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SOUTHERN CALIFORNIA EDISON®

An *EDISON INTERNATIONAL*® Company

(U 338-E)

PREPARED TESTIMONY IN SUPPORT OF SOUTHERN CALIFORNIA EDISON COMPANY'S CHARGE READY APPLICATION

VOLUME 02 – PHASE 1 CHARGE READY AND MARKET EDUCATION PILOT

Before the

Public Utilities Commission of the State of California

Rosemead, California
October 30, 2014

PREPARED TESTIMONY IN SUPPORT OF SOUTHERN CALIFORNIA EDISON COMPANY'S CHARGE READY APPLICATION
VOLUME 02 - PHASE 1 CHARGE READY AND MARKET EDUCATION PILOT

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I.

INTRODUCTION

Achieving California's ambitious environmental goals and capturing the valuable benefits of transportation electrification require the rapid acceleration of electric vehicle (EV) adoption in California. To reach California's goal of 1.5 million zero emission vehicles by 2025, the EV population needs to increase 15-fold relative to today.[1] What's more, California needs even more dramatic acceleration of EV adoption to meet the Governor's stringent 2050 greenhouse gas (GHG) targets, as shown in Volume 1 of this testimony. Many studies have found that California will need electrification of 70 to 90 percent of internal combustion engine vehicles by 2050.[2] The California Public Utilities Commission (CPUC or Commission) has long played a key leadership role in achieving important energy policy goals in California and has a critical opportunity to ensure that California is poised to capture the vital benefits of transportation electrification. Working with investor-owned electric utilities, the Commission can authorize the prompt deployment of discrete programs designed to address current EV market gaps and help transform the market to deliver on California's climate action goals. In this Application, Southern California Edison Company (SCE) proposes specific programs and efforts to meet this need. However, we must act swiftly if we are to change the lagging pace of EV penetration in California.

SCE's Charge Ready program, a two-phased program beginning with a pilot phase, is designed to facilitate the acceleration of EV penetration in Southern California by targeting areas of the market that especially need acceleration. Specifically, Charge Ready will target long dwell-time locations, with

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1 In September 2014, California's EV population topped 100,000. *See* California Plug-In Electric Vehicle Collaborative News Release, "California Surpasses 100,000 Plug-in Car Sales," September 9, 2014, *available at* http://www.pevcollaborative.org/sites/all/themes/pev/files/docs/140908_News%20Release_Final.pdf [as of October 27, 2014].

2 Several studies that examine the 2050 climate goals show that almost all of light-duty vehicles must be battery electric vehicles (BEVs), zero-emissions vehicles (ZEVs) and/or plug-in hybrid electric vehicles (PHEVs), and 70 percent or more of the medium- and heavy-duty vehicles must be as well. *See* Figure II-1 in Volume 1 of this testimony. *See also* James H. Williams, et al. "The Technology Path to Deep Greenhouse Gas Emissions Cuts by 2050: The Pivotal Role of Electricity," Science Magazine, Vol. 335, January 2012, p. 53, *available at* http://www.sciencemagazinedigital.org/sciencemagazine/20120106?pg=54#pg52 [as of October 27 , 2014].

a focus on disadvantaged communities, and deploy, over a five-year period, infrastructure to support up to 30,000 qualified EV charging stations across SCE's service area. To support the overall effort, SCE also proposes a comprehensive Market Education effort.

SCE proposes to implement the Charge Ready program and Market Education effort in two phases. The smaller scope and 12-month duration of the Phase 1 Pilot described in this volume will allow SCE to test several key assumptions underlying its approach in an expedited manner prior to undertaking a full program in Phase 2. In particular, the pilot will allow SCE to validate its cost estimates and program incentives, identify and address field deployment issues, and refine its market education strategies, including for disadvantaged communities. SCE expects to spend up to approximately $22 million in ratepayer funding to deploy approximately 1,500 EV charging stations and a complementary Market Education effort during the pilot phase. This includes an estimated $18.5 million for Charge Ready and $3.1 million for expanded market education and outreach. A portion of the Pilot costs will fund program planning and other one-time initial costs that will benefit Phase 2 of the program. SCE plans to hold quarterly status meetings with the Commission staff and other stakeholders throughout the Pilot, and to refine the Charge Ready program and Market Education effort as necessary prior to the full implementation proposed for Phase 2.

Phase 2 of SCE's Charge Ready program and Market Education effort will entail the deployment of infrastructure to support the remaining additional EV charging stations not deployed during the Pilot, up to a total of 30,000 charging stations across both phases of the Program, in addition to complementary ongoing Market Education efforts. SCE estimates that Phase 2 will cost $333 million. SCE expects to file a report with the Commission detailing the first nine (9) months of the Pilot, which will inform the Commission's consideration of Phase 2 of this Application, and allow SCE to supplement its showing, as appropriate, prior to a Commission decision on Phase 2.

It is imperative to move quickly to implement the Pilot. Accordingly, SCE requests that the Commission phase its consideration of this Application as follows:

Phase 1: Consider and issue a decision by April 2015 on SCE's Phase 1 request. SCE's Phase 1 request is supported by Volumes 1 and 2 of SCE's direct testimony (preliminarily marked as SCE-01).

Phase 2: Upon issuance of a decision on Phase 1, the Commission should proceed with consideration of Phase 2, calling for intervener testimony and hearings (if necessary) promptly on the heels of SCE's filing of its Pilot report (and any supplements or changes to SCE's Phase 2 testimony) in January 2016 (assuming a Phase 1 decision in April 2015), with a final decision on Phase 2 by April 2016. SCE's Phase 2 requests are supported by Volumes 1, 3, 4, and 5 of SCE's direct testimony.

To facilitate expedited implementation of the Pilot, SCE plans to request a memorandum account to allow it to record certain pre-deployment incremental pilot costs in advance of a final Commission decision on the Phase 1 request.

II.

REQUEST FOR CHARGE READY PILOT

A. Pilot Objectives

The objective of the Phase 1 Pilot is to inform and refine the design and cost estimates and to develop success measures for Phase 2 of the Charge Ready program and Market Education and Outreach, by evaluating the following:

- Market Education strategies, including the channels selected, website, and collateral;
- Customer interest in and satisfaction with the Charge Ready program, including in Disadvantaged Communities;
- Processes including (1) qualifying charging stations (e.g., availability of Level 2 charging stations with load management and demand response capabilities), (2) procuring deployment-related services (e.g., sourcing of qualified electrical contractors), and (3) assumptions about time and costs to deploy EV charging infrastructure at participating customer sites; and
- Post-deployment impacts, including assumptions about load expected from installed charging stations.

SCE also intends to form an advisory board (Advisory Board) with customers, industry stakeholders, and representatives from disadvantaged communities to review and provide input, guidance, and suggestions on the execution and improvement of the Pilot and Phase 2. SCE will use

relevant findings from the Phase 1 Pilot to refine the Charge Ready program and Market Education and Outreach efforts as appropriate prior to and during Phase 2 implementation.

To the extent the Pilot shows promising results, SCE expects the Commission to authorize SCE to move forward with Phase 2. However, the Pilot affords SCE and the Commission the opportunity to evaluate the Charge Ready program in action prior to a final decision on the overall program.

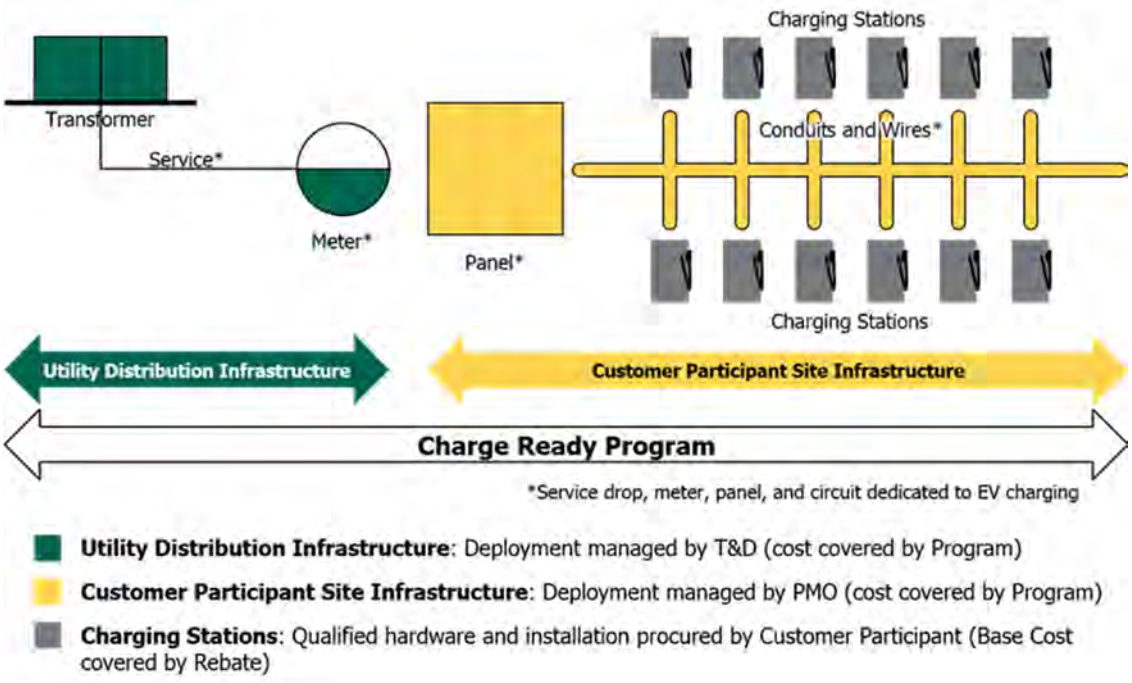
B. Pilot Design

As part of the Pilot, SCE plans to support the deployment of up to 1,500 qualifying charging stations in SCE's service territory at participating long dwell-time locations (Participating Sites) owned and/or operated by SCE's non-residential customers (Customer Participants) where drivers typically leave their cars parked for four hours or more (Long Dwell-Time Locations), including workplaces, multi-unit dwellings (MUDs),[3] and destination locations. Single-family homes are not eligible. As illustrated in Figure II-1, SCE will deploy all supporting electric infrastructure (the Program Infrastructure) needed to serve the charging stations, including:

- Utility Distribution Infrastructure: transformers, utility services, and meters; and
- Customer Participant Site Infrastructure: panels, "make ready" stub (including conduits and wiring), and associated infrastructure.

