

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Establish
Policies, Processes, and Rules to Ensure
Reliable Electric Service in California in the
Event of an Extreme Weather Event in 2021.

Rulemaking 20-11-003
(Filed November 19, 2020)

OPENING BRIEF OF THE DR COALITION

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SUMMARY OF RECOMMENDATIONS

Rule 13.11 of the Commission's Rules of Practice and Procedure requires that a "summary of the briefing party's recommendations [follow] the table of authorities." In summary, the DR Coalition recommends and requests that the Commission do the following:

- Authorize incremental Demand Response Auction Mechanism ("DRAM") budget for 2021 and 2022 solicitations.
- Authorize investor-owned utilities ("IOUs") to pilot behavioral demand response ("DR") programs beginning in 2022 using randomized controlled trials to prove the ability of wide-scale behavioral DR to reduce Resource Adequacy ("RA") requirements.
- Modify the energy efficiency ("EE") portfolio cost-effectiveness requirement from a Total Resource Cost ("TRC") threshold to a Program Administrator Cost ("PCT") threshold and direct the IOUs to allow proposed projects that surpass a PAC cost-effectiveness test result of 1.0.
- Suspend EE custom project review requirements for projects that can be deployed in 2021 or 2022.
- Leverage a Flex Alert marketing campaign to grow DR program participation.
- Approve the DR Coalition's Emergency Load Reduction Program ("ELRP") proposal.
- Increase the 2 percent cap on emergency DR programs.
- Approve changes to the IOU Base Interruptible Programs ("BIP") that 1) lower the minimum load eligibility requirement, 2) allow monthly nominations of the Firm Service Level, 3) allow open enrollment and unenrollment on a year-round basis; and 4) authorize the use of prohibited resources when used with Renewable Portfolio Standard ("RPS") - eligible biofuels.
- Approve changes to the IOU Capacity Bidding Programs ("CBP") that 1) increase or eliminate the 40% retail day-of adjustment cap, 2) allow performance outside of program hours to count for capacity payments, 3) adopt a non-residential 5-in-10 baseline, 4) either approve a CBP Elect for Southern California Edison Company ("SCE") and San Diego Gas & Electric Company ("SDG&E") or increase the economic trigger for their CBPs, 5) add a weekend option with an incremental capacity payment, 6) direct the creation of a residential CBP for SCE and SDG&E, and 7) allow hourly bidding in the CBP Elect.
- Approve the DR Coalition proposal to enroll up to 100,000 new smart thermostat customers in DR programs and add up to 58 MW of capacity by September 1, 2021, through pilot proposal that gives free thermostats to customers (up to \$130 in value), provided that they pre-enroll in an existing third-party or IOU DR program.
- Authorize third-party DR providers ("DRPs") to market and apply for smart thermostat rebates on behalf of their customers.
- Authorize an independent study on actual DR performance during the August and September 2020 heat events that accurately accounts for the extreme temperatures.
- Suspend the current retail day-of adjustment caps pending a reassessment of their accuracy under extreme weather conditions.

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California Efficiency + Demand Management Council (“the Council”), Google LLC (“Google”), Leapfrog Power, Inc. (“Leap”), NRG Energy, Inc. (“NRG”), OhmConnect, Inc. (“OhmConnect”), Oracle, Tesla, Voltus, Inc. (“Voltus”), and Willdan (“the DR Coalition”) respectfully submit this Opening Brief in Rulemaking (R.) 20-11-003 (Extreme Weather). In this Rulemaking, the Commission seeks to establish policies, processes, and rules to ensure reliable electric service in California in the event of an extreme weather event in 2021. The DR Coalition’s Opening Brief is timely filed and served pursuant to the Commission’s Rules of Practice and Procedure (Rule 13.11) and the Assigned Commissioner’s Scoping Memo and Ruling (Scoping Memo), dated December 21, 2020.

**I.
BACKGROUND**

The DR Coalition is comprised of the Council, Google, Leap, NRG, OhmConnect, Oracle, Tesla, Voltus, and Willdan.

- **The Council:** The Council is a statewide trade association of non-utility businesses that provide energy efficiency (“EE”), demand response (“DR”), and data analytics services and products in California.¹ Our 65+ member companies (including DR providers CPower, Enel, Google, Leap, OhmConnect, Oracle, and Olivine) employ many thousands of Californians throughout the state. They include EE, DR, and grid services technology providers, implementation and evaluation experts, energy service companies, engineering and architecture firms, contractors, financing experts, workforce training entities, and manufacturers of EE products and equipment. The Council’s mission is to support

¹ Additional information about the Council, including the organization’s current membership, Board of Directors, antitrust guidelines, and code of ethics for its members, can be found at <http://www.cedmc.org>. The views expressed by the Council are not necessarily those of its individual members.

appropriate EE and DR policies, programs, and technologies to create sustainable jobs, long-term economic growth, stable and reasonably priced energy infrastructures, and environmental improvement.

