Proceeding: R.20-11-003 (Phase 2)

Exhibit No.: SDGE-8

Witnesses: E Bradford Mantz

Michael McConnell

PREPARED PHASE 2 DIRECT TESTIMONY OF SAN DIEGO GAS & ELECTRIC COMPANY REGARDING DEMAND-SIDE ACTIONS TO REDUCE PEAK AND NET PEAK DEMAND IN 2022 AND 2023



BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

September 1, 2021

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PREPARED PHASE 2 DIRECT TESTIMONY OF SAN DIEGO GAS & ELECTRIC COMPANY REGARDING DEMAND-SIDE ACTIONS TO REDUCE PEAK AND NET PEAK DEMAND IN 2022 AND 2023

I. INTRODUCTION

The purpose of this testimony is to offer San Diego Gas & Electric Company's (SDG&E) proposals to reduce demand during the peak and net peak period in 2022 and 2023, per the Assigned Commissioner's Amended Scoping Memo and Ruling for Phase 2 (Amended Scoping Memo) issued by the California Public Utilities Commission (Commission) on August 10, 2021 and to address topics related to reducing peak and net peak demand in 2022 and 2023 included in the Energy Division Staff Concept Paper Proposals (Staff Paper) attached to the Administrative Law Judge's Ruling Introducing Staff Concepts to the Record and Seeking Responses from Parties in Opening and Reply Testimonies issued on August 16, 2021 (ALJ Ruling).

As discussed below, SDG&E offers proposals to enhance demand response (DR) programs currently within its portfolio. SDG&E notes that it does not propose changes to the Critical Peak Pricing (CPP) rate, which is currently offered *only* to its bundled service customers. Two new Community Choice Aggregators (CCAs) – San Diego Community Power (SDCP) and the Clean Energy Alliance (CEA) – launched in 2021 and SDG&E estimates that roughly 60 percent of SDG&E's current CPP customers will be eligible to elect to receive their power from a CCA when fully transitioned. Accordingly, in developing proposals for DR program enhancements, SDG&E focused on DR programs that are available to *all* customers rather than solely to bundled service customers in order to ensure the widest availability and,

See Schedule CPP-D: http://regarchive.sdge.com/tm2/pdf/ELEC_ELEC-SCHEDS_EECC-CPP-D.pdf. SDG&E notes that it will adjust its event hours in CPP-D to 4 pm to 9 pm per the Commission's direction in Decision (D.) 21-03-056.

correspondingly, the greatest impact in terms of demand reduction. SDG&E discusses below the proposed enhancements to its AC Saver program and its Capacity Bidding Program (CBP), which are open to bundled service customers and CCA customers alike, that are designed to increase participation and achieve further demand reduction.

II. PROPOSED ENHANCEMENT TO AC SAVER PROGRAM (Witness: E Bradford Mantz)

SDG&E's AC Saver program is open to residential and small commercial customers. It incentivizes customers to reduce load through thermostat adjustments – *e.g.*, reducing or shifting load in response to a signal sent to their thermostat (or other notification such as text) by increasing thermostat temperature in times of grid need or cycling air conditioning to conserve energy. SDG&E proposes the following enhancements to its AC Saver program to further reduce demand and improve grid reliability in 2022 and 2023.

A. Expand Eligibility to Include Additional Devices

SDG&E proposes to expand the eligibility criteria for the program to include additional customer owned devices. Currently, program participation requires an approved device that curtails air-conditioning use. SDG&E proposes to expand eligibility to include approved devices that control a behind-the-meter (BTM) end use or clean generator that can be signaled by SDG&E or by the vendor (with appropriate vendor commitments). Such devices could include, for example, batteries, smart plugs, water heater controls, pool pump controls and whole home devices. SDG&E's approval process would take into account the predicted load reduction of the device, the aggregate potential load reduction expected from all the devices in SDG&E's territory, the cost to onboard and signal the device, whether or not the device can accept a signal directly from SDG&E, and the willingness of the vendor to agree to SDG&E's terms and conditions.

If the Commission approves this proposed enhancement, SDG&E would redesignate the program as its the "Smart Energy Program (SEP)" to indicate that it is no longer limited to air conditioning (AC) devices. SDG&E requests that all new, non-AC technologies in the SEP be enrolled in the current Day Ahead product only since the Day Of product has an incentive structure based on AC tonnage that would not apply to other devices. The AC Saver Day Of product currently offered by SDG&E will be limited to SDG&E's load control switch program, which utilizes the older one-way communication load control switches.

B. Add an Enrollment Incentive to Encourage Customer Participation

To increase enrollment in the SEP, SDG&E proposes to add an enrollment incentive for both residential and small commercial customers for thermostats and all other devices (direct load control switches are excluded). The enrollment incentive for new thermostats to the program would be \$50 per device (current limits on the number of devices still apply). The enrollment incentive for any new controls (non-thermostats) would be set at up to \$200³ times the predicted kW average load reduction of the device enrolled.

In SDG&E customer surveys, the proposal to add an enrollment payment to the program increased the number of customers who indicated an interest in joining the program. According to the market research, merely increasing the annual payment from \$20 to \$40 would be less effective.⁴

The program may be branded differently to customers in marketing, etc.

SDG&E may provide a lower incentive in the following circumstances: (i) an incentive less than \$200 if the incentive would exceed the cost of the device; (ii) if program funding is running low; and/or (iii) data show thats a lower incentive would be equally as effective.

Draft results from *AC Saver Day Of Participant Survey* responses collected July 2021 as part of a Demand Response Process Evaluation conducted by Nexant, Inc. on behalf of SDG&E. Final report to be published in Fall 2021.

C. Offer Additional Annual Incentives to Commercial Customers

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To increase retainment of customers, SDG&E expects to see a significant increase in the percentage of commercial customers eligible for the SEP in 2022 and 2023, which creates an opportunity to increase the enrollment of commercial customers in the SEP. The percentage of commercial customers eligible for the SEP increased greatly in 2021. This increase is the likely result of two recent developments. First, load departure in SDG&E's service territory will increase the percentage of commercial customers who are eligible to participate in the SEP. Prior to the launch of two new CCAs in SDG&E's distribution service territory, over 90 percent of commercial customers were enrolled on a rate with events (e.g., CPP), which made them ineligible to participate in the SEP (previously AC Saver). Customers participating in community choice aggregation are not eligible for SDG&E's commodity rates with events because they purchase their energy from a provider other than SDG&E. Prior to the launch of the SDCP, over 90% of commercial customers were enrolled on a rate with events and therefore ineligible for SEP. As of August 1, 2021, 36% of SDG&E's commercial customers have migrated off of SDG&E's rates with events. These customers would be eligible for the SEP. Since rates with events like Critical Peak Pricing (CPP) are not an option for CCA customers at this time, the SEP provides commercial customers participating with a CCA an option to participate in DR and continue to receive incentives. The potential pool of SEP participants will continue to grow with additional load departure.

