

Application: \_\_\_\_\_

Exhibit No.: SDG&E-\_\_\_\_\_

**PREPARED DIRECT TESTIMONY OF**  
**TISHMARI LEWIS**  
**ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY**  
**CHAPTER 2**



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

**November 26, 2018**

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**PREPARED DIRECT TESTIMONY OF  
TISHMARI LEWIS  
CHAPTER 2**

**I. INTRODUCTION**

The purpose of my prepared direct testimony is to discuss San Diego Gas & Electric Company's ("SDG&E") compliance with the California Public Utility Commission's ("Commission" or "CPUC") Resolution E-4868 ("Resolution"), specifically Ordering Paragraph ("OP" or "OPs") 29, which ordered SDG&E to file an Application ("A.") no later than fifteen months from the issuance of the Resolution to propose and seek cost recovery for improvements to the click-through authorization process ("CTP") described in OP 29.<sup>1</sup> Briefly, the CTP allows customers to seamlessly authorize SDG&E to provide their customer data to third-party demand response providers ("DRPs") through a web portal on a DRP's website. In my testimony, I will discuss the CTP that was already implemented, the functionality available to DRPs participating in CTP and the statistics related to its use – all important areas to understand how SDG&E is approaching the CTP in the future. My testimony will also address SDG&E's response to each of the bullet points in OP 29 from the business perspective.<sup>2</sup>

**II. CTP BACKGROUND**

As part of the Resolution, SDG&E was ordered to implement the CTP. Just seven months later, in March 2018, the first phase of CTP was implemented. The first phase allowed for the authentication and authorization process to begin and end on the third-party website. In compliance with the Commission's directives, the customer's identity is verified via SDG&E's

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<sup>1</sup> Resolution E-4868 (August 24, 2017), pp. 105-106.

<sup>2</sup> The Prepared Direct Testimony of Claudio Pellegrini (Chapter 3) ("Pellegrini Testimony"), will discuss SDG&E's response and proposals from an Information Technology ("IT") perspective.

1 MyAccount<sup>3</sup> customer portal credentials, the customer’s information is pre-populated on the  
2 DRP’s registration website and the authorization is granted all within a short, streamlined  
3 process utilizing only two webpage screens and within a maximum of four clicks.<sup>4</sup>

4 The second phase of the project deployed on July 1, 2018, provided for “alternative  
5 authentication,” allowing a customer to authenticate using their account number and the phone  
6 number associated with their SDG&E account. Phase 2 further expanded the data set provided to  
7 DRPs to include additional billing attributes.<sup>5</sup>

8 The final and third phase of the project implemented the ability for the customer to  
9 revoke authorization to share data using CTP and implemented performance monitoring and  
10 reporting. As described in the testimony of witness Claudio Pellegrini (Chapter 3), the CTP  
11 developed by SDG&E utilizes industry best practices for authentication and authorization.<sup>6</sup>

12 Since implementation, overall feedback on the CTP has been consistently positive, and  
13 approximately 9,000 customers have registered to share their data using the CTP — signifying a  
14 thirty percent increase in the number of customers authorizing a DRP to receive their data in just  
15 six months or so.<sup>7</sup> This increase in customer participation demonstrates that the CTP is meeting  
16 the policy objectives of the Commission to streamline and improve the authentication process.  
17 SDG&E further received comments that its current CTP is preferred over the Alternate Solution

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<sup>3</sup> MyAccount is the online SDG&E portal for customers to login and complete transactions with the utility including: managing accounts, paying bills, getting energy tips, and other useful information.

<sup>4</sup> Resolution, p. 99, OP 4.

<sup>5</sup> *Id.*, p. 98, OP 2 and p. 101, OP 13.

<sup>6</sup> Pellegrini Testimony, Section II. Current Business Functionality.

<sup>7</sup> *See e.g.*, Response from OhmConnect, to the Customer Data Access Committee Solicitation of Feedback, An informal Solicitation of Feedback for Expanding the Click-Through Solutions Developed for Demand Response, to Distributed Energy Resource and Energy Management Providers (May 21, 2018) (“Whitepaper”).

1 proposed by other third parties and even over the Green Button.<sup>8</sup> The current CTP is working  
2 precisely as envisioned, and SDG&E urges the Commission to consider this important feedback  
3 when considering whether to require the utilities to implement an Alternate Solution or to spend  
4 additional funds on enhancing the CTP when it is already working very well.

### 5 **III. CLICK-THROUGH AUTHORIZATION ENHANCEMENTS**

6 As discussed in my testimony below, and in the testimony of Claudio Pellegrini (Chapter  
7 3), some enhancements to the CTP have already been implemented based on stakeholder  
8 feedback and future enhancements are also described.

