

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

Application of Southern California Edison
Company (U 338-E) for Approval of its Charge
Ready 2 Infrastructure and Market Education
Programs.

A.18-06-015

REPLY BRIEF OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E)

ANNA VALDBERG
ANDREA L. TOZER

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-6713
Facsimile: (626) 302-6693
E-mail: Andrea.Tozer@sce.com

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In accordance with Rule 13.11 of the California Public Utilities Commission’s (“Commission”) Rules of Practice and Procedure (“Rules”) and Administrative Law Judge Goldberg’s E-Mail Ruling of February 4, 2019, Southern California Edison Company (“SCE”) respectfully submits this reply to parties’ briefs on SCE’s Charge Ready 2 proposal.

I.

INTRODUCTION

The California Legislature has determined that the state should “encourage transportation electrification as a means to achieve ambient air quality standards and the state’s climate goals.”¹ As such, the Legislature recognized the fundamental role that utilities must play to increase access to the use of electricity as a transportation fuel, which is necessary to achieve the state’s desired goal of widespread transportation electrification (“TE”).² SCE’s proposed Charge Ready 2 will support and accelerate light-duty electric vehicle (“EV”) adoption, facilitating widespread transportation electrification as required by statute and consistent with regulatory guidance.

¹ Cal. Pub. Util. Code § 740.12(a)(2).

² Cal. Pub. Util. Code § 740.12(a)(1)(E).

Charge Ready 2 satisfies the applicable statutory requirements and regulatory guidance and should be approved as proposed by SCE.

While many parties offered comments or recommendations on aspects of SCE's proposed Charge Ready 2, all parties have agreed that implementation of Charge Ready 2, in some form, should be approved to increase TE, reduce greenhouse gas ("GHG") emissions, improve air quality, increase access to EV charging, and educate customers about EVs and the benefits of fueling from the grid.³ SCE appreciates that overarching support, and although several parties have articulated their respective preferences for modifying Charge Ready 2, the fact remains that no party has provided sufficient evidence or other persuasive justification demonstrating that Charge Ready 2 fails to meet the applicable statutory requirements or the Commission's previous regulatory guidance. The Commission should promptly approve SCE's proposed Charge Ready 2 without modification.

II.

THE SCOPE AND SCALE OF CHARGE READY 2 IS NECESSARY AND APPROPRIATE PURSUANT TO SB 350

Most parties support SCE's proposed scope and scale for Charge Ready 2. For example, UCS states that "SCE's Charge Ready 2 proposal complies with the directive to reduce greenhouse gas emissions and the health and environmental impacts associated with air pollution" and asserts that "the scope of investment (*i.e.*, number of charge ports and projects)

³ See Union of Concerned Scientists ("UCS") Brief, pp. 2-3; Natural Resources Defense Council, Coalition of California Utility Employees, Sierra Club, Greenlots, Siemens, Electric Motor Werks, Inc., EVBox Inc., American Honda Motor Co., Inc., Association of Global Automakers, Inc., Alliance of Automobile Manufacturers (collectively, "Joint Parties") Brief, p. 1; ChargePoint, Inc. ("ChargePoint") Brief, pp. 1-2; Public Advocates Office at the California Public Utilities Commission ("Cal Advocates") Brief, p. 1; Tesla, Inc. ("Tesla"), pp. 1-2; Small Business Utility Advocates ("SBUA") Brief, p. 2; The Utility Reform Network ("TURN") Brief, pp. 2-3; California Choice Energy Authority ("CalChoice") Brief, p. 1; EVgo Services LLC ("EVgo") Brief, p. 2; Green Power Institute and Community Environmental Council ("GPI/CEC") Brief, pp. 4-5; National Diversity Coalition ("NDC") Brief, pp. 3-4; Greenlining Institute ("Greenlining") Brief, pp. 1-2; Lyft, Inc. ("Lyft") Brief, pp. 4-5.

proposed by SCE should be approved to move the state closer to electrifying its transportation sector.”⁴ The Joint Parties state that “[e]lectrifying the vast majority of the transportation sector is an essential component of any feasible pathway to achieve California’s climate, air quality, and equity goals” and caution against the risks of failing to act quickly.⁵ The Joint Parties assert that “SCE’s Charge Ready 2 Program is designed accordingly to [make consumers aware of the availability and benefits of EVs and ensure they are able to charge EVs where they live, work, and play] and support widespread transportation electrification in line with the goals codified in Senate Bill (SB) 350.”⁶ TURN and Cal Advocates, however, argue for drastic reductions in SCE’s proposed budget that would jeopardize the successful implementation of the large-scale program that is necessary to meet the state’s mandate to facilitate widespread TE that will support achieving vital GHG emissions reductions and air quality improvements. TURN’s and Cal Advocates’ proposals should therefore be denied. Charge Ready 2, at the scale proposed by SCE, aligns with the Legislature’s finding that “[w]idespread transportation electrification requires electrical corporations to increase access to the use of electricity as a transportation fuel.”⁷

A. TURN’s Proposal Is Based on an Unreasonable Forecast.

SCE’s Charge Ready 2 proposal is designed to provide charging infrastructure to support approximately one-third of the projected market need for EV charging ports in SCE’s service territory during Charge Ready 2’s duration.⁸ TURN argues that SCE should provide only approximately 60% of SCE’s proposed ports for roughly one-third of the costs.⁹ TURN’s forecast is unreasonable. As UCS explains, SCE’s proposal “answer[s] the statutory directive of

⁴ UCS Brief, p. 4.

⁵ Joint Parties Brief, p. 1.

⁶ *Id.*

⁷ *See* Cal. Pub. Util. Code § 740.12(a)(1)(E).

⁸ Exhibit SCE-2, p. 3.

⁹ TURN Brief, p. 3.

SB 350, namely: ‘how must transportation electrification be accelerated to meet air quality standards and greenhouse gas reduction targets.’”¹⁰ SCE’s witness Bowman testified that “the methodology that we used in the Charge Ready 2 program is that when we look at vehicles by 2030, we’re assessing it from meeting a state public policy goal, and so that’s 40 percent reduction in greenhouse gas emissions by 2030.”¹¹

TURN concedes that its approach is not based on an analysis of what would be necessary to accelerate transportation electrification to be on a trajectory to meet state goals and that TURN has not conducted any such analysis.¹² Ms. Bowman testified that TURN’s methodology is not appropriate because under TURN’s projections the state would not be on a trajectory to meet its EV targets or climate goals.¹³ TURN’s methodology, based as it is on historical EV sales, is not appropriate when designing a future program for a growing market that is crucial to achieving the state’s public policy goals. As Ms. Bowman explained, “if you’re really trying to tie certain aspects of the forecast to public policy goals, then basing something on history that didn’t have those same public policy goals and the programs that support achieving those goals, then, no, I don’t think it’s appropriate to use that type of forecast.”¹⁴

TURN fails to provide any evidence to support its reliance on the California Energy Commission’s (“CEC’s”) “mid case” scenario. As UCS explains, analyzing the CEC’s underlying assumptions demonstrates that many factors have changed since the CEC report. The fact that events on which the scenarios are based are meeting or exceeding the assumptions in the CEC’s “aggressive” case demonstrates that a much higher forecast is now both necessary and reasonable.¹⁵ The CEC’s “high” and “aggressive” forecasts show that the CEC’s outlook is

¹⁰ UCS Brief, p. 7.

¹¹ SCE, Bowman, Tr. 1/104, lines 10-16.

¹² TURN, Borden, Tr. 4/586-587.

¹³ SCE, Bowman, Tr. 1/104-105.

¹⁴ SCE, Bowman, Tr. 1/105, lines 8-15.

¹⁵ UCS Brief, pp. 7-8.

beginning to converge with SCE's.¹⁶ Further, SCE's forecast is comparable to other notable forecasts, is reasonable, and reflects what is actually needed to economically meet California's GHG-reduction goals.¹⁷

TURN also fails to take into account significant recent policy developments, including reports describing unprecedented global environmental changes and the need for immediate actions within the energy, transportation, and other sectors to limit the most severe impacts of climate change on the economy, environment, and human health, as well as former Governor Brown's executive order directing California to achieve carbon neutrality no later than 2045.¹⁸ Ms. Bowman testified that "you would need to significantly increase the amount of [electric] vehicles that you need in 2030 in order to achieve that 2045 net [carbon] neutrality."¹⁹

TURN also misunderstands SCE's port-need analysis. TURN argues that "SCE's proposal assumes it fills the entire incremental need between 2019 and 2023 for its service territory based on these results."²⁰ In fact, SCE clearly stated that it intends to serve approximately one-third of the market need in its service territory during the program duration.²¹ This leaves almost 70 percent of the forecast market need to be served by non-utility entities.²²

TURN displays a further lack of understanding of SCE's charging station analysis by asserting that "[SCE's] model does not in any way reflect the 'need for the multi-unit dwelling sector.'"²³ This is incorrect. Using a mix of NREL's EVI-pro home versus away charging assumptions and knowledge about the single-family and multi-unit dwelling ("MUD")

¹⁶ Exhibit SCE-2, p. 10.

¹⁷ *Id.*

¹⁸ Exhibit SCE-2, p. 8.

¹⁹ SCE, Bowman, Tr. 1/106-107.

²⁰ TURN Brief, p. 13.

²¹ Exhibit SCE-1, pp. 3, 31; Exhibit SCE-2, pp. 3, 10-12.

²² Exhibit SCE-2, p. 12.

²³ TURN Brief, p. 13.

populations in SCE territory, SCE's charging need analysis accounts for both residential and away-from-home charging with specific carve outs for charging needed in single-family homes and in the MUD segment based on the populations of single- and multi-family homes in SCE territory.²⁴ SCE's analysis shows that after accounting for total charging station need in single-family and MUD residential sectors and away-from-home sectors, SCE's port target for Charge Ready 2 represents approximately one-third of this charging station need through 2023.

Finally, TURN is incorrect that SCE's port-need analysis should be reduced because workplace and public charging infrastructure are not necessary to increase adoption and address range anxiety.²⁵ SCE already significantly reduced the attach rate assumptions to reflect TURN's described lower need for plug-in hybrid electric vehicles ("PHEVs").²⁶ Further reducing workplace and public charging would negatively impact the nearly one-third of SCE's customers that live in MUDs,²⁷ including lower-income customers, and SCE carefully designed the Charge Ready 2 proposal to make charging options accessible for all customers. In addition to encouraging adoption, workplace charging availability allows PHEV drivers to greatly increase their electric vehicle miles traveled,²⁸ including during the day when solar generation is abundant,²⁹ increasing their benefits.

