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September 17, 2020

ADVICE LETTER 3610-E
(U902-E)

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

SUBJECT: SAN DIEGO GAS & ELECTRIC PLAN TO DEVELOP A WORK PLAN TO DEVELOP A SEPARATE, ACCESS-RESTRICTED DATA PORTAL PURSUANT TO DECISION 20-06-017

PURPOSE

San Diego Gas & Electric Company (SDG&E) hereby submits for approval its plan to develop a separate, access-restricted data portal for sharing information with local and tribal governments, pursuant to Ordering Paragraph (OP) 11 of the California Public Utilities Commission (Commission) Decision (D.) 20-06-017, issued June 17, 2020.

BACKGROUND

On September 12, 2019, the Commission initiated Rulemaking (R.) 19-09-009 to design a framework for the commercialization of microgrids in accordance with Senate Bill ("SB") 1339 and to account for the Commission's commitment to technologies and activities that may be useful for achieving overall resiliency goals. The *Assigned Commissioner's Scoping Memo and Ruling for Track 1* adopted a schedule for this proceeding, divided into three tracks.[1]

Track 1 encompasses the Commission's goal of deploying resiliency solutions in areas that are prone to outage events and wildfires, with the goal of putting some microgrid and other resiliency strategies in place by spring or summer 2020, if not sooner.[2]

On June 11, 2020, the Commission adopted D.20-06-017 (Decision) that included a number of requirements intended to accelerate the interconnection of resiliency projects in advance of the upcoming wildfire season; modernize tariffs to maximize social resiliency benefits; and promote collaborative engagement between the investor-owned

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1 *Assigned Commissioner's Scoping Memo and Ruling for Track 1* (December 20, 2019), at 2.
2 *Id.* at 3.

utilities (utilities) and local and tribal governments.[3] The Decision addresses how the utilities should share information with local governments, adopting four mandates:

- **Semi-Annual Workshops (OP 7):** The utilities must conduct semi-annual workshops designed to help empower local and tribal jurisdictions with a better understanding of grid operations, utility infrastructure, and the nature of weather events alongside utilities' Public Safety Power Shutoff (PSPS) mitigation initiatives in order to make informed decisions on where to focus their resiliency planning efforts, capital investments, and pre-PSPS event operations.[4]
- **Resiliency Project Engagement Guide (OP 9):** The utilities must develop a resiliency project engagement guide to aid local and tribal governmental entities and their community members in the early stages of resiliency project planning to better prepare for emergencies, including wildfires and PSPS outages.[5]
- **Dedicated Staff Team (OP 10):** The utilities must provide dedicated staffing for local and tribal government projects to provide advice and guidance before planning and proposal development begins, assisting local jurisdictions with consulting advice on the types of resiliency projects that can be expedited through the permitting and interconnection process. This assistance includes providing pre-project information about load points, customer connectivity, load profiles, and relevant maps and infrastructure data to facilitate local jurisdiction planning. Once a project is submitted, the utilities must prioritize projects to ensure that resources are directed to the most urgent for public health, safety, and public interest.[6]
- **Separate, Access-Restricted Data Portal (OP 11):** The utilities must develop a separate, access-restricted data portal for sharing information with local and tribal governments to help identify microgrid and resiliency project development opportunities. The Commission's goal is that the information provided through the portal will enable the development of higher quality interconnection applications that take less process cycle time for the utilities to approve.[7]

On July 17, 2020, SDG&E submitted advice letter 3571-E seeking approval of its plans to conduct semi-annual workshops, develop a resiliency project engagement guide, and provide a dedicated staff team for local and tribal government projects in compliance with OPs 7, 9, and 10 of the Decision. SDG&E submits this advice letter to satisfy the Decision's OP 11, which instructs that the separate, access-restricted data portal for sharing information with local and tribal governments must include, at a minimum:

1) a work plan and budget estimate that provides appropriate information and meets the requirements listed in section 4.3.5.1 of the Decision, and

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3 Decision at 2.
4 *Id.* at 51-52.
5 *Id.* at 57.
6 *Id.* at 61-62.
7 *Id.* at 65.

2) a narrative describing how the work plan relates to other planned work on related systems.

In Section I, SDG&E provides an overview of the portal contents including underlying assumptions regarding the scope of information to be included within the portal. Section II describes the relationship to other planned work on related systems, outlines a work plan and budget estimate for developing the portal.

DISCUSSION

I. A Separate, Access-Restricted Portal to Share Information with Local and Tribal Governments

A. Access to the Portal

OP 11 requires that access to the data portal be restricted to tribal governments, County Office of Emergency Services, and organizations created by political subdivisions to carry out the provisions of the State Emergency Plan (California Emergency Services Act Section 8568). Per the Decision, SDG&E would restrict access to only approved users. Users may request access to the data portal by clicking a link through the data portal. Requests will be authenticated by email account or other qualifying documentation. Upon approval, user(s) will be granted credentials for access to the portal.

B. Confidential Data in the Portal

Confidential data will be available in "viewing-only" mode.