The second development that may further increase the number of commercial customers eligible for SEP in 2022 and 2023 is a change in the standard pricing plan for new small commercial customers. As approved in SDG&E's General Rate Case (GRC) Phase 2 proceeding, a rate with events will soon no longer be the default rate for new small commercial

customers receiving bundled service.⁵ Thus, the percentage of bundled service commercial customers eligible for SEP will increase once this change is implemented. Due to both community choice aggregation and the change in the standard pricing plan for new small commercial customers, SDG&E expects many more commercial customers to would be eligible for SEP.

To incent these newly-eligible commercial customers to enroll in SEP, SDG&E proposes to offer an enrollment incentive using the same calculation method as is used to calculate residential annual incentives to determine the fixed annual incentive amount. SDG&E proposes to pay commercial customers with devices enrolled in the SEP an annual incentive, as it does now for thermostats in AC Saver. Annual incentives for commercial customers should be determined by multiplying the average expected load reduction (in kW) from the device by \$50.6 SDG&E believes that offering this proposed incentive will encourage the large pool of newly-eligible commercial customers (as well as commercial customers who are already eligible) to participate in the SEP, which could increase the program's available MW for events by an additional 3 MW to 10 MW depending on enrollments.

D. Tariff Revisions and Required Budget for SEP

SDG&E proposes to submit necessary amendments to the current AC Saver tariff (Schedule ACS) to change the name to Schedule SEP and to reflect other changes approved in this proceeding after a final decision is issued by the Commission.

SDG&E estimates that the proposed changes to SEP may result in an additional \$400,000 - \$1,200,000 in incentives and operational costs being paid out depending upon enrollments in

⁵ D.21-07-010, p. 30.

For example, a thermostat predicted kW load drop is .4 kW X \$50 = \$20.00 of an annual incentive.

2022 only. SDG&E proposes to use unspent funds from its current DR budget cycle from AC Saver (DR Budget Category 1) and the Technology Deployment program (DR Budget Category 4) for 2022. Use of unspent funds in the current DR cycle to expand the pool of DR technologies eligible to participate in AC Saver/SEP is consistent with the purpose of these programs and is in the public interest. For 2023 costs, SDG&E requests approval of a budget of \$ 2.9 million for SEP administration, payments and incentives. This includes system changes and information technology work to be done in support of the changes, to issue the incentives, and other back office functions. SDG&E believes these proposed changes will add capacity and delivery load drop in 2022 and 2023.

III. PROPOSED ENHANCEMENT TO CAPACITY BIDDING PROGRAM (Witness: E Bradford Mantz)

SDG&E's Capacity Bidding Program (CBP) is a supply-side DR program that is bid into the markets of the California Independent System Operator (CAISO).⁸ The CBP permits commercial customers to enroll directly with SDG&E or, alternatively, to participate through aggregators. Currently, customers enrolled in the CBP are paid a capacity payment to be available with load drop, as well as an energy payment for actual verified load drop, and the program carries penalties for non-performance. In addition to the CBP for commercial customers, SDG&E has launched a pilot CBP option for residential customers, its CBP Residential Pilot (CBP RES). SDG&E proposes enhancements to both its commercial CBP and its residential CBP pilot designed to achieve increased demand reduction.

⁷ Budgets for SDG&E's Technology Deployment program and AC Saver program were approved for the current DR cycle of 2018 to 2022 in D.17-12-003.

⁸ See Schedule CBP: http://regarchive.sdge.com/tm2/pdf/ELEC ELEC-SCHEDS CBP.pdf

A. Proposed Modifications to Commercial CBP

SDG&E proposes the following modifications to its CBP for commercial customers in order to increase program enrollment and to help support retainment of customers already enrolled in the program.

1. Add Elect Day Of and Day Ahead Products⁹ for 1 p.m – 9 p.m.

SDG&E proposes to add "Elect" products in which a customer or aggregator may offer any one of the following three nomination trigger price options: at \$200/MWh, \$400/MWh, and \$600/MWh. Specifically, SDG&E proposes to add the products defined in Table EBM-1 below to the CBP:

Table EBM-1 Proposed Elect Products for CBP			
DAY AHEAD PRODUCTS	DAY OF PRODUCTS		
CBP – Day Ahead – 1 p.m. to 9 p.m., \$200	CBP – Day Of – 1 p.m. to 9 p.m., \$200		
CBP – Day Ahead – 1 p.m. to 9 p.m., \$400	CBP – Day Of – 1 p.m. to 9 p.m., \$400		
CBP – Day Ahead – 1 p.m. to 9 p.m., \$600	CBP – Day Of – 1 p.m. to 9 p.m., \$600		

For example, if the customer nominated its trigger to be \$200 and that trigger is reached (*i.e.*, the CAISO market price reaches \$200), the customer would be asked to shed the load nominated or else it would pay the penalty. The higher the trigger price, the lower the likelihood of the market reaching that trigger price, thus making it less likely that the customer will be

A DR "product" is the term used to describe a DR offering that has a specific trigger, hours that it can be called, and a specific notification window. Products may differ based on triggering event and/or notification window – e.g., the notification window may be the day before an event ("Day Ahead") or the day of the event ("Day Of"). Each product has specific hours during which events can be triggered. This allows customers to predict the hours of the day that they will be called upon to reduce load. Because Day Of events provide less time to prepare, they are compensated at a higher rate.

called upon to shed load. In this way, the customer can manage how frequently they may be called upon to shed load, which may serve their business needs in a more flexible manner. The intent is to provide more flexibility and choices to customers to participate in CBP at the frequency they can handle. The additional flexibility also allows aggregators in the program to plan their portfolio of existing customers and new customers to make adjustments and strategically align with the new Elect options.

SDG&E analyzed each price trigger proposed above and the number of events that would have been called between June 2020 to September 2020 if SDG&E had these trigger prices of \$200, \$400 or \$600 been in place. Table EBM-2 provides a summary of CBP events that would have been called for each month June through September in 2020.

СВІ	P Events that	t Would Hav	Table EB e Been Trigg		h Price Trigg	er in 2020
	June	July	Aug	Sep	Total	Average
>\$600	0	0	5	0	5	1.25
>\$400	0	0	11	0	11	2.75
>\$200	3	4	20	4	31	7.75

The data shows that CBP events would still be called even if a customer or an aggregator selected the highest trigger price of \$600 in a given month; customers in the least frequently called product (*i.e.*, \$600 trigger price) would have still been called upon to shed load in 2020. The price trigger of \$400 would have an average of two to three CBP events called per month during the same period. With a price trigger of \$200, the maximum number of CBP events of six events per month allowed under the tariff would have been reached.