The evidence in the record demonstrates that SCE's forecast reflects the trajectory necessary to economically achieve California's GHG-reduction goals for 2030 and beyond. TURN's forecast is not reasonable, and would not support a trajectory for the growth in EV adoption necessary to meet the state's goals.

²⁴ Exhibit SCE-1, p. D-1.

²⁵ See TURN Brief, pp. 14-15.

²⁶ Exhibit SCE-2, p. 11.

²⁷ See Exhibit SCE-1, p. 19, Figure II-3.

²⁸ Exhibit SCE-2, p. 12.

²⁹ Exhibit SCE-1, p. 16.

B. TURN and Cal Advocates Rely on Inappropriate Site Distributions and Cost Comparisons.

Although Cal Advocates does not recommend a reduction in SCE's estimated port need, TURN and Cal Advocates argue that SCE's costs should be reduced by assuming an unreasonably high number of large sites with high numbers of ports per site. Neither TURN nor Cal Advocates provide realistic justification for their hypothetical site distributions. SCE's assumed distribution between smaller and larger sites, on the other hand, was derived from Charge Ready Pilot data and mirrors results from NRG settlement installations.³⁰ Artificially inflating the assumed ports per site would lower the cost threshold for sites eligible to participate in Charge Ready 2. This would limit the participation of MUDs, small businesses, and more densely populated urban sites in favor of large corporate workplaces with sufficient parking lot space to accommodate large charging station deployments.³¹ This result is contrary to TURN's stated goal of emphasizing deployments at MUDs and in disadvantaged communities ("DACs").³²

TURN and Cal Advocates argue that SCE's per-port cost estimates are higher than other incentive programs.³³ TURN and Cal Advocates, however, have provided no evidence that these incentive programs are comparable to SCE's proposal or provide comparable benefits. Cal Advocates relies on NRG settlement and audit costs and EPRI report cost data.³⁴ SCE has shown that reliance on these studies is improper because "there is little clarity as to what types of installations and cost components are represented by the data."³⁵ Cal Advocates demonstrates this uncertainty by changing its initial assumptions made about this data in opening testimony to

³⁰ Exhibit SCE-2, pp. 14-15.

³¹ *Id.*, p. 15.

³² *See* TURN Brief, p. 14.

³³ TURN Brief, pp. 17-18; Cal Advocates Brief, p. 6.

³⁴ Cal Advocates Brief, pp. 8-18.

³⁵ Exhibit SCE-2, p. 15.

new assumptions now provided in Cal Advocates' brief. For example, Cal Advocates changed its interpretation of the NRG numbers by 186% (from \$5,814 to \$10,842).³⁶ Further, Cal Advocates admits that uncertainty still remains in its assumptions even after such a dramatic change (as demonstrated by the assumptions described in footnotes 43 through 49³⁷ and additional incorrect assumptions regarding ports that would affect costs, which Cal Advocates assumes without any supporting data “*would be lower per port if NRG stubs are multi-port*”³⁸). Cal Advocates' conclusions are based on incorrect assumptions, confusing, and not supported by evidence in the record; consequently, the Commission should disregard them.

C. Charge Ready 2 Provides Customer Benefits, Including Downward Pressure on Rates.

TURN acknowledges that TE programs have the potential to provide environmental benefits and may result in downward pressure on rates for all customers. TURN incorrectly argues, however, that the size of SCE's Charge Ready 2 proposal diminishes any downward pressure on rates.³⁹ TURN's analysis contains a major flaw.

³⁶ Cal Advocates Brief, p. 11.

³⁷ *Id.*, p.10.

³⁸ Cal Advocates Brief, p.11 (emphasis added). Cal Advocates' claim that assuming multiport would lower the cost analysis is incorrect. In fact, Cal Advocates' assumption that all stations are single-port omits additional stub costs that would be necessary to connect to each individual station. If NRG already assumed dual-port stations would be installed on its stubs and included this dual-port assumption in its port counts, then Cal Advocates' assumption that the port count reflects single-port stations should, in effect, cut the port count in half and double the cost per port. However, Cal Advocates does not reduce the port count from what NRG has reported and may therefore be underestimating NRG costs. The following hypothetical demonstrates this point: if NRG installs *two make-ready stubs* and assumes two dual-port stations would be connected for a total of four ports at a site cost of \$20,000, this would result in a \$5,000 per-port cost (\$20,000 site / 4 ports = \$5,000). Cal Advocates assumes that, in this example, the \$5,000 per port applies to single-port stations instead of dual-port stations. However, this is not possible because the site as Cal Advocates envisions would, in reality, require two additional stubs in order to connect the four single port-stations (4 stubs, 4 single-port stations). If Cal Advocates wants to assume only single-port stations were used, the cost per port should be doubled to \$10,000 (\$20,000 site / 2 ports = \$10,000). Unfortunately, the NRG data as reported does not specify the number of ports per station that were deployed. Consequently, Cal Advocates' cost estimates and assumptions are questionable at best.

³⁹ See TURN Brief, p. 8.

TURN used former Governor Brown’s original state goal of 1.5 million EVs statewide by 2025, with an estimate of 32% of that goal in SCE’s territory, and held that level of vehicles constant through 2030, rather than using the most recent CEC forecasts that all show higher EV adoption by 2025 than Governor Brown’s previous goal. TURN’s analysis hinges on this highly conservative assumption of the number of EVs forecasted for SCE’s territory from 2019 and beyond. If, for example, instead of using TURN’s assumed EV forecast, the analysis uses the more appropriate updated CEC forecast, the results show that the net present value (“NPV”) of net revenues, even using TURN’s model, increases substantially. SCE updated TURN’s analysis using the up-to-date CEC “mid case” of EV adoption in SCE’s territory, which yields a net present revenue cost from 2019 to 2029 of \$5.0 million for SCE’s Charge Ready 2 proposal (the difference between the Charge Ready 2 NPV revenue requirement of \$594.7 million and revenues of \$589.7 million). Notably, using the CEC’s “high” and “aggressive” cases of EV adoption yields a positive benefit of \$96.7 million and \$145.5 million, respectively.⁴⁰ As discussed above, the CEC “aggressive case” is a much more reasonable estimate, and still less than what SCE estimates is necessary to economically achieve California’s 2030 GHG-reduction goals.⁴¹

While continuing to use TURN’s model to calculate net revenues to simplify the discussion of potential downward pressure on rates, a more useful method to measure downward rate pressure is to estimate in what year the annual costs in terms of revenue requirements will be less than the annual net revenues from EV charging. The primary issue with an NPV analysis, such as TURN’s, is that the earliest years more heavily influence the results and it is unclear when downward pressure on rates may occur. Stated another way, the NPV method focuses the analysis on the early years of SCE’s program and unduly discounts the outer years. SCE’s Charge Ready 2 infrastructure program is an investment in long-lived assets with a

⁴⁰ Exhibit SCE-2, pp. 5-6.

⁴¹ Exhibit SCE-2, p. 7.

corresponding ME&O program that will increase EV awareness and education for years and, therefore, EV adoption is expected to continue to increase for some time after SCE’s program has been completed. To better reflect the EV adoption that is likely to occur in the years following the infrastructure investment, SCE demonstrated that Charge Ready 2 will result in downward pressure on rates by 2024 using the CEC “mid,” “high,” and “aggressive” cases of EV adoption and by 2027 using the CEC “low” case.⁴²

III.

CHARGE READY 2 ADDRESSES SIGNIFICANT BARRIERS TO EV ADOPTION

SCE designed Charge Ready 2 to address specific barriers to EV adoption. SCE’s proposed program modifications, including the Own & Operate option and lower port minimums, are essential to increase MUD participation.

A. The Own & Operate Option Is Essential to Increase MUD Participation.

Many parties support SCE’s proposed Own & Operate option, which allows customers at a limited number of MUD and government locations to select SCE ownership and operation of the charging stations.⁴³ As the Joint Parties describe, the Own & Operate option “would help remove barriers for site hosts and residents, increasing deployment and participation at MUD and government sites and further supporting widespread transportation electrification.”⁴⁴ Additionally, the Own & Operate “solution would also support competition and a leveled playing field in the marketplace for EV charging products and services, which could in turn drive even greater EV adoption in MUDs and other segments.”⁴⁵ TURN, however, recommends limiting the option to 2,500 ports at MUDs located in DACs.⁴⁶ Cal Advocates recommends eliminating

⁴² Exhibit SCE-2, pp. 6-7.

⁴³ See, e.g., Joint Parties Brief, pp. 9-11.

⁴⁴ Joint Parties Brief, p. 10.

⁴⁵ *Id.*

⁴⁶ TURN Brief, p. 23.

the option entirely.⁴⁷ SCE developed this proposal in direct response to customer barriers identified in the Pilot,⁴⁸ and no party provides evidence sufficient to justify that this limited option should not be offered to facilitate participation in these segments.

As TURN states, “the Commission must balance utility ownership with anti-competitive concerns and the extra cost to ratepayers inherent with adoption of this model.”⁴⁹ TURN and Cal Advocates do not provide evidence that SCE’s proposal to offer utility ownership of only 4,230 ports (out of a total estimated 32,000 ports in the Make-Ready Expansion program and a much larger total market need) will have any anti-competitive impact. SCE and the Joint Parties provided evidence that offering this option will provide valuable information about how utilities owning and operating charging infrastructure can address barriers to adoption among key customer segments. As demonstrated by the success of San Diego Gas & Electric Company’s (“SDG&E’s”) program in achieving MUD adoption, utility ownership can address critical barriers in these market segments.⁵⁰ TURN is correct that “[u]tility ownership is justified at this time for this limited subset of participants due to the difficulties in siting charging stations [at] MUDs and the fact that MUD charging infrastructure investments are the most likely to lead to EV adoption.”⁵¹ The evidence demonstrates that utility ownership is also justified for the slightly larger subset of MUD and government locations proposed by SCE.