[3] In MUDs, the Customer Participant would be the non-residential customer associated with the Participating Site (e.g., the property management company or homeowners association).

Figure II-1
Diagram of Charge Ready Program Pilot Infrastructure



SCE will coordinate all deployment activities through Business Customer Division (BCD) representatives and a Program Management Organization (PMO) to handle implementation of the Pilot, and subsequently Phase 2 of the program. The PMO will also be responsible for coordinating among Customer Participants, SCE and vendors, including customer-selected qualified EV charging station suppliers, EV charging network service providers, and maintenance providers.

SCE proposes to cover related upfront costs, including costs to furnish infrastructure up to and including the make ready stub, and provide Customer Participants with a per charging station rebate designed to reflect the Base Cost of qualifying charging stations deployed at Participating Sites, as explained below. While SCE will retain ownership of the Program Infrastructure, Customer Participants will own and operate the charging stations (subject to the Pilot's terms and conditions) and will be responsible for all related operating costs, including maintenance and electricity usage.

C. Key Elements of Pilot

1. Customer Eligibility

To become a Customer Participant, customers must meet a number of requirements, including:

- Qualify as a non-residential customer;[4]
- Provide evidence and/or appropriate validation that EVs already exist at the location, as well as indications of near-term potential growth;
- Provide Long Dwell-Time parking to EV drivers. Such locations include: workplaces, MUDs, mass transit stations, colleges, fleet parking, destination locations (e.g., theme parks, sports arenas), municipal facilities (e.g., parks, beaches), and hotels (generally, retail locations are not eligible for the Program, but may qualify based on employee or fleet demand);
- Own or lease the Participating Site, or be the customer of record associated with the premises meter[5] (likely the property management company or the building owner), where the charging stations will be deployed;
- Provide agreement by the Participating Site's owner to grant SCE appropriate real property rights and continuous access to the Customer Participant Site Infrastructure; and
- Commit to and provide acceptable proof of qualified charging station purchase (together with actual pricing information) prior to SCE initiating construction of Program Infrastructure.

A copy of the proposed tariff for Schedule Charge Ready Program Pilot is attached in Appendix B to this volume.

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[4] Although MUDs are eligible to participate in the Program, and residents may use the charging stations, the Customer Participant must be the non-residential customer associated with the premises meter (such as a property management company or homeowners association).

[5] Also known as the common area meter.

2. Disadvantaged Communities

SCE will target up to 10 percent of the Pilot's charging infrastructure deployment to take place in disadvantaged communities, defined using the California Environmental Protection Agency's (CalEPA's) California Communities Environmental Health Screening Tool (CalEnviroScreen 2.0) (Disadvantaged Communities). SCE's 10 percent target is modeled after Senate Bill (SB) 535,[6] which requires that 10 percent of the GHG Reduction Fund would be allocated for projects located within Disadvantaged Communities. To account for the estimated initial lower level of EV adoption in these communities and accommodate smaller sites, upon request from a Customer Participant located in a Disadvantaged Community, SCE will reduce the minimum requirement from ten charging stations to five charging stations per Participating Site in appropriate circumstances (additional details about this minimum requirement is described in the Charging Station Procurement section below). All goods and services qualification and procurement processes will include women, minority, and disabled veteran business enterprise (WMDVBE) requirements.

SCE will engage with eligible customers (including businesses, governmental institutions, colleges, and MUDs) in Disadvantaged Communities and support them through both phases of the Program. SCE will also collaborate with the California Energy Commission (CEC), CARB, the South Coast Air Quality Management District (SCAQMD), the Southern California Association of Governments (SCAG), and other regional agencies and beneficiaries of vehicle incentive programs authorized by statutes that favor state investments in Disadvantaged Communities, to encourage more vehicle incentives and state investments for these communities.[7]

As mentioned in the Pilot Objectives (Section II.A., *supra*), SCE will form an Advisory Board with customer and industry stakeholders to review and provide input, guidance, and suggestions on the execution and improvement of the Charge Ready program. SCE will include representation from

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[6] *See* Cal. SB 535 (2012 Cal. Stats. Ch. 830 § 2).

[7] *See* Cal. SB 535 (2012 Cal. Stats. Ch. 830 § 2); Cal. Assembly Bill (AB) 8 (2013 Cal. Stats. ch. 401 § 2); Cal. SB 1204 (2014 Cal. Stats. ch. 524); and Cal. SB 1275 (2014 Cal. Stats. ch. 530).

community stakeholders for Disadvantaged Communities on that Board, and seek specific guidance during the Pilot and recommendations for Phase 2 related to Disadvantaged Communities.

3. Charging Station Qualification

a) Charging Station Specification and Validation

To be qualified for inclusion in the Charge Ready program, EV charging stations must meet various technical standards and energy efficiency recommendations (e.g., SAE International standards SAE J1772,[8] SAE J2894,[9] SAE J2836,[10] SAE J2847[11]) and must be listed by a nationally recognized testing laboratory. In addition, all Level 2 charging stations must be demand response-capable (i.e., capable of receiving and executing real-time instructions to throttle, and/or modify end-user pricing of EV charging load)[12] and are encouraged to include additional load management features (e.g., EV charging sequencing or power sharing).

SCE intends to qualify charging stations according to three defined profiles:

- Level 1 charging station, without network capability,
- Level 2 charging station, with network capability integrated into the charging station, and
- Level 2 charging station, with network capability provided by an external device (such as a kiosk or gateway) shared among multiple stations.

To have charging stations included in the Charge Ready program, vendors must agree to provide samples to SCE or its designated third-party lab for testing and "qualification." SCE

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[8] *See* SAE International Standard J1772, abstract *available at* http://standards.sae.org/wip/j1772/ [as of October 27, 2014].

[9] *See* SAE International Standard J2894, abstract *available at* http://standards.sae.org/j2894/1_201112/ [as of October 27, 2014].

[10] *See* SAE International Standard J2836, abstract *available at* http://standards.sae.org/j2836/1_201004/ [as of October 27, 2014]

[11] *See* SAE International Standard J2847, abstract *available at* http://standards.sae.org/j2847/1_201311/ [as of October 27, 2014]

[12] As in other demand response programs, SCE may send demand-response signals using open, non-proprietary two-way communications. Level 2 charging stations must be capable of receiving these signals either directly or through an EV charging network service provider.

plans to conduct sample testing through its EV Tech Center or through an established third-party laboratory to determine if proposed EV charging stations meet the Pilot's requirements and to demonstrate power quality and system impact. SCE will also validate data generated by the proposed EV charging stations for accuracy.

b) Qualification Process and Establishing the Base Cost Rebate

SCE intends to include a broad range of qualified charging station models from multiple suppliers as part of the Program offering. SCE will issue a Request for Information (RFI) to technically capable and financially viable third-party suppliers of charging stations, including qualified WMDVBE suppliers, to cover the provision, installation, operations, and maintenance of the charging stations.

Prospective suppliers will be asked to submit sample models and relevant pricing to supply and install qualified charging stations, based on the RFI's requirements. Suppliers will also have to demonstrate capabilities to supply qualified stations in appropriate volumes and to provide maintenance and network-related services (e.g., charging data collection and management), either through the charging station or through a kiosk or gateway.

The best value offered for a charging station and its installation within each defined profile will inform how SCE determines the base cost (Base Cost). SCE may supplement submitted pricing information with additional market research and other third-party studies. The Base Cost for each profile will establish the per-charging station rebate amounts available to Customer Participants for their purchase of qualifying EV charging stations, described in section 3, below.

In addition to current SCE suppliers, any technically capable third-party will be conditionally approved to participate in the RFI. If a technically- and conditionally-approved supplier is selected, the supplier will have to be commercially approved by SCE before being selected to participate in the Program. As part of this commercial qualification, SCE will perform a supplier financial stability analysis based on supplier input to assess a supplier's capability to warrant and remedy the qualified products and services.

During this Pilot, SCE may conduct a second RFI and reset the Base Cost rebate for each defined profile to ensure best market pricing available, up-to-date technology, and seamless transition to implementation of Phase 2. Between each RFI, SCE will accept submission of new models by qualified suppliers on a quarterly basis, although interim qualification of new models or suppliers will not affect the Base Cost.

c) Charging Station Procurement

SCE will first engage directly with Customer Participants and discuss their charging needs, identify the qualifying EV charging stations available to them under the program, and perform initial rate impact analyses to assist them in estimating operating costs and deciding which charging stations to select for their site. The Pilot is open to any eligible applicants meeting the eligibility criteria, including the requirements of installing charging infrastructure at "long dwell-time" locations, including but not limited to workplaces, universities, multi-unit dwellings, park-and-rides, and hotels. SCE will conduct targeted outreach to business customers that meet these criteria and are more likely to participate in the Pilot. To help manage program costs, eligible customers will then be selected based on a variety of factors, including geographic location, grid impacts, number of employees/tenants, and individual facility parking spaces. Additionally, SCE will target Disadvantaged Communities, as explained above.

Subject to all terms and conditions of the Pilot, Customer Participants will select qualified charging stations. Each Participating Site must install a minimum of ten charging stations,[13] and will be permitted to install additional charging stations to serve up to 4 percent of parking spaces at the Participating Site. Participating Customers will be entitled to receive a rebate for the amount of Base Cost applicable to each charging station and its installation, provided that SCE will exercise discretion to determine the actual number of eligible charging stations based on the volume of current and anticipated EVs parking at the relevant Participating Sites. If a Customer Participant selects qualifying charging

[13] Upon request from a Customer Participant located in a Disadvantaged Community, SCE will reduce the minimum requirement from ten charging stations to five charging stations per Participating Site in appropriate circumstances.

stations with a unit cost that exceeds the Base Cost rebate, the Customer Participant would pay the amount in excess of the rebate for each charging station the Customer Participant orders.

SCE intends to achieve economies of scale and will not deploy Program Infrastructure to serve less than ten qualified charging stations per Participating Site.[14] SCE will use discretion to determine whether to accept Participating Sites where ten charging stations represent more than 4 percent of total parking spaces to avoid over deployment and unutilized Program Stations.[15]

Customer Participants will purchase qualified EV charging stations and pay for their installation directly from qualified suppliers.[16] SCE will not directly participate in the procurement activities conducted by Customer Participants, who may negotiate the cost of charging stations (and their installation) with any qualified charging equipment supplier. If requested by the Participating Customer, the Participating Customer may assign its Base Cost rebate directly to the qualified charging equipment supplier. Customer Participants will also order EV charging network services directly from qualified vendors. The Pilot will encourage Customer Participants and suppliers to complete procurement of the charging stations within a reasonable period of time to facilitate execution of the Pilot without unnecessary delay.

