



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

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Order Instituting Rulemaking to consider policy and implementation refinements to the Energy Storage Procurement Framework and Design Program (D.13-10-040, D.14-10-045) and related Action Plan of the California Energy Storage Roadmap.

Rulemaking 15-03-011
(Filed March 26, 2015)

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) REPLY COMMENTS ON
ADMINISTRATIVE LAW JUDGE'S RULING NOTICING WORKSHOP AND
SETTING A COMMENT SCHEDULE**

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Pursuant to the California Public Utilities Commission's (Commission) Rules of Practice and Procedure and the Administrative Law Judge's Ruling Noticing Workshop and Setting a Comment Schedule dated April 22, 2016 (Ruling), Southern California Edison Company (SCE) hereby submits its Reply Comments on Parties' responses to the questions posed in the Ruling.

I.

INTRODUCTION

Parties to this proceeding filed Opening Comments on May 13, 2016 on issues relating to multiple-use applications and the definition and treatment of station power for energy storage devices. In response to the first category of issues, SCE recommends that (1) the Commission should allow the Vehicle-to-Grid (V2G) Pilot to conclude so that the important information it yields will help develop future best practices on a number of issues, including what rules should apply to charging and discharging; (2) it is inappropriate for the Commission to require the utilities to make changes to Federal Energy Regulatory Commission (FERC) jurisdictional tariffs

for a number of reasons; (3) the Commission should reject proposals for alternate metering providers because they are not likely to deliver additional benefits to utility customers; (4) in combination with adopting ANSI C12.20 standard, the Commission should also adopt IEEE C57.13.6 - the IEEE "Standard for High-Accuracy Instrument Transformers" to use 0.15S Accuracy Class Current Transformers for all generating source applications, including storage to ensure instrument accuracy; and (5) the Commission should adopt and implement tariff rules before accommodating innovative metering arrangements.

With respect to station power, the Commission should subject station power to retail rates, consistent with its treatment of conventional and renewable generating resources. Station power load, which is not de minimus, should be billed at retail rates, regardless of whether it is for temperature regulation of the storage system or some other end use.

II.

MULTIPLE-USE APPLICATIONS

A. SCE's V2G Pilot Project with the Los Angeles Air Force Base Will Inform Future Best Practices

The California Energy Storage Alliance (CESA) argues that SCE's approach in its V2G pilot with the Los Angeles Air Force Base illustrates problems with conservative rate structures. Specifically, CESA notes that "SCE's netting process fails to reflect the distinct and incremental values being provided to EV chargers along with the wholesale market. By 'deeming' a BTM resource as IFOM, potential BTM benefits may be lost. Alternatively, IFOM resources have their own pros and cons and can be pursued directly, rather than through portraying BTM resources as IFOM."¹ It is important to note that the V2G Pilot is just that, a pilot. It is not necessarily a long-term solution for all future circumstances. Instead, the pilot allows SCE to

¹ See CESA Opening Comments at p. 14.

glean important information on a number of issues, including what rules should apply to charging and discharging, to inform future best practices. CESA's concern can be considered at the pilot's conclusion after SCE has the benefit of the full information generated by the pilot.

B. Interconnection Concerns

CESA and SolarCity² recommended that rules for interconnection be streamlined, suggesting "WDAT lite," a Wholesale Distribution Access Tariff (WDAT) fast track option or exemptions to the WDAT process for aggregated resources under a certain megawatt (MW) capacity.³ SCE opposes any CPUC requirement regarding changes to SCE's WDAT as outside of the jurisdiction of this Commission. As SCE has stated previously, SCE understands that any resources intending to sell directly into the CAISO's market are appropriately connected under the WDAT.⁴ Should FERC ever adopt a position to the contrary, SCE and other parties will have an opportunity to understand and address such a position at that time. SCE notes that there is a proceeding at FERC in which significant interconnection issues are being reviewed in an effort to expedite or streamline interconnections, including interconnection of storage,⁵ and, if appropriate, any changes flowing from that proceeding may be incorporated into the WDAT.⁶

C. Metering and Sub-Metering

SolarCity makes several arguments regarding metering and submetering. SCE addresses each below. First, SolarCity argues that customers should have the option to procure meters that

² See CESA Opening Comments at p. 15, SolarCity Opening Comments at p. 12: "WDAT Interconnection should not be required for individual sub-resources to participate in the wholesale market."