B. Lower Port Minimums Will Address Barriers for MUDs and Small Businesses.

Although some parties express concern at the loss of economies of scale at sites with lower numbers of ports, SCE designed this aspect of Charge Ready 2 specifically to enable participation by these smaller sites that may be just entering the EV market. Both TURN and

⁴⁷ Cal Advocates Brief, p. 33.

⁴⁸ Exhibit SCE-2, p. 18.

⁴⁹ TURN Brief, p. 23.

⁵⁰ Exhibit SCE-2, p. 19; Joint Parties Brief, p. 9.

⁵¹ TURN Brief, p. 23.

Cal Advocates acknowledge that if cost concerns are addressed, sites with a lower number of ports should be able to participate in Charge Ready 2.⁵²

Retaining the lower port minimum is essential to facilitate widespread TE consistent with the goals of SB 350. Although the per-port cost may be higher at these sites, the Commission must balance these considerations with addressing the barriers to TE among all customer segments. Because MUDs had the lowest participation among customer segments in SCE's Charge Ready Pilot, SCE designed new features in its Charge Ready 2 proposal to specifically address barriers at MUDs. Numerous customers would benefit from lowering the minimum required number of ports per site to two—particularly MUDs and small businesses. 46 percent of MUDs in SCE's territory have ten or fewer parking spaces. Maintaining the minimum number of ports at five or ten would likely exclude most of these customers from participating in the program, as building owners and management agencies are very unlikely to see 50 to 100 percent EV adoption in their small buildings over the next few years. Further, a two-port minimum could enable street-side charging that could serve residents of MUDs without onsite EV charging available. A higher port minimum could prevent this type of arrangement and, therefore, decrease MUD access to charging and adoption.⁵³

Small business owners are likely to have many of the same concerns as MUD owners and managers. Approximately 86 percent of businesses in SCE's territory employ fewer than 20 people. These business owners are unlikely to see an immediate need to devote 50 percent of their employee parking to EV charging. SCE's proposed two-port minimum directly responds to customer feedback in the Pilot and should position SCE well for increasing adoption among customer segments like MUDs and small businesses that found the previous port minimum to serve as a barrier to program participation.⁵⁴

⁵² TURN Brief, p. 21; Cal Advocates Brief, p. 19.

⁵³ Exhibit SCE-2, pp. 21-22.

⁵⁴ Exhibit SCE-2, p. 22.

IV.

IMPLEMENTATION FLEXIBILITY IS ESSENTIAL FOR A SUCCESSFUL, LARGE-SCALE PROGRAM

SCE designed Charge Ready 2 to specifically target key barriers and customer needs in SCE's service territory.⁵⁵ But retaining implementation flexibility is key for SCE and stakeholders to address new developments in policy, technology, and customer needs to ensure the most effective program over its four-year duration.

A. Implementation Details Are Best Addressed with Guidance from SCE's TE PAC.

Some parties, including Greenlining, provide detailed implementation recommendations.⁵⁶ These implementation details are best developed with stakeholder input through SCE's TE Program Advisory Council ("PAC"). Cal Advocates proposes several prioritization criteria and argues that, in addition to consulting with SCE's PAC to establish a site prioritization methodology, the Commission should require SCE to file a Tier 2 advice letter requesting approval of the completed site prioritization methodology.⁵⁷ Cal Advocates argues that "[t]he Commission and parties should have the opportunity to review and comment on the specific parameters of the proposed prioritization criteria SCE develops in consultation with the PAC."⁵⁸ A Tier 2 advice letter seeking Commission approval for the site prioritization methodology is not necessary or appropriate to achieve Cal Advocates' stated goal. SCE's TE PAC includes the Commission's Energy Division and many parties to this proceeding. Other interested parties and stakeholders are welcome to join the PAC. The PAC process allows SCE to receive helpful feedback and improve its proposals, without creating unnecessary delay. It also preserves flexibility for SCE, in consultation with its PAC, to adjust the prioritization methodology and other implementation details throughout the duration of the program, if

⁵⁵ *Id.*, p. 1.

⁵⁶ *See, e.g.*, Greenlining Brief.

⁵⁷ Cal Advocates Brief, pp. 23-25.

⁵⁸ Cal Advocates Brief, p. 25.

appropriate. This flexibility is particularly important in a four-year program, where SCE and its stakeholders will be learning and improving throughout the program. During the program, SCE and its PAC may agree that it is appropriate to add or adjust criteria in the prioritization methodology. For example, it may be appropriate to adjust the prioritization methodology to improve participation among MUDs, which is an emphasis of SCE's proposed Charge Ready 2. Requiring Commission approval of these implementation details is not necessary, especially when the Commission is represented by the Energy Division on SCE's PAC, and the delays that could result from filing an advice letter could jeopardize the flexibility to improve the Charge Ready 2 program in a timely manner.⁵⁹

B. CalChoice's Recommendations are Unnecessary and Inappropriate.

CalChoice primarily argues that Charge Ready 2 should provide funding and carve outs to the City of Lancaster, one of CalChoice's member cities.⁶⁰ Lancaster represents approximately 1 percent of SCE's load. Carve outs for one city are not within the scope of Charge Ready 2 and are unnecessary because Charge Ready 2 is designed to benefit *all* SCE customers, and *all* eligible customers can participate in the Charge Ready 2 programs, whether those customers receive generation services from SCE, CCAs, or electric service providers.⁶¹ SCE is eager to collaborate with Lancaster and other cities and CCAs to identify and reach customers that may be a good fit for the Charge Ready 2 programs and leverage the unique capabilities and customer relationships they may have, but CalChoice's proposed modifications are not necessary or appropriate to achieve these results.

CalChoice also expresses concern that because Charge Ready 2 is "an SCE-centric program" that was "designed by SCE, and will be delivered by SCE," it has the "potential for inequitable cost allocation."⁶² CalChoice is correct that SCE designed and will deliver Charge

⁵⁹ Exhibit SCE-2, p. 27.

⁶⁰ CalChoice Brief, p. 4.

⁶¹ Exhibit SCE-2, p. 23.

⁶² CalChoice Brief, p. 5.

Ready 2 to *all* SCE distribution customers, including those that receive generation services from CCAs. CalChoice’s fear that SCE providing an SCE-designed and SCE-delivered program to all of its distribution customers somehow creates the “potential for inequitable cost allocation” is unfounded. SCE’s Charge Ready 2 will be funded through its distribution charges, which CalChoice correctly notes are paid by all customers for programs that are available to and benefit all customers. This practice is consistent with Commission precedent.⁶³

CalChoice requests that SCE set aside 50 sites in the Make-Ready Expansion program for locations identified by Lancaster to expedite implementation and advancement.⁶⁴ Reserving sites for an external entity’s selection is not appropriate. SCE is attempting to achieve many goals through its implementation of the Make-Ready Expansion program, and it needs to view site applications holistically to balance the objectives of the program throughout its implementation. Reserving a specific number of sites for an external entity’s selection could have the opposite of Lancaster’s stated desire (to expedite implementation). Instead, SCE could be forced to stop accepting applications if it has to reserve funding for 50 unknown sites with unknown costs.⁶⁵

CalChoice also requests that SCE set aside for Lancaster ownership 100 of the charge ports that SCE plans to offer for MUD and government customers that choose to have SCE own and operate the charging stations.⁶⁶ There may be customers that would like to select Lancaster to own and operate their charging stations. Nothing in SCE’s Make-Ready Expansion prevents such an arrangement, assuming that the participating customers meet all other program requirements. There is no reason to set aside 100 charge ports out of the small percentage of

⁶³ See D.14-12-024, p. 48, which states: “We find it equally reasonable that tariffs and programs, including pilots, available to all customers should be paid for by all customers.” See also the California Solar Initiative (“CSI”) and Self Generation Incentive (“SGIP”) programs, which are funded through distribution rates, and California’s Energy Efficiency, Demand Response, California Alternate Rates for Energy (“CARE”), and Medical Baseline programs, which are funded through Public Purpose Program rates that are paid for by all customers.

⁶⁴ CalChoice Brief, p. 4.

⁶⁵ Exhibit SCE-2, p. 24.

⁶⁶ CalChoice Brief, p. 4.

total charge ports that SCE has proposed that customers can elect to have SCE own and operate. Lancaster and participating customers can negotiate their own arrangements if customers want Lancaster to own and operate their charging stations.⁶⁷

CalChoice makes several requests related to Charge Ready 2 marketing, education and outreach (“ME&O”). First, CalChoice requests that SCE transfer \$300,000 of its customer-funded ME&O budget to Lancaster.⁶⁸ The Commission has already decided that CCAs may not file applications for TE programs, but encouraged utilities to coordinate with CCAs and ensure that their proposed TE programs will serve CCA customers.⁶⁹ SCE has affirmed that Charge Ready 2 will be available to all eligible customers, including CCA customers and that it looks forward to continuing coordinating with Lancaster in the implementation of Charge Ready 2.⁷⁰ CalChoice does not explain exactly what services it plans to provide for its requested \$300,000, but once SCE receives a decision from the Commission it will determine appropriate roles and budgets for vendors and CBOs.

In addition to paying Lancaster part of SCE’s overall ME&O budget, CalChoice requests that the Commission “establish requirements to ensure that Charge Ready 2 is equally accessible and marketed to all customers on a fair basis.”⁷¹ CalChoice argues that this is necessary because SCE’s witness Sloan Moody was unwilling, while on the stand, to adopt language from a Pacific Gas and Electric Company (“PG&E”) settlement agreement with which she was unfamiliar.⁷² As Ms. Sloan Moody stated, “[w]e were not a party to this settlement, and I can’t speak to what

⁶⁷ Exhibit SCE-2, p. 24.

⁶⁸ CalChoice Brief, pp. 4, 17.

⁶⁹ Assigned Commissioner’s Ruling Regarding the Filing of the Transportation Electrification Applications Pursuant to Senate Bill 350 (“ACR”), issued on September 14, 2016, in R.13-11-007, pp. 9-10.

⁷⁰ Exhibit SCE-2, p. 23.

⁷¹ CalChoice Brief, p. 21.