#### 9 **A. Synchronous Data (OP 29, Bullet #3)**

10 Bullet Number 3 of Resolution OP 29 requests “a cost estimate and proposal for  
11 Synchronous data of the complete and expanded data set within ninety seconds.”<sup>9</sup> SDG&E  
12 understands the need to ensure a positive customer experience, providing a near real-time  
13 response to reduce the number of customers abandoning the process. SDG&E is currently  
14 meeting these needs, as stated in its Advice Letter (“AL”) 3136-E filing:

15 Based on the sub-second performance of services indicated above, SDG&E is confident  
16 at this time from current data that no additional costs are required to meet the 90-second  
17 requirement on either the current Rule 32 data set or the expanded data set and will be  
18 able to meet the delivery time requirement.<sup>10</sup>

19 Furthermore, SDG&E IT personnel predict that this performance is expected to continue  
20 should the entire population of customers in our territory participate. As such, SDG&E has

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<sup>8</sup> *Id.* The Alternate Solution, called “API [Application Program Interface] Solution 1,” is discussed in the Resolution, p. 57. “Green Button” is a standardized data format for providing energy usage data that resulted from an effort of the Department of Energy (“DOE”) to standardize the format nationally. SDG&E customers can download their usage data or send it to third parties via a utility automated system (“Green Button Connect”). More information can be found online. *See* San Diego Gas & Electric Company, Green Button, *available at* [sdge.com/green-button](http://sdge.com/green-button).

<sup>9</sup> Resolution, p. 105, OP 29.

<sup>10</sup> AL 3136-E, approved November 1, 2018 and effective October 25, 2018, p. 3.

1 complied with the Commission’s request, and is not seeking any additional funding for this  
2 function.

3 **B. Improvements to the CTP (OP 29, Bullet #4)**

4 Bullet Number 4 of Resolution OP 29 requests “improvements to the authorization  
5 process that may have the effect of increasing customer enrollment in third-party demand  
6 response programs.”<sup>11</sup> SDG&E has implemented a communication plan to follow when a  
7 planned or unplanned outage occurs to the systems impacting the CTP. The intent in  
8 implementing a third-party DRP communication process was to follow a consistent, proactive  
9 approach in the way SDG&E communicates any planned or unplanned system outages where  
10 those outages are known to affect the availability and/or functionality of the CTP. Implementing  
11 a communication process should reduce calls from third-party DRPs when there are outages  
12 impacting the authorization process or the delivery of data and formalizes awareness to third-  
13 party DRPs when there are known impacts. Providing DRPs with outage information allows  
14 them to communicate such information to their customers, or post on their website or enrollment  
15 pages, and thereby potentially reduce the number of customers who abandon the CTP. This  
16 communication process became effective on August 30, 2018, and SDG&E is not requesting  
17 budget for the creation and implementation of this process. SDG&E believes the communication  
18 plan is a value-add for the CTP service, with the goal to help make the CTP experience as  
19 efficient as possible.

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<sup>11</sup> Resolution, p. 105, OP 29.

1           **C.     Improvements in Data Delivery Process (OP 29, Bullet #5)**

2           Bullet Number 5 of Resolution OP 29 requests “improvements in data delivery  
3 processes.”<sup>12</sup> SDG&E has determined that there are currently no immediate obvious  
4 improvements to recommend in the data delivery process that would provide significant value to  
5 ratepayers. SDG&E has been informed that the current data delivery process adequately meets  
6 DRP needs.<sup>13</sup> SDG&E further monitors the automated process with alerts to proactively address  
7 any issues as they arise.

8           **D.     Improvements to the CTP infrastructure (OP 29, Bullet #6)**

9           Bullet Number 6 of Resolution OP 29 requests “upgrades to the information technology  
10 infrastructure needed for click-through authorization processes.”<sup>14</sup> SDG&E is proposing new  
11 integration test environments to streamline testing. Currently, the CTP test environment is  
12 shared with other SDG&E systems and is not always readily available. A dedicated test  
13 environment will help to improve timely testing with third-party resource providers while  
14 establishing connectivity and testing data flow. Mr. Pellegrini’s testimony (Chapter 3) further  
15 describes this recommendation and its related cost estimates.<sup>15</sup>

16           **E.     Additional CTP functionalities proposed in CDAC (OP 29, Bullet #7)**

17           Resolution OP 29, Bullet 7 asks for any “additional functionalities for click-through  
18 authorization processes proposed in the Customer Data Access Committee (“CDAC”).”<sup>16</sup> Only

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<sup>12</sup> *Id.*

<sup>13</sup> Pellegrini Testimony, Section V. Additional Functionalities for CTP Proposed in the CDAC (OP 29, Bullet #7).

<sup>14</sup> Resolution, p. 106.

<sup>15</sup> Pellegrini Testimony, Section IV. Upgrades to the Information Technology Infrastructure Needed for the CTP (OP 29, Bullet #6).

<sup>16</sup> Resolution, p. 106, OP 29.

1 one third-party provided recommendations for improvements to the current CTP. The eight  
2 items identified below were recommended, and SDG&E’s response to each item is provided  
3 beneath the request.