4. Charge Ready Education and Outreach

SCE will conduct Charge Ready-specific education and outreach ("E&O") for the Pilot through both broad-based (e.g. websites) and targeted approaches using a variety of data-driven, low-cost channels. Content communicated to potential Customer Participants will provide information about the Pilot and highlight key areas such as eligible rates, bill impact analysis, metering options, EV

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[14] Upon request from a Customer Participant located in a Disadvantaged Community, SCE will reduce the minimum requirement from ten charging stations to five charging stations per Participating Site in appropriate circumstances.

[15] Unless a Customer Participant can demonstrate greater anticipated demand for EV charging, SCE proposes to install a total number of charging stations that represents no more than 4% of total parking spaces at each Participating Site. SCE proposes this 4% cap because EVs are not expected to exceed 4% of total vehicles in the next 5 years.

[16] SCE will not manufacture or apply its brand or logo on any charging stations selected by Customer Participants.

infrastructure, access to subject matter expert resources, charging station information, and any other customer support services needed to help implement the Pilot. Ultimately, SCE will develop E&O materials that provide relevant program awareness while encouraging message recall and driving further interest, information sharing, and ultimately enrollment in the Pilot.

D. Pilot Infrastructure Deployment and Charging Station Installation

1. Site Selection Requirements

After receiving a Customer Participant request to participate in the Program, SCE will work with Customer Participants and electrical contractors (coordinated by the Charge Ready Program Management Organization) to identify appropriate locations within the Customer Participant's parking lot to deploy charging stations in a cost-effective manner (based on factors such as proximity to transformers, length of trenching, available T&D capacity, and ease of access for EV drivers). SCE representatives will also help identify alternative location options, as needed. All charging stations are expected to be placed on previously disturbed property, such as parking lots, structures, or facilities. All Program Infrastructure is also expected to be over already disturbed property, such as driveways, roads, or parking lots. SCE may deny a customer's request to participate in the Program if the customer and SCE cannot agree upon an installation configuration and location that is reasonably cost-effective as determined by SCE in its sole discretion. The actual location of the deployment will require approval by both the Customer Participant and SCE.

2. Utility Distribution Infrastructure and Metering

SCE will determine the best, most cost-effective method of service for the Participating Site based on proposed load, service voltage requirements, and SCE construction and engineering standards. The charging stations will be served by dedicated electric infrastructure. Each Participating Site will be assigned a single new meter and service to serve the charging stations separately from the existing service serving the Site. The Pilot will leverage SCE's transmission and distribution (T&D) processes and resources to ensure that the local electric grid is sized appropriately to serve the new EV charging load.

Any transformer or service upgrades needed as a result of the increased load from charging stations will be handled by SCE's T&D operating unit through normal T&D processes and staff, with all related costs covered by the Pilot.

3. Deployment of Customer Participant Site Infrastructure

Customer Participant Site Infrastructure will be deployed through third-party contractors overseen by SCE. The contractors will be selected by SCE through a Request for Proposal (RFP) process that will determine a rate card for in-scope services. Qualified contractors will include, inter alia, architects, engineers, and electrical contractors. SCE will hire third-party contractors to handle deployment of all Customer Participant Site Infrastructure (including dedicated panel, conduits, wiring) at Participating Sites. All such deployment costs will be covered by the Pilot. The RFP process will be competitive and per General Order No. 156 will include qualified WMDVBE suppliers.

4. Charging Station Installation

SCE will coordinate the installation and connection of the charging stations with the Customer Participant and its selected charging station supplier, promptly after deployment of the Customer Participant Site Infrastructure. After installing the charging stations, the qualified charging equipment supplier will also configure the charging stations, as requested by the Customer Participant, and will confirm communication with any EV charging network service provider, if applicable.

E. Operation of Charging Stations by Customer Participant

Customer Participants will own the charging stations and operate them at their discretion (subject to the terms and conditions of the Pilot). If a Customer Participant fails to comply with the Pilot's requirements, the Customer Participant may have to reimburse the rebate, partially or in full.

1. Energy Costs/Billing

Customer Participants will be billed for their energy charges on the selected rate schedule based upon the demand and rate criteria in effect at the time. Payment default will be treated per SCE's regular policies. All usage registered on the meter serving the charging stations must be served on an applicable General Service Time-of-Use (TOU) rate. BCD account managers will perform a rate

analysis to assist Customer Participants in selecting the most cost-effective rate based on the anticipated use of the charging stations.

Individual MUD residents may be separately metered and billed directly for usage of a charging station on an applicable residential TOU rate if the charging station has been assigned by the building owner or manager to the resident's exclusive use.

Eligible Customer Participants interested in minimizing demand charges may enroll in Schedules TOU-EV-3 and TOU-EV-4[17] will only be charged for aggregated demand since facility-related demand charges will only be assessed when the EV account's maximum demand is higher than the Participating Site account's maximum demand (provided that the Customer Participant is the customer of record for both accounts). If the customer of record is an individual resident of a MUD, no demand charge is assessed on residential Schedule TOU-EV-1.

2. Demand Response

All Customer Participants with Level 2 charging stations must agree to participate in future demand response programs designed in connection with the Program and approved by the Commission. SCE will solicit feedback from its Advisory Board on the design of potential demand response programs, and will seek to offer multiple options to meet Customer Participant needs.

3. EV Charging Networks

Customer Participants selecting Level 2 charging stations will be required to sign up with a qualified EV charging network provider to manage the charging stations and access related usage data. Customer Participants will be responsible for payment of all charges resulting from such arrangements, which Customer Participants must agree to maintain for ten years following installation of the charging stations.

[17] The TOU-EV-4 service accounts can be co-located on the same premise as the parent service account, which can reduce the overall level of kW demand applicable to the EV account. In the 2013 RDW application (A.13-12-015), SCE proposes to add a TOU-EV-3 Rate B that has a compatible rate structure modeled on Schedule TOU-EV-4 where the demand charge structure is designed to cap the level of facilities demand charges applicable to the premises hosting both the general service account and the EV account.

Customer Participants and their selected EV charging network providers must consent to provide SCE with access to non-personally identifiable information in connection with end-user transactions (e.g., duration of each charge, rate/cost, load) for ten years. SCE will collect the data directly from Customer Participant-selected EV charging network providers. Aggregated data (not attributable to any specific charging network provider) will be made publicly available, as described below, and will be used to identify load management opportunities and enhance vehicle-grid integration for future utility initiatives.

4. Maintenance by Customer Participant

Customer Participants, at their expense, must ensure the charging stations at their sites are maintained in working order for at least ten years following installation.

5. Charging Station Access and Use

Subject to the Pilot's terms and conditions, policies regarding access and use of charging stations will be decided by Customer Participants, at their discretion. BCD may provide supporting tools, such as frequently asked questions, lessons learned, and customer studies to help Customer Participants develop their policies.

III.

REQUEST FOR PHASE 1 MARKET EDUCATION

In conjunction with the Charge Ready Pilot described in this volume, SCE proposes Phase 1 of its broader Market Education effort that will target potential car buyers in SCE's service territory to expand their awareness about EVs and the benefits of fueling from the electric grid, including increased utilization of utility assets, reduced GHG emissions, and lower rates for off-peak charging, among others. Additionally, SCE proposes expanding its current advisory services for business customers to include specific education and support related to electrifying fleets, EV charging, reducing GHG footprints, and other related transportation electrification (TE) areas for business customers.

Although these two programs support the same broad efforts to further expand and accelerate EV adoption by SCE customers, the Phase 1 Market Education effort and TE Advisory Services are complementary to but separate from the Pilot Charge Ready proposal. The resources developed during

this pilot period, as well as lessons learned during the Pilot's implementation, will enhance the Phase 2 Market Education effort and TE Advisory Services program.

SCE currently provides residential and business customers with basic information about EV readiness, including available rates and metering arrangements, through its website, limited external collateral, and other non-EV-specific customer-facing personnel. In accordance with D.11-07-029, SCE only directs this education and outreach to customers who indicate an interest in EVs. SCE's proposed Phase 1 Market Education effort addressed in this Application will be incremental in both cost and audience, as it will target a wider set of customers, particularly those customers interested in purchasing new vehicles. While the effort will leverage similar resources to those described above, it will also use a wider set of broad-based and targeted marketing channels. Similarly, SCE's Phase 1 TE Advisory Services function will also be incremental in both cost and scope to current General Rate Case (GRC) requests, as it will provide additional outreach and guidance on a number of TE-related issues and opportunities for business customers.

A. Phase 1 Market Education

1. Market Education Effort

SCE proposes a number of channels to expand its messaging to a broader market on the benefits of EVs and fueling from the grid. Key to its broader efforts will be a centralized SCE website landing page, which will be built and used in Phase 1 of this effort and used subsequently in Phase 2. This landing page will both highlight mass awareness messaging and direct interested customers to specific residential and business sites that provide more detailed and focused content. The residential site will expand functionality and content beyond its current, more limited form (which targets EV intenders and EV owners), while the business site will also serve as the home base for the business TE Advisory Services. Other broad marketing channels will direct customers to this central landing page. These channels include bill messaging, messaging on the SCE.com homepage and MyAccount online customer platform, e-newsletter, and SCE social media.

On the paid media front, SCE will incorporate digital media on the benefits of EVs and fueling from the grid into its overall Market Education effort. This will include both broad and targeted

digital banners, search engine marketing (SEM), and paid social media ads. To broaden its local outreach efforts, SCE will explore radio ad spots. Local sponsorship and reinforced presence at auto shows, in addition to test drive events, will also serve as opportunities to spread EV awareness to a broader local audience. Similarly, SCE will work with original equipment manufacturers ("OEM"), car dealerships, and other third parties as additional E&O channels.

The learnings from this one-year phase will be applied to the broader Phase 2 Market Education effort.

2. Targeted Outreach

In conjunction with its broader channels, SCE also proposes using more targeted education tactics to reach its audience of "auto-intenders," particularly on the residential side. Besides using targeted digital approaches mentioned in the previous section, SCE will leverage direct messaging on the benefits of EVs and fueling from the grid – including direct mail and email – towards specific sets of customers. Through external research and internal customer data, SCE will identify customer populations that will be more likely to adopt EVs, providing the right message through the right channel. However, this targeted outreach will be balanced with broader outreach directly to Disadvantaged Communities.