⁷² *Id.*, p. 22.

the intent of this language means.”⁷³ She went on to affirm that “[w]e are open to continuing to collaborate with Lancaster and other cities in our service area.”⁷⁴

CalChoice requests that all communications in any CCA area include the logos of both SCE and the CCA.⁷⁵ This is not appropriate or necessary because SCE’s Charge Ready 2 program will be available and marketed to all eligible customers. Cobranding is not necessary to prevent CCA customers from mistakenly believing that they are ineligible by virtue of their status as CCA generation customers. CalChoice does not provide evidence that SCE customers who receive SCE bills for SCE electric service and participate in SCE programs would incorrectly believe that because their generation provider happens to be a CCA they would therefore be ineligible to participate in Charge Ready 2. SCE will clearly state program eligibility requirements in the materials and provide contact information for customers that have questions or would like additional information.⁷⁶ In fact, cobranding would contradict CalChoice’s next recommendation, that marketing “be applicable to all customers” and “remain neutral.”⁷⁷ There is no reason that CCAs need to “endorse” any marketing for an SCE infrastructure program that has been approved by the Commission.

CalChoice also recommends that SCE “be directed to work with its CCA partners in implementing ME&O.”⁷⁸ This recommendation is unnecessary as SCE always works in good faith with the CCAs in its jurisdiction as well as any other third parties with whom it partners in implementing its programs. Although SCE does not agree that CalChoice’s proposed

⁷³ SCE, Sloan Moody, Tr. 2/257, lines 6-9.

⁷⁴ SCE, Sloan Moody, Tr. 2/257, lines 15-17.

⁷⁵ CalChoice Brief, p. 23.

⁷⁶ Exhibit SCE-2, p. 25.

⁷⁷ See CalChoice Brief, p. 23.

⁷⁸ CalChoice Brief, p. 24.

modifications are necessary or appropriate, SCE has committed to continuing collaborating with Lancaster and other cities and CCAs on the implementation of Charge Ready 2.⁷⁹

CalChoice has provided no evidence that Commission action is necessary to ensure that Charge Ready 2 will be “equally available to unbundled customers” and “are designed with the intent to serve unbundled customers equally from the onset.”⁸⁰ As SCE has repeatedly confirmed, including in response to CalChoice’s protest of SCE’s Charge Ready application and in rebuttal testimony, Charge Ready 2 will be available and marketed to all eligible customers, regardless of whether they are bundled service customers or receive generation services from CCAs or other providers.⁸¹

Finally, CalChoice’s recommendation that “the Commission require that the generation supply for any new EV charging stations under Charge Ready 2 be provided by the relevant Community Choice Aggregator if the location owner is a CCA customer”⁸² is not necessary and could conflict with the rules that govern new CCA service accounts, which allow customers to opt out of CCA service if they choose.⁸³ SCE will implement Charge Ready 2 in compliance with all applicable laws, regulations, and tariffs, including the requirements for new service in a CCA’s generation retail jurisdiction.

C. Requiring MUDs to Provide Public Access to Charging Stations Would Discourage MUD Participation.

Cal Advocates recommends that the Commission require sites at and adjacent to MUDs to be publicly accessible during daytime hours.⁸⁴ Cal Advocates acknowledges that the Commission may find that this requirement unduly hinders MUD participation, and recommends

⁷⁹ Exhibit SCE-2, p. 23; SCE, Sloan Moody, Tr. 2/257, lines 15-17.

⁸⁰ CalChoice Brief, p. 24.

⁸¹ See SCE Reply to Protests, p. 11; Exhibit SCE-2, p. 26.

⁸² CalChoice Brief, p. 22.

⁸³ See, e.g., SCE Tariff Rule 23.

⁸⁴ Cal Advocates Brief, pp. 26-27.

as an alternative that “SCE at least should be required to give MUD participants the option to make these chargers public.”⁸⁵ Cal Advocates also recommends that SCE be required to prioritize applicants that are willing to make these charging stations public above other MUD applicants.⁸⁶ As SCE stated, providing public access should be optional for MUD participants (as it is for workplace participants).⁸⁷ Requiring MUDs to offer public access to charging stations would discourage MUD customers from participating in Charge Ready 2 because allowing public access could violate homeowners association by-laws, raise safety concerns, and potentially exacerbate issues with limited parking availability or assigned parking.⁸⁸ Cal Advocates’ witness Leon Diaz admitted that he did not actually consider these concerns in developing the public-access requirement, and that he does not envision that MUDs would make onsite charging stations publicly accessible.⁸⁹ Mr. Leon Diaz also conceded that if this restriction deters participation by MUDs, the increased customer benefits from adoption would not be achieved.⁹⁰ Because this restriction would limit participation in this essential sector, the Commission should reject Cal Advocates’ proposal. As discussed above, prioritization criteria should be established with SCE’s TE PAC.

D. Program Flexibility Will Help Avoid Long-Term Stranded Costs.

TURN argues that Charge Ready 2 may not avoid stranded assets because SCE has not agreed to a performance accountability metric based on utilization.⁹¹ In fact, however, SCE designed Charge Ready 2 to avoid stranded assets. Preserving program flexibility will further support this. SCE prudently designed Charge Ready 2 to install infrastructure where customer

⁸⁵ Cal Advocates Brief, p. 27.

⁸⁶ *Id.*

⁸⁷ Exhibit SCE-2, p. 23.

⁸⁸ *Id.*

⁸⁹ Cal Advocates, Leon Diaz, Tr. 3/440-444.

⁹⁰ Cal Advocates, Leon Diaz, Tr. 3/444-445.

⁹¹ TURN Brief, pp. 11-12.

demand exists. In fact, SCE will not install charging infrastructure at a site unless a customer requests that SCE do so because the site host has a charging need of its own (fleets) or to accommodate demand from the site host's residents (MUDs), customers (destination centers), or employees (workplaces) wanting to charge their EVs. TURN, on the other hand, proposes a program based on prescriptive and artificial sector-specific constraints.⁹² Adhering to strict sector requirements could have the opposite of TURN's stated goal of increasing utilization by installing charging infrastructure based solely on sector rather than based on sites where customer demand is high.

E. The Commission Must Consider Many Factors in Determining Whether to Increase Requirements for Installation of Customer-Owned Charging Stations.

SCE's highest priority is the safety of the public and its employees and thus it has integrated appropriate safety requirements into Charge Ready 2. SCE will ensure the safety of all make-ready infrastructure by requiring that any such infrastructure that is not installed by SCE employees will be performed by a contractor signatory to the International Brotherhood of Electrical Workers ("IBEW") holding a valid C-10 contractor's license and using electricians with Electric Vehicle Infrastructure Training Program ("EVITP") certification.⁹³

The Joint Parties suggest that the best way to ensure safety is to additionally require that all charging stations be installed by EVITP-certified electricians and IBEW-signatory contractors.⁹⁴ The Commission must balance many factors when establishing the requirements for Charge Ready 2. This includes, based on the record, weighing the asserted incremental safety benefits provided by the Joint Parties' proposed approach, along with the potential impact to customers' costs, installation timing, oversight requirements, and choices in the EV charging market. The Joint Parties' proposal is not mandated by statute, and thus should be evaluated

⁹² See TURN Brief, pp. 5-6, 8.

⁹³ Exhibit SCE-1, pp.70, 75.

⁹⁴ Joint Parties Brief, p. 13.

based upon whether the record in this proceeding illustrates it is appropriate and necessary to address a demonstrated safety need for the expanded Charge Ready 2 program.

SCE will continue to require that all charging stations have their equipment and controls evaluated against established standards (*e.g.*, SAE J2836, IEEE 2030), comply with technical standards and energy efficiency recommendations (*e.g.*, SAE Standards J1772, J2894, J2847, J3068; Title 20), and are listed by a nationally recognized testing laboratory.⁹⁵ All SCE-owned charging stations will be installed by SCE employees or SCE’s general contractors, who are contractors’ signatory to the IBEW, holding a valid C-10 contractor’s license, with EVITP-certified electricians.

Consistent with SCE’s other TE programs, customers or third parties procuring, owning, and maintaining charging stations in Charge Ready 2 are responsible for the installation of those charging stations, including ensuring safety associated with those charging stations.⁹⁶ SCE does not manage, direct or oversee customers’ or vendors’ installation processes. Charge Ready 2 participants that own their charging station may prefer to install those charging stations using their own in-house maintenance crews or staff electricians, who may have their own safety requirements. Alternatively, some vendors may provide a customer with a package with equipment and installation bundled in a single purchase, including vendor-supplied installation crews.

The Joint Parties also state that SCE’s Charge Ready 2 proposal:

is inconsistent with D.16-01-023 insofar as its safety requirements only apply to make-ready infrastructure (and not the actual EVSE), whereas the requirements adopted in D.16-01-023 applied to “all construction, installation, and maintenance of customer participant site infrastructure” and all “facilities under the Charge Ready Program.”⁹⁷

⁹⁵ Exhibit SCE-1, p. 35.

⁹⁶ *See e.g.* D.16-01-023, p. 45.

⁹⁷ Joint Parties Brief, p. 13.

However, “customer participant site infrastructure” was in fact defined in SCE’s Charge Ready proposal and the settlement agreement that D.16-01-023 approved specifically to *exclude* the charging stations. The settlement agreement defined customer participant site infrastructure as “panels, ‘make-ready’ stub (including conduits and wiring), and associated infrastructure, *but not including the charging station.*”⁹⁸ And nothing in D.16-01-023 defines “facilities” or implies that the “facilities” referred to would be anything other than the infrastructure installed, owned, and maintained by SCE. In this proceeding, the Commission must determine whether requiring installation of the charging stations by EVITP-certified electricians and IBEW-signatory contractors is appropriate and necessary for Charge Ready 2.

V.

CHARGE READY 2 ME&O IS CRITICAL TO INCREASE EV ADOPTION

SCE’s proposed Charge Ready 2 ME&O programs are necessary to accelerate EV adoption within SCE’s service territory and are critical to achieving statewide clean energy goals. SCE demonstrated that key barriers to adoption are related to consumer awareness, including lack of familiarity with EVs, lack of understanding about the cost of EVs, range anxiety, misperception about the safety of EVs, and concern about the performance of EVs. SCE has a vital role to play in educating its customers and shifting perceptions around EVs, helping to reduce the barriers and increase awareness of the benefits of EVs. Research demonstrates that greater awareness and knowledge of EVs significantly increases EV consideration. Research also shows consumers trust utilities to give them accurate information about EVs more so than they trust information from the government or the auto industry.⁹⁹

TURN and Cal Advocates argue that SCE’s EV Awareness Campaign and Customer Education Program are not necessary and could be reduced or eliminated in favor of maintaining

⁹⁸ Motion for Approval of Phase 1 Settlement Agreement, filed July 9, 2015, in A.14-10-014, Attachment A, p. 2 (emphasis added); *see also* D.16-01-023, p. 5 (“customer participant site infrastructure, comprised of panels, conduits and wiring called the ‘make-ready’ stub”).

