$2.5 billion for clean vehicle infrastructure available in competitive grants nationwide.<sup>8</sup>

In November 2021, the CEC approved \$1.4 billion for TE and hydrogen vehicle charging infrastructure to be spent over three years, increasing the previous budget more than six-fold. Governor Newsom's 2022-2023 State budget proposal issued on January 10, 2022 proposes to add \$2.04 billion to support zero-emission vehicle acceleration for the next five years, with much of that funding going to support medium- and heavy-duty fleets and disadvantaged and low-income communities.

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<sup>7</sup> The IOU Low Carbon Fuel Standard funding, while confidential, is estimated to be in the tens of millions of dollars per year range (D.20-12-027 at 7), and the while we cannot accurately predict the amount of ratepayer funding that will support the new EV infrastructure rules, we expect the rules to cover an average of 15 to 20 percent of a site's total installation costs (utility and customer-side).

<sup>8</sup> See <https://afdc.energy.gov/laws/infrastructure-investment-jobs-act> for more information.

## **1.2. Utility Investments on the Distribution Side of the Meter and Implementation of AB 841**

The distribution system on the utility side of the meter will require substantial upgrades in the long term to handle significant growth in EV load and to support increasing deployment of high-capacity fast chargers. It will be especially important for the system to expand at a pace and in locations that support the build-out of California's medium- and heavy-duty fleet needed to meet the State's air quality regulations. It will be important that investments be made strategically, so that the grid is not overloaded and that we can take advantage of cost-effective upgrade opportunities. To that end, charging infrastructure located on the utility side of the meter is now generally paid for by ratepayers under the EV infrastructure rules adopted pursuant to AB 841.

In the past, TE investments were approved as part of specific, one-off IOU TE applications. Under the new approach, investment in EV infrastructure is part of an IOU's overall distribution system upgrade plans, which are reviewed and approved as part of the IOU's general rate case. This will allow for more rapid and predictable utility investment in this area, and greater certainty for EV customers. The Commission will continue to review and shape distribution investment plans so that they are aligned with achieving the State's electrification goals and do not lead to unreasonable or unnecessary ratepayer costs. The new Staff Proposal, included as Attachment A, builds on that framework and only pertains to customer-side (*i.e.* behind-the-meter) TE infrastructure costs and non-infrastructure costs.

AB 841 directed the utilities and Commission to establish new rules that authorize each utility to "design and deploy all electrical distribution infrastructure on the utility side of the customer's meter for all customers, or

applicants, installing separately metered infrastructure to support charging stations, other than those in single-family residences.” In February 2021 all six regulated electric utilities filed Advice Letters (ALs) to implement the legislation. The ALs requested the establishment of new rules for EV infrastructure and requested accounts to track the associated costs. Under the new rules, ratepayers as a whole are responsible for the costs of service line extensions and electrical distribution infrastructure for EV charging for customers other than those in single-family residences. Single-family residences already received similar treatment under existing permanent exemptions from the current Rules 15 and 16 that govern customer contributions to new infrastructure. Those individual residential customers do not have to bear the costs of upgrades they may trigger. The Commission approved these Advice Letters in Res E-5167 and Res E-5168.

Per the direction of AB 841, the costs related to utility-side distribution infrastructure that support EV charging will be recovered through the IOU’s general rate cases as part of the normal course of business. As a result, IOUs will no longer request approval for utility-side costs associated with separately metered EV charging in applications or AL proposing new TE programs. In the past, the IOUs tracked these costs in Balancing Accounts associated with individual TE programs but moving forward they will track them within a Memorandum Account and seek approval of those costs within a general rate case.

For separately metered EV charging installed outside of TE programs, this approval will allow residential customers in multi-family buildings and non-residential customers to take service under the new EV infrastructure rules rather than Rule 16. Residential EV customers in single-family homes have been



exempted from Rule 16 since 2011. Under Rule 16, ratepayers cover costs up to an allowance, but the customer is responsible for other costs such as construction, trenching, and other expenses. Rule 16 covers less of the costs associated with utility-side service line extension and electrical distribution infrastructure than the new rules. The new rules generally cover the full portion of the make-ready infrastructure on the utility-side of the meter. Make-ready infrastructure can include conduit, wire, and other components on the utility side of the meter that enable the installation of an EV charger.

The Resolutions implementing AB 841 modified some of the utilities' proposals to ensure consistency in policy across the utility service territories, increase transparency for customers, and ensure additional protections for ratepayers. The Resolutions required the utilities to each file an AL within 60 days to address outstanding implementation details.

The Resolutions further directed the utilities offer these new rules to all customers outside of single-family residences that install separately metered EV charging no later than six months after the approval of the Resolutions. Pursuant to AB 841, the Commission and stakeholders will evaluate the effectiveness of these rules in accelerating TE and protecting the interests of ratepayers beginning in 2025. The Resolutions require the utilities to track costs on a site-by-site basis within their proposed Memorandum Accounts, and additionally require the utilities to report data via the annual EV Cost Report to enable analysis and evaluation of the new EV infrastructure rules.