Under this proposal, aggregators in CBP would be allowed to select a mix of different triger prices of \$200, \$400 or \$600 each month during the standard nomination window. For example, one month an aggregator could nominate one or all their customers at the \$200 market price trigger, then in another month during the nomination window, the aggregator could choose a different price trigger of \$400 or \$600, thus providing aggregators with flexibility to respond to customer availability, feedback provided to the aggregator, etc. By offering the Elect options of CBP products, SDG&E hopes to create more choices for additional new customers, along with greater flexibility, while reducing the number of events for existing customers who might opt out of CBP if they experience 'customer fatigue' or too many events during extreme weather events such as those experienced in California in 2020.¹⁰

It is SDG&E's understanding that Pacific Gas and Electric Company (PG&E) already offers the Elect option for its CBP and that the availability of this option has resulted in increased participation from customers and their aggregators. The set price options offered by PG&E allows the aggregator to select a price of \$200, \$400, or \$600 for the customers they are nominating for the Elect Day-Ahead or Day-Of option; the utility can, in turn, bid that resource into the corresponding CAISO market at those prices. Aggregators have signaled to SDG&E that they support this addition to SDG&E's CBP product mix. Based on informal discussions directly with aggregators, SDG&E forecasts that the addition of the CBP Day Ahead 1 p.m.- 9 p.m. Elect option could bring at least seven MWs of new load shed with at least ten new commercial customers. The CBP Elect products of CBP would continue to be bid into the CAISO markets by SDG&E as a supply side resource.

¹⁰ 'Customer fatigue' is the term used to describe DR customers who are called upon more times than they wish for load shed; it can be too frequently, or over sustained days, or for too many hours.

SDG&E's costs for offering the Elect products in 2022 and 2023 are included in the CBP budget request discussed below.

2. Increase Capacity Incentives for CBP Commercial Customers

SDG&E proposes to increase the capacity incentives for the Elect CBP products. 11
Capacity payments are paid to Aggregators for load shed capacity that is available to the utility when needed, whether or not their customers are called upon to shed load during a CBP event. 12
SDG&E offers this proposal for two reasons. First, SDG&E believes that customers who prefer to be enrolled in an investor-owned utility (IOU) DR program, particularly if they are already enrolled in the old CBP program, would prefer to be in enrolled in the new CBP Elect Program. Secondly, those customers who are participating, through an aggregator also make a 12-month commitment to participate in the program. SDG&E seeks to ensure that the aggregators are encouraged to continue to recruit customers to CBP and to retain those customers. Thus, an increase in the capacity incentive is warranted.

To encourage this, SDG&E proposes that the capacity incentives for the price trigger at the \$200/MWh be the same as the existing 1 p.m.-9 p.m. incentives. SDG&E proposes an additional 5 percent increase for the \$400/MWh trigger and the \$600/MWh trigger respectively. The proposed new incentive structure is detailed in Table EBM-3 below:

SDG&E is proposing to add the Elect products discussed above, as well as to retain its existing products which are CBP Day Ahead 11 am -7,pm and Day Ahead 1 pm – 9 pm, Day Of 11 am -7 pm and Day Of 1pm – 9 pm.

Energy payments are paid for actual energy provided.

Table EBM-3 Proposed CBP Elect Capacity Incentives, By Product and By Trigger Price Triggers (in US Dollars per kW per month)

Product/Trigger	May	Jun	Jul	Aug	Sep	Oct	Total
Day Ahead 1 p.m9 p.m.,	3.78	10.07	21.84	27.00	17.88	5.41	85.98
\$200							
Day Ahead 1 p.m9 p.m.,	3.60	9.59	20.80	25.71	17.03	5.16	81.89
\$400							
Day Ahead 1 p.m9p.m.,	3.43	9.13	19.81	24.49	16.22	4.91	77.99
\$600							
Day Of 1 p.m9 p.m., \$200	4.27	11.36	24.64	30.46	20.18	6.11	97.01
Day Of 1 p.m9 p.m., \$400	4.06	10.82	23.47	29.01	19.22	5.82	92.39
Day Of 1 p.m9 p.m., \$600	3.87	10.30	22.35	27.63	18.30	5.54	87.99

3. Update the CBP Tariff Incentives, Energy Payments and Non-Performance Penalties

In addition to increasing the capacity payments for the Elect options, as described above, SDG&E believes that the Commission can act to make the CBP more attractive to customers in order to increase participation and reduce potential attrition. To that end, SDG&E proposes several changes to the CPB tariff incentives, which are described below and are reflected in Table EBM-4.

Table EBM-4 CBP Tariff Changes Capacity Payment Conditions and Calculations				
Performance Levels	Adjusted Event Capacity Payment Amount			
If load drop is more than 100% of the nominated load reduction	Payment is equal to 120 % of unadjusted Event capacity payment account for such product			
If load drop is 30%- 100% of percent of nominated load reduction	Payment calculated by prorating between 30 and 100 percent of unadjusted event capacity payment amount for such product			
If load drop <30 percent of nominated load reduction	No payment is made. The capacity penalty is also removed.			

These proposed CPB tariff changes are intended to incentivize more load drop without penalizing customers to the degree that CBP has done in the past (*i.e.*, more carrot, less stick), making more of a "pay for performance" program with a capacity payment. SDG&E proposes to remove the capacity penalty for non-performance; however, the energy payment penalty for CBP would remain in effect to ensure that customers continue to have some investment or 'skin in the game' and act to drop load when called upon to do so during critical events. SDG&E believes that there is value to testing this approach and comparing results with the those produced by the Emergency Load Reduction Pilot (ELRP) and the California State Energy Program (CSEP), both of which impose no penalties at all.

4. Tariff Revisions and Required Budget to Support Proposed Modifications to Commercial CBP

SDG&E proposes to submit necessary amendments to the tariff for CBP commercial to reflect changes approved in this proceeding after a final decision is issued by the Commission.

SDG&E requests authorization to spend up to \$1.6 million for administration and incentives in 2023. SDG&E proposes to utilize unspent funds in its 2018- 2022 DR CBP budget for 2022.

B. Proposal to Extend the Residential CBP Pilot

SDG&E's CBP Residential customer pilot (CBP RES) was approved in D.21-03-056 and launched in 2021. SDG&E proposes to extend the pilot to test residential customers' participation, assess load drop potential and support electric reliability.

