

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



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Order Instituting Rulemaking to Consider
Distributed Energy Resource Program Cost-
Effectiveness Issues, Data Access and Use, and
Equipment Performance Standards

Rulemaking 22-11-013

**SAN DIEGO GAS & ELECTRIC COMPANY'S (U 902 E) OPENING COMMENTS
ON ORDER INSTITUTING RULEMAKING TO CONSIDER DISTRIBUTED
ENERGY RESOURCE PROGRAM COST-EFFECTIVENESS ISSUES, DATA USE
AND ACCESS, AND EQUIPMENT PERFORMANCE STANDARDS**

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Pursuant to Ordering Paragraphs 5 and 7¹ of the California Public Utilities Commission’s (Commission or CPUC) *Order Instituting Rulemaking to Consider Distributed Energy Resource Program Cost-Effectiveness Issues, Data Use and Access, and Equipment Performance Standards*, issued in this proceeding on November 23, 2022 (OIR), San Diego Gas & Electric Company (SDG&E) submits the comments below.

I. INTRODUCTION AND SUMMARY

The over-arching goal is to find the lowest-cost set of resources and customer programs that maintain grid reliability while meeting the state’s emission reduction goals. This goal should guide all determinations regarding cost-effectiveness.

II. GENERAL COMMENTS

Head-to-head competition between Distributed Energy Resource (DER) service providers is the best way to minimize ratepayer costs. Where feasible, the Commission should continue to rely on least-cost/best-fit procurement approaches, which allow the utility to select DER solutions that reflect the cost-minimizing benefits of competition while accounting for other relevant factors. For

¹ Ordering Paragraph 5 states that “Comments on the Order Instituting Rulemaking as requested in Sections 3.1.1.1 and 3.1.2.1 are due 45 days from issuance of this Order Instituting Rulemaking.” Ordering Paragraph 7 states the IOUs and other parties shall “file comments responding to this Order Instituting Rulemaking no later than 45 days from its issuance.”

example, distribution deferral services should continue to be provided through the competitive Request For Offer (RFO) solicitation process. The procurement of Resource Adequacy (RA) capacity and Renewable Portfolio Standard (RPS) qualifying energy should continue to occur through competitive solicitations, where DER providers compete amongst themselves and with other providers of RA capacity, to meet Load Serving Entities' (LSEs) RA and RPS requirements. Where such competition is not feasible – as is the case for many customer programs and the selection of generic resources for the state's Integrated Resource Plan (IRP) – separate cost-effectiveness determinations/resource selection criteria are needed.

1. The Utilities Do Not Control Key Communication Pathways to Behind-The-Meter (BTM) Devices

The rulemaking proposes that consideration of device standards be included in the proceeding. The OIR states:

A device performance standard for grid interaction could help ensure that devices like thermostats and heat pump water heaters (HPWH) are capable of reducing demand during peak hours in response to dynamic prices or a dispatch signal from the grid operator.²

SDG&E agrees that controllable BTM devices should be subject to open communication standards that allow the devices to respond to dynamic prices or dispatch signals initiated by the entity with operational authority. That entity may be the California Independent System Operator (CAISO) for wholesale services, the utility for retail services, or a third party for aggregation (wherein the aggregator is responsible for managing BTM DERs to provide the wholesale or retail service).³ SDG&E notes that customers with these devices may or may not know third parties have direct control of the devices. For example, today, as far as SDG&E is aware, all signals to thermostats are controlled by the manufacturer or their designate. The manufacturer determines the

² OIR at 24.

³ The California Energy Commission (CEC) also is active in the development of energy codes and standards that are set into statute, such as Title 24 of state law.

entity that may signal customers' thermostats. Signaling capability is generally granted for a fee; no manufacturer currently allows a utility to signal the manufacturer's thermostats directly.

Manufacturers require utilities to pay a licensing fee to a signaling company (the signaling company is contracted by that manufacturer), in order for the utility to signal the thermostats. The thermostat manufacturers have created a separate revenue stream for themselves by requiring a for-fee licensing contract in order to signal the devices.

Therefore, it is important to understand that today, the reference to a "dispatch signal from the grid operator" could mean that dispatch signals must either be relayed to the device via the manufacturer's agent for a fee paid by the utility (and thereby all ratepayers) or by an aggregator (who will pass the costs onto the customers with which it has a commercial relationship). While using a third-party intermediary to relay control signals to a BTM device is technically workable, the associated access fees continue to rise and adversely impact the cost-effectiveness of certain DERs.

The questions on page 25 of the OIR may need to be adjusted ultimately in the scoping memorandum scheduled to be issued "approximately 45 days after pre-hearing conference"⁴ to better reflect utilities' current commercial arrangements with device manufacturers or the manufacturers' signaling agent. Items in scope should be limited to those under the Commission's jurisdiction.