For each utility, the new rules cannot be modified until the completion of its next general rate case cycle. New general rate case cycles will begin between 2027 and 2029. The Commission may then use the data collected on costs and effectiveness of the new rules to determine whether to require any customer

contributions for costs incurred on the utility side of the meter for installation of EV charging infrastructure.

As a result of the new rules, customers installing EV charging enjoy substantially more certainty as well as significantly lower infrastructure costs.

The Commission is also undertaking significant efforts to ensure that customers installing EV charging do not wait in long interconnection queues, a concern raised by a number of stakeholders. The AB 841 Resolutions ordered that the utilities hold a workshop be held to determine the service timing utilities must achieve for new EV charging, with the expectation being that the average timeline between a customer submitting a service request to when the EV charger is energized be between 90 and 160 days. After the workshop, the Commission will adopt an enforceable timeline for energization.

The Commission is also ensuring that utilities plan for how the distribution grid should be upgraded to meet the new load EV charging will create through the Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future. Finally, the Commission's Integrated Resource Planning proceeding (which focuses on resource procurement) is using load forecasts that include more EV charging demand. By doing so, it is incorporating expected EV load into planning for both generation and transmission resources. This ensures that those resources will be built in preparation for EV demand.

In light of these developments, the attached Staff Proposal does not address investments on the utility-side of the meter.

## **2. Chapters 3 and 4 of the Draft TEF**

The Staff Proposal revises Chapters 3 and 4 of the February 2020 Draft TEF.

## **2.1. Chapter 3**

Chapter 3 of the draft TEF proposed the creation of 10-year IOU TEPs, whereby each IOU would biennially develop a plan for TE investments looking forward 10 years. Staff proposed that once TEPs were approved, the IOUs would subsequently file applications for programs and AL for pilots, submitted on periodic basis.

Part of the rationale behind the TEPs was to stop the “ad-hoc” or application-by-application approach that the Commission currently uses for TE program authorization.<sup>9</sup> The TEPs would also forecast TE infrastructure needs in each of the IOU’s service territories and create programs based upon those needs. The 10-year period would ensure the IOUs were effectively achieving California’s greenhouse gas emissions reduction goals via strategic planning and needs-based programs.

Parties had mixed responses to the proposal that the IOUs develop 10-year TEPs. The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) stated that TEPs should be refined to include IOU program and pilot proposals, and that they should look out five instead of 10 years, and also apply a rebuttable assumption that TE market segments lack maturity.<sup>10</sup> Small Business Utility Advocates, the Port of Long Beach, California Transit Association, and the Utility Consumers’ Action Network generally supported the proposed structure. The Utility Reform Network supported the proposed structure and suggested additional elements be required in the TEPs.

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<sup>9</sup> See Draft TEF at 17.

<sup>10</sup> Cal Advocates Opening Comments at 7 to 8, available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M328/K765/328765797.PDF>.

A number of parties -- including the Vehicle-Grid Integration Council, SCE, California Energy Storage Alliance, Environmental Defense Fund, Pacific Gas and Electric Company (PG&E), SDG&E, San Diego Association of Governments, Electrify America, Joint Commenters<sup>11</sup>, Natural Resources Defense Council et al.<sup>12</sup>, Advanced Energy Economy, and EVgo -- commented that the proposed structure and timeline of the TEPs and TE program applications were too long and inflexible.

Chapter 3.4 of the draft TEF proposed the development of a “scorecard” to measure the progress of each of the IOU’s TE investments.<sup>13</sup> The scorecard was to identify different targets and portfolio benchmarks, encompassing infrastructure, equity, load, and vehicle-grid integration (VGI).<sup>14</sup> As proposed, the scorecard was to be filed prior to the IOU’s TEPs.<sup>15</sup>

## **2.2. Chapter 4**

Chapter 4 of the draft TEF posed the question of what role the IOUs should play in accelerating TE infrastructure.<sup>16</sup> Many parties provided feedback and an array of opinions.

PG&E, for instance, expressed the importance “for utilities to provide appropriate broad and targeted support for the TE market within the context of their core capabilities and the roles they play in the wider TE ecosystem. These

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<sup>11</sup> Joint Commenters consist of Center for Community Action and Environmental Justice, East Yard Communities for Environmental Justice, Sierra Club, Union of Concerned Scientists, and Center for Biological Diversity.

<sup>12</sup> Consisting of the Natural Resources Defense Council (NRDC), the Coalition of California Utility Employees (CUE), Siemens, Greenlots, Enel X North America Inc., and EVBox Inc.

<sup>13</sup> Draft TEF at 28.

<sup>14</sup> Draft TEF at 28 to 29.

<sup>15</sup> Draft TEF at 32.