SDG&E proposes to continue to offer CBP RES in 2022 in the pilot design as currently approved. SDG&E is in the process of launching the pilot for load shed this year and, as such, does not have extensive experience yet with the pilot design as approved. SDG&E proposes no changes to the CBP RES tariff at this time, but will utilize the advice letter process to propose updates to the pilot as needed this year and next. SDG&E will seek to continually improve the pilot as appropriate, in particular, as more is known about how to increase residential customer participation and load shed. The current approved budget of \$708,000 will cover the CBP RES costs for 2022. SDG&E will include a funding request for 2023 costs in its DR application to be filed for years 2023-2027.

IV. MARKETING, EDUCATION AND OUTREACH EFFORTS TO SUPPORT PROPOSALS DESIGNED TO ENHANCE CURRENT DR PROGRAMS (Witness: E Bradford Mantz)

In support of the proposed changes for SEP (formerly AC Saver) and CBP outlined above, the ELRP as outlined below, and upon Commission approval, SDG&E plans to adjust its Marketing, Education and Outreach (ME&O) activities in 2022 and 2023 as follows.

¹³ D 21-03-056 approved the pilot which was originally proposed in SDG&E's Mid-Cycle Review Advice Letter 3522-E, which described how the \$708,000 would be spent.

A. Smart Energy Program

Utilizing a multi-channel approach, ME&O activities for SEP will include updating collateral to reflect the new customer-facing program name (formerly AC Saver), promotion of new eligible technologies beyond air conditioning, enrollment incentives for residential and small businesses, and promotion of the annual incentive for business customers. Utilizing various tactics to reach the target audience, SDG&E plans to reach its customers through various channels such as email/direct mail, digital marketing (*e.g.*, digital banner ads, Linked InMail, etc.), and social media.

B. Capacity Bidding Program (Commercial and Residential)

Upon Commission approval of the changes proposed herein related to the commercial CBP and residential CBP pilot, SDG&E will update its website and collateral to reflect approved program changes. While ME&O activities for CBP are primarily driven by third-party aggregators, SDG&E believes it can further drive enrollment by increasing ME&O activities in 2022 and 2023. SDG&E proposes targeted communications including a mix of email and/or direct mail, digital marketing (e.g., LinkedIn InMail), and leverage trade professional outreach and SDG&E's outreach team.

C. Emergency Load Reduction Pilot

The Staff Paper includes a discussion of expanding ELRP eligibility to include residential customers (SDG&E provides its response to this discussion in Section V. below). Currently, the ME&O activity for ELRP consists primarily of direct customer contact by SDG&E's account executives. If ELRP eligibility is expanded to include residential customers as discussed in the Staff Paper, in addition to updating the current website and collateral to support SDG&E's account executives, marketing efforts would need to be expanded to reach the newly-eligible residential customers. In addition to general awareness, marketing efforts aimed at residential

customers would include development a website, collateral (e.g., fact sheet, talking points), an educational video, digital marketing (e.g. digital banners, LinkedIn InMail), social media and leveraging of SDG&E's outreach team.

D. Required ME&O Budget

To execute the incremental ME&O activities outlined above for SEP, CBP and ELRP, SDG&E requests authorization of additional funds to the authorized 2022 budget and new 2023 budget, as set forth in Table EBM-5.

Proposed	TABLE EBM-5 Incremental Marketin	ng Budget
	2022	2023
SEP	\$94,065	\$188,778
СВР	N/A	\$51,000
ELRP	\$50,000	\$125,000

SDG&E notes that the ELRP incremental budget requested above is requested only if the Commission adopts changes to the ELRP in this Phase 2 of the instant proceeding. If those changes are not adopted, then SDG&E would not need these additional funds and would use already approved funds to support ELRP ME&O activities.

All DR program proposals described in this testimony relate to existing DR programs within SDG&E's DR portfolio. Accordingly, SDG&E proposes to recover the additional funding requested herein in a manner consistent with its existing DR programs. Specifically, costs related to the CBP and SEP (formerly AC Saver) should be tracked in the Advanced Metering and Demand Response Memorandum Account (AMDRMA) and recovered annually in distribution rates through the Rewards and Penalties Balancing Account (RPBA). Incremental

costs related to the ELRP (if any) should tracked through the ELRP balancing account,

ELRPBA, and recovered in distribution rates.

V. COMMENTS ON STAFF PAPER

In the Staff Paper, the Energy Division set forth program and policy concepts that could be considered by the Commission to address Summer 2022 and 2023 reliability need at net peak.¹⁴ These comments address the topics discussed in Section A of the Staff Paper (Demand Response) and Section B (Smart Thermostats). The numbering below reflects the numbering included in Sections A and B of the Staff Paper.

A. Demand Reduction Proposals (Witness: E Bradford Mantz)

1. <u>Emergency Load Reduction Program (ELRP) Modifications</u>

a. Increase Compensation Rates: to increase participation the ELRP program overall, the staff proposes to increase incentives to \$2/kWh for Group A.1 non-residential customers and Group A.2 BIP aggregators. However, at the higher compensation rates commitment of load reduction should be more certain, thus the increased compensation values should be limited to customers who commit to providing a certain load reduction performance level.

SDG&E Response: SDG&E does not object to this proposed modification. It notes, however, that the California State Energy Program (CSEP) that resulted from the Governor's July 30 Emergency Proclamation also requires payment to customers of \$2/kWh. Since the incentive amount for both of these programs is significantly higher than what SDG&E's existing DR programs offer customers for load shed, there is a concern that customers will come to expect higher levels of incentive payments, which could have negative implications in terms of continuing viability, competitiveness and cost-effectiveness of IOU DR programs. It is important that cost-effectiveness continue to be a consideration in the contect of DR and that the

Staff Paper, p. 5.

Commission consider, for example, whether if the ELRP is to become a permanent program, will it be required to be cost effective at the \$2/kWh incentive rate?

b. ELRP Group A Enhancements: In order to increase total customer participation staff proposes reducing the A.1 customer minimum size thresholds. This compensation collar may be overly complicated for customers and the CPUC could consider removing the compensation collar to simplify customer enrollment process and encourage additional enrollment.

SDG&E Response: SDG&E understands the intent behind lowering the A.1 customer minimum size thresholds. SDG&E currently has a 100 kWh minimum load drop for the ELRP Sub Groups A.1 due to systems limitations, but is open to lowering the minimum load drop to 50 kWh for all Small and Medium sized businesses to allow them to participate in the ELRP.