2. More detail is needed around the various types of data that the OIR is targeting.

Most of the Track 2 questions related to data access fail to define the kinds of data that are intended to be within the scope of the questions. For example, it is unclear which of the following kinds of data may be at issue: customer usage data, program data, rates data, billing data,

⁴ OIR at 25.

distribution system data, transmission system data, resource supply data, and load management data. Much of this data has proprietary elements. Linking the question to the specific type of data would assist in determining if access rules are already established (such as privacy rules for customer usage data) or if new policies are needed.

III. RESPONSES TO SECTION 3.1.1.1 QUESTIONS REGARDING COST-EFFECTIVENESS

- 1. R.14-10-003 focused on making cost-effectiveness methods more consistent across DERs. To accomplish this, D.16-06-007 adopted a universal ACC which is updated annually and required for use by all DER proceedings. What other aspects of cost-effectiveness should also be made more consistent across DERs, and which of those are priorities?**

SDG&E supports the current process of bi-annual updates to the Avoided Cost Calculator (ACC) as ordered and refined most recently in D.22-05-002. SDG&E recognizes that technologies and system need changes, thereby altering the costs and benefits of DERs over time. The Commission has made great strides to make cost effectiveness (CE) methodologies consistent for all customer programs employing DERs, including which methods should be used. For example, the Total Resource Cost test (TRC) was adopted for all DERs in D.19-05-019, etc.⁵ Some changes develop more quickly and need to be quickly incorporated in the ACC updates and the associated CE protocols used for customer programs. Other aspects may change more slowly. The goal might not need to be consistency for consistency's sake, but rather accuracy.

SDG&E submits that a “one size fits all” approach to making the specific CE protocols by program area consistent across DERs may not be feasible, given the way different technologies operate and taking into account various customer behaviors that change over time and which also impact CE. For example, significant customer behavior impacts include the reluctance of customers to shed load over multiple days in an extreme heat event due to what is generally termed “customer

⁵ D.19-05-019, Ordering Paragraph 1 at 65.

fatigue” in demand response. Another example is the difference in how Energy Efficiency (EE) and Demand Response (DR) impact end-use loads. An EE DER permanently lowers usage. A DR DER alters usage during periods when the customer is asked to reduce or shift loads. An EE DER is available all the time once installed. A DR DER is available only when called upon and can only be called upon during the periods allowed by tariff.⁶ These DERs behave quite differently from each other. In this example, availability is a factor when considering the value of any specific DER. The EE and DR CE protocols account for the specific availability of each DER resource.

Having any amount of DR available in an emergency is of great value. The purpose of having different CE protocols for different technologies is that technologies are not similar in the ways they operate, and thus cannot be evaluated using the same methodology. There are different proceedings that have different cost effectiveness methodologies and assumptions when it comes to EE, Low-Income, and DR. The ACC results are fed into all these different cost-effective tools, downstream, in each respective proceeding. Having a consistent cost-effectiveness methodology across these programs is challenging due to the needs and goals in each portfolio. SDG&E believes a program-by-program cost effectiveness approach is correct unless new approaches are able to bridge the operational differences. If it becomes possible to value resources equally in some way, across technologies, then SDG&E would certainly support that. Ideally, the protocols should be technology neutral.

The Commission should be consistent with the frequency with which the Commission assesses the CE protocols for various program areas across various proceedings, and in identifying

⁶ Most Demand Response tariffs set the rules on how often and when events can be called. For example, a tariff may limit the total number of events or hours that customers are called upon in any given month. These are important parameters because customers want to know the maximum number of events or hours when deciding if the program fits their lifestyle or their business, and if the program benefits are sufficient to justify participation.

when updates are needed. While regular updates to the ACC are now made, updates of some CE protocols have been delayed. For example, the last updates to the DR CE protocols were made in 2016. Since then, the DR market has changed, and these changes should be examined for implications on the DR CE protocols. SDG&E sees various aspects of the DR protocols that potentially could be updated, but which would take some time to accomplish.

Technologies and programs (within their corresponding proceedings) change on different timetables. It would be helpful to assess, on a regular basis, changes that have occurred or are expected to occur and determine based on these assessments, what protocols should change and what should be prioritized. Such assessments should be aligned with program portfolios' funding cycles wherever possible.

SDG&E believes that the question of whether a set of protocols should be updated should be asked on a regular basis to best serve the customers who are providing the DER services, and the investor-owned utilities (IOUs) whose business needs are changing. By doing this, SDG&E would suggest that it may be possible to also see how new technologies may fit with existing protocols and if new methodologies are needed.