⁹⁹ Exhibit SCE-2, pp. 31-32.

only TE Advisory Services.¹⁰⁰ Both parties make inaccurate assumptions about SCE's existing and ongoing coordination to leverage private partnerships and fail to recognize how SCE's programs are intentionally designed to target existing gaps in addressing EV awareness barriers. Each component of SCE's ME&O programs serves a distinct and important purpose, and each program feeds into, and builds off, the other programs in the ME&O portfolio. As such, all the proposed ME&O programs are necessary to address EV adoption barriers and must be maintained.¹⁰¹

SCE's EV Awareness Campaign employs marketing tactics, such as mass media advertising, direct marketing, outreach through local community organizations, and a new EV Ambassador Network to encourage EV purchases. The Customer Education Program will build on the proposed EV Awareness Campaign to provide further education about EVs through SCE's website, enhanced education and training materials, hands-on ride-and-drive events and experiential events. These complementary marketing programs will work along with the TE Advisory Services and the Charge Ready 2 Marketing Program to familiarize SCE's customers with EVs and increase their awareness of the long-term savings associated with driving them, the incentives that are available to help offset the up-front cost of purchasing them, and the safety and performance of EVs. Without these efforts, there would be a significant gap in addressing EV adoption barriers that could inhibit EV sales and diminish the overall benefits of SCE's vehicle electrification efforts.¹⁰²

TURN and Cal Advocates criticize SCE's ME&O proposals, but provide no evidence of what would be necessary for appropriate ME&O efforts to increase EV awareness and adoption and support state goals. Cal Advocates' witness Dooley admitted that she had not conducted

¹⁰⁰ TURN Brief, p. 40; Cal Advocates Brief, p. 38.

¹⁰¹ Exhibit SCE-2, p. 32.

¹⁰² Exhibit SCE-2, pp. 32-34.

such an analysis.¹⁰³ Ms. Dooley also admitted that she was not aware whether Electrify America or other campaigns will provide the type of information that SCE intends to provide through its ME&O programs or how much funding from those campaigns will be devoted to efforts in SCE's service territory.¹⁰⁴

SCE provided evidence that the Charge Ready 2 ME&O programs meet the requirements for ME&O outlined in the 2016 ACR.¹⁰⁵ They will: (1) continue to leverage existing resources to avoid duplication, (2) reach a specific audience, and (3) deliver specific messages relevant to the target audience. The efficacy of the programs will be measured and reported annually in reports filed with the Commission.¹⁰⁶ SCE's proposed Charge Ready 2 ME&O programs are necessary to accelerate EV adoption within SCE's service territory beyond what can be done with infrastructure investment alone. The proposed programs will greatly assist in meeting California's clean energy goals for air quality and greenhouse gas reductions. The four components of the Charge Ready 2 ME&O—the EV Awareness Campaign, the Customer Education Program, TE Advisory Services, and the Charge Ready 2 Marketing Campaign—work in concert and complement each other.¹⁰⁷

¹⁰³ Cal Advocates, Dooley, Tr. 3/413, lines 10-17.

¹⁰⁴ Cal Advocates, Dooley, Tr. 3/406-408, 411-412.

¹⁰⁵ ACR, p. 24 (“If proposed programs within the TE application contain an education and outreach component, the electric utility shall provide a logic model in its application why such an intervention is needed: i.e. what existing resources the utility will leverage to avoid duplication, the audience that the utility is trying to target, what types of messaging will be provided to customers, intended outcomes of education and outreach, and means to measure efficacy of the education/outreach activities.”).

¹⁰⁶ Exhibit SCE-2, p. 34.

¹⁰⁷ Exhibit SCE-2, p. 37.

VI.

CHARGE READY 2 INCLUDES APPROPRIATE PERFORMANCE

ACCOUNTABILITY MEASURES

SCE has proposed to use metrics to measure its Charge Ready 2 performance: (1) 30 percent of ports deployed in DACs and (2) 15 percent of ports deployed in MUDs.¹⁰⁸ TURN argues that SCE's proposed performance accountability measures are insufficient because dedicated program funds for those sectors may not remain available for the entire program duration and because they "do not include mechanisms to actually hold the utilities accountable if these targets are not achieved." Instead, TURN proposes utilization metrics with shareholder penalties.¹⁰⁹ Cal Advocates supports SCE's proposed DAC metric, but argues that SCE should have a 20 percent MUD metric and that the DAC and MUD metrics should be binding.¹¹⁰

A. Reserved Funds Should Be Available To Any Segment After Two Years.

The Commission should reject proposals to make these targets binding because the portion of customers in these segments that will be interested in participating is unknown.¹¹¹ If sufficient MUD and DAC demand doesn't materialize within the first half of the program, reserved funds should be released to any available market segment. Charging stations in other segments could serve residents of MUDs or DACs, for example if customers living in those locations have charging available at their workplaces. As Ms. Bowman testified, "by increasing the workplace and public destinations, you're giving more options to residents of multi-unit dwellings to charge places other than their residence. If you didn't have that infrastructure available to them, then it would be much more difficult for them to charge."¹¹²

¹⁰⁸ Exhibit SCE-2, p. 38.

¹⁰⁹ TURN Brief, pp. 5-6.

¹¹⁰ Cal Advocates Brief, pp. 28, 30.

¹¹¹ Exhibit SCE-2, p. 38.

¹¹² SCE, Bowman, Tr. 1/103-104.

Further, the Commission should reject Cal Advocates' unsubstantiated recommendation to require SCE to reserve 40 percent of its Charge Ready 2 budget for MUDs for the first three years of the program.¹¹³ Cal Advocates does not provide any justification for reserving 40 percent of the program funds to achieve a 20 percent MUD target. Waiting until the final year of the program to release a large portion of the funds would limit SCE's ability to serve customers that are ready and willing to install charging infrastructure and begin providing benefits to all customers.

B. Utilization is Not an Appropriate Metric.

TURN's proposed port utilization metric is not appropriate for two important reasons. First, port utilization does not reflect customer benefits from the program. Second, TURN's proposal for removing infrastructure from rate base does not align with the principles of group depreciation.

TURN's proposed metric is not an accurate measurement of customer benefits. As SCE's witness Sloan Moody testified, chargers with lower utilization rates can still provide important customer benefits, including increased EV adoption and decreased range anxiety.¹¹⁴ Moreover, TURN's calculation for producing this 7 percent figure is flawed in that it artificially inflates the utilization percentage by assuming a low port demand. This miscalculation increases the utilization percentage target by 33 percent, which does not represent results realized through the Charge Ready Pilot.¹¹⁵

Additionally, a percentage utilization requirement is inappropriate because many factors unrelated to benefits and outside of SCE's control can impact a charger's utilization. First, a driver's charging level choice (*i.e.*, Level 1 or Level 2) can impact the total throughput at a site if vehicles using Level 1 charging are occupying charging spaces and preventing other vehicles from charging. This may be the case regardless of how many EVs were purchased as a result of

¹¹³ See Cal Advocates Brief, p. 30.

¹¹⁴ SCE, Sloan Moody, Tr. 2/175, lines 1-16.

¹¹⁵ Exhibit SCE-2, pp. 39-40.

the newly available charging stations at the site. The type of vehicles that are using the charging stations can impact the total kWh throughput at a site (*e.g.*, Chevy Volt EV limits charging to 3.3 kW while different model years of Nissan Leaf range from 3.3 kW to 6.6 kW). The mileage driven by site tenants will also impact total throughput and utilization calculations regardless of how influential the availability of program charging stations was in the driver's vehicle purchase decision. As such, sites with low-mileage drivers may have lower utilization even if EV adoption at those site increases due to the program. Furthermore, utilization metrics alone do not capture whether drivers are charging consistently with beneficial grid conditions—away-from-home charging would also need to be available and incentivized to ensure greater consistency in daytime charging in accordance with grid needs.¹¹⁶

TURN responds to SCE's claim that it arbitrarily measures utilization at the three-year mark by stating that SCE would also oppose a utilization metric if hypothetically measured after five years instead of three.¹¹⁷ What TURN's argument fails to acknowledge, however, is that site utilization increases over time, including over the entire useful life of the infrastructure, which extends much beyond five years.¹¹⁸

Finally, TURN's proposal to assign to shareholders the cost of infrastructure failing to achieve a 7 percent utilization threshold is fundamentally unfair and violates traditional ratemaking practices. TURN's proposal is fundamentally unfair because it would assign to shareholders the cost of assets that do not achieve the 7 percent utilization threshold, while failing to provide additional return for assets exceeding TURN's proposed threshold. Such a proposal violates cost-of-service ratemaking practices. In cost-of-service ratemaking, utility customers receive the benefit of long-lived assets and pay for a proportional share of the costs (including a return of and on the assets) over the assets' expected useful life regardless of the assets' utilization. A utility pole does not receive a different level of return or cost recovery

¹¹⁶ Exhibit SCE-2, p. 40.

¹¹⁷ TURN Brief, p. 7.

¹¹⁸ Exhibit SCE-2, pp. 40-41.

based on the number of customers it serves (for example, poles in rural areas serving fewer customers will be recovered over the same period of time and by the same customers as a pole in a dense urban environment that is more highly utilized). TURN's proposal rejects this long-held cost recovery practice and attempts to create a new standard for utility service that is beyond the scope of this proceeding. By moving away from cost-of-service ratemaking, TURN's proposal increases the risk of investment in the program and may hinder efforts to achieve wider availability of EV charging stations and thereby impact the state's ability to meet its GHG and air quality goals.¹¹⁹

VII.

SCE'S COST RECOVERY PROPOSAL IS CONSISTENT WITH FERC ACCOUNTING GUIDELINES AND COMMISSION PRECEDENT

A. FERC Regulations Require SCE to Capitalize Utility-Owned Infrastructure.

TURN argues that customer-side ("behind-the-meter") infrastructure costs should be recovered immediately as an operating expense.¹²⁰ TURN supports its position that infrastructure on the customer side of the meter does not need to be capitalized by referencing the Commission's decision regarding an SDG&E residential EV charging program.¹²¹ While that decision is distinguishable for many independent reasons, it is remarkable to note that without the necessary regulatory incentive to invest in the infrastructure, SDG&E elected instead simply not to implement its proposed program.¹²²

¹¹⁹ Exhibit SCE-2, p. 41.