- **Google:** Google, an Alphabet Inc. company, is the maker of Nest devices, including Nest thermostats, sold under the Google Nest brand. The Nest energy devices include the Google Nest Learning Thermostat, the Google Nest Thermostat E, and the new Google Nest Thermostat, which are equipped with sensors, Wi-Fi capability, and smart-phone grade processing, to help customers consume less energy. They learn occupant preferences, turn the temperature down when the house is empty, and automatically lower air conditioning (“A/C”) runtime when humidity conditions permit, thereby helping people lower their energy use without sacrificing comfort. Google Nest thermostats also contribute to reducing peak demand by allowing residential customers to participate in demand response programs run by utilities or third-party aggregators. Current Google Nest programs include Seasonal Savings (an EE program) as well as Nest Rush Hour Rewards (a DR program).
- **Leap:** Leap is a Demand Response Provider (“DRP”) founded in 2017 and headquartered in San Francisco, California. The company provides DR services to residential, commercial, industrial, and agricultural customers throughout the state of California. Through its technology platform, Leap enables distributed energy resource (“DER”) providers in California to become grid participants, both adding revenue for their customers and integrating additional demand-side resources into the California electricity system. Leap believes that demand-side resources integrated into California’s wholesale electricity market will play a key role in helping California achieve a resilient and zero carbon future.
- **NRG:** NRG Energy Inc. is a major producer and retailer of electricity and, through its wholly owned subsidiary, NRG Curtailment Solutions, Inc. (“NRGCS”), is also one of the largest DRPs in the country. NRGCS participates in wholesale and distribution-level DR programs across the United States. Through wholesale and retail markets, NRGCS serves a wide variety of commercial, industrial, and institutional customers and achieved a 2,400 MW reduction of curtailable load at over 5,000 facilities in 2019. NRG also operates approximately 23,000 MW of generation around the country, including in the

California Independent System Operator (“CAISO”) market. NRG is a major competitive retailer across the United States.

- **OhmConnect:** OhmConnect was founded in 2014, and today enables hundreds of thousands of customers to reimagine how they use energy, to choose clean-energy over dirty energy when required, and to be rewarded for timely, smarter, home energy use. OhmConnect pays its users for saving energy when the grid is at risk of using dirty power. Customers of the three major California energy suppliers – Pacific Gas and Electric (“PG&E”), Southern California Edison (“SCE”) and San Diego Gas & Electric (“SDG&E”) – can sign up with OhmConnect for free.
- **Oracle:** Oracle (formerly Opower, Inc.) has delivered Opower’s behavioral EE, DR, and customer engagement services to over one hundred electric and natural gas utilities across ten countries and thirty-five states, including California. To date, these programs have saved nearly 30 terawatt-hours of energy. In 2020 alone, the Opower behavioral EE program is projected to drive over 350 GWh of savings across the three electric investor-owned utilities (“IOUs”). Oracle appreciates this opportunity to provide input on the Commission’s Extreme Weather Rulemaking. Oracle’s comments are based on the 12+ years of behavioral demand-side management experience contained in the Opower platform, which has been implemented by more than 100 utilities around the world.
- **Tesla:** Tesla’s mission is to accelerate the world’s transition to sustainable energy. In the service of this mission, Tesla has dedicated itself to electrifying transportation through the manufacture and sale of advanced electric vehicles as well as key clean energy technologies, including battery storage and solar photovoltaic systems. By electrifying the transportation sector and decarbonizing electricity production, substantial progress can be made in addressing climate change and the serious threat it poses, recognizing the significant share of greenhouse gas emissions that are directly attributable to the transportation and energy sectors. Tesla has produced more than 1,000,000 electric vehicles worldwide, provided 5 gigawatt-hour (“GWh”) of stationary battery capacity, and has deployed over three gigawatts (“GW”) of solar.
- **Voltus:** Voltus’ mission is to become the world’s leading provider of DR by turning large energy users’ behind-the-meter assets into cash-producing DERs. Based in San Francisco and Boston, Voltus serves thousands of customers across nine major North

American energy markets and has secured over 2,000 MW of DERs to date. As an Aggregator of Retail Customers (“ARC”), Voltus leverages our commercial and industrial (“C&I”) customers’ operational flexibility to deliver energy, capacity, and ancillary services to wholesale and retail markets, including load curtailment, energy storage, EE, and distributed generation. In return, Voltus secures market revenues for these assets as a form of payment to incentivize our customers’ participation in markets. Voltus currently has a total load curtailment potential of 80 MW in California. During the Stage 3 system emergencies on August 14 and 15, Voltus helped curtail demand by ~50 MW through its deployed capacity in the CAISO market alone.