3. Disadvantaged Communities

SCE's Phase 1 Market Education effort will expose low-income, ethnic, and pollution-impacted populations to relevant messaging through its website, radio, and other broad-based channels ultimately used. SCE will make this E&O material available in multiple languages, consistent with SCE's current policies for in-language messaging. In particular, SCE will coordinate with ethnic media to confirm adequate radio coverage in key ethnic customer markets and geographic disadvantaged areas. Finally, SCE will ensure that external-facing organizations at SCE have relevant (and, when possible, in-language) material available when working with Community-Based Organizations, Faith-Based Organizations, and other outreach organizations that have strategic relationships with disadvantaged and ethnic communities.

B. Phase 1 TE Advisory Services

Through SCE's Phase 1 TE Advisory Services program, SCE will provide business customers with a dedicated "one-stop shop" for specialized education, awareness, and support on such TE issues as federal, state, and local incentives, vehicle/charging equipment financing opportunities, vehicle types, and charging installation programs. This would require full-time, incremental personnel, and the learnings from this one-year phase will be applied to the broader Phase 2 TE Advisory Services Program.

Business customers will initially engage with SCE's Phase 1 TE Advisory Services through either landing at the TE Advisory Services website (as mentioned above) or through specific account managers, who currently serve as many business customers' trusted energy advisors and primary points of contact for most energy issues. In particular, account managers will provide high-level information regarding TE issues and will refer customers to dedicated TE Advisory Services personnel and/or web resources for specific, direct assistance with TE programs and information as described above. In coordination with TE Advisory Services, account managers will also provide direct outreach to business customers more likely to benefit from TE programs, such as owners of large auto fleets or businesses that may show interest in charging stations.

Additionally, TE Advisory Services will coordinate with other external-facing SCE departments to provide business customer representation at relevant events and meetings and engage with business customers. Finally, SCE will also plan to leverage its relationships with local business associations to spread information about its programs, as well as internal-owned media, including social media channels and the *SCE Power Bulletin and SCE Small Business Connection Newsletter* publications. Similar to its broader Market Education efforts, SCE will use surveys to track the effectiveness of channels and messaging used in this phase to help determine the best messaging/channel mix for Phase 2.

IV.

PILOT MANAGEMENT

A. Program Management Organization (PMO)

The existing SCE Customer Program and Services organization will dedicate a combination of existing and new employees under the PMO to execute both the Pilot and Phase 2 of the Charge Ready program's scope of work. In general, the PMO will be responsible for planning the implementation of the Pilot and overall program, working across SCE, and coordinating among third-party vendors and contractors. The PMO will also ensure that the Pilot is executed on time, on budget, leveraging project management best practices. Finally, the PMO will prepare frequent internal and external reports to provide status of the Pilot's implementation.

B. Pre-Deployment Activities

Upon approval by the Commission of an advice letter filed by SCE to request the establishment of an interim memorandum account (detailed below), SCE will begin planning and executing pre-deployment activities to ensure that SCE can move quickly to implement the Pilot upon Commission approval, such as:

- Issuing RFIs for selecting vendors,
- Establishing Pilot policies and procedures,
- Building vendor and supplier awareness of the business opportunities provided by the Pilot, and
- Developing an outreach effort to potential Customer Participants.

V.

PILOT EVALUATION

SCE will provide a quarterly status report to the Commission's Energy Division and other stakeholders. The reports will evaluate items listed in the Pilot Objectives, including: (i) customer interest and satisfaction; (ii) processes such as qualifying charging stations, procuring deployment services, and time and costs; (iii) post deployment impacts; and (iv) market education strategy. The status reports will include updates about progress, achievements, and lessons learned executing the Pilot.

The status reports may also include recommendations from the Advisory Board that SCE will consider incorporating in Phase 2. Nine months into the pilot, SCE will provide a pilot report with data which may be used to identify SCE's proposed revisions to the design or costs of Phase 2.

A seamless transition, with no program gap from the Pilot to Phase 2, is critical to avoid confusion among customers and vendors, and unnecessary expenses from suspending ongoing processes piloted by SCE in preparation for Phase 2.

SCE's proposed status reporting and any revisions to the Phase 2 testimony resulting from lessons learned through the Pilot (if needed) will help the Commission reach a prompt decision based on up-to-date information and analyses.

VI.

ESTIMATED PILOT COSTS (CAPITAL AND O&M)

This section provides estimates of the Charge Ready Pilot and Phase 1 Market Education and Outreach capital cost and operations and maintenance (O&M) components. Although SCE has sound bases for its cost estimates, charging station installation at commercial sites is not uniform in any way. Because one of the objectives of this Pilot is to validate assumptions about project implementation costs, actual aggregated costs will be included in SCE's status reports when available.

A. Capital Cost Components

1. Utility-Side Costs

Utility-side costs encompass all traditional cost on the utility side of the meter including but not limited to transformer upgrades/additions, service drop, labor, materials, hardware, and new service meter. Because each customer site will be unique with many factors influencing costs, a 35 percent contingency is included.

2. Customer-Side Costs

Customer-side costs were compiled from consultations with internal subject matter experts, external electrical contractors and published costs from historical California Electric Vehicle

Supply Equipment (EVSE) installation sites.[18] Costs incorporate customer planning, engineering, construction (including trenching) labor, materials, and panel changes needed to accommodate the increased load from new EVSE. Because each customer site will be unique with many factors influencing costs, a 35 percent contingency was incorporated into the cost estimates.

3. Charging Station Rebate Costs

Charging station rebate costs will depend on results of an RFI process yet to be conducted. Detailed assumptions on assumed rebate costs are shown below.

4. Other Capitalized Costs

Other capitalized costs include easement fees and services to grant SCE access to customer sites, internal charging station testing to verify EVSEs meet requirements of program and all capitalized labor.

Table VI-1
Capital Costs Required for 2015
(Constant 2014 $, Excludes Escalation and Loaders)

(in $000)		2015
Utility-Side Costs	$	3,354
Customer-Side Costs	$	7,586
Charger Rebate	$	5,850
Other Capital Costs	$	146
Capitalized Labor	$	564
Total Capital Costs	**$**	**17,499**

B. O&M Cost Components

1. Labor

Labor associated with the Charge Ready Pilot is forecast at roughly six new full-time equivalent employees in the Business Customer and Customer Programs and Services divisions. An

[18] *See* Electric Power Research Institute, Electric Vehicle Supply Equipment Installed Cost Analysis, December 6, 2013, abstract *available at* http://www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=000000003002000577 [as of October 27, 2014].

additional three new full-time equivalent employees would be added to the BCD to facilitate TE advisory services as part of the Market Education effort. These positions are detailed below.

2. Charge Ready Pilot-Specific Education and Outreach

Charge Ready Pilot-specific education and outreach involves both broad-based (e.g. websites) and targeted approaches (business customers at long dwell-time locations).

3. Broad Market Education Campaign

The Market Education effort will require a website, radio advertisements, test drive events, and other channels.

4. TE Advisory Services

TE Advisory Services require three full-time, incremental personnel to provide business customers with a dedicated "one-stop shop" for specialized education, awareness, and support on such TE issues.

5. Other Non-Labor O&M

Other non-labor O&M includes software upgrades used for asset management, non-labor office costs, and the compilation and publication of quarterly reports reflecting the data collected during the pilot.

Table VI-2
O&M Costs Required for 2015
(Constant 2014 $, Excludes Escalation and Loaders)

(in $000)		2015
Charge Ready Pilot Labor	$	163
Charge Ready Pilot ME&O	$	545
TE Advisory Services Labor	$	317
Broad EV Awareness Campaign	$	2,831
Other non-labor	$	241
Total O&M Costs	**$**	**4,096**

Table VI-3
Charge Ready Pilot Capital Cost Breakdown
(Constant 2014 $, Excludes Escalation and Loaders)

Year	2015
Chargers	1,500
Sites	58

Capital Variables	Cost	Frequency		2015
Site-specific infrastructure				
Utility-Side Costs	2,236	per charger	$	3,353,532
Labor	*962*	*per charger*		*1,442,773*
Non-Labor Matierals	*478*	*per charger*		*717,232*
Transformer	*566*	*per charger*		*848,817*
35% contingency	*224*	*per charger*		*336,014*
Meter	*150*	*per site*		*8,696*
Customer-Side Costs	5,058	per charger	$	7,586,387
Panel	*4,782*	*per site*		*277,224*
Panel Installation (contractor)	*2,043*	*per site*		*118,452*
Customer-side work (trenching, conduit, permiting)	*3,483*	*per charger*		*5,223,870*
35% contingency	*1,311*	*per charger*		*1,966,841*
Charger Rebate	3,900	per charger	$	5,850,000
Other Capital				
Easement costs	2,000	per site	$	115,942
Station testing	30,000	per year	$	30,000
Business Customer Division Labor	Total FTE	1.0	$	103,500
Project Manager	110,700	*0.33*		
Senior Technical Specialist	99,900	*0.67*		
Customer Programs and Services Labor	Total FTE	3.6	$	460,003
Principal Manager (PMO lead)	190,000	*0.8*		
Project Manager	110,700	*1.7*		
Senior Program/Contract Manager	115,200	*0.8*		
Senior Program Analyst	89,100	*0.4*		
TOTAL CAPITAL			**$**	**17,499,363**

Table VI-4
Charge Ready Pilot O&M Cost Breakdown
(Constant 2014 $, Excludes Escalation and Loaders)

O&M Variables	Cost	Frequency	2015
O&M			
BCD Labor	Total FTE	0.5	$ 51,750
Project Manager	110,700	*0.17*	
Senior Technical Specialist	99,900	*0.33*	
TE Advisory Services	Total FTE	3.0	$ 316,800
Senior Project Manager	126,600	*1*	
Project Manager	110,700	*0.5*	
Program Analyst 2	69,900	*0.5*	
Senior Technical Specialist	99,900	*1*	
Customer Programs and Services Labor	Total FTE	0.9	$ 111,148
Principal Manager (PMO lead)	190,000	*0.2*	
Project Manager	110,700	*0.3*	
Senior Program/Contract Manager	115,200	*0.3*	
Senior Program Analyst	89,100	*0.1*	
Customer Programs and Services Non-Labor			$ 121,192
Charge Ready Pilot ME&O			$ 545,000
Broad EV Awareness Campaign			$ 2,830,600
Market Reporting	100,000	per report	$ 100,000
Asset Management Tool (SAP)	20,000	one time	$ 20,000
TOTAL O&M			**$ 4,096,490**

VII.

