



**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

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Order Instituting Rulemaking to Enhance
the Role of Demand Response in Meeting
the State's Resource Planning Needs and
Operational Requirements.

R.13-09-011
(Filed September 19, 2013)

**COMMENTS OF NEST LABS, INC. ON THE PROPOSED DECISION OF
ADMINISTRATIVE LAW JUDGE HYMES ADOPTING BRIDGE FUNDING
FOR 2017 DEMAND RESPONSE PROGRAMS AND ACTIVITIES**

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May 23, 2016

TABLE OF CONTENTS

I. DESCRIPTION OF NEST LABS1

II. OVERVIEW OF THE PROPOSED DECISION2

III. NEST COMMENTS ON THE PROPOSED DECISION3

 A. The Proposed Decision Should Refer to Smart Communicating Thermostats
 rather than “Programmable” Communicating Thermostats..... 3

 B. Nest Recommends Adoption of the Proposed Decision’s Directives Concerning
 SCTs..... 4

IV. CONCLUSION.....5

Appendix

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Pursuant to Rule 14.3(a) of the Rules of Practice and Procedure of the California Public Utilities Commission (“CPUC” or “Commission”), Nest Labs, Inc. (“Nest”) offers its comments with respect to the proposed decision of Administrative Law Judge (“ALJ”) Kelly A. Hymes entitled *Decision Adopting Bridge Funding for 2017 Demand Response Programs and Activities* (“Proposed Decision”), issued on May 3, 2016.

I. DESCRIPTION OF NEST LABS

Founded in 2010, Nest Labs is dedicated to reinventing home products like the thermostat and smoke alarm to provide customers with simple, beautiful and thoughtful hardware, software and services, thereby helping them reduce energy consumption and keep their families comfortable and safe. Nest manufactures the Nest Learning Thermostat, which is equipped with sensors, Wi-Fi capability, and smart-phone grade processing, to help customers consume less energy. It learns their preferences, turns the temperature down when the house is empty, automatically lowers AC runtime when humidity conditions permit, thereby helping people lower their energy use without sacrificing comfort.

Nest also has service offerings for utilities to help address their load management needs. Today, Nest products are sold in the U.S., U.K., E.U. and Canada and are installed in more than 120 countries. Nest is an Alphabet Inc. company based in Palo Alto, California.

II. OVERVIEW OF THE PROPOSED DECISION

The Proposed Decision approves, subject to certain modifications, the proposals for 2017 demand response programs and activities put forth by Pacific Gas and Electric Company, San Diego Gas and Electric Company and Southern California Edison Company “SCE”). Of particular interest to Nest, the Proposed Decisions also adopts a proposal from SCE, again subject to certain revisions, to address the continuing unavailability of the Aliso Canyon Gas Storage Facility by authorizing a budget of \$ 9.3 million for the proposal.

The Proposed Decision notes that on March 23, 2016, the assigned Commissioner issued a Ruling¹ directing demand response activities to help mitigate the effects of the natural gas leak at the Aliso Canyon Storage Facility that has resulted in its continuing unavailability. This unavailability has serious implications for both natural gas and electric reliability in the Los Angeles Basin area. Therefore, the Ruling appropriately directed SCE to file proposals to intensify demand response efforts in the geographic areas most affected by the leak and to mitigate the impact of reliability issues arising from the leak. SCE filed its proposal on April 4, 2016. Multiple parties, including Nest, filed responses to the proposal on April 12, 2016, with suggestions as to how SCE’s proposals could be made most effective. Nest restricts its comments below to the Aliso Canyon mitigation discussion portion of the Proposed Decision.

¹ *Assigned Commissioner’s Ruling Directing Activities in Response to Natural Gas Leak at Aliso Canyon Storage and Seeking Comments.*

III. NEST COMMENTS ON THE PROPOSED DECISION

Nest supports the proposed decision and recommends its adoption. In its comments on the SCE Aliso Canyon proposal, Nest noted that SCE had done a good job in putting forth an array of different ways in which its DR programs could help address the current situation. Nest then offered suggestions as to ways that these proposals could be further enhanced in a manner that would be both cost-effective and highly successful at driving new load reduction potential and new customer gas savings through energy efficiency from smart communicating thermostats.

A. The Proposed Decision Should Refer to Smart Communicating Thermostats rather than “Programmable” Communicating Thermostats.

The Proposed Decision uses the term “programmable” to modify the term “communicating thermostats” in its discussion of Nest’s comments. This should be revised to refer instead to “smart” communicating thermostats as there is a significance difference between the two. Traditional programmable thermostats (“PTs”) allow customers to set up a preprogrammed schedule for raising or lowering the temperature in the home, but have neither internet communications capability nor built-in intelligence to modify the schedule due to changing conditions or customer preferences. While the ability to pre-program thermostats can be a convenience feature and save energy for some households, there are challenges and difficulties with PTs. For many people they are not intuitive and hard to program; therefore, many people never do program them. In that case, they are used just like a non-programmable thermostat with people turning them up or down when they remember to do so. Even if a PT is programmed initially, it is often overridden at some point in the future and not reprogrammed.