- **Willdan:** Willdan actively assists organizations and their communities to evolve and thrive as resources and infrastructure change. Willdan is a leading, nationwide provider of trusted, comprehensive solutions that are supported by a talented team of experts and advanced software applications. Willdan provides advanced designs and delivers proven solutions to improve efficiency and resiliency in energy and sustainability, engineering, program administration, economics and strategic planning, software, emerging technology, and research & development.

II. SUMMARY OF THE DR COALITION’S POSITION

As discussed in more detail below, the DR Coalition recommends the Commission should:

- Seek to make least-regrets procurement decisions that includes clean energy and demand-side resources;
- Suspend the 8.3% per-LSE cap on DR procurement;
- Require an independent study of demand response (“DR”) performance during the summer 2020 heat events;
- Approve SCE’s proposal to increase Capacity Bidding Program (“CBP”) and Base Interruptible Program (“BIP”) incentives and PG&E’s proposal to increase BIP incentives;
- Approve the DR Coalition’s Emergency Load Reduction Program (“ELRP”) proposal;
- Approve, on an interim basis, a 100% day-of adjustment cap for the CBP and Demand Response Auction Mechanism (“DRAM”) Pilot;

- Require a study of appropriate day-of adjust caps under extreme weather conditions similar to what was experienced in August and September 2020;
- Approve DR Coalition recommendations to increase BIP flexibility;
- Approve the DR Coalition smart thermostat proposal to enroll up to 100,000 new smart thermostat customers in DR programs and add up to 58 MW of capacity by September 1, 2021; and
- Approve incremental DRAM budget for 2021 and 2022.

III. DR COALITION ARGUMENTS

A. CUSTOMER-SIDE RESOURCES SHOULD PROVIDE THE BULK OF INCREMENTAL CAPACITY

1. Customer-side resources should be procured as a least-regrets option.

In testimony, some parties have called into question whether significant additional capacity is actually needed to meet reliability needs in summer 2021 and 2022.² According to the Protect Our Communities Foundation (“PCF”), it appears that several breakdowns in the California Independent System Operator (“CAISO”) market may have been the primary culprits in the energy shortages that led to blackouts last summer which, when fixed, will likely greatly reduce the chances for a recurrence in 2021 and 2022. However, to the extent the Commission is intent on adding new resources as insurance, it should follow the advice of the Center for Energy Efficiency and Renewable Technologies (“CEERT”), and primarily seek to make least-regrets procurement decisions that includes clean energy and demand-side resources.³ Procuring these resources should be considered “least-regrets” because they support statewide policies to achieve environmental, climate, and social justice goals.

Furthermore, as the DR Coalition has stated, demand-side resources are particularly suitable because they can be deployed rapidly and can be contracted only for the years when they are needed, unlike upgrades to existing gas-fired generation which, according to Calpine

² Prepared Opening Testimony of Bill Powers, P.E. on Behalf of the Protect Our Communities Foundation, submitted on January 11, 2021 (“Ex. PCF-01 (Powers)”), at p. 2, line 6 through p. 5, line 16; Public Advocates Office Opening Testimony, at p. 3-1, line 11 through p. 3-3, line 8.

³ Opening Prepared Testimony of the Center for Energy Efficiency and Renewable Technologies, submitted on January 11, 2021 (“Ex. CEERT-01”), at p. 2, lines 11-15.

Corporation, require a longer cost recovery period.^{4,5} The Commission should note that no party has demonstrated that any incremental capacity procured through this proceeding must be for a period beyond 2022. The DR Coalition agrees with The Utility Reform Network’s (“TURN”) statement that because any incremental need is only for a limited time frame, the Commission should not rely solely on new gas-fired generation.⁶ Instead, demand-side resources can be easily contracted for a short period of time to add extra reliability for the next one to two years, which could buy time until new capacity that has been procured through the Integrated Resource Planning (“IRP) proceeding comes online. TURN correctly notes that resource planning in California is based on 1-in-10 conditions, whereas the summer 2020 heat events were 1-in-35 year events.⁷ If the Commission is now engaging in procurement to meet 1-in-35 conditions, this should be vetted more thoroughly in a rulemaking proceeding such as R.19-11-009, rather than decided on the fly.