- 4 1. Improvements to ongoing data delivery.
  - 5 a. SDG&E is already meeting this requirement as described above in the data  
6 delivery section. These improvements included correcting any gaps in  
7 interval data, sending interval data on a timelier basis, within a period of  
8 an hour up to a day, and allowing DRPs to re-request interval data.<sup>17</sup>
- 9 2. Functionality to inform the authorized provider with details on the status of the  
10 customer authorization.
  - 11 a. SDG&E agrees this request would add value to the CTP. This  
12 functionality is described, and cost estimated in Mr. Pellegrini’s testimony  
13 (Chapter 3).
- 14 3. Use of SDG&E’s company logo on the third-party website to identify where a  
15 SDG&E customer would initiate the CTP.
  - 16 a. As a matter of enterprise-wide company processes (not specific to DRPs  
17 or Distributed Energy Resource Providers and energy management  
18 providers (collectively, “DERPs”)), SDG&E does not allow third-party  
19 use of its company logo due to the potential for misuse and customer  
20 confusion.

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<sup>17</sup> Pellegrini Testimony, Section V. Additional Functionalities for CTP Proposed in the CDAC (OP 29, Bullet #7).



- 1           4.     Enhancement to the sign-in page providing sign-up for an online account or  
2           retrieval of credentials.
  - 3           a.     This is already an existing functionality in the CTP.
- 4           5.     Functionality to facilitate resolution of enrollment conflicts as an optional part of  
5           the click-through flow.
  - 6           a.     SDG&E agrees this request would add value to the CTP. This  
7           functionality is described, and cost estimated in the Pellegrini Testimony  
8           (Chapter 3).
- 9           6.     Improved visibility into why an individual customer may fail to complete the  
10          Open Authorization (“OAuth”)<sup>18</sup> process.
  - 11          a.     There is no simple way to predict customer behavior and the reason(s)  
12          behind customer abandonment of an authorization. Even with a system  
13          that attempts to track all possible combinations of scenarios regarding a  
14          customer’s activity, or that asks the customer why they are leaving the  
15          process, good data may not be obtained if customers choose not to  
16          disclose their reasons. Therefore SDG&E will not cost estimate this  
17          functionality as the value does not outweigh the cost.
- 18          7.     Lengthen lifespan of the refresh tokens to at least one year.
  - 19          a.     This is already an existing functionality in the CTP with a token lifespan  
20          of 13 months.
- 21          8.     Transition of the revocation notification from email to a file (or push notification).

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<sup>18</sup> The OAuth process is described in Mr. Pellegrini’s testimony (Chapter 3), Section II. Current Business Functionality.

1 a. This is an existing functionality in the CTP as part of a file-push for  
2 SDG&E’s Rule 32 automation.

3 **F. Resolution of implementation issues from CDAC (OP 29, Bullet #8)**

4 Bullet #8 of the OP 29 requires “resolution of implementation issues related to OAuth  
5 Solution 3 or API Solution 1 raised by stakeholders in the Customer Data Access Committee.”<sup>19</sup>  
6 There are currently no known implementation issues with the OAuth Solution 3 CTP, SDG&E’s  
7 operating CTP. Accordingly, SDG&E is not seeking any funding for this requirement.

8 **G. Integrating CISR-DRP Form Terms and Conditions with Utility Green  
9 Button Platform – Customer Energy Network (OP 29, Bullet #9)**

10 Bullet #9 of Resolution OP 29 requests “costs for integrating the CISR-DRP Request  
11 Form terms and conditions into the Utility Green Button platforms – ShareMyData, Green  
12 Button Connect, or Customer Energy Network.”<sup>20</sup> SDG&E has implemented a link to the full  
13 terms and conditions in the CTP, which utilizes the Customer Energy Network.<sup>21</sup> SDG&E is not  
14 seeking any additional funding for this requirement.

15 **H. Publication of Information on Utility Website (OP 29, Bullet #10)**

16 Resolution OP 29, Bullet #10 orders the utilities to publish “customer friendly  
17 information on the Utility website including, information about Rule 24/32, and instructions on  
18 how to authorize data access or revoke authorization.”<sup>22</sup> A customer education page for CTP has

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<sup>19</sup> Resolution, p. 106, OP 29.

<sup>20</sup> *Id.*

<sup>21</sup> SDG&E does not plan on adding the Customer Information Service Request for DRP (“CISR-DRP”) Request Form terms and conditions to the Green Button platforms as those platforms are not being used for the CTP at SDG&E.

<sup>22</sup> Resolution, p.106.

1 been developed and published. There will be no additional cost for the publication of this  
2 website.

3 The main components of the website include:

- 4 • Introduction of the Electric Rule 32 – Direct Participation Demand  
5 Response.
- 6 • Rule 32 applicable customers or entities.
- 7 • Roles and responsibilities for the customer, the third-party DRPs, and  
8 SDG&E.
- 9 • DRP registration process overview.
- 10 • How to authorize data access.
- 11 • How to revoke data access authorization.
- 12 • Contact Information.

