

DOCKETED

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SCE Comments on 2019 Title 24, Part 6, Building Energy Efficiency Standards Rulemaking

Additional submitted attachment is included below.



Catherine Hackney
Director, Regulatory Affairs

February 21, 2018

California Energy Commission
Docket Office, MS-4
Re: Docket No. 17-BSTD-02
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.ca.gov

Re: Southern California Edison Company's Comments on the California Energy Commission Docket No. 17-BSTD-02: 2019 Title 24, Part 6, Building Energy Efficiency Standards Rulemaking

Dear Commissioners:

Southern California Edison (SCE) appreciates the opportunity to file written comments on the 2019 Title 24, Part 6, Building Energy Efficiency Standards Rulemaking, submitted January 18, 2018. SCE appreciates the Energy Commission's efforts and accomplishments to date on the Title 24 standards, and looks forward to providing additional support and input going forward.

SCE herein provides comments on the following items:

- I. Residential Heat Pump Water Heaters (HPWHs) - Water Heating System
- II. Residential Heat Pump Water Heaters - Prescriptive Standards/Component Package
- III. Low Rise Residential Solar Photovoltaic (PV) System Requirements
- IV. Qualification Requirements for Photovoltaic System
- V. Qualifications for Battery Storage Systems
- VI. Community Shared Solar Electric Generation System Or Community Shared Battery Storage System Compliance Option
- VII. Demand Response Communication Protocol

SCE looks forward to continued engagement with the Energy Commission on this important effort.

I. Residential Heat Pump Water Heaters - Water Heating System

SCE supports the proposed changes to Code section 150.0(n)1A. The newly proposed requirements will better support uptake of electric HPWHs, whereby better aligning the building code with the state's aggressive carbon reduction goals

II. Residential Heat Pump Water Heaters - Prescriptive Standards/Component Package

As with 150.0(n)1A described above, SCE supports the proposed prescriptive Code compliance option (150.1(c)8Aiii) that introduces a domestic water-heating systems baseline with HPWHs as it is an important step in supporting the state's GHG reduction goals. This change may increase the adoption of this GHG-reducing technology by providing more options for code compliance. SCE cautions, however, that this change may negatively impact customers on time of use (TOU) rates unless the customer takes additional steps such as pre-heating or installing larger water tanks. This impact should be considered and monitored going forward.

III. Low Rise Residential Solar PV

SCE supports the proposed Code section 150.1(c)14, which prescribes new low rise residential buildings to have PV sizing for all-electric homes that is the same as a mixed fuel home. Assuming that a "mixed fuel" home has gas space heating, water heating, cooking (oven and cooktop), and clothes drying, then the proposed Energy Design Rating (EDR) target and PV sizing is the same for all homes regardless of fuel mix (assuming other criteria such as climate zone, conditioned floor area, etc., are the same).

IV. Qualification Requirements for Photovoltaic System

SCE supports the proposed solar PV qualification standards as detailed in Joint Appendix 11.

V. Qualification Requirements for Battery Storage System

SCE generally supports the proposed language in Joint Appendix 12. The introduction of battery storage as a code compliance option will likely increase the number of battery storage installations in new homes and in low-rise multifamily buildings. SCE offers the following comments and suggested language changes with the aim to assist the Energy Commission in improving and clarifying Title 24 standards.

JA12.2.2 "Minimum Performance Requirements" stipulate that a battery storage system has a usable capacity of at least 5kWh. To provide better clarity, this requirement should instead require that a battery storage system has a minimum run-time of 4 hours to allow for providing capacity and any other service that the battery storage system may technically be capable of providing.

JA12.2.3 "Control Requirements" requires a battery storage system to be programmed to first meet the electrical load of the dwelling unit(s). While this requirement is sensible for residential buildings under a Net Energy Metering (NEM) tariff, an exception to this requirement will be necessary for residential buildings under a Virtual Net Energy Metering (VNEM) tariff.

The California Public Utilities Commission (CPUC) describes VNEM in D.08-10-036 as:

There are economic and technical challenges to installing one solar energy system in a multifamily housing complex where each tenant's unit has a separate meter. This is true for affordable housing, as well as any multitenant environment. The VNM concept is designed to overcome the challenge of allocating benefits from a single solar energy system to tenants in multifamily housing whose units are individually metered.