Lastly, the question focuses on cost-effectiveness of BTM DERs, yet the schedule in the OIR does not address cost-effectiveness protocols and instead focuses only on the biennial update of the ACC. If cost effectiveness apart from the ACC is to be considered, then the scoping memo⁷ needs to inform a longer schedule.

⁷ OIR at 25, contemplates a scoping memo "approximately 45 days after pre-hearing conference."

2. Should the Commission develop cost-effectiveness methods for emerging and bundled technologies? Which technologies, or combinations of technologies, should we prioritize, and what are the most important considerations?

A number of factors bear upon the question whether to develop cost-effectiveness protocols for emerging and bundled technologies depends on a number of factors. SDG&E submits that if the Commission wants this proceeding to undertake an effort to develop cost-effectiveness methods for emerging and bundled technologies, then there are a number of questions to ask as part of that assessment:

- Is there a ratepayer-funded program using the technologies, or will there be ratepayer funding due to legislation or other Commission drivers making the effort worthwhile?
- Is the technology commercially available, such that there is basis for making the effort worthwhile?
- Can existing cost-effectiveness protocols be used for such new technologies or bundles? Why or why not?
- What bundles of technologies are operating together and in what current customer programs? Could they operate together in a customer program if program changes were made? What should those changes be? Are there dual participation prohibitions, or other constraints that need to be considered and altered if benefits exist? How can double-dipping, or double-compensation, be addressed in fairness to ratepayers?
- Will incentive layering be considered when bundling technologies? How will other ongoing and related decisions, such as “Building Decarbonization OIR” (R.19-01-011) be incorporated into this?
- Will this OIR continue to address the issues presented in D.22-05-002?
- Are the outputs of the ACC suitable for use in assessing the cost-effectiveness of emerging and bundled technologies?
- Are the emerging and bundled technologies suitable for consideration as options that the RESOLVE model could consider in the IRP? Can emerging and bundled technologies’ contribution to system reliability be reasonably captured in IRP’s SERVVM modeling?
- Should such bundles be limited strictly to all sources being renewable or green power so that combinations with any non-renewables are discouraged? Or do other benefits (such as the ability to be dispatched) outweigh the lack

of full GHG reduction benefits, thereby making that effort at least somewhat worthwhile?

SDG&E looks forward to seeing the “emerging technologies” that parties may suggest for consideration and may respond further in reply comments.

3. How important is it to fully incorporate DERs into the IRP process? What kinds of tools, data, models, or processes would we need? How can the resource proceedings best provide data to the IRP process, and how can they best use IRP output data?

While all In-Front-of-the-Meter (IFM) resources, including IFM DERs, and “supply-side” BTM DERs, should be considered in the IRP as available options, it is also important to unpack what the Commission means by “fully incorporate” to identify the barriers and opportunities for improvements across proceedings. One of the underlying challenges of incorporating DERs relates to how and why they are interconnected and how they are being controlled or dispatched. As the Commission has indicated, “DER or customer programs” refer only to BTM activities.⁸ These types of resources require careful consideration to represent their contribution toward grid reliability accurately. However, SDG&E also discusses IFM opportunities to inform a more complete consideration.

a. Incorporating Load-Modifying BTM Resources on the Demand Side

In SDG&E’s service territory, an overwhelming majority of DER is BTM resources that offset some or all of a customer’s end-use load and may result in exports onto the grid during certain time periods. The output of these BTM resources is essentially invisible to SDG&E in real-time. Under SDG&E Electric Tariff Rule 21, metering, monitoring, and telemetering requirements vary. In fact, some BTM DERs are load-modifying rather than exporting. For example, most DR programs may not require the interconnection of new generating resources. DR Auction

⁸ OIR at 2 n.1.

Mechanism (DRAM) resources are bid into the CAISO market without IOU visibility. Customers with BTM resources over 1 MW nameplate that interconnect to the electric distribution grid are required to install a net generation output meter (NGOM) for evaluation, monitoring, and verification purposes, and for payment/billing purposes in connection with applicable CAISO market requirements.⁹

If the nameplate rating of the resource is 1 MW or less, a NGOM and telemetering is not required. Most customers with resources under 1 MW in size are interconnecting solar photovoltaic (PV) systems to the electric distribution grid in order to participate in the net energy metering (NEM) program, which compensates customers for exported generation at a retail rate. In other words, both the load and generation are masked; SDG&E cannot see exactly how much generation is being produced throughout the day and instead only sees the net between the customer's solar generation and the customer's end-use load. Customers are increasingly pairing battery energy storage systems (BESS) with their NEM resources; however, to preserve NEM integrity and avoid shifting costs between customers, the paired storage device is prohibited from being charged from the grid, meaning that it is only permitted to charge from the solar PV system. The customer is permitted to export generation that exceeds the customer's end-use load.