#### 13 **IV. WHITEPAPER RESPONSES: REQUESTS FOR ADDITIONAL DATA -** 14 **RECOMMENDED**

15 In May of 2018, the Energy Division staff issued its Whitepaper.<sup>23</sup> The stated purpose of  
16 the Whitepaper was to provide background on the evolution of the click-through authorization  
17 and data delivery processes in Demand Response (“DR”). It also served as an “informal  
18 solicitation of feedback for expanding these processes to DER and energy management  
19 providers,” and to assist the investor-owned utilities (“IOU”) “in developing the November 2018  
20 applications.”<sup>24</sup> Although the Whitepaper was widely distributed by the Energy Division to the

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<sup>23</sup> The Whitepaper was created by the Energy Division, with contributions from various named third parties. The Whitepaper notes at page (i) that the paper does not necessarily reflect the views of any one individual party, nor a consensus.

<sup>24</sup> The Whitepaper, title page.

1 service lists for numerous Commission proceedings related to DERPs, DRPs and other energy  
2 management providers to solicit feedback on the click-through authorization process structure,  
3 potential enhancements and scope of applicable users, SDG&E received third-party feedback  
4 from only a handful of participating energy service providers.<sup>25</sup>

5 The parties' requests focused on two areas: providing limited but various types of data  
6 and increasing the functionality. In all cases, SDG&E evaluated the requests received to  
7 determine:

- 8 1) whether the enhancement was already provided in CTP or in some other platform;
- 9 2) whether it is technically feasible to provide and if so, how feasible it is;
- 10 3) whether there is a good business reason to provide it now;
- 11 4) whether there is enough value in providing the enhancement to justify the cost or  
12 effort; and
- 13 5) whether there are any policy considerations.

14 Currently, SDG&E provides the data elements in the expanded data set contained in  
15 Attachment 1 of the Resolution. This expanded data set is defined differently for each IOU,  
16 based on their own data, but with the intent to standardize the same type of data access across the  
17 utilities.

18 SDG&E considered each third-party request for additional data carefully, evaluating the  
19 request for both business need and value to ensure that the benefits outweighed the estimated  
20 costs. Based upon this review, SDG&E recommends adding three new data points to the current

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<sup>25</sup> SDG&E received feedback on the Whitepaper via the Energy Division from the following parties: The California Efficiency + Demand Management Council ("Council"), ecobee, Home Energy Analytics, Lockheed Martin, Mission:Data, OhmConnect, the Public Advocates Office, SunRun and Tesla.

1 data set: 1) Gas Usage Data, 2) Historical Energy Efficiency Program Participation, and 3)  
2 Customer's Rate Change Notification. The reasons are discussed below.

3 **A. Gas Usage Data:**

4 SDG&E agrees that providing gas interval data for purposes of demand response and  
5 energy efficiency programs related to gas therm savings is appropriate and could assist in efforts  
6 to reduce greenhouse gas ("GHG") emissions. By having gas data, DRPs may be able to assist  
7 customers who have the highest gas usage by offering relevant programs. DRPs would be able  
8 to target those high gas usage customers who have higher potential to conserve gas usage. The  
9 additional cost to include daily gas interval data in the data set is provided in Mr. Pellegrini's  
10 testimony (Chapter 3).<sup>26</sup>

11 **B. Historical Energy Efficiency Program Participation**

12 Historical energy efficiency ("EE") program participation can be provided from the data  
13 that is currently available in SDG&E's energy efficiency system. SDG&E has six years of  
14 historical EE program participation data for approximately 38 programs. Such data may assist  
15 DRPs to evaluate customers for participation in their programs. For example, DRPs may be able  
16 to leverage knowledge that a customer already participated in an EE thermostat program, to  
17 target that particular customer for another compatible program to signal that thermostat. The  
18 incremental cost associated with adding this information to the current data set is provided in Mr.  
19 Pellegrini's testimony (Chapter 3).<sup>27</sup>

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<sup>26</sup> Pellegrini Testimony, Section VI. CDAC Whitepaper Responses. SDG&E currently provides gas data on a once-daily interval. Third parties requested gas interval data in more frequent intervals. *See e.g.*, Response from Home Energy Analytics, to the Whitepaper, p. 5. Mr. Pellegrini addresses why it is not feasible to provide gas data on a shorter interval.

<sup>27</sup> Pellegrini Testimony, Section VI. CDAC Whitepaper Responses.

1           **C.     Customer’s Historical Rate and Rate Change Notification**

2           The request for notification that a customer’s rate has changed is reasonable and in  
3 alignment with the purposeful use of the customer data. A customer’s rate change can impact  
4 which programs or product offers are relevant to the customer. Therefore, SDG&E recommends  
5 that this additional data point be added to the current data set. SDG&E will also provide  
6 historical rate data. The CTP can be enhanced to include this information automatically and  
7 timely. Witness Pellegrini (Chapter 3) discusses the scope and cost for addition of these  
8 elements to the data set in his testimony.<sup>28</sup>

9           **V.     WHITEPAPER RESPONSE: REQUESTS FOR ADDITIONAL DATA - NOT**  
10           **RECOMMENDED**

11           SDG&E carefully evaluated each of the third-party requests for data enhancements. Each  
12 request was evaluated using the criteria discussed in Section IV above. In many cases, SDG&E  
13 determined that the data being requested was already included as part of the current data set  
14 delineated in Attachment 1 of the Resolution. I do not address any of the requests for data  
15 elements that are already included in the current CTP data set. The remaining requests are  
16 discussed below, and I explain why SDG&E does not recommend inclusion of those requests in  
17 the current CTP data set.

