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Enel X Comments on Draft Load Management Standards

Additional submitted attachment is included below.

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Karen Herter
California Energy Commission
1516 9th Street
Sacramento, CA 95815

April 23, 2021

Re: Potential Amendments to Load Management Standards (Docket 19-OIR-01)

Dear Ms. Herter:

Enel X North America, Inc. (Enel X) is pleased to submit the following comments on the California Energy Commission's (CEC) Draft Staff Analysis of Potential Amendments to the Load Management Standards issued March 25, 2021 (Staff Analysis), in Docket 19-OIR-01.

Enel X is broadly interested in the availability of dynamic rate design options across customer classes and enabling automation technologies, which can help align flexible electric demand with available renewable energy supply in furtherance of the state's clean energy goals. To this end, we co-sponsored a 2018 Petition for Rulemaking at the California Public Utilities Commission (CPUC) to holistically examine such grid integration-focused rate design components as non-coincident demand charge alternatives and dynamic volumetric prices.[1] We have since been involved, either as co-signing parties or close collaborators, in the subsequent "Joint Advanced Rate Parties" (JARP) efforts across the SDG&E and PG&E General Rate Case (GRC) Phase 2 proceedings[2] that have argued for the implementation of class and technology agnostic dynamic rates. We have also intervened in PG&E's recent application for a day-ahead hourly real time pricing pilot for commercial electric vehicle charging.[3]

We thus support the CEC's proposed amendments to the Load Management Standards in CCR Title 20, Article 5, §§ 1621-1625 that would effectively make dynamic rate options available to all customers within the service territories of the state's five largest electric utilities, by requiring these utilities to do the following:

- Maintain time-varying rate options in the CEC's Market Informed Demand Automation Server (MIDAS) platform;
- Develop a standard rate information access tool to support third parties that help customers optimize consumption patterns;
- Develop locational rates that change at least hourly to reflect marginal wholesale costs and submit those rates to the utility's governing body for approval; and
- Integrate information about new time-varying rates and automation technologies into existing customer education and outreach programs.

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[1] As noted on Footnote 67 (p. 41) of the Staff Analysis, this Petition was denied by Decision 19-03-002.

[2] Application (A.)19-03-002 and A.19-11-019, respectively.

[3] A.20-10-011

We note that the achievement of the amendments' underlying objectives – namely, "to facilitate mass-market load flexibility to lower customer bills and/or greenhouse gas (GHG) emissions"[4] – ultimately hinges on how these hourly or sub-hourly time-varying rates are implemented by the utilities' governing bodies and operationalized by customers and "automation service providers." This especially pertains to the potential for dynamic rates to result in lower customer bills: while customers and automated devices could optimize consumption patterns according to the time-varying signals from MIDAS to realize GHG benefits, regardless of the underlying rate schedule, a customer must take service and be billed on one of the time-varying rates created per § 1623 to realize a bill reduction benefit compared to flat or static time-of-use rates.[5]

In order to make these rates available, utility governing bodies will first need to approve costs to upgrade billing software systems and develop the MIDAS database and rate information access tools. This will likely be a non-trivial undertaking, given the § 1623 (b) (1) directive for utilities to make these rates available "for each customer class," but some of the groundwork at CPUC-jurisdictional utilities may already be underway due to the pending proceedings that are considering dynamic rate options.[6] What is more, governing bodies will need to ensure that new rates do not shift costs to non-participants, while also providing participating customers with appropriate customer protections. This latter piece includes both "off-ramps" to an Otherwise-Applicable Tariff in the case of extended high prices due to an emergency and authorizing the use of separate (or sub-) metering and billing for certain automation devices like EV charging, which would allow customers to insulate inflexible loads behind their primary meter from being exposed to dynamic prices.

Nevertheless, the proposed Load Management Standards would provide critical policy direction to the state's utilities and their governing bodies to enable widespread, streamlined access to dynamic rate options. We believe that the March 31, 2023 deadline for such rate proposals provides an adequate runway for these entities to make the necessary plans for these rates to be operational in the 2024-2025 timeframe.[7]

We also provide the following recommended revisions to various elements of MIDAS and RIN, which we respectfully request the CEC to consider even if previous phases of this initiative have already reviewed them:

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[4] Staff Analysis, at p. 48.

[5] This of course opens the possibility of a customer facing increased bills if consumption is poorly managed, which caveats the Staff Analysis's conclusion that "the proposed load management standards are consumer centric and consumer protective" (at p. 51).

[6] See Footnotes 2 and 3.

[7] Per Slide 37 from Karen Herter's April 12, 2021 Workshop Presentation (Workshop Presentation).