COST RECOVERY

This section presents SCE's ratemaking proposal for the Charge Ready Pilot and Market Education Campaign Efforts (Phase 1 Pilot). SCE requests approval to recover the revenue requirements associated with no more than $22 million in capital expenditures and O&M expenses related to the Phase 1 Pilot.[19] SCE also proposes the establishment of a Charge Ready Program Balancing Account (CRPBA) to provide for the recovery of Phase 1 Pilot recorded revenue requirements, which include all recorded Phase 1 Pilot incremental costs, effective upon a Commission decision in Phase 1 of this Application. Since the Commission will perform a full review of the scope of Phase I Pilot activities and

[19] The proposed spending cap excludes all applicable overheads, such as AFUDC or corporate overheads. When recording the revenue requirements in the CRPBA, SCE will include all applicable overheads.

forecast costs in this proceeding, reasonableness review of the CRPBA should be limited to a review to ensure that all entries to the account are stated correctly and are associated with Phase 1 Pilot activities as defined and adopted by the Commission in Phase 1 of this proceeding.

Concurrent with this Application, SCE is filing an advice letter to establish a Charge Ready Program Memorandum Account (CRPMA). The establishment of the CRPMA is necessary in order to ensure that the Phase 1 Pilot can proceed immediately, without precluding cost recovery at a future date. Upon approval by the Commission of the CRPMA, SCE will begin planning and executing pre-deployment activities to ensure that SCE can move quickly to implement the Phase 1 Pilot upon Commission approval.

A. Description of Charge Ready Program Memorandum Account

On October 30, 2014, concurrent with this Application, SCE filed an advice letter requesting Commission authority to establish the CRPMA. The CRPMA will record all incremental expenses, invoiced costs for outside services (e.g., consultants and vendors), insurance, developing an outreach effortto potential customer participants, and any other pre-deployment expenses incurred as a result of SCE's Phase 1 Pilot activities prior to the Commission's approval of SCE's ratemaking request in this Application. The establishment of the CRPMA is necessary to ensure that the Phase 1 Pilot can proceed without delay and without precluding cost recovery at a future date. Similar to all Commission-approved memorandum accounts, the CRPMA will protect against retroactive ratemaking concerns, but will not guarantee recovery in rates of any recorded costs prior to Commission review and approval.

SCE plans to only use the interim ratemaking (i.e. the CRPMA) while the Pilot phase of this Application is pending to record incremental expenses. As discussed in the following section, SCE will transfer the CRPMA balance to the new CRPBA upon its effective date and, since the CRPMA will no longer be necessary, is proposing to eliminate the CRPMA at that time from its tariffs.

B. Description of Charge Ready Program Balancing Account

SCE requests Commission authorization to establish the CRPBA to record the actual Phase 1 Pilot revenue requirement each month. SCE will record the actual O&M, payroll taxes and the capital-

related revenue requirement (i.e. depreciation, return on rate base, property taxes, and income taxes) in the CRPBA.[20]

SCE proposes to include in distribution rates a forecast annual Phase 1 revenue requirement effective January 1 of each year commencing January 1, 2016.[21] To ensure that customers only pay the actual Charge Ready Phase 1 Pilot revenue requirements, SCE proposes to transfer the revenue requirement recorded in the CRPBA to the distribution sub-account of SCE's Base Revenue Requirement Balancing Account (BRRBA) each month. In this way, any difference between the forecast Phase 1Pilot revenue requirements included in rate levels and the actual recorded Phase 1 revenue requirements will be trued-up in the BRRBA. This proposed ratemaking will ensure that no more and no less than the reasonable revenue requirement associated with the Charge Ready Program is ultimately collected from customers. Any over-collection recorded in the BRRBA at the end of each year will be refunded to customers in the subsequent year. Likewise, any under-collection that is recorded in the BRRBA at the end of each year is recovered from customers in the subsequent year. Included in the cap of $22 million above, SCE proposes to record expenses of $4 million in the CRPBA related to Phase 1 Pilot expenses, including program office labor, customer service labor, and Charge Ready Pilot-specific marketing expenses, as well as Market Education effort and TE Advisory Services expenses.

After an initial transfer of the recorded CRPMA balance upon the effective date of the CRPBA, each month, SCE will record into the CRPBA:

1. Phase 1 Pilot-related capital-related revenue requirements (debit), calculated on actual rate base amounts; and

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[20] SCE will not record any revenue requirements related to any Phase 1 Pilot expenditures that may exceed the $22 million cap in the CRPBA; this proposed spending cap excludes all applicable overheads, such as AFUDC or corporate overheads. When recording the revenue requirements in the CRPBA, SCE will include all applicable overheads.

[21] After 2020, the capital cost recovery for the Charge Ready Program will be included in SCE's GRCs.

2. Phase 1 Pilot-related actual incremental O&M costs (debit), calculated on recorded incremental O&M expense.

All recorded incremental costs will include provisions for applicable overhead loadings on direct labor dollars, to account for items such as benefits and payroll taxes.[22] In addition, interest expense will not accrue in the CRPBA since the monthly activity is transferred to the BRRBA. See Appendix C for SCE's proposed CRPBA preliminary statement.

C. Proposed Reasonableness Review of Phase 1 Pilot Expenditures

SCE proposes that if the Phase 1 Pilot direct[23] capital and O&M expenditures for the twelve-month period commencing with the Commission's approval to establish the CRPBA are less than $22 million (2014 $), then those expenditures will be deemed to be reasonable and therefore no further after-the fact review will be required.[24]

Pursuant to the Commission-adopted process for reviewing other SCE balancing accounts, SCE proposes that the recorded operation of the CRPBA be reviewed by the Commission in SCE's annual Energy Resource Recovery Account (ERRA) review applications, or other such proceeding as may be authorized by the Commission. This review of the CRPBA will ensure that all entries to the account are stated correctly and are consistent with Commission decisions. Commission review procedures for the Phase I Pilot costs should be limited to ensuring that all recorded costs are associated with activities as defined and adopted by the Commission in this Phase I proceeding.

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[22] Overhead loading factors will be based on actual recorded or, if recorded is unavailable, authorized rates. However, to the extent a particular labor loading is currently accounted for in another balancing account (e.g., Pensions, Post Retirement Benefits Other Than Pensions ("PBOPs")), SCE will not include these labor loadings in the recorded operation of the CRPBA.

[23] Direct capital expenditures refers to project-related spend, controllable by program managers, and does not include AFUDC or overheads.

[24] This amount for the Phase 1 Pilot includes $18.5 million for the Charge Ready Pilot, $2.8 million for Phase 1 Market Education efforts, and $317,000 for Phase 1 TE Advisory Services.

D. Cost Deflation for Reasonableness Determination

Because actual O&M expenses and direct capital expenditures will be recorded in nominal dollars in 2015, these costs will have to be deflated for price inflation between 2014 and later years. SCE proposes to accomplish this by deflating the recorded capital and O&M costs in nominal dollars by the same inflation factors[25] used to escalate costs from constant 2014 $ to nominal for forecasting.

SCE proposes to use two deflation factors: Handy-Whitman Capital Cost Index for capital and IHS Global Insight O&M Cost Index for O&M. In the ERRA Review Proceeding following the completion of Phase 1 of the Charge Ready Program Pilot, SCE will include testimony supporting the reasonableness of the O&M and capital expenditures spent on the Charge Ready program. SCE will use the actual, published inflation indexes to deflate nominal costs back to constant 2014 $ to compare actual O&M expenses and direct capital expenditures to the forecasted spend of $22 million (2014 $).

E. Forecast of SCE's Charge Ready Pilot Revenue Requirements

Table VII-1 below contains SCE's forecast annual revenue requirements for the Phase 1 Pilot during the 2015 through 2019 period.

[25] Handy-Whitman Index of Public Utility Construction Costs for Total Distribution Plant, Pacific region for capital and IHS Global Insight index for A&G for O&M

Table VII-5
Phase 1 Forecast Charge Ready Pilot Revenue Requirements
(Nominal $)

Charge Ready Revenue Requirement - PHASE 1
Thousands of Dollars

Line No.	Item	2015	2016	2017	2018	2019
1.	**Operating Revenues**	**3,082**	**4,131**	**3,971**	**3,814**	**3,662**
2.	**Operating Expenses:**					
3.	O&M Expense	4,216	0	0	0	0
4.	A&G	33	0	0	0	0
5.	FF&U	34	45	44	43	41
6.	Depreciation	1,152	1,152	1,152	1,152	1,152
7.	Taxes Other than Income	133	193	178	163	149
8.	Taxes Based on Income	(3,151)	1,458	1,413	1,370	1,330
9.	Total Operating Expenses	2,416	2,848	2,787	2,728	2,671
10.	**Net Operating Revenue**	**666**	**1,283**	**1,184**	**1,086**	**991**
11.	**Rate Base (Average)**	8,433	16,236	14,984	13,753	12,542
12.	**Rate of Return**	7.90%	7.90%	7.90%	7.90%	7.90%

Beginning in 2016, SCE requests to include in distribution rate levels a forecast Charge Ready Pilot revenue requirement each year until the Charge Ready Program revenue requirement is included in SCE's GRC revenue requirement. The annual revenue change associated with the 2016 – 2019 Phase 1 forecast revenue requirements will be consolidated and made when all other previously authorized revenue changes are reflected in rates, consistent with current practice.

SCE proposes to file an advice letter each year to determine the Charge Ready Program revenue requirement to be included in distribution rates the following year. SCE proposes to file this advice letter by November 1st of each year beginning November 1, 2015. In the annual advice letters, SCE will update the Charge Ready Program revenue requirement to reflect the prior year recorded capital expenditures, any forecast capital expenditure changes in the following year and also the most recently

adopted rate of return on rate base, franchise fees and uncollectible rates and tax rates. SCE will then consolidate the changes in its distribution rates to reflect these updated Charge Ready Program revenue requirements in conjunction with other authorized rate level changes in its January 1 rate change.

1. Capital Expenditures / Additions

SCE's forecasted revenue requirements as shown in Table VII-1 above were derived based on the capital expenditures estimated of $17.5 million (2014 $), as supported in Volume 3. Table VII-2 below shows estimated direct capital expenditures escalated for each calendar year. The total estimated nominal expenditures of $18 million, including applicable overheads[26], are forecast to close to plant-in-service (i.e. rate base) as the assets are placed in service.

a) Capital Additions and Plant-In-Service

Capital expenditures are not included in rate base until the assets are ready for service. The accounting for this is prescribed by the Federal Energy Regulatory Commission (FERC) Uniform System of Accounts (USoA).[27] Capital expenditures, when incurred, are originally accounted for in FERC Account 107, Construction Work In Progress (CWIP). During the period that capital costs reside in CWIP, they are not typically included in rate base, but instead accrue Allowance for Funds Used During Construction (AFUDC). The AFUDC rate is based on a prescribed formula in FERC USoA and represents construction financing costs.