- c. ELRP Group B Enhancements: Staff offers selected change concepts specific to Group B customers:
 - i. Add Day-Of (DO) trigger in response to CAISO Warning or Emergency declaration (in addition to the Day Ahead trigger already existent).
 - ii. To be eligible to participate in ELRP, proxy demand resource providers (PDRs) participating in CAISO real time market (RTM) must bid at or below \$900/MWh. This is to maintain some consistency with reliability-based Base Interruptible Program (BIP) resource which is triggered at RTM price reaching \$950/MWh.

SDG&E Response: SDG&E supports the addition of of a DO trigger for Group B customers. SDG&E also supports requiring a minimum bid for ELRP's PDRs as described. While these changes would not require major administrative changes, they would require additional administrative oversight and costs to verify and process additional invoices. Also the ME&O budget for ELRP would need to be increased to facilitate customer notification of the changes. If adopted by the Commission, SDG&E would need a path to request additional funding if its current ELRP funding is depleted.

1 d. **Expand Eligibility to Include Residential Customers:** 2 i. All residential customers would be automatically enrolled in ELRP 3 (except customers currently enrolled in supply-side DR programs). 4 There would be no required sign-up or acknowledgment process. 5 ii. The triggering requirements for these residential customers would be the CAISO calling a Flex Alert or Grid Alert in the day-ahead. 6 7 iii. The Flex Alert marketing would be modified to promote ELRP event 8 and to utilize all available channels to reach and notify customers 9 about the imminent event and the opportunity to reduce consumption 10 and receive payment or bill credit. 11 iv. The payments for load reduction would be based on meter verified incremental load reduction (ILR) relative to a "simple" baseline to be 12 13 established by the IOUs. 14 Program would be administered through the IOUs. v. **IOUs** and third-party DR Providers would still be permitted to target 15 vi. Residential ELRP customers to enroll them into their respective 16 supply-side DR program, in which case the customer is removed from 17 ELRP. 18 19 **SDG&E Response:** SDG&E supports the objective of enrolling as many customers as 20 possible in the ELRP. It believes that this goal can be accomplished with some key 21 modifications designed to ensure a more positive customer experience and avoid running afoul 22 of consumer protection laws. SDG&E addressed aspects of this concept in its reply testimony 23 submitted in the instant proceeding responding to the supplemental testimony of the California 24 Environmental Justice Alliance ("CEJA") regarding its proposed Just Flex Rewards ("JFR") DR 25 program (Exh. SDGE-6). SDG&E incorporates by reference and reiterates that testimony here. 26 SDG&E strongly believes that customers should be allowed to "opt in" to the program 27 rather than being defaulted or automatically enrolled. Among the potential problems with the 28 automatic enrollment approach is the concern that statutory limitations established by the

Telecommunications Consumer Protections Act (TCPA) may prevent an IOU from proactively

texting customers who do not first "opt in" to receive those communications. ¹⁵ Absent express opt-in by customers, SDG&E's communication would be limited to public messaging, such as social media and other public mass communications channels, or email for those customers who have provided an email address.

In addition, customers must be able to "opt out" at any time and disenroll should they not wish to participate after enrolling, or not wish to receive email or text messaging. From a customer service perspective, SDG&E believes that customers must have the ability to exercise their own prerogative and make choices regarding the programs they participate in and what messaging they receive. This is especially true in instances where customers incur charges from their telecommunications carrier, for example text messaging charges.

SDG&E submits further that while using the Flex Alert as the primary means of notifying residential customers that they are being asked to shed load will help to achieve maximum effectiveness, it is important to also send conservation messaging to customers. This 1-2 combination will encourage customers to participate and provide the highest possible kWh (aggregated MW) load shed during events.

Launching such a separate additional program would require significant customer education and outreach, as well as system changes to maintain a very fluid database of eligible customers who do not participate in other supply side programs, or who have opted out of receiving such messaging, and who have chosen their preferred channel for messaging, thereby giving SDG&E permission to contact them. SDG&E would need to request an incremental budget to accomplish this, and the procedural schedule for Phase 2 established in the Amended Scoping Memo did not provide adequate time for SDG&E to prepare such cost estimates.

¹⁵ See Exh. SDGE-6, pp. 8-9.

Accordingly, SDG&E requests that any Commission decision establishing new ELRP requirements permit SDG&E to file a Tier 2 advice letter within 30 days of issuance of the final decision advising the Commission of the associated costs and that it approve the submitted budgets as expeditiously as possible.

In considering this proposal, the Commission should take into account lessons learned regarding default programs and free ridership. In 2021, SDG&E defaulted all of its resdential customers to the Peak Time Rebate (PTR) program, which was similar to ELRP. PTR paid \$0.75 per kWh for load reduction determined by comparing a customer's actual enery use to a baseline, but there were signficant issues with free-ridership and the program was quickly changed from default to opt-in by D.13-07-003, 16 which observed:

Upon review of 2012 ex-post PTR load impact data, Staff concludes that, in the case of both [Southern California Edison Company (SCE)] and SDG&E, customers who actively opted to receive event alerts significantly decreased their load during events while those who were defaulted to receive email event notifications provided an insignificant load impact. SDG&E's customers not receiving any event alerts also provided an insignificant load impact.¹⁷

Furthermore, Staff claims that in the case of SCE, 95 percent of all incentives were paid to customers who either were not expected to or did not reduce load significantly. Similarly, in the case of SDG&E 94 percent of PTR incentives were paid to customers who did not choose to receive notification of event alerts. Staff contends that this is a case of free ridership, where customers receive incentives without significantly reducing load.¹⁸

SDG&E notes further that it already has a similar DR program that could provide a vehicle for mass DR enrollment, which the Commission should consider as a more palatable

¹⁶ D.13-07-003, Ordering Paragraph (OP) 7.

¹⁷ *Id.*,p. 24.

¹⁸ *Id.*, p. 25.

alternative. This year, SDG&E's energy efficiency (EE) behavioral program, in conjunction with the DR team, launched a Behavioral Demand Response program called "Peak Day." The Peak Day program includes SDG&E's existing Home Energy Report (HER) customers. DR events in this program run during the summer months between the hours of 4 p.m. and 9 p.m. to encourage customers to conserve energy. Participating customers are notified via email or an automated message phone call when a Peak Day event is approaching. These notifications provide customers with tips and recommendations on how to conserve energy. Customers will also receive a follow up notification to inform them of the energy savings results.

The objective of the program is to reduce territory-wide peak load, demonstrate high levels of engagement with personalized energy insights, increase customer satisfaction, and to potentially grow the current program. The Peak Day program has auto-enrolled approximately 525,000 of our current 750,000 HER customers. The program plans to call up to five (5) demand response events over the summer months, June through October, and will conclude at the end of 2022 to test results. SDG&E submits that greater reliance on this program is preferable to defaulting customers to participation in ELRP. To the extent the Commission expands eligibility for the ELRP program, participation should be on an opt-in basis.