Under VNM, a single solar energy system sized to offset part or all of a building's total load can be installed for the entire complex, but electricity produced by the system can be credited to

individually metered tenants and to common areas of the building. Essentially, the electricity produced by the system would be net-balanced against total building electricity consumption, as if the building had a single, or “virtual,” master meter. Credits for solar energy system production would be allocated to all units (both tenant units and common areas) in a predetermined proportion.¹

JA12.2.3 should therefore allow for residential buildings under VNEM tariff to directly export to the grid without having to meet any on-site electrical load and have all virtually allocated kWh to benefitting accounts count towards compliance.

The Energy Commission should clarify how JA12.2.3.1 “Basic Control” language will apply to stand-alone battery systems. A stand-alone battery cannot charge from the grid during off peak hours and then discharge to the grid for NEM credit purposes. However, such a battery could discharge to serve on-site electrical load, as long as the discharge rate does not exceed the on-site electrical load.

The Energy Commission should consider alternatives to JA12.2.3.2 “Time-of-Use (TOU) Control”. Rather than restricting certain operations to peak and non-peak hours, SCE suggests that relying on TOU rates, utility incentives, and other market interventions to influence the operation of battery storage systems that support grid harmonization will be more effective and yield greater benefits to the grid. SCE believes this more inclusive approach may be more effective in galvanizing battery storage system operations to benefit the grid.

SCE suggests deleting the words “Demand Response” and “TOU” from JA12.2.3.3 “Advanced Demand Response Control”. Broadening this proposed language to the term “advanced controls” would have the same effect without adding unnecessary restrictions.

VI. Community Shared Solar Electric Generation System Or Community Shared Battery Storage System Compliance Option

SCE recognizes that community shared solar and storage systems can provide benefits to customers who otherwise would not have access to such technologies. However, prior to implementing the proposed language in 10-115, it is essential that SCE have the opportunity to participate in any workshops or other appropriate forums that establish methods for the appropriate accounting of offsets for community shared systems to the Energy Design Rating requirements incorporated in the Alternative Calculation Method (ACM) Reference Manual.

SCE also notes that it is currently in preliminary stages with the CPUC of addressing community solar and storage under R.15-03-010 San Joaquin Valley OIR. The Energy Commission should ensure those discussions should be well coordinated with any newly proposed building standard language.

Finally, SCE notes that any community shared solar and storage system requirements be aligned with the recent FERC Final Rule on Electric Storage Participation in Regional Markets. The rule removes barriers to participation of electric storage resources in the capacity, energy and ancillary services markets operated by RTOs and ISOs.²

¹ http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/92455.pdf, p. 31

² <https://www.ferc.gov/whats-new/comm-meet/2018/021518/E-1.pdf>. Issued February 15, 2018.

VII. Demand Response Communication Protocol

SCE generally supports the use of OpenADR, and understands and agrees with the intent of Energy Commission under 110.12(a) "Demand responsive controls", which in part seeks to reduce the potential for stranded demand response-compatible assets in a situation where proprietary communications are no longer supported. SCE recommends that 110.12(a) be clarified to provide more benefit to consumers and the market through certain adjustments.

SCE proposes that the standard be broadened by requiring demand response controls to be either certified OpenADR devices or to be enrolled in a utility-administered demand response program which leverages a cloud-to-cloud OpenADR control from the utility. There is currently a wide variety of participation in the demand response market in the residential and small to medium business customer segments through proprietary cloud-based communications which also leverage OpenADR-based communications from the utility. As such, demand response participation may be suppressed by requiring all demand responsive controls to be capable of functioning as an OpenADR 2.0a or OpenADR 2.0b Virtual End Node. Providing this optionality will give participants the flexibility to install equipment while not potentially suppressing demand response enrollment.

VIII. Conclusion

SCE appreciates the Energy Commission's consideration of these comments and looks forward to its continuing collaboration with the Energy Commission and stakeholders as these standards are further developed and deployed. Please do not hesitate to contact me at (916) 441-3979 with any questions or concerns you may have. I am available to discuss these matters further at your convenience.

Very truly yours,

/s/

Catherine Hackney