<sup>16</sup> Draft TEF at 33.

capabilities [should] include: infrastructure, developing appropriate rates for electric fueling, customer education, and programs,” and that the Commission should “reframe the role of IOUs as market enablers and supporters rather than market stimulators to ensure appropriate attention is given to core utility capabilities without potential distractions,” given that “IOUs [support] the TE market and customers but cannot drive demand for it.”<sup>17</sup>

A number of parties -- including the Vehicle-Grid Integration Council, Cal Advocates, California Energy Storage Alliance, Liberty CalPeco, Green Power Institute, Electrify America, EVgo, and California Transit Association -- agreed with the draft TEF that the utilities have an important role to play in TE insofar as lowering identified market barriers, developing rates and providing infrastructure but that other actors, including the private market, also play a crucial role. Some parties -- including SCE, Environmental Defense Fund, SDG&E, Joint Commenters, Advanced Energy Economy, and Utility Consumers’ Action Network -- argued that the IOUs’ roles were broader than the limited list presented in the draft TEF. The Utility Reform Network commented that the utilities’ roles may be narrower than those identified in the draft TEF.

### **3. Funding and Available TE Pathways**

As mentioned above, the Commission has authorized approximately \$1.8 billion in TE funding to date. The chart below depicts the funding authorized and the trajectory of program spending. As illustrated, many of the TE programs for which the Commission has authorized ratepayer investment are fully funded for the next few years. While the appended Staff Proposal recommends a plan for evolving the Commission’s approach to TE funding and

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<sup>17</sup> PG&E Comments at 8.

programs beginning in 2025, it does not limit the IOU programs and funding pathways in the meantime. In particular, we highlight the programmatic pathways the Commission recently established through the near-term priorities decision, where it authorized funding for the IOUs to propose TE programs in five distinct categories, and allowed them to submit other TE applications at any time. In addition, in the SB 676 decision, the Commission authorized funding for IOUs to propose TE VGI pilots.

Program	Funding	2022	2023	2024	2025	2026-2029
PG&E's EV Fast Charge	\$23.3M					
SCE's Charge Ready Transport	\$356.4M					
PG&E's EV Fleet	\$245.8M					
SDG&E's Power Your Drive for Fleets and V2G School Bus Pilot	\$113.4M					
AB 1082/1083 Schools, Parks & Beaches	\$56.7M					
SCE's Charge Ready 2	\$436M					
SMJU SB 350 Programs	\$7.8M					
SB 676 VGI Pilots	\$35M					
SB 676 Emerging Technology	\$10M					
SDG&E's Power Your Drive Extension	\$43.5M					
TEF Near-Term Priorities	\$240M					
AB 841 EV Infrastructure Rules	N/A					
PG&E's EVC 2 ( <i>proposed</i> )	\$275.8M					

#### 4. New Staff Proposal Comment Schedule

Energy Division's new Staff Proposal responds to stakeholder comments on the February 2020 draft TEF and developments in the market since that time to propose a modified approach to TE funding through the remainder of this decade and beyond. This proposal builds off the draft TEF, and the Commission will utilize the comments that parties already submitted on Chapters 3 and 4,

along with other sections of the draft TEF. The Staff Proposal aims to accelerate EV BTM charging deployment to support California’s ambitious climate and EV charging goals<sup>18</sup> while minimizing administrative burden, maximizing third-party participation and limiting cost to ratepayers.

The Commission invites party comment on the Staff Proposal included in Attachment A to this ruling. Parties should organize comments within the sections listed in the Staff Proposal and corresponding questions. Moreover, parties should strive not to reiterate points that were made in the 2020 draft TEF comment cycles, as the Commission will continue to consider and utilize those comments.

Opening and reply comments are subject to page limits. Parties shall ensure that opening comments are limited to 25 pages and that reply comments are limited to 15 pages. There is no need to answer each question asked in the Staff Proposal; parties may reply only to some so long as they indicate to which question they are responding.

## **5. Updated Schedule**

The procedural schedule for the instant proceeding needs revision as it was last updated via ruling toward the end of 2020. Accordingly, the instant ruling updates the procedural schedule to the following procedural milestones in the attached Staff Proposal:

<b>Date</b>	<b>Procedural Milestone</b>
February 2022	Assigned Commissioner Ruling (ACR) issued
30 days from issuance of ACR	Opening Comments

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<sup>18</sup> This includes EO B-16-12, SB 350 (de Leon, Chapter 547, Statutes of 2017), EO B-48-18, EO N-79-20, SB 676, and AB 841.

21 days after Opening Comments are due	Reply Comments
90 Days after Submission	Proposed Decision Issued for Comment
Q2 2022	Proposed Decision on outstanding Submetering Protocol and Communication Protocols

**IT IS RULED** that:

1. The attached Staff Proposal is incorporated into the record of this proceeding.
2. Parties shall file and serve comments on the Staff Proposal in accordance with the schedule established in this ruling.
3. Parties shall organize their comments by the sections and questions that appear in the Staff Proposal.
4. The procedural schedule is updated to the one reflected in the instant ruling.
5. Parties shall ensure opening comments are limited to 25 pages.
6. Parties shall ensure reply comments are limited to 15 pages.

Dated February 25, 2022, at San Francisco, California.

/s/ CLIFFORD RECHTSCHAFFEN  
Clifford Rechtschaffen  
Assigned Commissioner