- e. Electric Vehicle/Vehicle to Grid Integration (EV/VGI) Aggregation ELRP Pilot:
 - i. Allow aggregators to utilize networks of V1G or bi-directionally capable charging stations (EVSEs) to be eligible to participate in ELRP, providing the aggregation can contribute incremental load

Customers receive a mailed report that shows them how much energy they are using, how they compare to their neighbors, and tips for what they can do to lower their usage.

For example, energy savings tips may include turning up the temperature on their thermostat a few degrees or delaying the use of large appliances (no devices or appliances are controlled through these events).

1 reduction (ILR) exceeding the Minimum VGI Aggregation Size 2 Threshold of 25 kW within an IOU service territory. 3 ii. The IOUs shall dispatch the VGI aggregators for at least 30 hours per 4 season including ELRP events and compensate the aggregators for the 5 ILR delivered during the dispatched hours. 6 iii. In case the EVSE is located on different meter (stand-alone EVSE) 7 from the related host site meter (for example, Multi-Unit Dwellings), 8 the aggregator is permitted to virtually aggregate the stand-alone 9 EVSE meter(s) with the host site load on the different meter to 10 partially bypass the V2G export restriction on the standalone EVSE 11 meter(s). The virtual load aggregation of all stand-alone EVSEs and 12 the related host site must not be negative at any time, even when the host site is participating in an event called by another DR program. 13 V2G discharge is prohibited outside of the IOU dispatched hours. iv. 14 15 The ILR settlement shall be based on the measurements at the EVSE meter, or EVSE sub-meter if the EVSE is taking service through the 16 host site meter 17 18 The ILR settlement shall be based on the measurements at the EVSE iv. 19 meter, or EVSE sub-meter if the EVSE is taking service through the host site meter. 20 21 **SDG&E Response:** The concept of adding EVs and VGI to the ELRP appears to make sense, although the details would need to be worked out. The Commission could amend the 22 23 ELRP subgroup definitions to allow EVs to participate in the ELRP as part of Subgroup A.4 24 VPP. However, more analysis is required to determine what the appropriate compensation 25 model would be for EV participation in ELRP. 26 Given the current lack of routine Rule 21 interconnections for mobile inverters, there may 27 be few aggregators capable of contributing substantial incremental load reduction (ILR) at this 28 time. However, the Commission should not adopt a requirement that the IOUs dispatch at least

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pricing (CPP) events were called that year.

30 hours of events per year since conditions may not warrant this. For example, had the ELRP

program existed in 2019, SDG&E would have likely had zero ELRP events as zero critical peak

SDG&E supports allowing bi-directionally capable charging stations (EVSEs) to be eligible to participate in ELRP as long as they have Rule 21 interconnection permits and the EVSE network provider can control the charging stations directly to dispatch events. SDG&E will also consider easing the eligibility requirement for Subgroup A.4 to allow EV Aggregators to participate in ELRP.

Aggregation where the EV charging meter is separate from the related host site meter and permitting virtual aggregation from the stand-alone EV meter with the host site load to partially bypass the V2G restriction is generally possible but substantially more complex than indicated. This brief proposal does not capture the overall complexity of billing relationships across multiple meters, and this will need to be thoroughly explored if it is included in a final decision. Complex billing arrangements across multiple meters will require incremental funding to implement, and SDG&E would require additional time to explore the associated cost.

ILR settlement should be based on the SDG&E-owned facility meter, could consider the EVSE meter or submeter if feasible. The customer typically owns the EVSE, which may not be capable of providing revenue-grade billing data.

2. <u>DR Auction Mechanism (DRAM) Modifications</u>

a. Additional DR Auctions for 2022: Energy Division staff proposes expanding DRAM capacity for 2022 by adding a partial year supplementary auction (for DR capacity to be delivered June – December 2022) to attempt to add additional MWs. Additionally, the CPUC could consider expanding the budget for 2023 DRAM for which the auction is expected to occur in 2022 (but likely before the 2023 DRAM budget as a policy issue is revisited here or in other proceedings).

SDG&E Response: SDG&E objects to additional DR auctions or expanded funding above current levels until the DRAM itself is fully evaluated by the Commission and its future state is decided. SDG&E submits that the public interest is not served by a requirement to procure DR through the DRAM at prices, and up to its budget cap, that may not be competitive

with other resources. Second, without the full evaluation of the DRAM yet publicly available, it is difficult to know the extent to which DRAM resources are able to provide reliable capacity when it is needed. The IOUs should not have to run additional solicitations with mandated procurement targets (the IOU is required to spend all of its budget) when resources may not be reliable and customers have additional options with a pure pay for performance design where performance is verified.

SDG&E does not believe that an additional DRAM auction will add significant capacity and the minimal value potentially derived from an additional DRAM auction is not justified when compared to time and resources required to run a separate solicitation in a condensed timeframe, including to procure an independent evaluator, rank and evaluate the bids, issue additional contracts, administer those contracts, and provide settlement with invoicing. Further, based on SDG&E's experience with the DRAM, SDG&E sees less capacity being offered, by fewer bidders, with performance that has not increased. For example, in the 2016 DRAM RFO, SDG&E received bids from eight demand response providers (DRPs) and awarded contracts to five. In the 2017 DRAM RFO, SDG&E received bids from eleven DRPs and awarded contracts to five. But in the 2018-2019 DRAM RFO, SDG&E received bids from only five DRPs and awarded contracts to all five in order to use its entire budget. In that RFO, one DRP did not demonstrate *any* capacity during the two-year contract period and another DRP only demonstrated capacity during the first year.

In the 2019 DRAM RFO, SDG&E received bids from six DRPs and awarded contracts to three. In the 2020 DRAM RFO, SDG&E received bids from seven DRPs and awarded contracts to five. In the 2021 DRAM RFO, SDG&E only received bids from three DRPs and awarded contracts to all three. For 2020, based on the August 2020 DRAM invoices received, it appears

that DRPs are greatly underperforming compared to the capacity at which they were contracted for. For August 2020, DRPs' Demonstrated Capacity is in the range of 45 to 90 percent of their Contracted Capacity; in other words, some DRPs are regularly offering *less than half* of what they contracted for. Similarly, for June and July 2020, DRPs' Demonstrated Capacity ranged as low as 51 percent (with some showing 100 percent) of their Contracted Capacity. Also, with the declining numbers of DRPs bidding into SDG&E's DRAMs, the likelihood of new market entrants stepping up for 2022 or 2023 seems minimal. SDG&E has had no new market entrants in the auctions since the 2020 RFO.