2. Any increase in DR must be matched by a suspension of the 8.3% per-Load-Serving Entity (“LSE”) DR procurement cap.

The DR Coalition reiterates its recommendation that, if the Commission approves any changes to investor-owned utility (“IOU”) DR programs or procurement of incremental third-party DR, it must also suspend the 8.3% per-LSE cap on DR procurement.⁸ This is a critical issue that, if not addressed, is likely to result in some LSEs being unable to count some of their allocated incremental DR resource adequacy (“RA”) capacity. TURN explains the problem well stating,

“(t)he 8.3% cap appears to be having a perverse impact on individual LSEs because of the large amount of IOU DR credits that are being allocated to other LSEs. While the IOUs themselves may be well below the cap level, this allocation can be highly constraining to non-IOU LSEs, who may lack foreknowledge of the amount of such credits that they will receive.”⁹

⁴ Rebuttal Prepared Testimony of the DR Coalition, submitted on January 19, 2021 (“Ex. DR Coalition-02”), at p. 1, line 26 through p. 2, line 2.

⁵ Comments of Calpine Corporation on Order Instituting Rulemaking, at pp. 1-2.

⁶ Prepared Reply Testimony of Michael Peter Florio, submitted on January 19, 2021 (“Ex. TURN-02”), at p. 16, line 17 through p. 17, line 9.

⁷ *Id.*, at p. 2, line 23 through p. 4, line 15.

⁸ Opening Prepared Testimony of the DR Coalition, submitted on January 11, 2021 (“Ex. DR Coalition-01”), at p. 19, line 25 through p. 20, line 11.

⁹ Ex. TURN-02, at p. 10, lines 28-31.

This issue is currently being addressed on a permanent basis in Track 3B.1 of Rulemaking (“R.”) 19-11-009 (RA), but the Commission should approve a temporary suspension in this proceeding for 2021 and 2022.

3. The Commission should require an independent study of DR performance during the summer 2020 heat events.

The DR Coalition is extremely concerned that DR is being made into a scapegoat for the summer 2020 blackouts. The Final Root Cause Analysis Mid-August 2020 Extreme Heat Wave (“FRCA”) provided a cursory overview of the performance of gas-fired, hydro, solar and wind, and imported resources, yet devoted seven pages to the performance of DR resources despite it representing the smallest portion of capacity among the resources examined.¹⁰ However, nowhere does the FRCA analysis on DR performance mention the serious inaccuracies of the wholesale and retail DR baselines under extreme heat conditions. In addition to the DR Coalition’s detailed explanations in Opening Testimony, TURN provided a good explanation for why the existing DR baselines were likely inaccurate and correctly noted that most of the days assessed in the FRCA were weekends when economic DR programs and resources are typically not available.¹¹

The DR Coalition has demonstrated that it proactively reached out to the Commission as well as the CAISO shortly after the August heat event to inform them of this problem, knowing that third-party DR would receive extra scrutiny.¹² In spite of these efforts, neither agency has publicly acknowledged this problem nor have they taken actions to understand or address it. Furthermore, the FRCA fails to mention that Proxy Demand Resources (“PDR”) participating in the DRAM do not have a real-time market obligation nor are required to be dispatched during the weekends, according to Commission directive. Despite this, a number of DRPs dispatched resources out-of-the-market on Saturday, August 15 in response to requests by the Governor’s office and the Energy Division. These data, however, appear not to have been considered as part of the FRCA.

The DR Coalition fears that until the record can be set straight, the Commission and CAISO will continue under the misguided assumption that DR cannot be relied upon, especially

¹⁰ Final Root Cause Analysis Mid-August 2020 Extreme Heat Wave, at pp. 50-57.

¹¹ Ex. TURN-02, at p. 5, line 20 through p. 8, line 2.

¹² Ex. DR Coalition-01, at p. 35, line 25 through p. 36, line 17 and Ex. DR Coalition-02, at p. 8, lines 13-17, Appendix 1 and Appendix 2.

during extreme conditions. This could have a very serious policy and, consequently, reliability impact if this results in even less DR being deployed in the future than today. To this end, the Commission should adopt the TURN recommendation and direct the Energy Division to commission an independent, third-party study on DR performance during the August and September 2020 heat events.¹³ The scope and methodology of this study should be open to interested party feedback, should analyze summer 2020 DR performance utilizing alternative baseline(s) methods during the extreme heat events, and should include a recommendation for revisions to current DR baselines to ensure that DR performance is accurately counted and compensated in the future.