³ See CESA Opening Comments at p. 15.

⁴ See *Motion To Intervene And Comments Of Southern California Edison Company in California Independent System Operator Corporation Distributed Energy Resource Provider Initiative*, Docket No. ER16-1085-000 (filed March 15, 2016).

⁵ FERC docket Nos. RM16-12-000 and RM15-21-000.

⁶ FERC jurisdictional tariffs are not at issue and cannot be revised or ordered to be revised in this docket.

comply with Commission and CAISO standards from the supplier of their choice, rather than use utility meters, and that it is “economically unjustified for UDCs to own, install and maintain revenue grade meters.”⁷ SCE questions the benefit of this proposal for utility customers, particularly in light of the utility customers’ recent substantial investments in advanced metering infrastructures pursuant to California’s Energy Action Plans.

Customers are currently given a choice of provider for their California Independent System Operator (CAISO) meter, in addition to maintaining their current utility meter. SolarCity and other parties⁸ believe that having more than one meter is redundant and unnecessarily increases costs. At least for now, that is not the case. While utility and CAISO meters both capture similar data, utility-installed meters are subject to the Commission’s jurisdiction, and the Commission has established standards and requirements for utility metering to seamlessly communicate with SCE’s back-office systems and provide revenue grade metering for utility’s revenue cycle services. For any interconnection, the utility provider must be able to monitor the flow of energy to and from a customer’s system in real time for safety and reliability purposes. Non-utility meters – regardless of whether they are revenue grade – may not be capable of being seamlessly integrated into the utility’s Meter Data Management System. Although it is possible to manually collect data from a small number of non-utility meters, SCE’s Meter Data Management group must then extract meter data and translate it in a manner that comports with the SCE system. Thus, rather than creating efficiencies and eliminating redundancies, using alternate meters can create inefficiencies, redundancies and increased costs without added benefits for utility customers.

Second, SolarCity and CESA recommended that the Commission adopt the ANSI C12.20 American National Standard for Electricity Meters, which specifies accurate metering perform

⁷ See SolarCity Opening Comments at p. 15.

⁸ See CESA Opening Comments at p. 16.

and influence limits for 0.2 percent and 0.5 percent accuracy meters.⁹ The Commission has already adopted this standard for meters.¹⁰ But to ensure meter accuracy, all generating sources must also meet a high accuracy transformer standard. As such, SCE recommends that the Commission also adopt IEEE C57.13.6 – the IEEE “Standard for High-Accuracy Instrument Transformers” to use 0.15S Accuracy Class Current Transformers for all generating source applications, including energy storage devices. A high accuracy *transformer* standard will be needed in combination with the ANSI high accuracy *meter* standard to ensure meter accuracy.

Third and finally, SolarCity argues that “[t]he Commission should also explicitly direct IOUs to accommodate the innovative metering arrangements proposed by PowerTree.”¹¹ The Commission should adopt and implement the necessary tariff provisions and ownership rules before accommodating PowerTree’s proposed metering arrangements.

III.

STATION POWER

A. The CPUC Should Subject Station Power to Retail Rates, Consistent with its Treatment of Conventional and Renewable Generating Resources

As discussed in SCE’s Opening Comments, in determining whether the energy imported by an energy storage customer should be categorized as station power/end-use load and subject to retail rates or consumption for resale and subject to wholesale rates, the Commission should apply consistent principles to achieve uniform treatment between conventional, renewable and energy storage resources.¹² Opening Comments by IEP support this principle.¹³

⁹ See CESA Opening Comments at p. 17, Solar City Opening Comments at pp. 14-15.

¹⁰ See generally the Commission’s Direct Access Standards for Metering and Meter Data (DASMMD).

¹¹ See CESA Opening Comments at p. 17.

¹² SCE Opening Comments at p. 3.

¹³ IEP Opening Comments at p. 7 (“Moreover, the rules on station power should apply to all affected supply resources on a comparable, nondiscriminatory basis. This nondiscrimination is essential to support healthy competitive wholesale markets.”).