While results from the 2021 Summer are not entirely known yet, and the August 2021 invoices from DRAM sellers have not yet been received by SDG&E, the DRAM pilot has now been in place for long enough – seven years – to assess its usefulness as a load reduction tool. SDG&E submits that the DRAM's limited effectiveness militates against its continuation; for all the above reasons above, the Commission should not require that another DRAM auction be undertaken.

b. Additional Requirements for Future Auctions:

i. Offered capacity that is only able to participate in the CAISO DayAhead Market (DAM) would be assigned a lower value in the bid evaluation process than offered capacity that is able to participate in the CAISO Real Time Market (RTM), unless the Demand Response Provider (DRP) commits to bidding the offered capacity at or lower than \$500/MWh in the DAM at all times.

SDG&E Response: SDG&E understands the intent behind this proposal, but cautions that it would be infeasible to implement. How would an IOU verify that the DRP's capacity is only able to participate in the Day Ahead market, for example? Similarly, SDG&E does not see how it could enforce a commitment from a DRP regarding how they bid – the IOUs are not privy to CAISO bids from DRPs and have no insight into that activity. As a market participant itself,

1	SDG&E's awareness of how a DRP was bidding or was limited to bid into the market could run
2	afoul of antitrust laws. SDG&E agrees that there may need to be minimums to DRP bidding to
3	ensure dispatch, but it does not believe that the IOUs can or should play a role in enforcing those
4	minimums. It is possible that the Commission could consider requiring a certain number of
5	dispatches by DRPs each DR season or DRAM contracting term.
6 7 8 9 10	ii. Proxy Demand Resources (PDRs) participating in CAISO Real-Time Market (RTM) must bid at or below \$900/MWh to maintain some consistency with the triggering price for the reliability-based demand response programs, including the Base Interruptible Program (BIP), which are triggered at RTM price reaching \$950/MWh.
11	SDG&E Response: SDG&E has the same concerns with this proposal as discussed
12	above. Namely, that SDG&E is not in a position to enforce these requirements.
13 14 15 16 17 18	iii. Once a PDR Resource Identification (ID) is introduced on a supply plan, it must be maintained on the supply plan until it is removed; the PDR cannot be reintroduced into the supply plan during the remaining months of the contract. This requirement is in addition to the existing prohibitions on the customer and Resource ID movement within and across the contract.
19	SDG&E Response: SDG&E supports this requirement as reasonable and enforceable,
20	but notes that further detail regarding this proposal may need to be worked out.
21 22 23	iv. A shortfall in the DR capacity shown on the monthly supply plan relative to the contracted capacity is subject to a penalty based on the level of the capacity shortfall.
24	SDG&E Response: SDG&E supports this requirement, although further development of
25	deails is required. SDG&E agress that having a firmer, more reliable product is desirable.
26 27 28 29	v. Capacity awarded in the 2022 supplementary auction and the 2023 DRAM should be counted toward the Qualifying Capacity limit established for 2022 and 2023 through the 2021 and 2022 Load Impact Protocol (LIP) processes.
30	SDG&E Response: SDG&E agrees with this proposal, but submits that DRAM should
31	not be exempted from the load impact protocols (LIPs).

Third Party Demand Response Procured by Non-IOU Load Serving
Entities (LSEs): Proposal to require all third-party DR resources
contracted with CCAs to adhere to certain DRAM requirements, such
as those related to market bid price caps, capacity counting and
showing (including customer and Resource ID movement), and
minimum dispatch activity, starting in 2022.

SDG&E Response: CCAs relying on DRAM resources for Resource Adequacy (RA) would presumably be in the same position as the IOUs – i.e., they do not yet have a full evaluation of DRAM performance that can confirm that there is reliable load shed associated with these contracts. SDG&E does not offer a position at this time regarding whether CCAs should run DR auctions now or how they may need to differ or remain consistent with the DRAMs of the IOUs, beyond noting that the DRAM itself has not been proven to be effective.

4. Agricultural Pumping Proposal

SDG&E Response: SDG&E does not offer a position in this proposal at this time.

- B. Smart Thermostat Staff Proposals (Witness: Michael McConnell)
 - 1. SCT Related Modifications to Energy Efficiency Programs
- a. Targeting hot climate zones.

SDG&E Response: As referenced in the Staff Proposal, the climate zones that are categorized as "inland" & "desert" (Climate Zones 8-15) have the most cooling degree days per year and therefore offer the most energy savings potential per thermostat. These markets should be the focus of any expanded or new SCT program, however, due to the lower populations they also offer limited potential of target customers. As shown in the 2019 Smart Thermostat Evaluation, 0 percent of SDG&E's thermostat program participants were located in the Desert region and only 35 percent were located in the Inland region. The majority (65 percent) of SCT participants in SDG&E's territory have been from the densely populated "coastal / mild" climate zones (1-7, &16), which do not offer as much energy savings per thermostat but would still

contribute to overall load reduction if SCTs were used in a demand response program.²¹ If incremental SCT programs are subjected to EE cost effectiveness requirements then targeting the inland and desert climate zones, which offer more energy savings per unit is the appropriate approach. However, if cost effectiveness requirements are eased for SCTs and DR is a primary objective, then the population-dense coastal climate zones in SDG&E's territory should be considered.

b. Require enrollment in a demand response program with any smart thermostat incentive.

SDG&E Response: As described in SDG&E's response to 1c & 1d, SCTs do not usually meet the cost effectiveness and savings requirements of an EE resource program, so the continued use of this measure would depend on how savings from demand response could be captured. SDG&E recommends that the co-benefits of an IDSM approach to the deployment of SCTs is important and development should be accelerated to address this persistent concern of cost-effectiveness. Requiring enrollment in a demand response program without first addressing the cost effectiveness and savings claims issues, will most likely not lead to a significant increase in SCTs deployed. Again, SDG&E supports this being piloted to see how it can improve the IOUs' offerings and accurately reflect value to ratepayers.

c. Consider either a new statewide program to encompass these changes, or direct the IOUs and other EE program administrators to, at a minimum, maintain the budgets for their current programs.

SDG&E Response: SDG&E agrees that EE programs, specifically those operated by a statewide third-party program implementer are a valuable avenue to deploy smart controllable thermostats. However, as acknowledged in the Staff Paper, the recent trends within EE

http://calmac.org/publications/CPUC_Group_A_Residential_PY2019_SCT_Final_Report_CALMAC.pdf, p.62.

programs have shown that SCTs are not particularly effective at delivering the energy savings or cost effectiveness requirements of the EE proceeding and therefore program offerings are reduced or de-scoped in some cases.