B. DR CUSTOMERS MUST BE FAIRLY COMPENSATED FOR THEIR PERFORMANCE

1. DR customers will not participate if they are not fairly compensated.

Any efforts to procure additional DR for summer 2021 and 2022 reliability must ensure that customers are appropriately compensated for their performance. If they are offered incentive payments below their opportunity cost or their load curtailments are not accurately counted, they will not participate, nor will they be willing to dispatch outside of the program hours without compensation, as many customers did on August 15-16, 2020. SCE proposes to increase its CBP and BIP incentives, and PG&E's proposal to increase its BIP incentives explicitly acknowledge this fact.¹⁴

For similar reasons, any ELRP must provide an appropriate level of compensation to incent customers to not only enroll, but also provide meaningful load reductions. Otherwise, any effort to develop the ELRP on an expedited basis could have very little to show for it. The California Large Energy Consumers Association ("CLECA") claims that the \$500/MWh Demand Bidding Program ("DBP") incentive was enough in SCE's service area to average 86 MW of load reduction during events in 2015.¹⁵ However, it should be pointed out that the RA value of the DBP in August 2016 was 4.6 MW because nearly all of its MW capacity was being

¹³ Ex. TURN-02, at p. 8, line 25 through p. 9, line 2.

¹⁴ Direct Testimony of Southern California Edison Company, submitted on January 11, 2021 ("Ex. SCE-01"), at p. 23, lines 4-8 and p. 13, line 7 through p.14 Table II-2 and Pacific Gas and Electric Company Emergency Reliability OIR Prepared Testimony, submitted on January 11, 2021 ("Ex. PG&E-01"), at p. 4-3, line 14 through p. 4-4, line 9.

¹⁵ Reply Testimony of Catherine Yap and Paul Nelson on Behalf of the California Large Energy Consumers Association, submitted on January 19, 2021 ("Ex. CLECA-02"), at p. 4, lines 1-9.

counted under BIP.¹⁶ If the Commission intends that the ELRP be dispatched under similar conditions as the BIP, then the incremental load reduction associated with the ELRP will likely be quite small with a \$750/MWh energy payment. The Commission should err on the side of caution and approve the DR Coalition’s proposed dual ELRP incentive structure to attract the widest and largest range of customer participation. After 2022, if the Commission finds that the incentives were too substantial, then it could either reduce them or eliminate the program. However, if the ELRP incentives are too low, the Commission will not get another opportunity to adjust them until after this shortcoming becomes apparent.

2. DR baselines must be revised to accommodate extreme heat events.

A key component of proper DR compensation is the accurate measurement of customer performance. Otherwise, even fair incentives will not prevent unfairly low payments because the full performance of the participant will not be recognized. The DR Coalition has explained how current DR baselines are likely deficient under extreme heat conditions and the Joint DR Parties affirm this.¹⁷ TURN very well may have hit the nail on the head when it suggested that “the ‘missing DR’ was not actually missing at all, but only showed up as actual load below the CAISO day-ahead forecast – not as measured consumption below an inadequate baseline.”¹⁸

By applying simple logic, this hypothesis looks very reasonable. During a period of 1-in-35 weather conditions, air conditioning load can be expected to be significantly greater and more consistent throughout the day than what was ever contemplated in the studies that led to the current DR baselines. The baseline during an extreme heat event will be artificially depressed when comparing the cooling load to the cooling load during the 10 weekdays prior to the extreme heat event. Consequently, even significant load curtailments during the heat event will not be recognized because the baseline is far too low.

The DR Coalition disagrees with PG&E’s arguments against a revised DR baseline. Though PG&E correctly notes that the current +/- 40% day-of adjustment is optional, it misses the point that a 40% adjustment is insufficient under extreme heat conditions.¹⁹ Furthermore,

¹⁶ Southern California Edison Company’s Proposal for Approval of Its 2017 Demand Response Program and Bridge Funding Authorization, at p. 8.

¹⁷ Ex. DR Coalition-01, at p. 34, line 19 through p. 36, line 17 and Reply Prepared Testimony of Joint Demand Response Parties, submitted on January 19, 2021 (“Ex. JDRP-02”), at p. 6, lines 2-7.