When the underlying assets are identified as "ready for service", the cumulative costs, including AFUDC, are transferred from FERC Account 107 to FERC Account 106, Completed Construction Not Classified or FERC Account 101, Electric Plant in Service. These cumulative transfers are called Capital Additions. At this same time, AFUDC accruals are stopped, the cumulative balance is included in rate base, and depreciation expense begins.

For purposes of forecasting capital in the Charge Ready Program, SCE has assumed that AFUDC accrual will be zero. However, on a recorded basis, the CRPBA will reflect

[26] SCE includes a 1% overhead adder for pensions and benefits

[27] 18 CFR, Part 101, Electric Plant in Service.

actual recorded revenue requirements, including all applicable overheads and AFUDC to the extent that they are incurred.

The exception to this process will be for costs associated with the charging stations themselves, which SCE will not own, maintain, or operate. SCE is instead proposing to provide a rebate to the Customer Participant at an estimated $3,900 per charging station.[28] Under Generally Accepted Accounting Principles (GAAP), this cost would normally be considered an expense. However, SCE is proposing to treat this cost similar to capital and record it to a regulatory asset over the life of the charging station.[29] These costs will be amortized over 10 years, which spreads those costs over the expected ten year life of the asset (*see depreciation section below*).

Table VII-6
Summary of Charge Ready Program Calendar year Capital Expenditures
($000)

Year	Direct Expenditures	Escalation	Overhead Adder	Total Expenditures
2015	17,499	372	117	17,988

2. Depreciation Expense and Accumulated Depreciation

Table VII-1 above estimates the total annual forecast depreciation expense from 2016 through 2020. For estimation purposes, SCE divided the Capital Additions into three categories: (1) utility-side infrastructure that includes line transformers, services, meters, and easements; (2) customer-side infrastructure that includes the panel, conduit, wiring, and "make ready" stub; and (3) rebates for charging stations. For purposes of estimating depreciation expense in this Application, SCE has used a composite of authorized depreciation rates from its 2012 GRC to apply to the utility-side infrastructure that already have authorized rates,[30] and has used proposed rates for the customer-side infrastructure and

[28] Final rebate amount depends on results of RFI process.

[29] Accounting Standards Codification 980, Regulated Operations.

[30] Uses a composite depreciation rate from May 1, 2013 plant balances.

costs of the rebates for charging stations that do not currently have authorized rates, as shown in Table VII-3 below.

For assets that SCE already has established depreciation rates for, SCE is proposing to use rates authorized in its most recent GRC for recording purposes. SCE will update the depreciation rates consistent with what is ultimately authorized in a final decision on its 2015 GRC Application[31] utilized in the CRPBA effective January 1, 2015. To the extent that authorized depreciation rates change in subsequent GRCs while the CRPBA is still in effect, SCE will similarly update the depreciation rates for this program to match authorized rates on the same effective date of the respective final GRC decision. To the extent that certain charging sites are no longer used after the program period, capital recovery for the investment in this program will continue under the normal group depreciation procedures.[32]

SCE currently has no proposed depreciation rates related solely to charging stations and the wiring and equipment connecting the charging station to the meter. These assets are addressed below along with the other assets.

[31] CPUC proceeding number A.13-11-003.

[32] SCE's assets are depreciated using broad group procedure. Generally, a broad group is defined by FERC plant account, with some exceptions. Assets within a broad group are expected to retire before and after the average service life, and by convention, are fully depreciated when retired. Under CPUC Standard Practice U-4, the depreciation rate is recalculated on a periodic basis (currently in GRCs) determining the annual accruals necessary to allocate the net book value less future net salvage over the average remaining life of the group. Thus, any over- or under-allocation is addressed in future periods.

Table VII-7

Depreciation Rates and Parameters

Account	Description	Life	Remaining Life	Net Salvage %	Depreciation Rate
360.2	Easements	60	60	0%	1.67%
368	Line Transformers	30	20.9	0%	3.68%
369	Distribution Services	40	28	-85%	4.76%
370	Meters	20	19.4	-5%	5.35%
360.2, 368,369, 370	Composite				4.23%
371	Customer-Side Infrastructure	40	40	-85	4.63
GL Account 182	Charging Stations	10	10	0%	10.00%

a) Line Transformers, Services and Conductor, Meter, Easements

This category includes estimated costs for assets including the transformer, services and conductor, meter, and easements. For forecasting purposes, a composite rate of 4.23 percent is used based on account specific Commission-authorized depreciation rates.[33]

b) Customer-Side Panel and Wiring

These costs include the installation of the panel and wiring components from the meter to the charging station. These investments will be recorded to FERC Plant Account 371, Installations on Customers' Premises. SCE has no current investment in the Account, and no current authorized depreciation rate. SCE proposes to use the same depreciation parameters as used in FERC Plant Account 369, Services. This results in a depreciation rate of 4.63 percent.

c) Charging Stations

The customer participant will own, maintain, and operate the charging station. SCE's cost for the charging station is the rebate that SCE will provide to the customer participant. As

[33] The calculation excludes FERC Plant Account 360.2, as it only accounts for a small percentage of the program's costs.

discussed above, SCE is proposing to amortize these costs as a regulatory asset over the expected ten-year life of the charging station. Although SCE will not own the assets, the rebates will constitute a significant portion of the cost of the charging station. The program requires the charging stations to remain in place and in working order for at least ten years to ensure the associated benefits accrue to the ratepayers. Because the utility's investment in the charging stations is necessary for the entire new infrastructure to function, that investment should be recoverable from ratepayers over time, as the benefits of the entire new investment accrue. It would be appropriate, and consistent with cost-of-service ratemaking principles, to allocate this cost over the estimated life of the charging station. Thus, ratepayers benefitting from the service of the charging station will be allocated a portion of the cost. This treatment has the added benefit of spreading out the cost of the charging stations over a longer period of time, rather than full recovery as an expense in the year incurred. The regulatory asset treatment is also consistent with Commission precedent—in D.14-03-021, the Commission concluded that costs for infrastructure not owned by the utility can be treated as a regulatory asset, included in rate base, and recovered through amortization.[34]

3. Rate of Return

As authorized in D.12-12-034, SCE calculated the rate of return on rate base using SCE's current authorized rate of return of 7.90 percent.

4. O&M Expenses

SCE's forecasted revenue requirements were derived based on the O&M expenses as supported in this Volume summarized in Table VII-1 above. O&M labor expenses include all applicable overheads[35]

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[34] *See* D.14-03-021, Conclusion of Law 16, pp. 73-74, concluding as a matter of law that "beyond-the-meter" costs for infrastructure not owned by the utility was not required to be expensed and could be capitalized as a regulatory asset recoverable over ten years, because the "beyond-the-meter" infrastructure was necessary for the entire new distribution infrastructure to function.

[35] The forecast revenue requirements as presented in Table VII-1 include a composite benefit loader of 6.58%.

5. Income Taxes

SCE estimates income taxes by following the rules and methods traditionally adopted in the Company's GRCs. Specifically, in computing tax depreciation, on property owned by SCE, SCE uses the twenty year Modified Accelerated Cost Recovery System (MACRS) tax life for federal purposes and a thirty year life, straight line method, for computing state tax depreciation. Deferred taxes are estimated as required by the normalization rules of the Internal Revenue Code (IRC) for property owned by SCE that are subject to the MACRS under IRC Section 168. SCE will use flow-through tax treatment on book and state tax depreciation differences, as required by this Commission. SCE computes tax basis by removing any recorded AFUDC and replacing it with tax capitalized interest following the rules of Internal Revenue Code Section 263A. SCE computes tax expense using the applicable Federal corporate tax rate of 35 percent for each year and an apportioned state corporate tax rate, as applicable.

For the rebate payments associated with the charging stations that will be owned, maintained and operated by customers, SCE will immediately deduct these rebate payments consistent with IRC Section 162. Because these rebate payments do not relate to property that will be owned by SCE, and because SCE will not be depreciating these costs pursuant to the normalization provisions of Section 168, SCE will use the flow-through tax method on the differences between book and tax treatment of these rebate payments.

6. Franchise Fees and Uncollectibles

Franchise Fees and Uncollectible (FF&U) expenses are calculated as a function of the revenue requirement, and are calculated using the respective FF&U factors authorized by the Commission in SCE's GRCs. Currently authorized rates are .2050 percent for uncollectibles and .9062 percent for Franchise Fees.

F. Summary of Phase 1 pilot Cost Recovery Proposal

In conclusion, SCE respectfully requests that the Commission in a Phase I decision:

(1) Authorize SCE to establish the CRPBA to record the actual Charge Ready Pilot phase revenue requirements based on recorded costs reflecting all incremental O&M and capital

expenditures related to Phase 1 Pilot activities effective upon a decision in this proceeding;

(2) Authorize the transfer of the CRPMA balance to the CRPBA upon its effective date, and eliminate the CRPMA from its currently effective tariffs;

(3) Limit reasonableness review of the CRPBA to ensuring all recorded entries to the account are stated correctly and are consistent with Commission decisions;

(4) Authorize the transfer of the monthly recorded CRPBA balance to the BRRBA, for recovery purposes; and

(5) Authorize SCE to include in distribution rates an estimated annual Phase 1 revenue requirement commencing January 1, 2016 up until the time the Phase 1 revenue requirement is included in SCE's GRC revenue requirement.

Appendix A

Witness Qualifications

SOUTHERN CALIFORNIA EDISON COMPANY

QUALIFICATIONS AND PREPARED TESTIMONY

OF RICHARD J. FISHER

Q. Please state your name and business address for the record.

A. My name is Richard J. Fisher, and my business address is 2244 Walnut Grove Avenue, Rosemead, California 91770.

Q. Briefly describe your present responsibilities at the Southern California Edison Company.

A. I am the Manager of Capital Asset Accounting in SCE's Finance operating unit. I manage a group responsible for plant accounting, book and tax depreciation, and capital recovery analytics including depreciation and working capital studies.