18           **A.     Customer Credit History**

19           Although the current data set for the CTP includes some bill line items, a customer’s  
20 payment and balance history are not included. SDG&E strongly opposes providing a customer’s  
21 payment and balance history in the data set as there are other means for the third-party to obtain  
22 data necessary to determine customer credit-worthiness. The third-party should collect this type

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<sup>28</sup> *Id.*

1 of data from their customer directly. Like any other business, the customer’s credit worthiness  
2 could and should be assessed by the third-party provider through its own transaction history or  
3 through a credit report. This is a reasonable cost of doing business for a third party and should  
4 not be borne by SDG&E’s ratepayers.

### 5 **B. Screen Scraping**

6 A number of the third parties that submitted comments to the Whitepaper indicated that if  
7 the utilities did not provide a customer’s payment history, among other data points as part of the  
8 data set, DRPs would then use self-help tactics and “screen scrape” the customer’s data.<sup>29</sup>  
9 “Screen scraping” is the practice of improperly using the customer’s credentials to access the  
10 customer’s account to capture more customer information, including available billing and  
11 payment data.<sup>30</sup> This practice is highly discouraged by SDG&E, and should be prohibited by the  
12 Commission, for several reasons. First, customers who share their credentials with third parties  
13 are in violation of SDG&E’s terms and conditions for use of the MyAccount portal.<sup>31</sup> Anyone  
14 with knowledge of a customer password can gain access to MyAccount and all the services

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<sup>29</sup> See e.g., Response from Mission:Data, to the Whitepaper, p. 6; see also, Response from OhmConnect, to the Whitepaper, p. 4.

<sup>30</sup> “Screen scraping,” also known as web scraping, is the process of extracting data on the web. With the right tools and credentials, anything that is visible on a web page can be extracted. This may occur where the customer provides account access credentials to the third party, usually for one specific purpose, and the third-party captures the customer’s data through the screen scraping process for other purposes.

<sup>31</sup> See San Diego Gas & Electric Company, My Account Terms and Conditions, available at <https://www.sdge.com/my-account-terms-and-conditions>, requiring that customers keep passwords and credentials confidential per their agreement with SDG&E. The terms state: “The unique User ID and password (collectively, "Password") selected by you to access My Account must be held on a confidential basis by you and not given to other people. Anyone with knowledge of your Password can gain access to My Account and all the services available within the account ... You are responsible for maintaining the Password against improper disclosure. One of the terms and conditions of this agreement is that you are solely responsible for any claims, losses, damages, expenses and costs incurred by the use of your Password by others.”

1 available within the account. Customers may not realize what data is viewable on their account,  
2 beyond just their energy usage, including on-bill financing and line item purchases among other  
3 information, and may not be aware that providing their credentials also permits third parties to  
4 take actions that may not have been authorized by the customer. Additionally, when screen  
5 scraping occurs there is no record of the transaction, hampering the ability to audit whether data  
6 was inappropriately captured by a third party. Ultimately, the performance metrics ordered by  
7 the Commission<sup>32</sup> and collected by SDG&E would be skewed and not representative of accurate  
8 activity should third parties access a customer's data through screen scraping. SDG&E  
9 recommends that the Commission prohibit third parties from using this method of collecting  
10 customer data.

### 11 **C. Unique Identifier for Each Tariff**

12 Third parties also requested various versions of a similar function: a unique identifier to  
13 link to a data base that would provide the tariff that a particular customer is on that could be  
14 machine-read across all IOUs. The purpose for this request, as SDG&E understands it, is to  
15 provide each third-party with a customer's specific rate at any given time with a link to the  
16 applicable tariff for that rate, to potentially enable a third party to determine what parameters  
17 may exist for the customer to participate in other programs. This request requires significant  
18 additional delineation of details such as: what tariffs should be listed? Who would maintain the  
19 tariff database in real time to ensure the data is accurate since tariffs change frequently? How  
20 would the value of this database be measured and what protections would exist to ensure that  
21 ratepayer funded-system integrations would not be later stranded if this database is not  
22 maintained for any reason? Most importantly, the third parties have failed to provide an

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<sup>32</sup> Resolution, pp. 102-103, OP 21 and pp. 104-105, OP 27.



1 adequate business purpose for this information to justify the necessity and ratepayer expense for  
2 this type of database. The current data set already provides the customer's existing rate, and all  
3 tariffs are listed on SDG&E's website. SDG&E does not believe that a common centralized  
4 database that is machine-readable across tariffs for all IOUs is in the ratepayers' best interests or  
5 within the scope of this proceeding.