From an IRP planning perspective, these BTM DERs are currently treated as “load-modifying,” and more accurate forecasting within the CEC's IEPR is critical to capturing the expected impact of these resources on metered loads. Since these resources are effectively compensated at a retail rate¹⁰ and are reflected in the load forecast, they are not eligible to provide

⁹ See SDG&E Electric Tariff Rule 21, Section J, available at https://www.sdge.com/sites/default/files/elec_elec-rules_erule21.pdf.

¹⁰ The reduction in metered consumption results in the customer saving an amount of money equal to the output of the resource times the customer's otherwise applicable retail rate. The applicable retail rate includes commodity costs, which a customer does in fact avoid by reducing its metered load, and other

incremental services via the IRP procurement process. Therefore, for the purposes of the current IRP and many other Commission proceedings, fully incorporating these BTM DER means improvements to the load forecast which is used in the IRP.

b. Incorporating DER on the Supply Side

The IRP currently treats certain demand response programs as potential “supply-side” options. Currently, “load-modifying” demand response and energy efficiency impacts are determined exogenously through the CEC’s IEPR process and included in the load forecast that is used by IRP’s RESOLVE model. One opportunity for more fully incorporating DER relates to DER aggregation (DERA). The CAISO recognizes a DER provider (DERP) as a new type of market participant that owns or operates DER¹¹ with the ability to meet participation requirements. A DERA is treated as a single market resource with the ability to participate in the CAISO market and receive an ISO schedule.

Distributed energy resource aggregations (DERAs), meeting a 0.5 MW minimum capacity requirement, can participate in the CAISO day-ahead and, real-time and ancillary services markets as a participating generator using participation models that fit the needs of the DERA. The ISO envisions these resources contributing to the low-carbon, flexible capacity needed to maintain real-time system balance and reliability, thereby supporting the integration of renewable energy.¹²

sunk costs (transmission, distribution and Public Purpose Programs) that the customer arguably does not avoid by reducing its metered load.

¹¹ See CAISO, *Distributed Energy Resource Provider Participation Guide and Checklist, Version 1* (August 26, 2016), at 4 and n.1, (“The CAISO defines a DER as any distribution-connected resource, regardless of size or whether it is connected behind or in front of an end-use customer meter. Distribution-connected means connected to distribution facilities controlled by a distribution utility, regardless of voltage level”).

¹² *Id.* at 4.

The DER must interconnect to the utility distribution grid, and the DERP must execute a Distributed Energy Resource Provider Agreement to accept and abide by the terms of the CAISO tariff.¹³

In the future, the IRP could treat DERAs as a supply-side resource option, and the CEC would need to adjust the load forecast accordingly to avoid double-counting. These DER are required to have a NGOM and/or provide telemetering equipment and should not be treated as “load-modifying” resources. SDG&E recommends coordination between the CEC, CPUC, and CAISO to address any potential gaps, beginning perhaps with a workshop series or white paper. For DER participating in the wholesale market as part of a DERA, there must be clear and consistent processes and coordination among the agencies.

4. Should the Commission authorize the allocation of additional ratepayer funds for consultant support to continue the ACC work?

SDGE supports the funding necessary for consultants to continue work on ACC updates. However, as a threshold matter, it is important to recognize that the Avoided Cost Calculator is used to determine the primary benefits of DERs across Commission proceedings – the primary benefits being the avoided costs of the electric and natural gas services that are not required when DERs are added to the system.¹⁴ The ACC calculates six types of avoided costs: generation capacity, energy, transmission and distribution capacity, ancillary services, renewable portfolio standard, and greenhouse gas emissions. The outputs of the ACC feed into the cost-benefit analysis for DER programs. Consulting support would focus on the methodology and inputs for estimating avoided costs.

¹³ CAISO, Fifth Replacement Electronic Tariff, Section 4.17 (June 3, 2016) available at http://www.caiso.com/Documents/Section4_RolesAndResponsibilities_asof_Jun3_2016.pdf.

¹⁴ Note that avoided costs can be negative. For example, building electrification programs *increase* the need for electric services.

To the extent that certain types of BTM DER may be procured as a supply-side resource in the IRP, use of ACC outputs would not be appropriate, because a DERA bid would be evaluated against other bids in an actual competitive solicitation.

5. Please comment on any additions or changes needed to the preliminary Track 2 schedule provided in Section 4.

Given the placement of the question, SDG&E assumes that this question refers to Track 1 on cost effectiveness (and not Track 2) of the proceeding. For the Track 1 schedule presented in the OIR at 26, SDG&E suggests that the schedule may work fine as it is, if the proceeding is focused solely on the Avoided Cost Calculator as stated in that schedule. If the scope is to include cost effectiveness protocols, or policy around cost effectiveness apart from the ACC, then the schedule would appear to be too aggressive. More time would be needed.