¹²⁰ TURN Brief, p. 29.

¹²¹ TURN Brief, p. 30.

¹²² SDG&E Advice Letter 3341-E ("SDG&E enthusiastically supports transportation electrification and considers the residential light duty segment to be a key driver to achieving the goals of the many landmark state environmental, energy and transportation policies. However, faced with the untenable condition of having to accept or reject the [residential charging program] as modified by the Commission without knowing whether necessary programmatic changes are acceptable or how SDG&E will be compensated for the risks of implementing the program, SDG&E must unfortunately decline to implement the modified [program], as outlined in D.18-05-040.")

Under SCE’s proposed program design, customers have the option to have SCE finance, own, and operate all of the infrastructure required to provide service to the make-ready stub. SCE carefully designed each element of its Charge Ready 2 program to address key barriers to adoption, including charging availability.¹²³ SCE provided evidence that this barrier remains an important barrier.¹²⁴ SCE is offering customers the option to install the customer-side infrastructure, but believes offering the full make-ready installation is a necessary option to facilitate participation by customers without the expertise or desire to procure and install electrical infrastructure. TURN provides no evidence that a program without an option for the utility to install and operate the entire make-ready infrastructure would address barriers to EV adoption or facilitate customer participation.

For customers electing to have SCE install, own, and maintain the entire make-ready infrastructure, SCE’s behind-the-meter assets will have the same ownership and maintenance obligations as the balance of SCE’s in-front-of-the-meter infrastructure.¹²⁵ When the operating requirements for the behind-the-meter costs are the same as in-front-of-the-meter costs, FERC accounting guidelines require the costs to be capitalized.¹²⁶ TURN does not dispute this.¹²⁷ TURN instead appears to be arguing solely that customers should own the customer-side infrastructure, without explaining how this proposal, without an option for utility ownership of the infrastructure, would address the complexity for customers of procuring and installing complicated electrical infrastructure.

¹²³ Exhibit SCE-2, p. 1.

¹²⁴ Exhibit SCE-1, pp. 17-18.

¹²⁵ Exhibit SCE-2, p. 42.

¹²⁶ CFR 18, Part 101 Uniform System of Accounts (“USOA”) states that customer-side costs should be recorded to Plant Account 371 – Installation on customers’ premises. “This account shall include the cost installed of equipment on the customer’s side of a meter when the utility incurs such cost and when the utility retains title to and assumes full responsibility for maintenance and replacement of such property.”

¹²⁷ TURN Brief, p. 32.

TURN supports its argument by summing the decades-long capital revenue requirement and comparing it to the revenue requirement using TURN's expense proposal.¹²⁸ Ignoring the issues created by TURN's comparison of nominal dollar revenue requirements,¹²⁹ that simplistic analysis also fails to recognize the burden that TURN's "expense" proposal would assign solely to current customers, in contravention of the reality that Charge Ready 2 will benefit customers many years into the future.¹³⁰ SCE's proposal is consistent with traditional ratemaking, FERC accounting guidance, and achieves fair allocation of costs to customers receiving the benefit of the assets.

B. SCE's Proposed Balancing Account and Reporting Provide Appropriate Visibility of Program Costs.

TURN and Cal Advocates recommend creating a separate one-way balancing account to track the funds used for the New Construction Rebate program.¹³¹ A separate balancing account for this one item is unnecessary, as SCE will provide details of all of the Charge Ready 2 program capital expenditures and O&M expenses by program categories in annual reports.¹³²

In general, a balancing account is used to record the revenue requirements associated with the total costs of a project or program that has a unique Commission decision and authorization separate from the GRC or any other proceeding. And, although a balancing account provides a formal mechanism for cost recovery and review of the recorded revenue requirements, under most circumstances it is not the most useful format for reviewing cost details. In addition to annual reporting, SCE will present a full showing of Charge Ready 2 recorded costs, including rebates, in its annual ERRR Review proceedings, and this showing of

¹²⁸ TURN Brief, p. 30.

¹²⁹ When comparing multi-period revenue requirements, a comparison of nominal dollars ignores the effects of inflation and present valuation of the cost of the program.

¹³⁰ Exhibit SCE-2, p. 42.

¹³¹ TURN Brief, pp. 28-29; Cal Advocates Brief, p. 6.

¹³² Exhibit SCE-2, p. 45.

recorded costs will reflect the revenue requirements recorded in the Charge Ready 2 sub-account in the CRPBA.¹³³

C. **After-the-Fact Reasonableness Review within a Commission-Approved Cap is Unnecessary.**

TURN recommends that the Commission conduct an after-the-fact reasonableness review of Charge Ready 2 spend “to determine if program requirements, including TURN’s performance accountability measures and minimum deployment metric, have been met.”¹³⁴ A hindsight review tied to outcomes that will be in many cases outside of SCE’s reasonable control, however, would be subjective, onerous, unfair, and unnecessary for spend incurred within a Commission-approved cap. SCE’s cost estimates and assumptions have been thoroughly litigated in this proceeding and, therefore, the Commission should determine that all Charge Ready 2 spend up to the authorized level will be considered *per se* reasonable if SCE meets all requirements of the Commission decision approving the program. This approach is consistent with Commission precedent in other large and successful infrastructure deployments, including SCE’s SmartConnect deployment of over 5 million meters.¹³⁵

VIII.

RECOVERING CHARGE READY 2 COSTS THROUGH DISTRIBUTION RATES IS CONSISTENT WITH COMMISSION PRECEDENT AND COST-CAUSATION PRINCIPLES

TURN and Cal Advocates recommend that SCE collect all revenues related to Charge Ready 2 through the Public Purpose Programs (“PPP”) charge as a non-bypassable charge using

¹³³ Exhibit SCE-2, p. 45.

¹³⁴ TURN Brief, p. 28.

¹³⁵ See D.08-09-039, Appendix A, p. 9 (“Deployment Period expenditures of up to \$1,633.5 million shall be deemed reasonable and the revenue requirement associated with actual Deployment Period expenditures up to that funding level shall be recovered in rates without any after-the-fact reasonableness review.”)

the equal cents/kWh allocation method, rather than through distribution rates and using the distribution allocator, as proposed by SCE.¹³⁶ TE programs are intended to benefit all Californians and, therefore, TURN and Cal Advocates argue, all customers should pay equally for the climate change mitigation and air pollution reduction benefits that they will receive from Charge Ready 2.¹³⁷ Furthermore, TURN and Cal Advocates argue that using the distribution allocator would disproportionately burden residential customers and that TE assets do not drive distribution costs.¹³⁸

Although SCE agrees with TURN and Cal Advocates that TE programs benefit all customers, SCE disagrees with the assertion that TE investments are not distribution system assets. TURN and Cal Advocates have not demonstrated why costs properly functionalized as distribution should be recovered through the PPP charge on an equal cents/kWh basis. Charge Ready 2 costs should be recovered through distribution rates using the distribution allocator because the expenditures are for distribution assets and the associated labor and non-labor costs.¹³⁹ TURN's and Cal Advocates' briefs fail to provide sufficient record evidence to justify deviating from the Commission's long-standing policy regarding cost causation in revenue allocation and rate setting. SCE continues to maintain that any change to the established functional allocation of revenue should be reviewed within the framework of a GRC Phase 2,¹⁴⁰ or similar rate setting proceeding, where issues related to revenue allocation and rate design are litigated by the relevant interested parties.

Overall benefits to all customers are maximized when rates are set and assessed based on the drivers of costs. The principle of cost causation ties together the facilities that define the

¹³⁶ TURN Brief, pp. 34; Cal Advocates Brief, p. 45.

¹³⁷ TURN Brief, p. 34; *see also* Cal Advocates Brief, p. 45.

¹³⁸ *Id.*

¹³⁹ Exhibit SCE-2, p. 43.

¹⁴⁰ Exhibit SCE-2, p. 42.

costs, the load attributes of peak demand and energy that contribute to costs in specific ways depending on the temporal pattern of the load, and the pricing structure that gives customers visibility to costs drivers through time-variant pricing signals. Reducing utility costs in the long-run is the primary objective of basing revenue allocation and rate setting on functionalized costs. Contrary to Cal Advocates' assertion that revenue allocation and rate design are completely separate,¹⁴¹ the principle of cost causation would have these two areas of pricing aligned to reflect the overall levels of cost contribution (revenue allocation), and to set pricing such that customers respond to reduce overall costs (rate design). Cal Advocates is correct that for some segments, residential in particular, pricing deviates from the principle of cost causation. For the residential class, the deviation is made in order to address affordability concerns, which are viewed as a higher priority for this segment.¹⁴² However, in the case of TE, SB 350 established accelerating TE, facilitating grid management, and integrating renewable energy as primary goals for TE programs and rates, with affordability (i.e., lower fueling costs) partially gained when charging is performed in a manner consistent with grid condition.¹⁴³ For this purpose, aligning revenue allocation and rate design is most effective. This ensures the price signals established in rate design encourage cost-effective charging, which ultimately reduces rate levels through a reduced allocation of revenue to the segment. This cycle of pricing signals leading to load management and lower utility cost embodies the principle of cost causation. SCE agrees with EPUC's statement that "Cost allocation and rate design must correctly signal the costs of charging at various hours to encourage electric use at the right time."¹⁴⁴

¹⁴¹ Cal Advocates Brief, p. 50.

¹⁴² Ironically, Cal Advocates' example regarding reduced residential peak (default 4:00 pm to 9:00 pm) to off-peak rate ratios illustrates that dampened pricing signals can lead to constant or higher overall rate levels due to the price signal not being aligned with the marginal cost drivers (loads at time of generation and distribution system peaks) used in revenue allocations. In Cal Advocates' example, the pricing in the high-cost periods may not convey a strong enough signal to encourage changes to usage patterns that would reduce marginal cost drivers during these periods.

¹⁴³ See Cal. Pub. Util. Code § 740.12.

¹⁴⁴ EPUC Opening Brief, p. 10.