#### 6 **D. 5-Minute Electric Meter Data**

7 Several third parties requested that the utilities provide 5-minute electric interval usage  
8 data.<sup>33</sup> SDG&E is currently able to provide 15-minute interval data. The Commission  
9 previously considered, and rejected, a request by third parties for 5-minute electric interval usage  
10 data.<sup>34</sup> SDG&E highlighted the downsides of providing shorter interval usage data in an earlier  
11 Rule 32 application.<sup>35</sup> It would be an enormous project, with costs so large that it was hard to  
12 quantify because of the complexity and size of the back office infrastructure that would be  
13 needed for handling all that data. Ultimately, the Commission agreed with SDG&E that such  
14 costs were not justified.<sup>36</sup> This conclusion remains applicable today, and SDG&E will continue  
15 to provide 15-minute interval data for commercial electric meters.

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<sup>33</sup> See e.g., Responses to the Whitepaper by ecobee, p. 7; Mission:Data, p. 5; OhmConnect, p. 4; Tesla, p. 4; Sunrun, p. 3.

<sup>34</sup> Decision ("D.") 16-03-008, p. 20 states: "While it is more than likely that the Commission would gain experience and information from working with 5-minute intervals, the additional expense of the 5-minute interval makes the 15-minute interval a more reasonable pathway."

<sup>35</sup> In its Rule 32 Application, (A.14-06-002, Testimony of Liying Wang), SDG&E estimated the cost to convert 7,000 meters to 5-minute data would be over \$2 million, and the cost for 100,000 meters (comparable to the mass market trajectory the Commission has ordered the IOUs to be on for Rule 32 registrations), would be so high that it would be hard to quantify. Those costs were in 2014 dollars. The Commission agreed this was cost prohibitive. See D.16-03-008, p. 6.

<sup>36</sup> D.16-03-008, p. 20.

1           **E.     Green Button Standard**

2           Green Button was an initiative implemented in 2012 to provide customers with their  
3 interval data and allow customers to share their data with SDG&E registered third parties. One  
4 third-party has requested that the utilities “consistently adhere to the Green Button standard, and  
5 take advantage of PG&E’s work to gracefully incorporate Rule 24 information within Green  
6 Button.”<sup>37</sup> SDG&E does not recommend investing additional resources to extend its Green  
7 Button platform.<sup>38</sup> Instead, SDG&E recommends that third parties utilize the CTP for now,  
8 which has been proven to work successfully in obtaining customer authorization and currently  
9 provides even greater amounts of data to DRPs than the Green Button authorization.<sup>39</sup> The CTP  
10 is the modern solution implemented to meet the specific needs of SDG&E’s Electric Rule 32.

11           **F.     Grid Data**

12           Multiple third parties requested grid-related data and specifically wanted to know the  
13 location of customers in relationship to SDG&E’s electric grid. To protect customer privacy, the  
14 grid and its critical infrastructure, SDG&E opposes providing any customer grid-locational  
15 information that is related to grid data including circuit information, or energy and capacity loss  
16 factors. The Commission has recently adopted new approaches to what data is accessible in the  
17 Distributed Resource Planning rulemaking.<sup>40</sup> The third-party requests for this grid data does not

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<sup>37</sup> Response from Mission:Data, on the Whitepaper, p. 8.

<sup>38</sup> Unlike other utilities, SDG&E does not use its Green Button platform for the CTP.

<sup>39</sup> The Prepared Direct Testimony of Raghav Murali (Chapter 1) (“Murali Testimony”) discusses the need for a new data access proceeding at the Commission, relevant to the consolidation or adding to data platforms.

<sup>40</sup> See Rulemaking 14-08-013, Administrative Law Judge’s Ruling Addressing Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company’s Claims for Confidential Treatment and Redaction of Distribution System Planning Data Ordered by Decisions 17-09-026 and 18-02-004 (dated July 24, 2018), pp. 9-23.

1 satisfy the criteria defined in this rulemaking. Ultimately, it is SDG&E's responsibility to keep  
2 the grid safe.

3 Third parties also requested peak load contribution system data, defined by SDG&E as  
4 either the percentage or a ratio of the customer's peak demand compared to the statewide system  
5 peak. The elements necessary to calculate this information are already available to DRPs, and it  
6 would be more efficient for the DRPs to run calculations specific to their needs. The cost to  
7 ratepayers for this request is outweighed by the benefit to be achieved where DRPs already have  
8 the ability to determine this data point.

#### 9 **G. Customer Email Address**

10 One or more third parties requested that a customer's email address be added to the data  
11 set. While customers may supply SDG&E with an email address, that data may not be kept  
12 current by the customer. Since DRPs have a business relationship with the customer for program  
13 participation, the DRP is in the best position to collect their customer's email address.

#### 14 **H. Other Topics Discussed in CDAC Whitepaper Responses**

15 One third-party asked to eliminate the need for customer login and utility credentials,  
16 eliminate captcha and eliminate login requirements for utility bill download. The Commission  
17 considered and rejected this approach in the Resolution.<sup>41</sup> It is imperative that the customer enter  
18 some identifying information for security purposes to allow authentication of the customer's  
19 identity and validity of the customer's authorization to share their otherwise confidential  
20 information. Whether this is MyAccount credentials or an alternate authentication, there must be  
21 some form of an identification mechanism to ensure the safe-keeping and security of customer  
22 data. This is no different than a bank requiring authentication to access banking information.