- Both the RateInfo Table and the Price Table[8] include dates. The spreadsheet versions of both tables show a few different date formats, with a mixture of one-digit and two-digit months and days, and two-digit and four-digit years. All dates should follow the ISO 8601 "YYYY-MM-DD" format for consistency and unambiguity.
- The Price table includes TimeStart and TimeEnd columns. These timestamps should include a UTC offset that follows the ISO 8601 standard, to avoid ambiguity associated with Daylight Savings Time, and to enable adoption in other regions in the future.
- If demand charges are included, the Units column from the Price table should be specified as "kW-month" or "kW-day" rather than just "kW", to differentiate between monthly and daily demand charges.
- Commercial and industrial retail tariffs typically include a Power Factor charge. SCE and SDG&E have a $/kVAR charge based on maximum reactive demand (a reactive demand charge), whereas PG&E has a $/kWh charge that is based on the customer's average power factor (the ratio of total kWh to total kVARh) as compared to a baseline of 85%. Both rate structures appear to be incompatible with the MIDAS database format. The CEC should consider adding "kVARh" as an option under Units in case this MIDAS-compatible approach to recovering reactive-power-related costs is adopted by utilities in the future. It's worth noting that these charges typically make up a small portion of the total customer bill.
- The EnergyCode column of the RateInfo table uses two-character codes to represent utilities/CCAs. Although this allows for hundreds of unique codes, there is still the potential for confusion between entities with similar names (ex. Silicon Valley Power and Silicon Valley Clean Energy could not both be "SV"). The CEC should consider switching to three-character codes for greater ease of unique name assignment.
- The report details a four-character Rate identifier for each tariff[9]. Commercial and industrial retail tariffs typically have multiple variants depending on interconnection voltage (ex. secondary, primary, transmission). A four-character ID ("ex. B19R" for PG&E Electric Schedule B-19 Option R) would not distinguish between voltages. The CEC should add a separate Applicability ID to capture such tariff variants.
- The MIDAS rate database appears to be focused on retail rate tariffs associated with importing energy from the grid. The CEC should consider also including export compensation rate tariffs as well, such as Net Energy Metering and its successor tariffs. Customers and their devices make dispatch decisions based on both import and export rates, so MIDAS's value may be limited if it does not include both.
- Enel X supports the inclusion of non-price data streams such as Flex Alerts and marginal operational greenhouse gas emissions rates (the SGIP Signal). The CEC should also consider including other avoided cost information, leveraging a combination of static values from the CPUC Avoided Cost Calculator and real-time data from utilities or other sources. For instance, this could be a way to explore marginal distribution cost impacts associated with distributed energy resources (DERs) prior to their inclusion in a permanent tariff. Pilot programs or tariffs could also make use of this information as a control signal or as an

[8] As displayed in the Workshop Presentation, Slides 21-22
[9] Staff Analysis, at p. 48.

evaluation signal, such as the Integrated DER distribution-deferral tariff.[10] Similarly, Recurve recently released a tool called FLEXvalue with similar functionality,[11] and the Environmental Defense Fund made similar suggestions in its Prepared Testimony on PG&E's DAHRTP-CEV pilot.[12]

- Finally, the April 12, 2021 workshop included a brief discussion of the fact that demand charges can often create an economic incentive that conflicts with time-varying energy rates. The Staff Analysis does not explicitly state this, other than in the description of SCE RTP on p. 40. Furthermore, the Staff Analysis does not link this issue to the mention of the rate design principle (per CPUC D.15-07-001) that "Rates should encourage the reduction of . . . non-coincident peak demand" (p. 15), which Enel X views as being at counter-purposes to the goals of electrification. We thus recommend that the CEC, in further considerations or approvals of its proposal in the Staff Analysis, explicitly state that demand charges are not easily compatible with the time-varying price API proposal, and that demand charge reform is an unresolved issue from the 2018 JARP Petition for Rulemaking at the CPUC that has not been addressed through A.19-03-002 or A.19-11-019.

Enel X thanks the CEC for its consideration of these comments and looks forward to continuing collaboration with the agency and other industry stakeholders to develop Load Management Standards and enabling automation technologies.

Sincerely,

/s/ Marc Monbouquette
Regulatory Affairs Manager
Enel X North America

/s/ Ryan Mann
Senior Technical Analyst
Enel X North America

[10] Adopted by the CPUC in D.21-02-006.

[11] https://www.recurve.com/blog/california-flexvalue-a-new-cost-effectiveness-tool-cet-to-transparently-gauge-the-value-of-projects-portfolios-and-programs

[12] *Opening Testimony of Steven Moss on Behalf of Environmental Defense Fund*, in A.20-10-011, April 2, 2019, at pp. 15-17. https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/A2010011/3472/374626953.pdf