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Subject: CESA's Comments on the Draft 2020 Load Management Rulemaking Scoping Memo

**Re: Comments of the Schneider Electric North America (SE) on the February 14th,
DRAFT Load Management Tariff Standard Markup**

Schneider Electric (SE) appreciates the Commission opening the rulemaking in 19-OIR-01. The timing is critical as the availability of individual technology components that make up the pieces of load-following appliances and equipment is widening everyday, but the framework to bring the pieces together one system does not yet exist.

At Schneider Electric, our long history of expertise in building energy management as well as in utility and microgrid installations enables us to put together several technological components together for individual clients, but we still need a regulatory framework for efficient and optimal use and scaling of building-to-grid technologies.

The potential of grid-interactive, efficient commercial and residential buildings to organize as a system is critical to meet the decarbonization and energy efficiency goals of California as well as customers into the 21st century.

In the proceeding many questions around sequencing of tariffs and standards will be asked and need to be answered. To be successful, in addition to the tariff, the Commission should also develop a standard for a communications port that at a minimum allows for a CTA-2045 device to be incorporated. As testified before the commission this would align with the Washington State law and rule on hot water storage tanks.¹ We also recommend including more large load appliances like heat pumps outlined in the BPA presentation on CTA-2045 before the commission.²

SE believes that a flaw in the draft tariff is an assumption that signaling communication is a one-way information flow from the utility to the appliance and that a customer expressing their values for pricing in a range or as a societal value like renewables or decarbonization into the process is not important. A better option may be to implement a holistically constructed tariff that would require a customer-based platform that allows two-way communication with the

¹ 231656 1/23/2020 Washington State Department of Commerce Comments - Support of open standards for large loads and appliances

² 315401/15/2020 Presentation - Results from the Pacific Northwest CTA-2045 Water Heater DR Pilot

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utility over the OpenADR 2.0 or higher platform. With this requirement the utility will not only send signals but be able to receive uptake signals in the ranges that customers have set before and during supply and demand real time pricing.

Many machine learning platforms are currently available, and two-way communication should be encouraged as a standard. Without the requirement to have a building-based platform to interact with the customer, few private sector resources will be expended to develop command and control application-based feature. This limits the vast optimization opportunities that two-way communication allows for efficiency, best performance and emissions reductions in buildings. As mentioned by WattTime, there are values other than price that would be included by incorporating system platforms in buildings.³ We have sent two documents at the end of this document as examples from SE that are system platforms: 1) Square D Connected Home Suite for North America 2) An outline EcoStruxure platform in Dallas County. There are many others in the market place.

Part and parcel of making the tariff successful is modernizing the outdated 1970s era appliance rebate programs towards system platforms, appliances and equipment that can communicate with each other over the CTA-2045 device, instead of treating all the appliances and equipment that are energy star compliant like a random flash mob appearing at a building on the distribution system.

The change to adopt system platforms will also achieve load shifting, flattening demand and increased flexibility.

In marginal cost part of the proposed tariff, it is important to value avoided CAPEX on hosting and peak demand on circuits. The current draft seems to be oriented toward peak demand. It should recognize overgeneration events on the circuit level or the distribution system, as reflected in the SDG&E demand drive program presentation before the Commission.⁴

SE believes that not all costs or benefits are measured by volumetric values. The only reason to use the CASIO wording in the draft tariff would be to mimic an actual locational and temporal price signal if one did not have an actual signal that represents all the customer values and all the utility cost and social contract obligations. Some transactions may not make a building more electrically efficient but will increase decarbonization. SE recommends the CASIO draft language only be used as a tool of last resort when lacking all other levels of data for values that make a true retail market price.

The lens of the tariff should be directed from the customer building to the circuit, and then to the distribution system as demonstrated in the SDG&E demand drive program. After that wholesale CASIO values should be considered.

By including system platforms, the tariff should define customers as retail service providers.

SE recommends that a Universal tariff be adopted - letting the utility set the reconciliation frequency in whatever time authority is the most efficient monetarily within a certain framework and keeping in mind the amount of compensation due to the customer in certain time frames i.e. monthly, quarterly or semiannually. It is important that system platforms get the data to show proceeds to customers in the application-based interface. SE strongly disagrees with a pilot type tariff. Suppliers and implementers can't make a business plan based on pilots.

SE agrees that a utility or CEC should curate data in the database for pricing signals and make it accessible to original equipment manufacturers (OEMs) or licensees of building system

³ 231532 1/15/2020 Presentation - Real Time Marginal Emissions Signals

⁴ 231533 1/15/2020 Presentation - Power Your Drive - An Hourly Dynamic Rate Design

platforms. The OEMs would be responsible for updating the consumer dashboard with new values. Data privacy laws in the State of California are already in place.

The utility should be required to adopt a standard blockchain tool to reconcile intra-hour transactions daily. The 30-day window for transparency of data and pricing is reasonable. This will allow system platform to utilize the data and work with the customers value ranges updated in the application-based interfaces.

By including system platforms as a critical part of the tariff the Commission will also be bringing its marketing expertise to the customer/retail service providers in addition to what any requirements for the utilities.

Requiring system-based platforms to work at both ends of the price signal, with the aim of reconciling supply and demand, as well as societal and customer values like decarbonization, and providing a benefit of an avoided CAPEXa will generate a holistic solution versus a siloed, limited policy that would not fully reflect the technological capabilities existent today. The more holistically the policy enacted as part of this proceeding, the bigger the benefits for the State.

In conclusion please find SE's recommendations.

- 1) Adopt the CTA-2045 standard for all larger load appliances and devices. At a minimum require that CTA-2045 adaptable port be required.
- 2) Include system energy management platforms as required part of tariff to allow two way communication of price and values.
- 3) Modernize existing appliance rebate programs towards systems not appliances.
- 4) Consider avoided CAPEX in circuits and distribution system in marginal cost.
- 5) Adopt CASIO draft language as a tool of last resort.
- 6) Define customer as service provider.
- 7) Adopt a universal tariff.
- 8) The Commission or the Utility should curate a price data base under existing State privacy laws.
- 9) Require a utility blockchain based tool to reconcile transactions in time period that is functional with tariff.

Respectfully,



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