Expenditures made for the benefit of all customers should not be recovered in an arbitrarily different fashion that advantages one group of customers at the expense of others. Allocation factors used for PPP allocation are based on a rate class's proportion of total system revenues rather than specific costs within in a particular function. A change to the PPP allocator thus has the effect of disconnecting cost recovery from the drivers of those costs, and establishing a somewhat unrelated marker as the basis for allocation. The potential for this arbitrary result (in this case, benefiting residential customers at the expense of non-residential customers) underscores the importance of utilizing consistent revenue allocations based on the functional nature of the cost items. The Commission has appropriately determined that TE infrastructure programs "are related to the distribution system and are appropriately recovered through distribution rates."¹⁴⁵ To the extent the Commission or parties want to explore such a dramatic change in allocation, the proposal should be evaluated in a GRC Phase 2 proceeding. A decision regarding a shift of allocation and revenue from Distribution to PPP in this proceeding would exclude the input from stakeholders who just recently agreed to specific allocations for each function in SCE's 2018 GRC Phase 2 proceeding (A.17-06-030). Thus, the appropriate venue to litigate allocation and recovery of TE-related costs is a GRC Phase 2, or other appropriate rate setting proceeding, where all relevant stakeholders are represented. In such a proceeding, parties can review the costs, the drivers of those costs, and purpose of those costs, to jointly create a solution that is amenable to all parties impacted by changing the functional treatment of TE costs.

TURN and Cal Advocates have not presented information demonstrating the distribution infrastructure to be installed under Charge Ready 2 is in any way different from the infrastructure installed for other distribution-related projects involving transformation, ducts, structures, cables, and distribution-related labor. For these reasons, the Commission should deny TURN's and Cal Advocates' proposal to recover rates through the PPP charge.

¹⁴⁵ D.18-05-040, pp. 123-124. *See also* D.18-01-024, Ordering Paragraph (OP) 23, authorizing SCE to recover costs for its TE programs through distribution rates.

IX.

CONCLUSION

For the reasons discussed above, SCE's Charge Ready 2 proposal satisfies the applicable statutory and regulatory criteria and should be approved by the Commission without modification.

Respectfully submitted,

ANNA VALDBERG
ANDREA L. TOZER

/s/ Andrea L. Tozer

By: Andrea L. Tozer

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-6713
Facsimile: (626) 302-6693
E-mail: Andrea.Tozer@sce.com

Dated: April 12, 2019

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

Application of Southern California Edison
Company (U 338-E) for Approval of its Charge
Ready 2 Infrastructure and Market Education
Programs.

A.18-06-015

CERTIFICATE OF SERVICE

I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have this day served a true copy of **REPLY brief OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E)** on all parties identified on the attached service list(s) for **A.18-06-015**. Service was effected by one or more means indicated below:

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**ALJ Sasha Goldberg
CPUC
505 Van Ness Avenue
San Francisco, CA 94102**

Executed on **April 12, 2019**, at Rosemead, California.

/s/ Sandra Sedano

**Sandra Sedano
Legal Administrative Assistant**

SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770



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Parties

JULIA M. REGE
 DIR - ENVIRONMENTAL & ENERGY
 ASSOCIATION OF GLOBAL AUTOMAKERS, INC.
 1050 K ST., NW, STE. 650
 WASHINGTON, DC 20001
 FOR: ASSOCIATION OF GLOBAL AUTOMAKERS,
 INC.

SAMANTHA HOUSTON
 VEHICLES ANALYST
 UNION OF CONCERNED SCIENTISTS
 1825 K STREET NW, SUITE 800
 WASHINGTON, DC 20006
 FOR: UNION OF CONCERNED SCIENTISTS

JOSEPH HALSO
 SIERRA CLUB
 1536 WYNKOOP STREET, SUITE 312
 DENVER, CO 80206
 FOR: SIERRA CLUB

THOMAS ASHLEY
 VP - GOVN'T AFFAIRS & PUBLIC POLICY
 GREENLOTS
 925 N. LA BREA AVE., 6TH FL
 LOS ANGELES, CA 90038
 FOR: GREENLOTS

KATHERINE STAINKEN
 POLICY DIR.
 PLUG IN AMERICA
 6380 WILSHIRE BLVD., STE. 1000
 LOS ANGELES, CA 90048
 FOR: PLUG IN AMERICA

JESSALYN ISHIGO
 ENVIRONMENTAL BUSINESS DEVELOPMENT OFF.
 AMERICAN HONDA MOTOR CO., INC.
 1919 TORRANCE BLVD.
 TORRANCE, CA 90501
 FOR: AMERICAN HONDA MOTOR CO., INC.

MAX BAUMHEFNER
 ATTORNEY
 NATURAL RESOURCES DEFENSE COUNCIL
 111 SUTTER ST., 21ST FL.
 SAN FRANCISCO, CA 94104
 FOR: NATURAL RESOURCES DEFENSE COUNCIL

ANDREA TOZER
 SR. ATTORNEY
 SOUTHERN CALIFORNIA EDISON COMPANY
 2244 WALNUT GROVE AVE. / PO BOX 800
 ROSEMEAD, CA 91770
 FOR: SOUTHERN CALIFORNIA EDISON COMPANY

MICHAEL CHIACOS
 ENERGY PROGRAM DIR.
 COMMUNITY ENVIRONMENTAL COUNCIL
 26 W ANAPAMU ST.
 SANTA BARBARA, CA 93101
 FOR: COMMUNITY ENVIRONMENTAL COUNCIL

TADASHI GONDAI
 DIR - LEGAL ADVOCACY
 NATIONAL ASIAN AMERICAN COALITION
 15 SOUTHGATE AVE., STE.200
 DALY CITY, CA 94015
 FOR: NATIONAL DIVERSITY COALITION AND
 NATIONAL ASIAN AMERICAN COALITION

DAVID SCHLOSBERG
 ELECTRIC MOTOR WERKS, INC.
 846 BRANSTEN RD
 SAN CARLOS, CA 94070
 FOR: ELECTRIC MOTOR WERKS, INC.

MARC D. JOSEPH
 ATTORNEY
 ADAMS BROADWELL JOSEPH & CARDOZA
 601 GATEWAY BOULEVARD, SUITE 1000
 SO. SAN FRANCISCO, CA 94080
 FOR: COALITION OF CALIFORNIA UTILITY
 EMPLOYEES

TOVAH TRIMMING
 CALIF PUBLIC UTILITIES COMMISSION
 LEGAL DIVISION
 ROOM 4107
 505 VAN NESS AVENUE
 SAN FRANCISCO, CA 94102-3214
 FOR: ORA

ELISE TORRES
 STAFF ATTORNEY
 THE UTILITY REFORM NETWORK
 785 MARKET STREET, SUITE 1400
 SAN FRANCISCO, CA 94103
 FOR: TURN

MEGHA LAKHCHAURA
 EVBOX INC.
 845 MARKET ST., LEVEL 4, STE. 450A
 SAN FRANCISCO, CA 94103
 FOR: EVBOX, INC.

IVAN R. JIMENEZ
 REGULATORY ATTORNEY
 SMALL BUSINESS UTILITY ADVOCATES
 548 MARKET STREET, STE. 11200
 SAN FRANCISCO, CA 94104
 FOR: SMALL BUSINESS UTILITY ADVOCATES
 (SBUA)

EVELYN KAHL
 ATTORNEY
 BUCHALTER, A PROFESSIONAL CORPORATION
 55 SECOND STREET, SUITE 1700
 SAN FRANCISCO, CA 94105-3493
 FOR: ENERGY PRODUCERS AND USERS
 COALITION

MICHAEL B. DAY
 ATTORNEY
 GOODIN, MACBRIDE, SQUERI, & DAY, LLP
 505 SANSOME STREET, STE 900
 SAN FRANCISCO, CA 94111-3133
 FOR: EVGO SERVICES LLC

RACHELLE CHONG
 COUNSEL
 LAW OFFICES OF RACHELLE CHONG
 345 WEST PORTAL AVENUE, STE. 110
 SAN FRANCISCO, CA 94127
 FOR: LYFT, INC.

CHRIS KING
 CHIEF POLICY OFFICER
 SIEMENS
 4000 E. THIRD AVE.
 FOSTER CITY, CA 94404
 FOR: SIEMENS

FRANCESCA WAHL
 SR. POLICY ASSOCIATE
 TESLA, INC.
 6800 DUMBARTON CIRCLE
 FREMONT, CA 94555
 FOR: TESLA, INC.

JOEL ESPINO
 LEGAL COUNSEL
 THE GREENLINING INSTITUTE
 360 14TH STREET, 2ND FL.
 OAKLAND, CA 94612
 FOR: THE GREENLINING INSTITUTE

ALEX J. MORRIS
 VP - POLICY & OPER
 CALIFORNIA ENERGY STORAGE ALLIANCE
 2150 ALLSTON WAY, SUITE 210
 BERKELEY, CA 94704
 FOR: CALIFORNIA ENERGY STORAGE ALLIANCE

GREGORY MORRIS
 DIRECTOR
 GREEN POWER INSTITUTE
 2039 SHATTUCK AVENUE, STE 402
 BERKELEY, CA 94704
 FOR: GREEN POWER INSTITUTE

JAMES HALL
 GENERAL MOTORS LLC
 1121 L STREET, STE. 700
 SACRAMENTO, CA 95814
 FOR: GENERAL MOTORS, LLC

LAURA FERNANDEZ
 ATTORNEY
 BRAUN BLAISING SMITH WYNNE, P.C.
 915 L STREET, STE 1480
 SACRAMENTO, CA 95814
 FOR: CALIFORNIA CHOICE ENERGY
 AUTHORITY (CCEA)

STEVEN P. DOUGLAS
 SR. DIR - ENVIRONMENTAL AFFAIRS
 ALLIANCE OF AUTOMOBILE MANUFACTURERS
 1415 L STREET, STE. 1190
 SACRAMENTO, CA 95814
 FOR: ALLIANCE OF AUTOMOBILE
 MANUFACTURERS

LYNN HAUG
 ATTORNEY
 ELLISON SCHNEIDER HARRIS & DONLAN LLP
 2600 CAPITOL AVE., STE. 400
 SACRAMENTO, CA 95816
 FOR: CHARGEPOINT, INC.

