DOCKETED	
Docket Number:	22-RENEW-01
Project Title:	Demand Side Grid Support Program
TN #:	244243
Document Title:	The Ad Hoc Group Comments - Joint Response of Google Nest and OhmConnect in Response to the Demand Side Grid Support Program Draft Program Guidelines
Description:	N/A
Filer:	System
Organization:	The Ad Hoc Group
Submitter Role:	Public
Submission Date:	7/29/2022 11:33:17 AM
Docketed Date:	7/29/2022

Comment Received From: The Ad Hoc Group
Submitted On: 7/29/2022
Docket Number: 22-RENEW-01

Joint Response of Google Nest and OhmConnect in Response to the Demand Side Grid Support Program Draft Program Guidelines

Additional submitted attachment is included below.

July 29, 2022

Submitted Via Email
California Energy Commission
Docket Unit
Docket No. 22-RENEW-01
715 P Street, MS-4
Sacramento, CA 95814

RE: Response of Google LLC and OhmConnect, Inc. to the California Energy Commission's Demand Side Grid Support Program Draft Program Guidelines Issued in Docket 22-RENEW-01

Dear Commission Staff:

Google LLC, on behalf of its Google Nest thermostat division, hereinafter "Google Nest," and OhmConnect, Inc., hereinafter "OhmConnect," appreciate the opportunity to provide public comments to the California Energy Commission ("CEC" or "Commission") on the draft program guidelines for the Demand Side Grid Support Program ("DSGS") in the Demand Side Grid Support Program docket (Doc. 22-RENEW-01). We are supportive of efforts to engage as many California customers as possible in demand response ("DR") programs, and the $200 million allocated towards the DSGS under AB 205 is a great step towards this goal. However, we are concerned that the design of the DSGS will prevent California from realizing the full potential of the program.

Google Nest's devices include the Google Nest Learning Thermostat, the Google Nest Thermostat E, and the new Google Nest Thermostat. These products are each equipped with occupancy sensors, Wi-Fi capability, and smartphone grade processing, which together help our customers consume less energy. Google Nest thermostats learn occupant preferences, adjust temperatures to reduce energy consumption when the house is empty, and automatically lower air conditioning runtime when humidity conditions permit. All Google Nest thermostats currently on the market allow residential customers to participate in demand response ("DR") programs and future load flexibility programs administered by utilities or third-party aggregators.

Google Nest has also recently launched its "Nest Renew" program which will allow users to utilize their Nest thermostats to shift their household load to periods of low carbon emissions and reduce greenhouse gas ("GHG") emissions. The Nest Renew product allows users to adjust heating and cooling usage in response to real-time price and emissions signals. By enabling household load shift, Nest Renew will support the continued growth in renewable generation projects in California and thereby support lower emissions associated with electricity generation.

OhmConnect is a Demand Response Provider ("DRP") founded in 2013 and headquartered in Oakland, California. The company provides DR services to hundreds of thousands of residential and small commercial retail electric customers in California pursuant to Electric Rules 24 and 32 and is registered to participate as a DRP in the wholesale electricity market operated by California Independent System Operator ("CAISO"). OhmConnect is, at its core, a software company, and customers enrolled in OhmConnect's DR services are not required to purchase or connect any specific hardware. However, customers may optionally connect a variety of smart devices (e.g. WiFi thermostats, electric vehicle chargers, smart plugs, etc.) to the OhmConnect platform and thereby automate their participation in DR events.

In these comments, Google Nest and OhmConnect provide four recommendations that will enable broader participation, particularly by those most impacted by local pollution and emissions of greenhouse gasses:

1. Provide customers with upfront incentives for participating with an automated enabling technology.
2. Develop pathways to allocate unspent funds towards CCA and IOU customers.
3. Amend the DSGS Provider definition to include demand response aggregators.
4. Substantially simplify the participant enrollment application package to encourage participation by residential customers.

We expand on these recommendations below.

1. Provide customers with upfront incentives for participating with an automated enabling technology

Customers that are able to provide consistent and verifiable load reductions should receive compensation for that load reduction potential as an upfront incentive. Upfront incentives increase customer participation because they subsidize the purchase of the enabling technology. In the case of smart thermostats, an upfront incentive that combines compensation for participation in a demand response program with the energy efficiency benefits of a smart thermostat could fully subsidize its cost.

Enabling devices such as smart thermostats provide consistent load reductions, which should give confidence that the upfront incentives will directly translate to DR that is always available when called upon. Impact studies by aggregators in California, including OhmConnect's most recent Load Impact Protocols report, show that smart thermostats can provide between 0.6 to 0.7 kW of fully automated load drop during the key summer months. In practice, this means that enrolling one million households with smart thermostats in the DSGS would create 600-700 MW of reliable curtailment.

In addition, upfront incentives will ensure that all eligible customers are able to participate in the DSGS program. The draft program guidelines structure incentive options around the total energy reduced or capacity provided (the latter being directly tied to energy

reduced due to the requirement for participation in CAISO's or the applicable balancing authority's wholesale market). To calculate energy reductions, an aggregator would need to have access to the customer's interval data, which presumes 1) the customer *has* a smart interval meter and 2) the customer's utility has a pathway for data access. The reality in California is that the majority of customers in the eligible service territory do not have smart meters,[1] and with the rules as written these customers are effectively precluded from participating. Indeed, only 3.3% of the 1.5 million customers of the state's largest publicly owned utility, Los Angeles Department of Water and Power, have smart meters.[2] The benefit of an upfront incentive is that all customers, even those without a smart meter, would be eligible because the incentive would be conditioned on connecting DR-enabling technology, and not on direct energy reductions, which may be difficult or impossible to calculate.