The current relatively low rate of engagement amongst customers with an SCT indicates that the products have the potential to deliver greater energy savings and load reduction than they are currently delivering. For this reason, SDG&E would potentially support a new or expanded program to deliver SCTs that not only focuses on a delivery mechanism for the program but also a focused education effort on the benefits of the SCT in combination with either Time-of-Use rates, participating in appropriate demand response programs and voluntary actions to respond to Flex Alerts. Because of the current EE requirements of cost effectiveness, SDG&E looks forward to proposals that would accelerate the development and identification of co-benefits that can be incorporated in an appropriate cost effectiveness model that would better reflect the benefits from SCTs.

Should this program be considered a component of the EE portfolios and funded through EE and Integrated Demand Side Management (IDSM) DR, SDG&E recommends that the program be classified at this time as a "market support" program per the new segmentation adopted by the Commission in D.21-05-031. ^{22, 23} Classifying the program as market support would allow the implementer to focus on educating customers to better contribute to reliability efforts while increasing energy savings and demand reduction opportunities. SDG&E does not support a requirement to maintain the current budgets for SCTs while the programs that offer

[&]quot;Market Support Programs have the primary objective of supporting the long-term success of the energy efficiency market by educating customers, training contractors, building partnerships, or moving beneficial technologies towards greater cost-effectiveness." D.21-05-031, p. 14.

Id., Finding of Fact (FOF) 5.

them are subject to cost effectiveness requirements as this would greatly restrict Third-Party program implementer's ability to deliver on their contractual obligations. Any mandated SCT funding should be incremental to the "resource" segment of the EE portfolio.

In response to the request in the Staff Paper for recommendations on the most effective delivery channel for SCTs, SDG&E recommends a statewide upstream/midstream program design for the streamlined coordination that this type of program delivers, in coordination with higher level of customer engagement and enrollment in demand response programs that Rebate programs deliver when compared to Direct-Install, as shown in the 2019 Impact Evaluation. This would require strong coordination between the upstream/midstream approach to acquiring SCTs and the local utility to facilitate customer enrollment in the appropriate demand response program. To be fully successful in terms of addressing reliability needs would require this well-rounded coordination approach to increasing customer participation.

d. Utilize Combine EE-DR Cost Effectiveness Tests to increase the Cost Effectiveness of Smart thermostats for Energy Efficiency Programs.

SDG&E Response: SDG&E supports deploying this effort as a pilot to test how EE and DR cost effectiveness interact as they may actually support each other or impact each other in ways not yet contemplated. SDG&E agrees that combining EE and DR benefits may increase cost effectiveness. However, SDG&E is also aware that its own DR programs can have low cost effectiveness and would support how testing this would impact a combined IDSM cost effectiveness measurement. It may be possible that adding DR benefits/costs may lower the overall EE/DR cost effectiveness. Alternatively, if efficiencies can be gained, or if administration costs can somehow be lowered, and counting DR benefits, then there could be some interesting findings that would help inform this area going forward. With these considerations in mind, SDG&E recommends that the co-benefits of an IDSM approach to the

1	deploy	ment of	SCTs is important and development should be accelerated to address this
2	persist	ent con	cern of cost-effectiveness. Again, SDG&E supports this being piloted to see how it
3	can im	prove t	ne IOUs' offerings and accurately reflect value to ratepayers.
4			2. SCT Modifications to Energy Savings Assistance (ESA) Programs
5 6		a.	Continue to allow smart thermostats in all climate zones with potential voluntary participation in the DR program
7		SDG8	E Response: SDG&E does not object to this proposal.
8 9 10		b.	For hotter climate zones that currently allow central Air Conditioning (AC) measures (and potentially paired with insulation measures) as well as smart thermostats, include voluntary participation in the DR program.
11		SDG8	E's Response: SDG&E supports this change. SDG&E suggests that increased
12	educat	ion and	marketing could be undertaken to examine where potential greater savings could
13	be ach	ieved.	
14	VI.	CONC	CLUSION
15		This c	oncludes SDG&E's prepared direct testimony.

1	E BRADFORD MANTZ – STATEMENT OF QUALIFICATIONS
2	My name is E Bradford Mantz. My business address is 8335 Century Park Court, San
3	Diego, California 92123. I am employed by SDG&E as the Demand Response and
4	Segmentation Manager for Customer Programs. My responsibilities include the design,
5	implementation and management of demand response programs for SDG&E. I have been
6	employed by SDG&E since 2010.
7	I graduated from University of Texas, Austin with a Bachelor's of Arts in Business
8	Administration with emphasis in Marketing and Petroleum Land Management and a minor in
9	Geology.

I have testified previously before the California Public Utilities Commission.

MICHAEL MCCONNELL – STATEMENT OF QUALIFICATIONS

My name is Michael McConnell. My business address is 8315 Century Park Court, San Diego, CA 92123. My current title is Customer Programs Policy & Support Supervisor. My responsibilities include supervising the regulatory compliance of sustainability related programs including energy efficiency. I have been employed by SDG&E since 2017.

I graduated from The University of South Carolina with a Bachelors of Science in Business Administration, as well as from American University with a Masters of Arts in Environmental Policy.

I have not previously testified before the California Public Utilities Commission.

VERIFICATION

In accordance with Rules 1.11 and 13.7 of the Rules of Practice and Procedure of the California Public Utilities Commission, I hereby declare under penalty of perjury that factual statements in my testimony are true and correct of my own knowledge, except as to matters that are stated on information or belief, and as to those matters I believe them to be true. Insofar as statements in my testimony are in the nature of opinion or judgment, such statements represent my best professional judgment. I adopt this testimony as my sworn testimony in this proceeding.

Executed this 1st day of September, 2021, at San Diego, California

/s/ E Bradford Mantz

E Bradford Mantz SDG&E Customer Programs

Demand Response and Segmentation Manager

VERIFICATION

In accordance with Rules 1.11 and 13.7 of the Rules of Practice and Procedure of the California Public Utilities Commission, I hereby declare under penalty of perjury that factual statements in my testimony are true and correct of my own knowledge, except as to matters that are stated on information or belief, and as to those matters I believe them to be true. Insofar as statements in my testimony are in the nature of opinion or judgment, such statements represent my best professional judgment. I adopt this testimony as my sworn testimony in this proceeding.

Executed this 1st day of September, 2021, at San Diego, California

/s/ Michael McConnell

Michael McConnell SDG&E Customer Programs

Policy & Support Supervisor