Parties disagree about whether certain end-use loads should be classified as station power and subject to retail rates. Parties such as NRG, Calpine and MegaWatt argue, primarily for simplicity and policy reasons, *all* station power should be afforded wholesale treatment.¹⁴ Applying wholesale treatment to retail end-use load is inappropriate because (1) existing statute prohibits such treatment for certain retail charges¹⁵ and (2) doing so results in cost-shifting to other retail load customers.¹⁶ SCE acknowledges that making a distinction between loads is not as simple as just declaring everything to be wholesale, but it is certainly not impossible.¹⁷ Regardless, simplicity should not be the determining factor in appropriately applying wholesale and retail treatment to different types of load. CESA, for example, provides two options for determining how to bill such loads: netting and separate load metering.¹⁸ SCE does not agree with CESA's proposal to implement a broader netting period for the avoidance of retail charges,¹⁹ but netting for some BTM applications is appropriate as set forth in Principle 5 of SCE's Opening Comments.²⁰

Station power rules should not be based on policy objectives or simplicity for simplicity's sake, but rather on an appropriate distinction between whether load is being consumed with the intent to be resold (*i.e.*, subject to wholesale treatment) or consumed with the intent to be used

¹⁴ NRG Opening Comments at p. 12; Calpine Opening Comments at p. 4; MegaWatt Opening Comments at p. 12.

¹⁵ Current law requires all IOU customers to pay certain nonbypassable charges. *See* Public Utilities Code Sections 380(g), 381, 399.8, etc.

¹⁶ *See* SDG&E Opening Comments at p. 2 (“Establishing reasonably clear criteria for distinguishing between end-use and wholesale consumption at a storage facility is necessary in order to ensure that energy storage operators pay their fair share of distribution, public purpose program and transmission costs, and to ensure those costs are not subsidized by other retail ratepayers.”).

¹⁷ NRG Opening Comments at pp. 11-12; MegaWatt Opening Comments at pp. 11-12.

¹⁸ CESA Opening Comments at pp. 21-22.

¹⁹ SCE also disagrees with IEP's argument on page 7 of its Opening Comments that the Commission should consider allowing all resources, including multi-use storage resources, to net station power over a longer period (e.g., one week). Doing so likely results in retail load being served by energy supplied at wholesale rates.

²⁰ CESA Opening Comments at p. 22; SCE Opening Comments, Principle 5, at p. 16.

on-site (*i.e.*, subject to retail treatment).²¹ The Commission has the jurisdiction to declare that station loads are appropriately subject to full retail treatment, as is the case with existing conventional and renewable generating customers, and should apply similar treatment to storage customers, any other treatment would unfairly subsidize storage over these other resources.

B. Station Power Loads are Not De Minimus and Should be Billed as Retail Load

Megawatt's claim that station power should be ignored because it is de minimus load is false.²² For example, a 200 MW storage device can have idle inverter loads of 600 kW (or 0.3% of nameplate capacity). Applying the 0.3% to the total energy storage procurement target (net of BTM storage) of 1.125 GW results in over 3 MW of idle inverter station loads. This is not a de minimus amount and will increase as storage procurement and adoption increase.

C. The CPUC Should Treat Temperature Regulation as Station Power Subject to Retail Rates

As set forth in Principle 2 of SCE's Opening Comments, retail rates must be applied equally and consistently to all customers regardless of the makeup of the onsite load or technology. Billing a storage customers for station power at retail rates will treat similarly situated customers equally. Accordingly, contrary to Calpine, CESA, NRG, and Megawatt's comments, load associated with temperature regulation is CPUC jurisdictional and should be subject to retail treatment.²³ CESA concedes that load used for temperature regulation is used

²¹ As an example, CESA argues that idle losses do not provide any useful function and should not be treated any differently than line losses. *See* CESA Opening Comments at p. 21. SCE disagrees because idle consumption and its associated losses is consumed not with the intent for resale but instead to allow for the operation of the storage device. SCE similarly disagrees with the LS Power's argument on page 4 of its Opening Comments that wholesale treatment should be applied to station use that occurs during periods when the storage device is idle because the idle usage is not being consumed with the intent for resale.

²² Megawatt Opening Comments at p. 10.

²³ Calpine Opening Comments at p. 5; CESA Opening Comments at p. 23; NRG Opening Comments at p. 12; MegaWatt Opening Comments at p. 12.

onsite to regulate the temperature of the storage system and not for resale.²⁴ This type of consumption is therefore appropriately classified as end-use/station power load and should be subject to retail treatment.

IV.

CONCLUSION

SCE respectfully requests that the Commission adopt SCE's recommendations.

Respectfully submitted,

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²⁴ CESA Opening Comments at p. 23.