Q. Briefly describe your educational and professional background.

A. I have a Bachelor of Science degree in Business Administration, with an emphasis in Finance, Real Estate, and Law from California State Polytechnic University, Pomona, and a Masters of Business Administration from the University of Southern California. I am a member of the Society of Depreciation Professionals and have been qualified as a Certified Depreciation Professional. I joined Southern California Edison in the Capital Recovery Department in 1999 and from 1999-2006 I performed the role of a financial analyst. I was promoted to Manager of Capital Recovery in 2006. My responsibilities included functions involving depreciation and nuclear decommissioning accounting, depreciation studies, and the development of forecasting models for plant additions, rate base, and depreciation expense in direct support of the Company's regulatory filings. In 2008 I accepted a position in the Investor Relations group at Edison International, where my primary role was communicating the Company's financial and operational results with institutional equity and fixed income investors and analysts. In 2010 I rejoined Southern California Edison in the Controller's organization as a Manager of Capital Reporting and Integration to support system and business process integration across finance and accounting. In 2011 I was promoted to Principal Manager of Regulatory Analysis and Valuation Services. In early 2013, the Controller's organization went through a reorganization and I

assumed my current role as Manager of Capital Asset Accounting.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor the portions of the following volumes of Exhibit SCE-01, entitled *Prepared Testimony in Support of SCE's Charge Ready Application*, as identified in the Tables of Contents thereto: Volume 02 – Phase 1 Charge Ready and Market Education Pilot; and Volume 05 – Phase 2 Cost Recovery.

Q. Was this material prepared by you or under your supervision?

A. Yes, it was.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

SOUTHERN CALIFORNIA EDISON COMPANY

QUALIFICATIONS AND PREPARED TESTIMONY

OF EDWARD T. KJAER

Q. Please state your name and business address for the record.

A. My name is Edward Kjaer, and my business address is 2244 Walnut Grove Avenue, Rosemead, California 91770.

Q. Briefly describe your present responsibilities at the Southern California Edison Company.

A. I am the Director of the Transportation Electrification Division within Energy and Environmental Policy section of SCE's Regulatory Affairs operating unit. I am responsible for the division's efforts to perform cross-functional planning and coordination of Transportation Electrification activities for SCE (including light/medium/heavy duty PEVs, SCE's fleet electrification, electrified ports, forklifts, transit and other goods movement).

Q. Briefly describe your educational and professional background.

A. I attended Massey University in New Zealand, where my studies focused in the areas of marketing and business economics. Between 1980 and 1985, I held a number of advertising positions in New Zealand culminating in the position of Account Director in charge of the Nissan and Sanyo advertising accounts. After emigrating to the U.S. in 1985, I worked on the launch of the Acura Division (1985-1988) for American Honda's Advertising Agency, rising to the position of Vice President. From 1988 through 1995, I worked for Mazda Motor of America, rising to the position of Corporate Marketing Manager. Beginning in 1996 and to the present, I have held several positions in the Edison family of companies including: Director of Sales and Marketing, Edison EV; Director, Automotive Division, Edison EV; and at Southern California Edison- Director of ET Division; Director PEV Readiness and finally today, I am the Director of the Transportation Electrification Division.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor the portions of the following volumes of Exhibit SCE-01, entitled *Prepared Testimony in Support of SCE's Charge Ready*

Application, as identified in the Tables of Contents thereto: Volume 01 – Policy; Volume 02 – Phase 1 Charge Ready and Market Education Pilot; and Volume 03 – Phase 2 Charge Ready Program Design Implementation Plan, and Costs.

Q. Was this material prepared by you or under your supervision?

A. Yes, it was prepared under my supervision.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

SOUTHERN CALIFORNIA EDISON COMPANY
QUALIFICATIONS AND PREPARED TESTIMONY
OF JESSICA LIM

Q. Please state your name and business address for the record.

A. My name is Jessica Lim, and my business address is 1515 Walnut Grove Avenue, Rosemead, California 91770.

Q. Briefly describe your present responsibilities at the Southern California Edison Company (SCE).

A. I am the Manager of Offer Management and Marketing in the Customer Programs and Services division of SCE's Customer Service operating unit. In this role, I am responsible for SCE's marketing and communications associated with Customer Service programs, rates and services.

Q. Briefly describe your educational and professional background.

A. I received my Masters of Science in Leadership and Management, with a concentration in Organizational Development, from the University of La Verne in 2013, and my Bachelor's degree in Administrative Studies, with an emphasis in business administration and marketing, from U.C. Riverside in 1992. I have worked at SCE for approximately nine years in Customer Service. Prior to my current function which I described above, I was the Manager of Planning, Performance, and Integration in the Customer Service Operating Division for approximately two years. Prior to that position, I was the Manager of Customer Strategy in Customer Experience and Management for approximately five years. Prior to SCE, I have over 10 years of experience in business working in disciplines such as advertising, marketing, and e-commerce for a variety of profit and not for profit organizations and clients.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor the portions of the following volumes of Exhibit SCE-01, entitled *Prepared Testimony in Support of SCE's Charge Ready Application*, as identified in the Tables of Contents thereto: Volume 02 – Phase 1 Charge Ready and Market Education Pilot; Volume 03 – Phase 2 Charge Ready Program Design Implementation Plan, and Costs; and Volume 04 – Phase 2 Market Education and Costs.

Q. Was this material prepared by you or under your supervision?

A. Yes, it was.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

SOUTHERN CALIFORNIA EDISON COMPANY

QUALIFICATIONS AND PREPARED TESTIMONY

OF DAVID M. LOTSPEICH

Q. Please state your name and business address for the record.

A. My name is David M. Lotspeich, and my business address is 1515 Walnut Grove Avenue, Rosemead, California 91770.

Q. Briefly describe your present responsibilities at the Southern California Edison Company (SCE).

A. I am currently a Manager in the Commercial & Industrial Solution Pilots department of SCE's Customer Service operating unit. As such, I am responsible for the development and launch of new offerings to the Commercial, Industrial, and Agricultural customers.

Q. Briefly describe your educational and professional background.

A. I have a Bachelor of Science in Industrial and Systems Engineering and a Master of Science in Operations Research Engineering both from the University of Southern California. I worked at Accenture and as a consultant for 11 years prior to joining SCE. I started work in the Enterprise Resource Planning project for Customer Service in 2007. In June of 2007, I began to work for Southern California Edison Company as a Senior Project Manager. In March of 2008 I transferred to the Edison SmartConnect project until December of 2012. During that project I was promoted to Manager for Meter to Cash Business Integration activities and my team was transferred to the Customer Service Business Transformation Office. I started in my current position in April of 2013. I have not previously testified before the California Public Utilities Commission.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor the portions of the following volumes of Exhibit SCE-01, entitled *Prepared Testimony in Support of SCE's Charge Ready Application*, as identified in the Tables of Contents thereto: Volume 02 – Phase 1 Charge Ready and Market Education Pilot; Volume 03 – Phase 2 Charge Ready Program Design, Implementation Plan, and Costs.

Q. Was this material prepared by you or under your supervision?

A. Yes, it was.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

SOUTHERN CALIFORNIA EDISON COMPANY

QUALIFICATIONS AND PREPARED TESTIMONY

OF MATTHEW D. SHERIFF

Q. Please state your name and business address for the record.

A. My name is Matthew David Sheriff, and my business address is 2244 Walnut Grove Avenue, Rosemead, California 91770.

Q. Briefly describe your present responsibilities at the Southern California Edison Company (SCE).

A. I am currently a Senior Project Manager in the CPUC Revenue Requirements and Tariffs Department of SCE's Regulatory Affairs operating unit. As such, I am primarily responsible for preparation of SCE's Consolidated Revenue Requirements showing and forecasting SCE's system average rate.

Q. Briefly describe your educational and professional background.

A. I graduated from the University of Maryland Baltimore County in May of 1995 with a Bachelors of Arts Degree in Political Science. For the next seven years I worked at several venture-backed new media startups in marketing and business development roles. In August of 2002, I returned to graduate school to earn a Master of Business Administration (MBA) from the University of Southern California. Shortly after graduation, I worked for Raytheon Inc. as a senior financial analyst responsible for balance sheet and cash flow forecasting. In April of 2007, I began to work for Southern California Edison Company as Senior Financial Analyst in the Financial Planning and Analysis group of the Treasurer's department. In this role as a financial subject matter expert, I prepared cost-effectiveness analysis in support of applications before the CPUC, including SmartConnect, SONGS High Pressure Turbine and sale of SCE's interest in Four Corners. I was promoted to senior project manager while in this department. I started in my current position in January of 2014. I have not previously testified before the California Public Utilities Commission.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor the portions of the following

volumes of Exhibit SCE-01, entitled *Prepared Testimony in Support of SCE's Charge Ready Application*, as identified in the Tables of Contents thereto: Volume 02 – Phase 1 Charge Ready and Market Education Pilot; and Volume 05 – Phase 2 Cost Recovery.

Q. Was this material prepared by you or under your supervision?

A. Yes, it was.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

SOUTHERN CALIFORNIA EDISON COMPANY

QUALIFICATIONS AND PREPARED TESTIMONY

OF DANIEL E. TUNNICLIFF

Q. Please state your name and business address for the record.

A. My name is Daniel E. Tunnicliff, and my business address is 7300 Fenwick Lane, Westminster, CA 92683.

Q. Briefly describe your present responsibilities at the Southern California Edison Company (SCE).

A. I am currently the Principal Manager of Strategic Customer Solutions in the Business Customer division of SCE's Customer Service operating unit. As such, I am responsible for leading the team that partners with non-residential customers to develop innovative solutions that address their needs, meet their requirements, and integrate new technologies on their side of the meter.

Q. Briefly describe your educational and professional background.

A. I am a registered professional engineer with my Master and Bachelor of Science in Civil Engineering. Prior to joining SCE, I worked for Orange County Sanitation District and the Los Angeles Department of Water and Power, primarily in Environmental, Health and Safety roles. In April of 1999, I began to work for SCE as a Safety/Environmental Specialist. I have held various positions within the Business Customer Division in Account Management and Regulatory roles. I started in my current position in August of 2014. I have previously testified before the California Public Utilities Commission.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor the portions of the following volumes of Exhibit SCE-01, entitled *Prepared Testimony in Support of SCE's Charge Ready Application*, as identified in the Tables of Contents thereto: Volume 02 – Phase 1 Charge Ready and Market Education Pilot; Volume 03 – Phase 2 Charge Ready Program Design Implementation Plan, and Costs; and Volume 04 – Phase 2 Market Education and Costs.