Smart, communicating thermostats (“SCTs”), such as those provided by Nest, also allow setting predetermined schedules for temperature. However, they have several advantages over traditional programmable thermostats. They are smart in the sense that they learn a household's

habits and preferences and combine that information with environmental data like temperature and humidity to create schedules appropriate to that home and the environment, even if they are not pre-programmed. However, SCTs are also easier to program and modify than traditional PTs if the homeowner desires. SCTs also can be accessed through the internet so that a homeowner can raise or lower the temperature remotely from a mobile phone or let the thermostat know the homeowner will be away for an extended period. Therefore, to be more precise the Proposed Decision should refer to SCTs rather than simply programmable thermostats. In the attached Appendix, Nest suggests revisions to certain sections of the Proposed Decision where this distinction should be clarified.

B. Nest Recommends Adoption of the Proposed Decision's Directives Concerning SCTs

Nest is pleased to see that certain of its suggestions have been adopted in the Proposed Decision. Specifically, Nest supports the following elements of the Proposed Decision (with the added clarification as to “smart” communicating thermostats as discussed above):

- The directive to SCE to review the use of smart communicating thermostats versus direct load control devices and include data on the use of both in its next demand response application.²
- The finding that it is reasonable to allow funding to support the targeting of 50,000 new customers who purchase smart communicating thermostats and enroll in SCE's Peak Time Rebate Enabling Technology Direct Load Control program (PTR-ET DLC).³

² Proposed Decision, at p. 22.

³ Id at pp. 27-28.

- The encouragement to SCE to coordinate its demand response programs with its other related programs and to pursue the recommendation that SCE offer all customers opting out of the Summer Discount Program the alternative of enrolling in PTR-ET DLC, with a rebate at the level adopted in this decision.⁴
- The approval of a budget of \$4.5 million to target 50,000 new customers in the PTR-ET DLC.⁵

In its comments, Nest stated its belief that, “there is an even greater potential in the market - particularly if the enrollment incentive were raised from \$75 to \$100 – and that 50,000 - 70,000 enrollments is realistic and achievable.”⁶ Although the Proposed Decision found that “the record of this proceeding does not include a cost-effectiveness analysis of the program with the \$100 rebate,”⁷ Nest continues to believe that the higher incentive is merited. Based on our marketing efforts both here in California and across the country we have learned that this is the “sweet spot” for rebates to get a more rapid response. At the same time, Nest recognizes the lack of detailed information in the record supporting our experience and thus believe that the Proposed Decision’s existing directives will enhance the effectiveness of SCE’s efforts to address and cope with the continuing unavailability of the Aliso Canyon Storage Facility and should be adopted as recommended.

IV. CONCLUSION

Nest supports the Proposed Decision and commends ALJ Hymes for her timely and thoughtful draft. Nest’s suggestions in this docket were intended to better address the

⁴ Id at pp. 27-28.

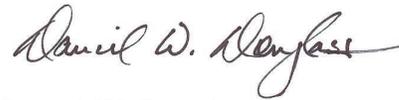
⁵ Id at p. 28.

⁶ Nest comments, at p. 5.

⁷ Proposed Decision, at p. 27.

unavailability of Aliso Canyon and Nest appreciates the careful consideration they were accorded in the Proposed Decision.

Respectfully submitted,

A handwritten signature in black ink that reads "Daniel W. Douglass". The signature is fluid and cursive, with a long horizontal stroke at the end.

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Appendix

Suggested Revisions to the Proposed Decision

Page 22:

Nest contends that the effort to increase participation in the Summer Discount Plan offers an opportunity to move beyond the current limited scope of the program. Nest explains that the current program relies on the use of direct load control devices that can be overridden by a customer and suggests requiring the implementation of ~~programmable~~ smart communicating thermostats. However, the record of this proceeding has no data to confirm that ~~programmable~~ smart communicating thermostats are a more suitable replacement for direct load control devices in this program. Given the urgency of the Aliso Canyon matter and the need for the Commission to act quickly, as well as the lack of record on this matter, we decline to order the implementation of ~~programmable~~ smart communicating thermostats instead of direct load control devices in SCE's Summer Discount Plan at this time. However, we direct SCE to review the use of ~~programmable~~ smart communicating thermostats versus direct load control devices and include data on the use of both in the next demand response application.⁸

Page 27:

Nest further recommends that SCE coordinate its demand response efforts with the Energy Savings Assistance Program and the Energy Efficiency Program. Specifically, Nest proposes that SCE target ten percent of Energy Savings Assistance Program customers for direct install of ~~programmable~~ smart communicating thermostats.

Page 28:

We find the changes to the PTR-ET DLC to be reasonable. The proposed changes to the program provide customer incentives for the purchase of a ~~programmable~~ smart communicating thermostat in combination with enrollment in the PTR-ET DLC tariff, thus meeting the requirements of the March 23, 2016 Ruling.

Page 81 – Conclusion of Law 3:

3. The Commission should require SCE to review the use of ~~programmable~~ smart communicating thermostats versus direct load control devices for use in the Summer Discount Plan and include an analysis in the next demand response application.

Page 83 – Ordering Paragraph 6:

6. Southern California Edison Company shall provide a comparison of the use of ~~programmable~~ smart communicating thermostats versus direct load control devices in its next demand response program application.

⁸ Proposed Decision, at p. 22.