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<sup>41</sup> Resolution, pp. 12-13.

1 Customers would not want their data easily accessible to anyone without a secure form of  
2 authentication required.

3 **VI. EXPANSION TO DISTRIBUTED ENERGY RESOURCE PROVIDERS - OP 29,**  
4 **BULLET #1:**

5 The first bullet in OP 29 seeks a proposal to expand the CTP to DERPs.<sup>42</sup> As discussed  
6 in the policy prepared direct testimony of Mr. Murali (Chapter 1), SDG&E recommends that the  
7 Commission delay any expansion of the CTP to non-DRP service providers until there has been  
8 sufficient exploration of the need for those types of service providers to receive customer usage  
9 data and other information in the current data set, and for the development of controls and data  
10 protections for those energy service providers who are not registered with the California  
11 Independent System Operator (“CAISO”) and subject to Commission oversight.<sup>43</sup> However,  
12 should the Commission order SDG&E to implement an expansion of its CTP to DERPs, SDG&E  
13 proposes the following process:<sup>44</sup>

14 In the current CTP process, a DRP must be registered with the CAISO and the CPUC as a  
15 pre-requisite to register as a DRP with SDG&E. DRPs must initiate registration with SDG&E  
16 and complete a Participation Agreement. Once the Participation Agreement is completed and  
17 executed, the DRP profile is created and connectivity and testing can begin. After successful  
18 connectivity and testing, customer authorization requests may begin to flow through the process.  
19 Upon successful authentication and authorization, DRPs will then receive the current data set as

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<sup>42</sup> *Id.*, pp. 105-106, OP 29.

<sup>43</sup> Murali Testimony, Section III. SDG&E’s Proposals in Response to OP 29.

<sup>44</sup> *See also* Pellegrini Testimony, Section IX. Cost Estimate to Expand the CTP to Other Distributed Energy Resource and Energy Management Providers (OP 29, Bullet #1), for discussion of additional necessary controls for DERP expansion.

1 defined in Attachment 1 of the Resolution. Revocation of customer authorization via CTP is also  
2 available through this same process.

3 If the Commission requires that the CTP should be expanded to other energy service  
4 providers, such as DERPs, SDG&E recommends these DERPs be subject to the same process  
5 and controls as DRPs, with the exception of requiring CAISO registration for DERPs that do not  
6 participate in CAISO markets. The same data set available to DRPs could then be accessible  
7 upon customer authorization. Witness Murali (Chapter 1) discusses the policy reasons for this  
8 approach in his prepared direct testimony.<sup>45</sup> During registration with SDG&E, SDG&E will  
9 capture whether the DERP is registered with the CAISO or not. This will ensure that metrics can  
10 be tracked separately for those participating in the CAISO market.

11 The current CTP can be used to meet the needs of SDG&E Electric Rule 32 DRPs and all  
12 other registered DERPs, and with appropriate safeguards, might become the third-party preferred  
13 data provisioning platform for all customer-authorized data sharing. Should the Commission  
14 order CTP expansion to DERPs, the estimated business cost, separate from IT costs, to support  
15 this expansion is \$1,222,277 over four years and three months.<sup>46</sup> This estimate includes one  
16 Project Specialist to handle registration inquiries from DERPs or customers, one Systems  
17 Analyst to troubleshoot and help resolve any issues that arise with the third parties'  
18 implementation, and Program Management labor to oversee the Program. Other estimated costs  
19 include expenses for marketing, education and training to communicate the availability of the  
20 CTP to other energy service providers. This estimate assumes that 100 DERPs would register  
21 and participate. Should the need for support expand, SDG&E requests the right to file an Advice

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<sup>45</sup> Murali Testimony, Section III. SDG&E's Proposal in Response to OP 29.

<sup>46</sup> This period covers maintenance and support for five years, less the nine months of build time.

1 Letter for additional funding to ensure proper response times and support. The IT estimates  
2 related to expanding the CTP to DERPs are described in the prepared direct testimony of Claudio  
3 Pellegrini (Chapter 3).<sup>47</sup> Neither this estimate nor the estimated IT-related costs for DERP  
4 expansion to the CTP are included in SDG&E's budget request due to SDG&E's opposition to  
5 the expansion at this time.

6 **VII. API SOLUTION 1 (OP 29, BULLET #2)**

7 OP 29 Bullet #2 requires the IOUs to provide a cost estimate and proposal for API  
8 Solution 1,<sup>48</sup> which SDG&E refers to the "Alternate Solution" to differentiate it from the current  
9 CTP deployed today. As proposed, the Alternate Solution would allow a customer to  
10 authenticate and authorize their data sharing on the third party DRP's site without having to  
11 leave the site. This solution would use a type of multi-factor authentication--the use of a unique  
12 code, in combination with an email address.