¹⁸ Ex. TURN-02, at p. 7 lines 13 through p. 8, line 2.

¹⁹ Pacific Gas and Electric Company Emergency Reliability OIR Rebuttal Testimony, submitted on January 19, 2021 (“Ex. PG&E-02”), at p. 4-9, lines 1-3.

PG&E also neglects to mention that the DR aggregator must choose on a month-ahead basis whether to utilize the 40% adjustment. It would be impossible to predict an extreme heat event one month in advance. The DR Coalition agrees with PG&E that a study would be helpful to assess whether a 100% day-of adjustment cap would be adequate under extreme heat conditions.²⁰ However, there is insufficient time to perform such a study in time for summer 2021, so the Commission should approve a 100% day-of adjustment cap for the CBP and DRAM in 2021 and 2022 or until a study can be performed. To the DR Coalition’s knowledge, neither the Retail Baseline Working Group (“RBWG”) assessment of the 20% vs. 40% DR adjustment cap referenced by PG&E nor the Baseline Analysis Working Group (“BAWG”) study considered 1-in-35 weather conditions.²¹

The Commission should approve a 5-in-10 retail baseline with a 100% day-of adjustment cap on an interim basis through 2022 and direct the Energy Division to commission an independent study to look at the accuracy of the current retail and wholesale baselines relative to the 5-in-10 baseline with 100% day-of adjustment. Otherwise, the potential for under-compensation under extreme weather conditions risks disenfranchising DR participants and presents a good reason for them to discontinue their participation. Any DR participant whose performance was not fully compensated would logically choose not to participate in the future.²²

C. THE COMMISSION HAS SEVERAL OPTIONS TO ADD DR CAPACITY

1. Greater BIP flexibility will not diminish its reliability.

The IOUs’ claims that greater BIP flexibility would reduce the dependability of the program are exaggerated and unsupported.²³ All three IOUs state, as purported fact, that the DR Coalition’s proposals to allow year-round enrollment and unenrollment, monthly Firm Service Level (“FSL”) nomination, and a force majeure clause would reduce the reliability of the BIP; however, they provide no explanation for this belief. In addition, SDG&E claims that the DR Coalition has provided no evidence to support the claim that greater BIP flexibility would result

²⁰ Ex. PG&E-02, at p. 4-9, lines 3-5.

²¹ Ex. PG&E-02, at p. 4-9, lines 5-17.

²² Ex. TURN-02, at p. 9, lines 3-8.

²³ Ex. PG&E-02, at p. 4-1 lines 17-31; Reply Testimony of Southern California Edison Company, submitted on January 19, 2021 (“Ex. SCE-02”), at p. 5, lines 3-5; and Prepared Rebuttal Testimony of San Diego Gas & Electric Company Regarding Demand Response Proposals (“Ex. SDGE-5”), at p. 1, line 30 through p. 2, line 10.

in more participation and MW.²⁴ The DR Coalition need only point to the growth of PG&E’s CBP in terms of active participants once it began offering its CBP Elect program, which provides participants greater *flexibility* to set their own opportunity cost.²⁵ Furthermore, Small Business Utility Advocates (“SBUA”) and CLECA, who represent “small businesses and large industrial customers respectively, are supportive of additional BIP flexibility, at least in terms of year-round enrollment.²⁶ It is hard to believe that fewer customers would participate in a program that provides greater flexibility.

2. Smart thermostats with pre-enrollment can be highly successful.

In its Opening Testimony, the DR Coalition put forth a viable pathway to enroll up to 100,000 new smart thermostat customers in DR programs and add up to 58 MW of capacity by September 1, 2021, through an ambitious pilot proposal that gives free thermostats to customers (up to \$130 in value), provided that they pre-enroll in an existing third-party or IOU DR program.²⁷ This proposal will allow IOUs to expand thermostat programs while also unleashing the power of third-party DRPs by giving them the ability to market and apply for rebates on behalf of their customers. Based on current customer enrollment profiles, the DR Coalition estimates that 30-40% of these new devices would be installed in low- to moderate -income households and Disadvantaged Communities.²⁸

The DR Coalition’s pilot proposal, when combined with an effective public marketing campaign, will maximize customer participation during summer 2021 and has the potential to increase smart thermostat enrollments by 15- to 30-times during the campaign window.²⁹ The proposed pilot design mitigates the main concerns raised by SDG&E in its Rebuttal Testimony that DRPs would have no incentive to ensure customers install the thermostat and participate in a DR program.³⁰ Requiring same-time pre-enrollment in an IOU or third-party DR program as

²⁴ Ex. SDGE-5, at p. 1, line 33 through p. 2, line 1.