IV. RESPONSES TO SECTION 3.1.2.1 QUESTIONS REGARDING EXPANSION OF DATA USE AND ACCESS

1. Should the Commission create a Data Working Group consisting of Commission, CEC and CARB Staff, as well as utilities, and interested stakeholders? If so, what should be the scope and timeline for the working group?

SDG&E has previously suggested (going back to 2017) that there should be a new rulemaking or proceeding to assess current and future data access needs by stakeholders.¹⁵ The goal of such an effort should be to determine a robust, comprehensive roadmap of data sharing and data access so that efforts are not duplicative and provide the greatest value to ratepayers to meet future needs. SDG&E would note that the Commission has not addressed any updates to broad data sharing since establishing the privacy rules almost a decade ago which dealt only with customer-specific energy usage data (*i.e.*, Covered Information).¹⁶ The CAISO, Community Choice

¹⁵ SDG&E reply to protests to SDG&E Advice Letter 3030-E (January 30, 2017) at 6.

¹⁶ D.11-07-056 and D.14-05-016 are the Commission's decisions outlining privacy policies and regulations as they apply to the utilities.

Aggregations (CCAs), and Direct Access providers, should be added to the list of primary stakeholders. A Data Working Group could certainly be part of such a proceeding, although, as discussed below, it is not sufficient on its own.

Such an effort should only be undertaken if it is comprehensive. Its primary goal should be to develop privacy-driven process and technology roadmaps and associated requirements that describe the milestones to standardize data collection, including customer consent, secure storage, secure disclosure and secure disposal principals that all parties could adhere to. A minimum list of topics to consider in scope would be the following:

- What data is currently provided to whom, by whom, and for what purposes?
- What other types of data should be in scope for this OIR, and for what purpose?
- What are the security and privacy risks associated with greater data access? This would include both risks to individual customers as well as risks to the electric and natural gas grids at large.
- How can customers be provided greater transparency and control over how their data is being collected, disclosed and used for these purposes?
- Under what business disclosure models is that data being provided? (Is it under contracts between utilities and vendors? Is it being provided for a secondary purpose which requires customer consent or as a service provider such as providing billing services to CCAs, to government entities, or others, etc.?)
- Are current data provision platforms sufficient or insufficient and why? This will be important if new requirements are needed for utilities to further enhance their provisioning platforms.
- Is there evidence of legitimate and true business needs that require new kinds of data or new or greater access to data? Is there a need for new formats of data? Why or why not?
- Are there any considerations needed to ensure companies only obtain data for uses that benefit ratepayers or the grid which SDG&E believes justifies ratepayer costs? Why or why not?
- Are there new cyber-security or privacy concerns that were not addressed in the current privacy rules? If so, how should those be addressed?

- How do new privacy laws such as the California Privacy Rights Act (CPRA) influence our practices for customer data disclosure for these purposes?
- What strides have been made in establishing national data standards, if any, that should be considered?
- Can the data that is purported to be needed for new business needs be provided by any other entities or only the utilities? Why or why not?
- Who derives the value of specific, incremental increased data access?
- Who, as a result of the value provided, should pay for greater access to data? Is it always ratepayers? Or should third-parties demanding this data to grow their businesses pay a fair share? How would such payment be assessed (i.e., per customer? Per request? Per MB of data transferred? etc.)
- What categories of data could be obtained by third parties as a cost of doing business rather than at ratepayer expense? Why or why not? Do new classifications need to be established?
- How can a roadmap ensure that data provision avoids “one off” platforms for one type of use or data user? Who would develop and maintain this roadmap?
- Given rate pressure, what new data or expanded data access is “low hanging fruit” meaning it may be easy to provide at low cost for the greatest benefit to the most parties?
- What new data or expanded data access is not necessary, but rather, is more of a “nice to have”? Could it be scheduled into a data access roadmap if certain milestones are met or for a fee?
- What new data or expanded data access is not necessary or is too expensive or both – *i.e.*, the value does not justify the cost and therefore can be delayed in a roadmap until greater value is derived or costs come down?

If done well, considerable time and effort by the stakeholders will be required, particularly by the Energy Division. Energy Division should have a robust role and be able to commit ample staff because of the importance of the topic. SDG&E sees a need for multiple workshops and rigorous discussion. However, SDG&E cautions that leaving the deliberation entirely to workshops is insufficient. Rather, a regulatory record must be developed wherein parties put forth proposals and ideas and be rebutted in the regulatory record if evidence is not provided or is insufficient.