Q. Was this material prepared by you or under your supervision?

A. Yes, it was.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

Appendix B

Schedule CRPP

Charge Ready Program Pilot

Schedule CRPP Sheet 1
CHARGE READY PROGRAM PILOT

APPLICABILITY

This Schedule is applicable to Customer Participants, as defined below, who elect to participate in the Charge Ready Program Pilot (CRPP). Customer Participants must install qualified Electric Vehicle (EV) Charging Stations at long dwell-time locations where EVs typically charge for four hours or longer.

Eligible Customer Participants must either: (1) be the SCE Customer at the location; or (2) own or lease the location where the Charging Stations are installed. Customer Participants who do not own the location in which the charging facilities are installed must obtain written consent from the owner to participate in Schedule CRPP. Customer Participants must provide SCE with the rights of way across public or private property (as applicable) and permits satisfactory to SCE and obtained without cost to or condemnation by SCE.

Customer Participants are responsible for the purchase and installation of qualified Charging Stations in the quantity approved by SCE in its sole discretion in order to participate on this Schedule and be eligible for the Rebate Payment as defined below. Charging Stations, Charging Station suppliers, and installation vendors must be approved by SCE.

Customer Participants must have an Edison SmartConnect® meter or interval data recorder (IDR) meter dedicated to registering Charging Station load to participate on this Schedule. All Charging Station load must be separately metered from any other load served at the location.

TERRITORY

Within the entire territory served.

RATES

All usage registered on the meter(s) serving the Charging Stations must be served on an applicable General Service (GS) Time-of-Use (TOU) rate except as provided in Special Condition 8 below.

SPECIAL CONDITIONS

1. Definitions

   a. Customer Participant: The non-residential entity electing to participate on this Schedule who either (1) is the SCE Customer at the location; or (2) owns or leases the location where the Charging Stations are installed. The Customer Participant must provide SCE with the rights of way across public or private property (as applicable) and permits satisfactory to SCE and obtained without cost to or condemnation by SCE.

(Continued)

Schedule CRPP Sheet 2
CHARGE READY PROGRAM PILOT

(Continued)

SPECIAL CONDITIONS (Continued)

1. Definitions (Continued)

b. Defined Plan: The plan defining the type and number of Charging Stations to be installed by the Customer Participant for participation on this Schedule, as determined by SCE in its sole discretion and approved by the Customer Participant and SCE. Customer Participants may choose either Level 1 (120 volt) or Level 2 (208-240 volt) charging capability (as defined by SAE International, J1772 standard, published on October 15, 2012) among Charging Stations approved by SCE.

c. Base Cost: The amount representing the best value for a Charging Station meeting SCE's defined requirements and its installation, as determined by SCE through primary or secondary market research.

d. Rebate Payment: The Base Cost multiplied by the number of Charging Stations approved by SCE for participation in the Charge Ready Program Pilot at an identified location, payable by SCE after verification of deployment in accordance with the Defined Plan. The Rebate Payment shall not exceed the actual reasonable costs of the Charging Stations, including installation costs.

e. Rebate Reservation: Reservation of funds to be issued by SCE to cover the Rebate Payment based on the Defined Plan. The Customer Participant must provide the required proof of purchase for the number of Charging Stations approved by SCE in the Defined Plan within the Procurement Period. Failure to provide the required documentation within the Procurement Period may lead to the cancellation of the Rebate Reservation at the end of the Procurement Period.

f. Procurement Period: The Procurement Period begins and the Customer Participant is placed on Rebate Reservation only after: (i) the quantity of qualified Charging Stations determined by SCE in its sole discretion is approved by the Customer Participant, (ii) the location owner has approved the deployment of charging stations and supporting infrastructure as determined by SCE, and (iii) the location owner has provided rights of way across public or private property (as applicable) and permits satisfactory to SCE and obtained without cost to or condemnation by SCE. The initial Procurement Period is 30 calendar days from the issuance date of the Rebate Reservation. Customer Participants may extend the Procurement Period for an additional 15 days by submitting a written notice of active vendor discussion prior to the expiration of the initial 30 calendar days. SCE may, at its discretion, extend a Rebate Reservation beyond the extended 45-day Procurement Period if a Customer Participant is actively seeking to complete procurement of chargers, but circumstances beyond the Customer Participant's control have caused a delay in finalizing the purchase.

(Continued)

Schedule CRPP Sheet 3
CHARGE READY PROGRAM PILOT

(Continued)

SPECIAL CONDITIONS (Continued)

1. Definitions (Continued)

   g. Disadvantaged Communities: Areas identified by the California Environmental Protection Agency based on geographic, socioeconomic, public health, and environmental criteria in accordance to the Health and Safety Code § 39711.

2. Term of Service: Service under this Schedule shall be for a minimum of ten years from the date service under this Schedule begins. Early termination of service under this Schedule may require the Customer Participant to return the Rebate Payment, unless the successor in interest to the Customer Participant abides by all terms and conditions of this Schedule.

3. Pilot Participation Cap: Schedule CRPP is available on a first-come, first-served basis to a maximum of 1,500 Charging Stations, subject to funding availability.

4. SCE, at its sole discretion and in accordance with its applicable tariffs and design standards, will locate, design, and install the required infrastructure necessary for participation in the CRPP. SCE is responsible for all costs associated with utility distribution infrastructure and Customer Participant site infrastructure deployed by SCE pursuant to this Schedule.

5. All Other Applicable Tariffs Apply. All other applicable SCE tariffs apply to service provided pursuant to this Schedule, with the following exceptions:

   Rules 15 and 16 – Distribution Line and Service Extensions: Because SCE will design and install the required infrastructure necessary for participation in the Charge Ready Program Pilot at no cost to Customer Participant, sections in Rules 15 and 16 that address applicant responsibilities or options may not be applicable to Customer Participants while participating in the Charge Ready Program Pilot. This may include, but is not limited to, allowances, contributions or advances, payments, refunds, and design and installation options. This exception does not apply to certain applicant responsibilities found in Rule 16, such as, but not limited to, Section A.10, providing rights of way or easements; Section A.11, providing access to the location; and Section D.1, providing a clear route for the Service Extension.

(Continued)

Schedule CRPP Sheet 4
CHARGE READY PROGRAM PILOT

(Continued)

SPECIAL CONDITIONS (Continued)

6. Charging Stations: Customer Participants must, at their own expense, procure, own, install, operate, and maintain the Charging Stations in working order at the originally installed location for the entire 10-year term of participation under this Schedule. With the exception of Customer Participants who are located in Disadvantaged Communities, each Customer Participant is required to install a minimum of ten Charging Stations at the Customer Participant's location. Customer Participants who are located in Disadvantaged Communities are required to install a minimum of five Charging Stations at their location.

7. Noncompliance: If the Customer Participant fails to comply with any of the terms and/or conditions of this Schedule, SCE may require the Customer Participant to return the Rebate Payment.

8. Residential Usage: A Residential Customer residing in a Single Family Dwelling within a Multifamily Accommodation may be responsible for all usage registered on the meter associated with a Charging Station installed under this Schedule provided that such Charging Station is separately metered and installed at a parking space assigned for the exclusive use of the Residential Customer. Such usage is considered to be residential usage and must be served on an applicable residential TOU rate as determined by SCE.

9. Participation in Demand Response (DR) Programs: Customer Participants who select Level 2 Charging Stations must participate in at least one qualifying EV charging-related Demand Response Program when they become available.

10. EV Charging Networks. Customer Participants selecting Level 2 Charging Stations must contract with a qualified EV charging network provider to access related usage data and obtain Demand Response-related services (i.e., to curtail or suspend the load serving the Charging Stations or modify pricing of EV charging transactions following a DR signal sent by SCE as part of a DR event). Customer Participants will be responsible for payment of any costs or fees resulting from such arrangements, which Customer Participants must maintain for ten years following the date the Customer Participant begins service on this Schedule. Customer Participants and their selected EV charging network providers must consent to providing SCE with access for the same ten year period to non-personally identifiable information in connection with end-user transactions, including, but not limited to, the duration of each charge, rate, cost, and load. SCE may collect or receive this data directly from the Customer Participant's contracted EV charging network providers.

Appendix C

CRPBA Preliminary Statement

DRAFT PRELIMINARY STATEMENT

[XX.] Charge Ready Program Balancing Account (CRPBA)

1. Purpose

The purpose of the Charge Ready Program Balancing Account (CRPBA) is to record the actual recorded Charge Ready Pilot revenue requirements. Charge Ready Pilot costs are not to exceed $21.6 million ($2014) in direct capital expenditures and operations and maintenance (O&M) expense.

2. Operation of the CRPBA

a. On a monthly basis, entries to the CRPBA shall be determined as follows:

1) An initial entry to record the transfer of the balance from the Charge Ready Program Memorandum Account (CPRMA) (debit); plus
2) Recorded, incremental SCE O&M expenses associated with the Charge Ready Pilot (debit), including Broad EV Awareness marketing, Charge Ready Marketing and Education and SCE program management labor.
3) Recorded capital-related revenue requirements (depreciation, income and property taxes and return on rate base), calculated on actual rate base amounts, associated with the Charge Ready Pilot (debit), including transformers, service drop, meters, panels and trenching and conduit.

All recorded, incremental costs shall include provisions for applicable overhead loadings on direct labor dollars to account for items such as benefits, results sharing and payroll taxes. The overhead loading factors shall be based on authorized GRC loading factor rates. However, SCE shall not record Pensions and Post-Retirement Benefits Other Than Pension (PBOPs) costs nor medical, dental and vision expenses into the CRPBA due to the existence of other balancing accounts authorized for Pensions, PBOPs, and medical, dental and vision expenses recovery.

The CRPBA balance shall be transferred on a monthly basis to the distribution sub-account of the Base Revenue Requirement Balancing Account (BRRBA). Interest expense shall not be recorded in the CRPBA since the monthly activity is transferred to the BRRBA.

3. CRPBA Rate Recovery

Recovery of Pilot Phase revenue requirements will occur on a forecast basis commencing in 2016 through distribution rate levels. Any difference between the forecast Pilot Phase revenue requirements included in rate levels and the actual recorded Pilot Phase revenue requirements will be trued-up through the operation of the BRRBA.

4. Review Procedures

SCE will include the recorded operation of the CRPBA in SCE's annual Energy Resource Recovery Account (ERRA) review application for Commission approval (or other such filing as expressly authorized by the Commission) of the recorded amounts and to ensure that the entries made in the CRPBA are stated correctly and are consistent with Commission decisions.

SCE shall provide a monthly report showing the activity in the CRPBA to the CPUC's Energy Division within 30 days of the end of each month.