| DOCKETED | |
|---|---|
| **Docket Number:** | 19-OIR-01 |
| **Project Title:** | Load Management Rulemaking |
| **TN #:** | 231728 |
| **Document Title:** | PG&E Comments - on Load Management Standard Scoping Memo |
| **Description:** | N/A |
| **Filer:** | System |
| **Organization:** | PG&E |
| **Submitter Role:** | Public |
| **Submission Date:** | 1/24/2020 4:15:54 PM |
| **Docketed Date:** | 1/24/2020 |

*Comment Received From: PG&E*
*Submitted On: 1/24/2020*
*Docket Number: 19-OIR-01*

# PG&E Comments on Load Management Standard Scoping Memo

*Additional submitted attachment is included below.*

Pacific Gas and Electric Company

**Jessica M Melton**
Representative
State Agency Relations

1415 L Street, Suite 280
Sacramento, CA 95814
O: (916) 386-5712
M: (916) 386-5720
Jessica.Melton@pge.com

January 24, 2020

California Energy Commission
Docket Unit, MS-4
Re: Docket No. 19-OIR-01
1516 Ninth Street
Sacramento, CA 95814-5512

Re: PG&E COMMENTS ON CALIFORNIA ENERGY COMMISSION DRAFT LOAD MANAGEMENT SCOPING MEMO

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to submit these comments regarding the January 14, 2020 Scope of Load Management Workshop and Draft Scoping Memo. PG&E thanks the California Energy Commission (CEC) and staff for embarking on this rulemaking in a thoughtful and inclusive way. PG&E agrees that an update to the current Load Management Standards is one of many actions that should be considered to harness demand side flexibility to solve for some of the challenges of a grid powered increasingly by renewable energy. PG&E supports California's clean energy goals and is committed to partnering with the Energy Commission, California Public Utilities Commission (CPUC), California Independent System Operator (CAISO) and California Air Resources Board (CARB) (Joint Energy Agencies) to chart a cost-effective and sustainable path toward transforming the energy system away from fuels that generate greenhouse gas emissions (GHGs).

PG&E recognizes that meeting the state's clean energy targets will require more coordination and planning than ever before. Load management is a complex and multidimensional issue with many facets including technology development and deployment, original equipment manufacturing, and customer and vendor outreach and education. This will require a coordinated effort among California's Joint Energy Agencies to ensure the goals of providing safe, reliable, affordable and clean energy are not lost in the pursuit of a too narrowly defined objective. To that end, PG&E submits the following comments:

1. The CEC's Load Management Standard should focus on enabling a foundation of smart devices that can respond to signals. Accordingly, PG&E recommends the CEC start by investigating and identifying scalable industry-wide communications standards.

Appliance standards should then be updated to require communications capability to be embedded in the technologies or their cloud control.

2. The CEC's Load Management Standard should not mandate a specific technology.
3. PG&E supports the CEC's approach of focusing in the near term on non-residential water and space heater controllers, stationary and mobile battery controllers and large water pumping load motors and large refrigeration systems.
4. Rates are an important component of load flexibility and should continue to be addressed at the CPUC.

These comments are elaborated on below:

**Automation**

PG&E suggests that the CEC's scope for the Load Management Standard be focused on investigating and identifying industry-wide communications standards. The CEC should then update appliance standards to require communications capability to be embedded in the technologies or through their manufacturers' cloud control. SB 49 requires that appliance energy efficiency standards also manage energy loads to help maintain electrical grid reliability. The CEC should clarify how its upcoming standard will further implement SB 49.

PG&E opposes any mandate of a single hardware standard. Different standards have their own strengths and weaknesses. Manufacturer should be able to choose their own communication standard in order to avoid potential stranded assets. For example, the ANSI/CEA 2045 (Standard for the Integration of End-use Devices) was discussed during the workshop and multiple parties suggested the CEC consider mandating this hardware standard. PG&E does not recommend the CEC mandate any standard for load management. Appliance, energy storage, and electric vehicle (EV) manufacturers should have the flexibility to select their own communication standard in order to reduce cost and avoid potential stranded assets.

The Load Management Standard must accommodate for the business case of an intermediary sending signals to devices. Both the scoping memo and the workshop discussed having load management hourly or sub-hourly signals sent directly to a device. PG&E would like to point out that CEC should consider that there can be an aggregator or manufacturers between the utility and devices, in which case the price signal would not go directly to devices. The standard should accommodate this use case.

PG&E recognizes that certain technologies that act as storage may have the greatest load management potential and supports the CEC's focus on certain technologies. To that end, PG&E agrees that the market segments and end-use technologies that should be focused on in the near term are non-residential water and space heater controllers, stationary and mobile battery controllers and large water pumping load motors and large refrigeration systems. These loads comprise the bulk of thermal, hydro and chemical storage systems that can potentially provide low cost flexibility.

Lastly, PG&E urges any Load Management Standard that includes automation to also require communication—and cautions against the use of "simple timers" which can lack a communication feature. The memo stated that the load management scope would include developing appropriate, cost-effective, automation technologies (e.g. grid-connected water heaters, simple thermostat timers) for low-income customers. PG&E agrees that there is a need to develop specific solutions for low income customers. However, simple timers without communication capability is a sub-optimal short-term solution since the signal may not sync with daylight saving time[1] nor provide visibility on communication status.

**Rates**

PG&E agrees with the comments made at the Workshop by Severin Borenstein that simplification of rates will need to be considered in the course of the rulemaking, both in terms of the underlying complexity of multi-part rates and in terms of the number and variation of rates. PG&E suggests that the CPUC is best positioned to lead the retail rate design components. Any new dynamic rates should be cost-based (i.e., with the hourly or sub-hourly prices accurately reflecting marginal costs), to avoid shifting costs from participants to non-participants. For example, if prices are set too high during higher-cost hours, participating customers' load reductions (or battery discharges) during those hours will result in lost utility revenues that exceed utility avoided costs, thus necessitating rate increases that harm non-participants. Similar harmful rate increases will result if prices are set too low during low-cost hours, since participating customers' load increases (or battery charges) will yield additional revenue that is insufficient to cover the additional costs incurred to meet that load.

**Established Load Management Measures**

PG&E also suggests that more traditional and established measures, such as building shell improvements to reduce energy leakage in residential and commercial buildings, should not be overlooked. For example, reducing building shell leakage may increase the stock of thermal storage (since the building itself can more effectively be used for thermal storage) and enable more efficient use of any additional equipment, and thus could be a cost-effective approach.

PG&E appreciates the opportunity to comment on this Scoping Memo and looks forward to continued engagement in the rulemaking process.

Sincerely,

/s/

Jessica M Melton

[1] PG&E recommends CEC to revisit the daylight saving time policy if simple timers is considered a solution for load management