Hearings and cross examination of witnesses should be an option if there are material facts in question.

Effort must be given to attract stakeholders from all sectors, including those who may not often participate at the CPUC in proceedings. This will help to ensure that all data needs are adequately represented, not just those of the largest players. SDG&E would also be concerned if a workshop-only type of path is adopted given that there is likely to be a lack of consensus on important issues. Similarly, SDG&E would be concerned if stakeholders were allowed to make statements about purported data needs or businesses without supporting evidence. The risk, of course, is building a roadmap that provides access primarily to niche or aspirational needs rather than those that are widely supported, or efforts which add excessive functionality (not substantially needed) for data access of limited value and of great expense to ratepayers. SDG&E urges the Commission to adopt a process that will be effective in assessing data access provisions in both the near and longer term. This will take substantial effort if the Commission decides that the instant proceeding is to be the venue for the effort SDG&E envisions and believes should be undertaken.

2. Referring to the preliminary Track 2 schedule provided in section 4, do you suggest any changes? What workshops or other activities, if any, are needed to advance work in Track 2?

The schedule for Track 2 depends on the breadth of the data access scope, which, presumably, the scoping memo contemplated by the OIR¹⁷ will determine. For Track 2, SDG&E believes that the schedule provided in the OIR does not allow time for a rigorous legal record to be developed. Nor does it provide enough time to notify multiple service lists so that the greatest numbers of intervenors are aware and included. The schedule should include a date for parties' written fact-based testimony as to what data content, data delivery methods, and data platforms are

¹⁷ OIR at 25.

needed. Such testimony should address the questions SDG&E includes in its above response to question 1 of Track 2. The schedule needs to allow for discovery before testimony or rebuttal testimony is filed.

A Data Working Group could be utilized to tee up the issues and kick off discussion. But the schedule also needs to allow for hearings, if necessary, on disputed facts. SDG&E believes the process as outlined relies too heavily on the working group's workshops and reports where consensus is not at all guaranteed. It is likely that many issues will be contentious (as SDG&E experienced in the Customer Data Access or CDAC group which met in 2017 and which did not reach any consensus after more than a year of meetings). Therefore, SDG&E urges the Commission to create a robust record and allow parties the opportunity to cross-examine parties, if needed, which creates the possibility of recommendations being more fact-based and the process more productive.

Lastly, if this exercise is to have meaningful impact, SDG&E suggests that the end of the first activity in Track 2 should be a ruling ordering the IOUs to file further testimony in a second phase. Such a second phase will be necessary in Track 2 to develop cost estimates for any data access expansion. Once the cost estimates are provided, the Commission would issue a final ruling. The development of accurate cost estimates for the processes and software necessary for increased data access can take months considering the need for information technology and back-office upgrades. Decisions on what to provide cannot be made without knowing the costs first. Knowing the cost is necessary to determine if the effort is worthwhile for the ultimate beneficiaries, *i.e.*, ratepayers.

3. How can the Commission, utilities, DER providers, and customers better use Smart Meter data? How can Smart Meter data help individual ratepayers, developers, and contractors determine which DER programs are likely to provide the most benefits?

SDG&E recognizes that markets are always developing and changing. However, SDG&E notes that smart meter data is already available to customers, third parties, government agencies, academics, and other parties with certain protections (such as non-disclosure agreements, or customer consent in some cases).¹⁸ If there is a need for smart meter data, it is generally available. If the question is asking whether to expand data access to new users, remove some customer protections, provide data in new formats, or through new platforms, because they are needed to support new smart meter data uses, then SDG&E suggests that should be part of the policy discussion within the Data Working Group. Those discussions would determine the risks, value, costs and benefits to ratepayers.

4. What barriers (legal, regulatory, technological capacity, etc.) exist for load-serving entities and DER providers that prevent the greater use of energy consumption data to increase customer awareness and adoption of DERs?

Recent requests for increased access to smart meter data are useful in exploring the barriers which may prevent greater third-party use of energy consumption data. All energy usage data provided must be done in compliance with the Smart Grid Privacy Rules and California Public Utilities Code section 8380. For other types of customer data that could be considered Personal Information, the CPRA may introduce new liability concerns for utilities and third parties alike. Provided customers give explicit consent, the IOUs are currently required to provide AMI data to third parties and are authorized to recover the associated costs from all ratepayers. With customers'

¹⁸ In SDG&E's recent experience, the time and cost required to acquire, process, and transmit all-customer Advanced Meter Infrastructure (AMI) data for third party use (*e.g.*, the California Energy Commission) is substantial. These challenges are larger when the granularity of the data increases (*e.g.*, hourly-versus five-minute intervals) and when the time for acquisition, processing and transmission is compressed.

consent, several parties requested 5-minute interval data, rather than 15-minute interval data that the utilities typically provide. Parties have asserted different reasons for needing this data. SDG&E is not, in these comments, rendering opinion as to the validity of these reasons.