²⁵ PG&E Advice Letter 5799-E, at p. 17, Table 7.

²⁶ Reply Testimony of John D. Wilson on Behalf of The Small Business Utility Advocate, submitted on January 11, 2021 (“Ex. SBUA-01”), at p. 17, lines 19-22 and Ex. CLECA-02, at p. 5, line 15 through p. 6, line 3.

²⁷ Ex. DR Coalition-01 at p. 28, line 12 through p. 32, line 10.

²⁸ *Id.*, at p. 30, lines 9-12.

²⁹ *Id.*, at p. 31, lines 1-3.

³⁰ Ex. SDGE-5, at p. 4, line 2 through p. 5, line 21.

part of the incentive application process would address the concern expressed by SDG&E that participating customers would not enroll in a DR program.³¹

In addition, contrary to SDG&E's claims, the DRPs administering the incentive would have a strong financial interest in ensuring that the enrolling customers participate in DR³² given that the proposal allows DRPs to only recover incentives from IOUs once they have verified customer enrollment in a DR program. In other words, the DRPs take on the financial responsibility to redeem incentives and must provide customer ID number and proof of enrollment to an IOU to verify enrollment. While SDG&E suggests that many devices that receive incentives may never get used in an event,³³ there is a very low likelihood of this happening as customers sign over authorization to the DRP to control the device as part of program enrollment. It is true that customers have the ability to override an event, however in the DR Coalition's experience, those adjustments are a consistently small portion of the overall population of customers. The load reduction profiles delivered during an event window through the automation of smart thermostats have been shown to be very consistent over time, even when incorporating customer adjustments. The 0.58 kW/device impact used in the DR Coalition's pilot proposal represents an average between SCE's 2018 and 2019 Resource Adequacy ("RA") window average for all smart thermostats as part of their Smart Energy Program.³⁴

SDG&E suggests that the \$130 incentive will eliminate the DRPs' incentive to ensure customer participation, and notes that ongoing performance payments are a key part of customer retention.³⁵ The DR Coalition agrees that performance payments are important and is not proposing to eliminate them. Rather, the DR Coalition is simply proposing to increase the upfront enrollment incentive to cover smart thermostat device costs and enable the free, pre-enrolled offer. The \$130 pilot incentive proposed by the DR Coalition is only \$30 more than the \$100 enrollment incentive requested by SDG&E in its Opening Testimony.³⁶ Increasing the enrollment incentive to \$130/device as part of this pilot would not preclude IOUs such as

³¹ *Id.*, at p. 4, lines 16-18.

³² *Id.*

³³ *Id.*, at p. 4, lines 19-20.

³⁴ Southern California Edison Smart Energy Program: 2019 Load Impact Evaluation, Slide 12:

<https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442464902>

³⁵ Ex. SDGE-5, at p. 4, line 16 through p. 5, line 3.

³⁶ Prepared Direct Testimony of San Diego Gas & Electric Company Regarding Demand Response Proposals, submitted on January 11, 2021 ("Ex. SDGE-3"), at p. 14, lines 1-3.

SDG&E from offering an ongoing performance payment and the DR Coalition is supportive of such payments.

Finally, SDG&E notes that it tried a similar approach of offering free pre-enrolling devices but experienced low enrollment rates that resulted in only 400 device enrollments.³⁷ This experience highlights the urgent need to open rebate administration to third parties and unleash the power of the private sector to complement IOU programs and enroll as many customers as possible during summer 2021. As OhmConnect noted in its Opening Comments, third-party DRPs have been responsible for the majority of residential load growth in California in recent years, even without the ability to redeem rebates on behalf of their customers.³⁸

The DR Coalition understands that the proposed pilot may create additional administrative burdens for IOUs and has included a \$1,000,000 budget to cover administrative costs. The DR Coalition is supportive of further administrative funding requests by IOUs within reason to cover the increased enrollment of smart thermostats as contemplated by this pilot, and its members stand ready to assist IOUs however possible to ensure a smooth and orderly uptick in successful thermostat DR enrollments.

Residential customers' loads are the primary driver of California's present steep net load ramps in the evening hours. This curve can only be flattened by engaging this critical residential load in DR. Based on the experiences of DRPs like OhmConnect in market, customers with a thermostat installed have over 2 times the savings potential during DR events. If the Commission wants to maximize customer participation this summer, it should approve the DR Coalition's smart thermostat proposal.