13 SDG&E strongly recommends that the Commission reject implementation of an  
14 Alternate Solution to the current CTP.<sup>49</sup> The CTP is working as designed and meeting the needs  
15 of those DRPs currently using the solution. There would be cost savings to ratepayers if the  
16 Commission orders the use of the existing CTP solution with the enhancements proposed in this  
17 Application. However, in compliance with Resolution OP 29 bullet two, SDG&E has provided a

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<sup>47</sup> Pellegrini Testimony, Section IX. Cost Estimate to Expand the CTP to Other Distributed Energy Resource and Energy Management Providers (OP 29, Bullet #1).

<sup>48</sup> Resolution, p. 105, OP 29.

<sup>49</sup> SDG&E's recommendation that the Commission reject implementation of the Alternate Solution, is based upon the architecture and security concerns related to that Alternate Solution. This recommendation applies regardless of the third-party utilizing the customer authentication/authorization process as the risk applies equally.

1 cost estimate and a description of the proposed Alternate Solution in the testimony of Claudio  
2 Pellegrini (Chapter 3).

3           SDG&E opposes moving forward with the Alternate Solution for the reasons discussed in  
4 both Mr. Pellegrini’s (Chapter 3) and Mr. Vera’s prepared direct testimony (Chapter 4). Should  
5 the Commission nevertheless order SDG&E to implement the Alternate Solution, SDG&E’s  
6 business requirements would increase by the need for an additional Business Systems Analyst  
7 plus office equipment and expenses, for a total of \$473,459 over three years and four months.<sup>50</sup>  
8 These estimated expenses are not included in SDG&E’s budget request since SDG&E opposes  
9 the Alternate Solution due to its customer privacy and security risks.

#### 10 **VIII. COST RECOVERY**

11           As required by the Resolution, SDG&E is submitting estimated budgets and costs for the  
12 elements contained in OP 29. For purposes of SDG&E’s proposals, SDG&E has estimated all  
13 costs for five years. This period of time was chosen for two reasons. First, this length of time  
14 gives SDG&E authorization to build and operate the functionality and systems for the CTP  
15 enhancements without having to return to the Commission too quickly to seek additional  
16 funding. Second, with five years’ spending authorization, SDG&E can align its next CTP  
17 request for funding authority with either its next DR application (anticipated in 2023), or its next  
18 GRC, as appropriate. While SDG&E seeks budgets for up to five years of operating costs, and  
19 approximates those costs on a yearly basis, some activity may shift within the years. Therefore,  
20 for all costs in this application, SDG&E seeks the flexibility to spend as needed within that five-  
21 year period, up to the total cap.

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<sup>50</sup> The support covers five years less the build time of 16 months.

1           Finally, the prepared direct testimony of witness John Roy (Chapter 6) discusses  
2           SDG&E's entire estimated cost recovery. Although SDG&E does not recommend the  
3           implementation of either the DERP expansion or the Alternate Solution, should the Commission  
4           order SDG&E to implement either or both of those elements, SDG&E is requesting a two-way  
5           balancing account for the recovery of costs related to the DERP expansion and the Alternate  
6           Solution, due to the significant uncertainty and risk involved in the final design of these two  
7           elements. Given this risk, unforeseen implications and corresponding costs are likely. A two-  
8           way balancing account assures SDG&E that it can recover its reasonable costs associated with  
9           implementation. Furthermore, if the Applications of the other two IOUs differ in their approach  
10          for the DERP expansion or the Alternate Solution, and the Commission desires a cohesive  
11          statewide approach, there may be additional costs that result in system or other functionality  
12          changes that SDG&E cannot foresee at this time. For the foregoing reasons, the Commission  
13          should grant SDG&E the two-way balancing account treatment as requested in the prepared  
14          direct testimony of witness John Roy (Chapter 6).

15       **IX. CONCLUSION**

16           SDG&E has strived to balance the needs of third-party service providers with the benefits  
17          and risks to SDG&E's customers. I believe this balance has been achieved with SDG&E's  
18          recommendations and requests.

19           This concludes my prepared direct testimony.  
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1 **X. STATEMENT OF QUALIFICATIONS**

2 My name is Tishmari Lewis, and I am the Customer Programs Systems Manager at San  
3 Diego Gas & Electric Company. My business address is 8335 Century Park Court, San Diego,  
4 CA 92123. My current responsibilities include managing the team that supports the systems  
5 solutions for energy efficiency, customer assistance areas, demand response, and SDG&E's  
6 Electric Rule 32. I have been employed at SDG&E for 23 years.

7 I obtained my Bachelor of Science Degree in Business Administration from California  
8 State University of San Marcos in 1999. I am a certified Project Management Professional with  
9 the Project Management Institute since July 2010.

10 I have not previously testified before the Commission.

## LIST OF ACRONYMS

A.	Application
AL	Advice Letter
CDAC	Customer Data Access Committee
CPUC	California Public Utility Commission
CTP	Click-Through Authorization Processes
DR	Demand Response
DRPs	Demand Response Provider
GHG	Greenhouse Gas
IOU	Investor-Owned Utilities
OP/OPs	Ordering Paragraphs
SDG&E	San Diego Gas & Electric Company