ANDREW B. BROWN
 ATTORNEY AT LAW
 ELLISON SCHNEIDER HARRIS & DONLAN LLP
 2600 CAPITOL AVENUE, SUITE 400
 SACRAMENTO, CA 95816-5931
 FOR: ELECTRIC VEHICLE CHARGING
 ASSOICATION

Information Only

BARBARA BARKOVICH
 CONSULTANT
 BARKOVICH & YAP
 EMAIL ONLY
 EMAIL ONLY, CA 00000

CATHERINE BUCKLEY
 PACIFIC GAS AND ELECTRIC COMPANY
 EMAIL ONLY
 EMAIL ONLY, CA 00000

JOHN W. LESLIE, ESQ.
 DENTONS US LLP
 EMAIL ONLY
 EMAIL ONLY, CA 00000

MICHAEL CADE
 BUCHALTER
 EMAIL ONLY
 EMAIL ONLY, CA 00000

PAUL D. HERNANDEZ
 PUBLIC POLICY & GOV. RELATIONS
 ENVOY TECHNOLOGIES INC.
 EMAIL ONLY
 EMAIL ONLY, CA 00000

PHIL VILLAGOMEZ
 SHELL NEW ENERGIES
 EMAIL ONLY
 EMAIL ONLY, AA 00000

MRW & ASSOCIATES, LLC
 EMAIL ONLY
 EMAIL ONLY, CA 00000

JENIFER BOSCO
 STAFF ATTORNEY
 NATIONAL CONSUMER LAW CENTER

7 WINTHROP SQUARE, 4TH FL.
BOSTON, MA 02110

COLEY GIROUARD
PRINCIPAL
ADVANCED ENERGY ECONOMY
1000 VERMONT AVE NW, 3RD FL
WASHINGTON, DC 20005

ADRIANO MARTINEZ
ATTORNEY AT LAW
EARTHJUSTICE
800 WILSHIRE BLVD., SUITE 1000
LOS ANGELES, CA 90017
FOR: UNION OF CONCERNED SCIENTISTS

BREA CHILDS
LITIGATION ASSISTANT
EARTHJUSTICE
800 WILSHIRE BLVD., SUITE 1000
LOS ANGELES, CA 90017
FOR: UNION OF CONCERNED SCIENTISTS

SARA RAFALSON
DIR - MKT DEVELOPMENT
EVGO SERVICES LLC
11390 W. OLYMPIC BLVD., STE. 250
LOS ANGELES, CA 90064
FOR: EVGO SERVICES LLC

CASE ADMINISTRATION
SOUTHERN CALIFORNIA EDISON COMPANY
EMAIL ONLY
ROSEMEAD, CA 91770

MELODEE BLACK
REGULATORY AFFAIRS ADVISOR
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE.
ROSEMEAD, CA 91773

MARC MONBOUQUETTE
SR.MGR - REG & GOV'T AFFAIRS
EMOTORWERKS
846 BRANSTEN ROAD
SAN CARLOS, CA 94070

MILES MAURINO
ASSOCIATE ATTORNEY
ADAMS BROADWELL JOSEPH & CARDOZO
601 GATEWAY BLVD., STE. 1000
SOUTH SAN FRANCISCO, CA 94080
FOR: COALITION OF CALIFORNIA UTILITY
EMPLOYEES

RACHAEL E. KOSS
ATTORNEY
ADAMS BROADWELL JOSEPH & CARDOZO
601 GATEWAY BLVD., SUITE 1000
SOUTH SAN FRANCISCO, CA 94080

ALAN BACH
CALIF PUBLIC UTILITIES COMMISSION
ENERGY SAFETY & INFRASTRUCTURE BRANCH
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

AUDREY NEUMAN
CALIF PUBLIC UTILITIES COMMISSION
PROCUREMENT STRATEGY AND OVERSIGHT BRANC
ROOM 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

CAROLYN SISTO
CALIF PUBLIC UTILITIES COMMISSION
PROCUREMENT STRATEGY AND OVERSIGHT BRANC
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

CHLOE LUKINS
CALIF PUBLIC UTILITIES COMMISSION
ENERGY SAFETY & INFRASTRUCTURE BRANCH
ROOM 4102
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

DANIELLE DOOLEY
CALIF PUBLIC UTILITIES COMMISSION
ENERGY SAFETY & INFRASTRUCTURE BRANCH
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

ENRIQUE GALLARDO
CALIF PUBLIC UTILITIES COMMISSION

FIDEL LEON DIAZ
CALIF PUBLIC UTILITIES COMMISSION

LEGAL DIVISION
 AREA
 505 VAN NESS AVENUE
 SAN FRANCISCO, CA 94102-3214

ENERGY SAFETY & INFRASTRUCTURE BRANCH
 AREA
 505 VAN NESS AVENUE
 SAN FRANCISCO, CA 94102-3214

JENNIFER KALAFUT
 CALIF PUBLIC UTILITIES COMMISSION
 ENERGY EFFICIENCY BRANCH
 ROOM 4002
 505 VAN NESS AVENUE
 SAN FRANCISCO, CA 94102-3214

JOSEPH A. ABHULIMEN
 CALIF PUBLIC UTILITIES COMMISSION
 ENERGY SAFETY & INFRASTRUCTURE BRANCH
 ROOM 4209
 505 VAN NESS AVENUE
 SAN FRANCISCO, CA 94102-3214

LIAM WEAVER
 CALIF PUBLIC UTILITIES COMMISSION
 ENERGY SAFETY & INFRASTRUCTURE BRANCH
 AREA
 505 VAN NESS AVENUE
 SAN FRANCISCO, CA 94102-3214

NATHAN CHAU
 CALIF PUBLIC UTILITIES COMMISSION
 ELECTRICITY PRICING AND CUSTOMER PROGRAM
 AREA
 505 VAN NESS AVENUE
 SAN FRANCISCO, CA 94102-3214

SARA M. KAMINS
 CALIF PUBLIC UTILITIES COMMISSION
 PROCUREMENT STRATEGY AND OVERSIGHT BRANC
 AREA
 505 VAN NESS AVENUE
 SAN FRANCISCO, CA 94102-3214

SARAH OWENS
 CALIF PUBLIC UTILITIES COMMISSION
 COMMISSIONER RECHTSCHAFFEN
 ROOM 5200
 505 VAN NESS AVENUE
 SAN FRANCISCO, CA 94102-3214

YULIYA SHMIDT
 CALIF PUBLIC UTILITIES COMMISSION
 COMMISSIONER RECHTSCHAFFEN
 ROOM 4209
 505 VAN NESS AVENUE
 SAN FRANCISCO, CA 94102-3214

ERIC BORDEN
 ENERGY POLICY ANALYST
 THE UTILITY REFORM NETWORK
 785 MARKET STREET, STE. 1400
 SAN FRANCISCO, CA 94103

JAMES M. BIRKELUND
 PRESIDENT
 SMALL BUSINESS UTILITY ADVOCATES
 548 MARKET STREET, STE. 11200
 SAN FRANCISCO, CA 94104

MILES MULLER
 LEGAL FELLOW
 NATURAL RESOURCES DEFENSE COUNCIL
 111 SUTTER STREET, 21ST FL.
 SAN FRANCISCO, CA 94104

AMIE BURKHOLDER
 BUCHALTER, A PROFESSIONAL CORPORATION
 55 SECOND STREET, STE. 1700
 SAN FRANCISCO, CA 94105

NORA SHERIFF
 ATTORNEY
 BUCHALTER, A PROFESSIONAL CORPORATION
 55 SECOND STREET, SUITE 1700
 SAN FRANCISCO, CA 94105

BUCHALTER, A PROFESSIONAL CORPORATION
 55 SECOND STREET, SUITE 1700
 SAN FRANCISCO, CA 94105

SAM ARONS
 DIR
 LYFT, INC.
 185 BERRY STREET, STE. 5000
 SAN FRANCISCO, CA 94107-5705

BENJAMIN C. BODELL
 ATTORNEY
 GOODIN MACBRDIE SQUERI & DAY LLP

MEGAN SOMOGYI
 ATTORNEY
 GOODIN, MACBRIDE, SQUERI, & DAY, LLP

505 SANSOME STREET, STE. 900
SAN FRANCISCO, CA 94111

505 SANSOME ST., STE. 900
SAN FRANCISCO, CA 94111

PAUL R. CORT
EARTHJUSTICE
50 CALIFORNIA ST., STE. 500
SAN FRANCISCO, CA 94111

CASE COORDINATION
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000; MC B23A
SAN FRANCISCO, CA 94177

BONNIE DATTA
SIEMENS
4000 E. THIRD AVE.
FOSTER CITY, CA 94404

PAUL NELSON
CONSULTANT
BARKOVICH & YAP, INC.
PO BOX 11031
OAKLAND, CA 94611

TAM HUNT
CONSULTING ATTORNEY
2039 SHATTUCK AVENUE, SUITE 402
BERKELEY, CA 94704
FOR: GREEN POWER INSTITUTE

ALEX LEUMER
CHARGEPOINT, INC.
254 EAST HACIENDA AVENUE
CAMPBELL, CA 95008

ANTHONY HARRISON
DIR - PUBLIC POLICY
CHARGEPOINT
254 E. HACIENDA AVENUE
CAMPBELL, CA 95008

RENEE SAMSON
DIR - UTILITY SOLUTIONS
CHARGEPOINT, INC.
245 E. HACIENDA AVENUE
CAMPBELL, CA 95008

CHASE HOPKINS
LEGISLATIVE AIDE
OFFICE OF SENATOR STEVEN BRADFORD
STATE CAPITOL, ROOM 2062
SACRAMENTO, CA 95814

MATTHEW WILLIAMS
CLEAN TRANSPORTATION INCENTIVES
CALIFORNIA AIR RESOURCES BOARD
1001 I STREET
SACRAMENTO, CA 95814

REGULATORY CLERK
BRAUN BLAISING SMITH WYNNE, PC
915 L STREET, STE. 1480
SACRAMENTO, CA 95814

SCOTT BLAISING
COUNSEL
BRAUN BLAISING SMITH WYNNE P.C.
915 L STREET, SUITE 1480
SACRAMENTO, CA 95814

State Service

SASHA GOLDBERG
CALIF PUBLIC UTILITIES COMMISSION
ADMINISTRATIVE LAW JUDGE DIVISION
ROOM 5021
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

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