However, when SDG&E considered this request to see what was practical to provide, it learned that providing the requested data would require hundreds of millions of dollars in smart meter and back-office upgrades. As this request demonstrated, data access “barriers” may include existing technology capacity limits, and the cost to increase that capacity. For this request, it would be legitimate to explore the question of whether access to 5-minute interval data, rather than 15-minute interval data, would provide a benefit to ratepayers that offsets the costs ratepayers would incur to provide the more granular data.

DER providers considering the commercial feasibility of offering transmission or distribution deferral services have requested utilities to provide greater access to granular circuit data, including load shapes and other data for connected customers. The DER providers are assessing whether they can enroll specific customers at specific locations in order to develop BTM DERs that provide the deferral services. This has several implications. The implications include customer privacy as well as cyber-security risks related to grid security. Grid data is generally sensitive and has the potential to enable malicious actions. Customers’ load shapes may reveal personal customer data points. Protecting customer privacy and ensuring cyber security could be interpreted by some as a “barrier” to the data access. SDG&E believes firmly, however, that customer privacy and grid security are minimum requirements that must be ensured before providing third-party access to data that the utility has, and which is not already in the public domain.

5. To what extent should data collected by program administrators, or available from smart devices (including Smart Meters) be available to researchers for analytical purposes, such as evaluation, measurement, and verification?

See SDG&E's response to question 1 above on the Data Working Group. As it relates to energy usage data, the Smart Grid Privacy Rules and related Energy Data Access Rules largely govern how such data can be shared by utilities with academic institutions. Additionally, for SDG&E, the answer depends completely on what data specifically is being referenced. Energy usage data is already available subject to Commission policies and rules on how it is provided, for primary and secondary purpose per the privacy rules,¹⁹ and the circumstances requiring customer consent.²⁰ To the extent the question refers to data other than usage data, SDG&E submits that clear state policies for data access have yet to be established. It matters who benefits from the data sharing, what the value is for ratepayers, and who should pay for the provision of such data. For example, is the requesting entity a for-profit data company, a marketing company, or a not-for-profit company with an academic purpose? It is not a given that all analytical purposes have the same value for ratepayers such that ratepayers should automatically bear the costs. More broadly, not all research serves California energy policy as required by current smart grid privacy requirements, or even the public good. The necessary policy considerations have yet to be made. This gap supports SDG&E's view that a robust regulatory proceeding is needed, and such policy issues should be in scope.

¹⁹ D.11-07-056 at 40-41, defined "primary purpose" and "secondary purpose" data.

²⁰ *Id.* at 41.

6. To what extent should data collected by program administrators, or available from smart devices (including Smart Meters) be available to utilities, non-utility DER providers, and other energy providers or program administrators, for marketing, education, or outreach purposes?

See SDG&E's response to question 1 above on the Data Working Group. These are broad policy questions that need careful consideration. The data that question 6 references is not specifically defined. As discussed in SDG&E's response to question 5, rules governing access to data, other than customer usage data, generally do not exist. For SDG&E, the answer depends entirely on who benefits, where the value is, and who should pay for the service, along with privacy concerns. Just as importantly, do customers know that the data would be used to market products and services to them, and have they agreed to receive such marketing? What level of transparency and control will customers have and who decides? SDG&E's customers today may opt out of receiving all marketing by SDG&E – so it would be of interest to know if new requirements could apply to any use of a customer's data by any third party if the customer has opted out in some way, not only in the receiving of marketing materials, but in the use of their data for such analytical purposes. Would it only apply going forward with customer consent, or in arrears without consent? SDG&E would be concerned about how customers feel about such data collection and provision to third parties if it is done without their consent, or in some cases, contrary to what they had already agreed to or opted out of. These are important policy areas that deserve careful consideration with a full regulatory record being developed.

7. Should smart devices, such as thermostats, solar and/or storage inverters, energy storage devices, grid-connected heat pump hot water heaters, and electric vehicle chargers, that are supported by ratepayer-funded incentive programs, be required to provide data for research purposes?

See SDG&E's response to question 1 above on the Data Working Group. Generally, privacy principles state that customer data should not be used for any such purpose without their informed consent and the ability to easily withdraw their consent. For SDG&E, the answer depends

on who benefits, where the value is and who should pay for the service along with privacy concerns. Has it been determined that the provision of such data for research may be (or not be) expensive to collect, store and provide and is it worth it? SDG&E already provides usage data for such research purposes under the privacy rules.

