Comment Received From: Enel X North America, Inc.
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Enel X Comments on MIDAS Workshop

Additional submitted attachment is included below.

Enel X North America, Inc.
360 Industrial Road, San Carlos, CA 94070

Morgan Shepherd
California Energy Commission
1516 9th Street
Sacramento, CA 95815

September 15, 2021

Re: Market-Informed Demand Automation Server (Docket 19-OIR-01)

Dear Ms. Shepherd:

Enel X North America, Inc. (Enel X) is pleased to submit the following comments on the California Energy Commission's (CEC) Market-Informed Demand Automation Server, 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 Market-Informed Demand Automation Server (MIDAS) platform, which would serve as a vehicle for the provision of time-varying retail rate data in a standardized form.

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:

- 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.

[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

- The report details a four-character Rate identifier for each tariff[4]. Commercial and industrial retail tariffs typically have multiple variants such as voltage, customer discounts, net metering type, PCIA vintage, and more. A four-character ID ("ex. B19R" for PG&E Electric Schedule B-19 Option R) would not distinguish between these variants of a single rate tariff schedule. 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, both forecasts and actuals). 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 evaluation signal, such as the Integrated DER distribution-deferral tariff.[5] Similarly, Recurve recently released a tool called FLEXvalue with similar functionality,[6] and the Environmental Defense Fund made similar suggestions in its Prepared Testimony on PG&E's DAHRTP-CEV pilot.[7]
- 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.

Enel X additionally provides the following suggestions as potential elements of the MIDAS development and roll-out process:

- There are two dynamic hourly rates currently offered by California utilities: SDG&E's VGI rate, and SCE's temperature-based RTP rate option (available for TOU-GS-1, TOU-GS-2, TOU-GS-3, TOU-8, TOU-8 Standby, TOU-PA-2, and TOU-PA-3). The CEC should consider including some or all of these in MIDAS to gain learnings to inform future dynamic rate offerings. This effort would benefit from reaching out to customers currently enrolled in

[4] Staff Analysis, at p. 48.

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

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

[7] *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

these rates, for input on how MIDAS could make rate information more accessible and actionable than the approach currently used by these customers.

- PG&E is currently exploring Day-Ahead Hourly Real Time Pricing rate options in both the Commercial Electric Vehicle proceeding and in the General Rate Case. It is likely that there will be some changes to the methodology before the rates are finalized, but the datastreams used to create the rates (energy price and net-load data from CAISO OASIS) are likely to stay the same. It could be useful to develop a proof-of-concept rate in MIDAS that is based on calling the CAISO API and computing the rate values.
- The CPUC's UNIDE concept draws from the CEC-funded Retail Automated Transactive Energy System (RATES) pilot run by SCE and TeMix. It could be useful to recreate the RATES tariff inside of MIDAS, with assistance from TeMix and SCE. This would be further prompted if the CPUC approves the proposal by TeMix in Phase 2 of the CPUC's Emergency Reliability proceeding (Rulemaking 20-11-003) to make the RATES platform available to load-serving entities via software license, to enable dynamic pricing options that would be accessed by customers and devices via the MIDAS platform.[8]
- Awareness and adoption of MIDAS by automated device technology companies is key to its success. Holding a MIDAS "Hackathon" (similar to the annual SunCode hackathon) could be a great way to gain users, particularly among the start-up companies who might most benefit from MIDAS but are least likely to be aware of the Load Management Standard proceeding.
- The current leading provider of retail-rate data for automated-device technology companies is Genability. The data source most likely to be used by researchers, government agencies, and national labs is the OpenEI U.S. Utility Rate Database. Working closely with both organizations is likely to be key. Even if organizations are accessing California prices indirectly through one of these sources rather than directly from MIDAS, that could still be considered a success for the Load Management Standard effort.

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

[8] Opening Phase 2 Testimony of TeMix, Inc., R.20-11-003, filed September 1, 2021. https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/summer-2021-reliability/opening-testimony/temix-opening-testimony-phase-2.pdf