3. Third-party DR can add valuable capacity in 2021 and 2022.

The DR Coalition maintains that third-party DR, in the form of a supplemental 2021 DRAM and augmented 2022 DRAM budget, is a valuable and flexible resource option. According to SCE and SDG&E, they are unable to implement substantive changes to their DR programs in 2021 due to upgrades to their respective customer billing systems.³⁹ If this is the case, then procuring additional DR through the DRAM or through bilateral contracts may be the only way for SCE and SDG&E to add any substantive amount of new capacity.

³⁷ Ex. SDGE-3, at p. 5, lines 13-15.

³⁸ OhmConnect Opening Comments on the OIR, at pp. 5-6.

³⁹ Ex. SCE-01, at p. 6, line 16 through p. 17, line 2 and Ex. SDG&E-5, at p. 1, line 30 through p. 2, line 10.

The efforts of PG&E, SCE, SDG&E, and the Public Advocates Office (“PAO”) to litigate the DRAM in this proceeding should be disregarded.⁴⁰ The Commission already has formal and informal processes in place to assess the DRAM and make continual improvements. Similarly, PG&E’s recommendation that a formal evaluation of DRAM is needed before any budget increase can be approved is shortsighted and unsupported because it will only prevent additional capacity from being made available in summer 2021 and 2022.⁴¹

The primary issue of concern in this proceeding should be how to quickly and cost-effectively add new capacity for summer 2021 and 2022 to avoid future blackouts. The DR Coalition has demonstrated that the DRAM can provide approximately 150 MW of incremental capacity to this end and, in observing that a historic high nine IOUs and DRPs have submitted load impact evaluation plans as part of the annual Load Impact Protocol process, it appears that even more third-party DR capacity may be available. SDG&E’s claims that adding additional DR capacity through the DRAM will not increase reliability are unsupported and should be disregarded.⁴² Any additional capacity that can meet or reduce load will, by definition, improve reliability. Similarly, SDG&E’s claim that DRAM resources are “not intended to operate as a tool to address emergency events” is a red herring and poorly defined; the Commission has not set a requirement that resources procured in this proceeding meet this specific requirement.⁴³ In addition, SDG&E is wrong in stating that DRAM resources are not penalized if they do not respond to an emergency event.⁴⁴ Under DRAM rules, any failure by a DRAM resource to dispatch when instructed through the CAISO market, including during an emergency event, impacts their capacity payments and can result in CAISO penalties.

The role of the CAISO’s market is to translate grid conditions into economic signals which determine what resources are dispatched. These economic signals exist regardless of whether there is an “emergency” or not. Furthermore, the Commission should disregard SDG&E’s statement that, citing the scoping memo in this proceeding, parties’ proposed DRAM

⁴⁰ Ex. PG&E-02, at p. 9-2, line 12 through p. 9-5, line 16; Ex. SCE-02, at p. 13 through p. 15, line 12; Ex. SDGE-5, at p. 7, line 13 through p. 9, line 16; Public Advocates Office Opening Testimony – Order Instituting Rulemaking to Establish Policies, Processes, and Rules To Ensure Reliable Electric Service in California In the Event of an Extreme Weather Event in 2021, submitted on January 11, 2021 (“Ex. PAO-01”), at p. 2-2, line 2-1 through p. 2-5, line 2-7, line 2.

⁴¹ Ex. PG&E-02, at p. 9-2, line 14 through p. 9-2 line 18.

⁴² Ex. SDGE-5, at p. 7, lines 5-12.

⁴³ *Id.*, at p. 7, lines 12-14.

⁴⁴ *Id.*, at p. 7, lines 6-7.

changes would not “reduce demand during peak and net peak demand hours.”⁴⁵ The DR Coalition’s proposals with regard to the DRAM are meant to increase the amount of capacity procured through this mechanism. This capacity, when dispatched during peak and net peak demand hours, does and would reduce demand when dispatched during peak and net peak operating hours.

IV. CONCLUSION

The DR Coalition respectfully recommends that the Commission adopt the DR Coalition’s recommended proposals.

Respectfully submitted,

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/s/ GREG WIKLER

GREG WIKLER

On behalf of the DR Coalition (California Efficiency + Demand Management Council, Google LLC, Leapfrog Power, Inc., NRG Energy, Inc., OhmConnect Inc., Oracle, Tesla, Voltus, Inc., and Willdan)
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⁴⁵ Ex. SDGE-5, at p. 7, lines 7-10.