We urge the Commission to adopt upfront incentives for enabling technology. Upfront incentives would allow California to deploy millions of smart thermostats and other smart devices to households with the confidence that load will be reduced during extreme weather and grid reliability events.

2. Develop pathways to allocate unspent funds towards CCA and IOU customers

California, along with the majority of the West, is facing extraordinary – but likely, persistent – scenarios where the risk of inadequate generation is elevated.[3] California must take an "all hands on deck" approach to mitigate the chances of power outages. We should take as many efforts as possible to enroll *any* California customer into a demand response program.

Unfortunately, the DSGS draft program guidelines set strict limits on participation by limiting eligibility to those customers not served by an investor-owned utility ("IOU") or a community choice aggregator ("CCA"). While we are very supportive of enabling DR programs with all utilities in California, we are concerned that this is a missed opportunity to encourage widespread participation in DR across all customers.

We acknowledge that the language of AB 205 sets restrictions at least on investor-owned utility customers. However, it is less clear that those restrictions should extend to CCAs, who are governed by a board or council of local elected officials. We encourage the Commission to open up eligibility for the DSGS program as widely as possible to the extent permissible by law. And, in the event that there are unspent funds in the DSGS program, we urge the Commission to seek pathways that can allocate those dollars towards IOU and CCA customers that were previously ineligible.

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[1] Analysis based on EIA-861 data files, available at https://www.eia.gov/electricity/data/eia861/.
[2] See March 16, 2020 LADWP Comments on Amendments to the Load Management Tariff Standard, Load Management Rulemaking Docket Number 19-OIR-01.
[3] See May 19, 2022 "NERC sounds alarm on solar tripping in 'sobering' summer reliability report", available at https://www.utilitydive.com/news/nerc-summer-reliability-report-west-miso-ercot/624043/ and May 2022 ""2022 Summer Reliability Assessment", available at https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_SRA_2022.pdf.

3. Amend the DSGS Provider definition to include demand response aggregators.

To support customer choice and extend the reach of the DSGS as wide as possible, we encourage the Commission to adopt pathways for third party aggregators to directly participate in the DSGS. As written, even though the draft program guidelines seek to support aggregator participation, they also clearly define a DSGS provider as "[a] retail supplier as defined in Public Utilities Code (PUC) Section 398.2, except for an investor-owned utility or community choice aggregator."[4] Alternatively, AB 205 lists "participating aggregators of multiple energy customers" as one of the entities eligible to receive payments under the DSGS program.[5] The implication of the legislative language is that aggregators are able to enroll customers and be compensated directly by the CEC.

Disallowing direct participation may introduce complexity and friction into the program. While aggregators are willing and able to participate in demand response programs offered by retail electricity providers, direct participation in market-integrated or market-informed programs may be in some instances simpler and more efficient. The current program structure will require retail electricity providers to create internal programs and processes to enroll, manage, and pay demand response aggregators. Establishing such processes can be complex and time consuming and it is possible that some eligible POUs may not wish to do so. At the same time, most aggregators in California are experienced in direct market participation. They are able to enroll customers, bid into the energy market, dispatch events, and calculate energy reductions.

There is value in both partnering with a retail entity, particularly in territories not served by the CAISO, as well as participating in the DSGS program directly. To facilitate direct participation and broader customer choice, the DSGS Provider definition should be amended to include demand response aggregators.

4. Substantially simplify the participant enrollment application package to encourage participation by residential customers.

The enrollment application package, as proposed, is onerous and will likely pose a barrier to residential customer participation. The guidelines require participants to provide multiple pieces of personal information (e.g. email and phone number), information on the load reduction resources the participant will use during a DSGS program event, including the types of available resources and expected load drop, as well as an attestation. By way of comparison, to participate in existing economic or emergency demand response programs, residential customers need only to sign up with their aggregator of choice. This is done electronically and the enrollment process is typically simple. Residential customers are not required to provide load reduction plans or expected impacts. In most cases, households do not have enough information at the outset to be

[4] See Draft Proposed DSGS Guidelines, at p. 2.
[5] See AB 205, at p. 95.

able to do so. Instead, the load serving entity or demand response aggregator educates customers on the most effective ways to save energy and calculate energy savings on their behalf.

To enable residential customer participation, the CEC should eliminate the requirement that all enrollees provide information on the load reduction resources they will use during a DSGS program event (Section 3(a)(iii)) and make optional any pieces of information that are necessary to verify enrollment (e.g. email address and phone number). Similarly, the attestation should be an electronic agreement presented at program enrollment rather than a separate form that requires additional or manual submission.

5. Conclusion

Google Nest and OhmConnect thank the Commission for this opportunity to provide comments on the draft program guidelines. With our proposed changes, we believe California will have increased grid reliability and millions of customers engaged in DR.

Sincerely,

/s/ PARAG CHOKSHI

Parag Chokshi
Director, Product Planning & Ops
Google Nest
1600 Amphitheatre Parkway
Mountain View, CA 94043
Telephone: (650) 383-7075
Email: pchokshi@google.com

/s/ MARIA BELENKY

Maria Belenky
Market Development Manager
OhmConnect, Inc.
371 3rd Street, 2nd Floor,
Oakland, CA 94607
Telephone: (415) 894-0750
Email: maria@ohmconnect.com