But if this proceeding is to widen that scope, beyond usage data, then as stated in response to other questions, there are a number of policy questions. For example, for data other than usage data, we must ask if customers will know that the data would be used for research. Should research be limited to certain groups and why? Should anyone who asks for the data receive it, or for some category of research? Should customers who have already received any related incentives be forced to participate now, or only new customers going forward that receive such incentives with their full knowledge and agreement before installation? What is meant by “devices supported by ratepayers” and how supported does it have to be? Is a partial rebate enough to require additional data collection? Presumably a customer would have to also buy and install some device that has the ability to transmit or collect data for retrieval which would be at some cost to the customer in addition to the actual device cost itself, or it may be a cost for ratepayers.

The question also presumes that such data collection and retrieval is within the IOUs’ control. It may not be. As with thermostats, control may reside with device manufacturers. Care must also be taken to ensure the customer understands to whom they must provide consent and request a withdrawal of same. Will this be the utility? The third party? The manufacturer? Lastly, SDG&E would be concerned that data collection could be seen as an invasion of privacy, without customer consent, and would potentially reduce participation in programs, or be a reputational risk for the utility. These are important questions to be addressed in the working group.

8. How can existing data reporting and data collection processes be improved to make them more consistent across resources and more accessible by users?

The question does not indicate which data reporting and which data collection processes the Commission is referring to, nor does it indicate who the users are (customers, other state agencies as referenced in the OIR, or third parties?). Therefore, SDG&E cannot offer a detailed response. This question also appears to assume policies that have not been determined yet and need to be prior to making data more accessible by users who may or may not have a legitimate business need, or who may be able to obtain the data elsewhere as a normal course of business. It also needs to be determined whether current processes are sufficient, and if not, how those needs can be addressed. Again, these are questions that should be in scope of a data working group. SDG&E looks forward to parties' comments and may further respond in reply comments.

9. What types of quantitative and qualitative data do we need to support equity customers' awareness of and participation in DER programs? Should the Commission collect data to measure to the impact on and the benefits of DER programs for ESJ communities? Is the Commission currently collecting this data? If not, what additional mechanisms do we need to do so?

See SDG&E's response to question 1 above on the Data Working Group. SDG&E notes that more and more DER programs are administrated by third parties; in some cases on behalf of the IOU, and in other cases instead of the IOU. Therefore, the levels of customer awareness of such DER programs will in part be due to marketing by the IOU, and in more cases going forward due to marketing by third parties. Therefore, this again is an area to be addressed in the Data Access Working Group as discussed above in question 1.

The working group should ask and determine how the success of a third party might be measured if related to data access. Is it supported that more data would make a particular effort more successful with a clear, validated, cause and effect? Would more data ensure a positive customer response, measurable results, or just make it more likely? The working group should consider whether more data adds value, and whether the data goes above and beyond what is

beneficial to ratepayers, including ESJ communities. SDG&E would also hope to see equity and disadvantaged community groups participate in the working group and provide background as to what their research has shown about those communities' awareness of DERs to date so that recommendations might be thoughtfully considered. If such robust research has not been undertaken, then that may need to be first step before adopting additional efforts so that they are truly "needs" driven. This is an example of the kind of question that needs evidence in the record to support recommendations and cautions that speculation or assumptions about the answers should not be enough to justify use of ratepayer funds. Third party providers of DERs would need to show justification for their data access needs as part of that evidentiary record.

10. When the Commission contracts with third party consultants to provide analytic and program evaluation services, should the data collected by the contractors always be required to be shared with the Commission?

The decision whether or not to retain data from its own contracts is the Commission's own, and no one else's. Generally, the CPUC amassing large amounts of customer and personal data that serves no clear purpose would create additional risk for the Commission, but only the Commission can effectively evaluate this risk. Any data collected for an evaluation, measurement, or verification (EM&V) purpose is referenced and condensed into a report that is a snapshot in time as to how a program is performing. The Commission, in receiving such large amounts of data for some undefined future use, must realize the cost of managing individual privacy in compliance with state law as applicable, the risk of storing it securely and the risk of managing access to it, especially the risk of disclosing it inadvertently or in a manner out of compliance with policy, particularly confidential data. The Commission's contractor may potentially be subject to CPRA regulations, requiring them to comply with additional requirements at greater expense to the Commission. This points to the potential need for the Commission to have an active data manager

on an ongoing basis, so that the idea of just storing the data for some future use would require incurring significant ongoing costs in anticipation of some future need or benefit.

V. CONCLUSION

SDG&E appreciates the opportunity to submit these opening comments and respectfully requests the Commission to consider these comments in this proceeding.

Respectfully submitted,

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