C. Overview of Portal Contents

The Decision Section 4.3.5.1 requires that the work plan include a list of tasks, a schedule for each task, any interdependencies among tasks, and key milestones. In order to fulfill this requirement, SDG&E first describes details regarding the preliminary required portal contents. The access-restricted portal is intended to provide local government agencies with restricted access to essential data for microgrid and resiliency project development.

> *1. Layer showing utility planned work/grid investments in tabular and geographic information system formats, pursuant to utility obligations under General Order (GO) 131-D [Standard XI] and GO 166 [Standard 1, Section E]. Data about individual projects should include at a minimum: a) location; b) project descriptions (what is being upgraded/built, why is it being upgraded/built); c) project timelines; and d) projected completion date.*[8]

GO 131-D provides the requirements that the utilities must fulfill before beginning "construction in this state of any new electric generating plant, or the modification,

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[8] *Id.* at 66.

alteration, or addition to an existing electric generating plant, or of the electric transmission/power/distribution line facilities, or of new, upgraded, or modified substations."[9]

Section XI specifically addresses public noticing requirements, including contents of notices, for:

- applications for a Certificate of Public Convenience and Necessity (CPCN) or Permit to Construct (PTC) and
- power line facilities between 50 and 200 kilovolts (kV)[10] and substations designed to operate over 50 kV not included in the notice of application for a CPCN or PTC.[11]

GO 166 governs the standards for operation, reliability, and safety during emergencies and disasters. Standard 1 outlines the requirements for the utilities to develop an Emergency Response Plan, including a Fire Prevention Plan (FPP). SDG&E's Wildfire Mitigation Plan (WMP) addresses the requirements of the FPP.[12] Within its WMP, SDG&E's planned work and grid investments relevant to local government resiliency and microgrid planning include its planned infrastructure investments, including microgrids and system-hardening work.[13]

The GO 131-D and WMP data to be included in the portal is not currently maintained in a centralized electronic repository that contains all of the required data points. Some of this data is available in ArcGIS online, while other data must be integrated from project management tools. Therefore, SDG&E must first compile the data for external display. Data will likely be displayed as a single layer. SDG&E proposes to update this data on a quarterly basis to align with other reporting obligations that include similar data.[14]

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9 GO 131-D, Section I.

10 GO 131-D, Section XI.A.

11 GO 131-D, Section XI.B.

12 As ordered by D.12-01-032, SDG&E submitted its first FPP by Advice Letter (AL) 2429-E on December 31, 2012. Resolution E-4576 (issued May 23, 2013) required SDG&E to make minor modifications to its FPP; these modifications were incorporated by SDG&E's supplemental Advice Letter filing 2429-E-A. The supplemental AL 2429-E-A was approved by a disposition letter from the Director of the CPUC's Energy Division on June 18, 2013, with an effective date of May 23, 2013. In October 2018, the CPUC opened R.18-10-007 to implement the provisions of SB 901 related to electric utility WMPs. Through that proceeding, SDG&E submitted its most recent WMP in February 2020. In June 2020, the CPUC Wildfire Safety Division (WSD) approved SDG&E's WMP in Resolution WSD-005.

13 As the requirements around de-energization decision-making evolve, these requirements may alter the need for both previously planned for work/grid investments and identifying new grid investment needs. Any planned work/grid investments data included within this portal should not be considered final.

14 SDG&E submits quarterly reports on its transmission projects, including those requiring Commission review under GO 131-D, pursuant to Assembly Bill 970, D.06-09-003, and

2. *Layer showing High Fire Threat Districts;*[15]

The CPUC provides geographic information system (GIS) data on high fire-threat districts (HFTD) that will be included in the portal as a layer.[16] This data will be integrated in the portal with historic PSPS and weather data.

3. *Layer(s) showing electrical infrastructure: 1) substations and distribution circuits and 2) transmission lines feeding distribution.*[17]

SDG&E already maintains this data in an internal GIS database that can be processed and exported for display into the microgrid portal.

4. *Layer showing weather polygons or other key weather-related determining factors that led to the decision to de-energize from each prior public safety power shutoff event and resulting distribution and transmission line outages (transmission line de-energization visualizations should only be included to the extent that they will result in distribution outages).*[18]

SDG&E has determined that the "weather polygons" from prior PSPS events are the PSPS polygons being referenced. The Outage Management System (OMS) categorized PSPS events in the 4th quarter of 2019 and the GIS database began mapping them in November 2019 capturing the PSPS event data. For historical data SDG&E proposes to append the relevant weather information to these outage polygons. Data such as the peak wind gust, minimum relative humidity and Fire Potential Index at each weather station will be mapped to each PSPS polygon.

The proposed workplan will include estimates of processing the required weather-related determining factors that led to the decision to de-energize circuits during PSPS events. These attributes include:

- Circuit Name
- De-energization Date and Time
- Relevant Weather Station Name
- Minimum Relative Humidity
- Observed Wind Speed
- Observed Wind Gust
- Circuit Fire Potential Index Forecast

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various rulings. SDG&E submits quarterly reports on its Wildfire Mitigation Plan pursuant to Commission Resolution WSD-002.

15 Decision at 66.

16 *See* Fire-Threat Maps & the High Fire-Threat District (HFTD), available at: https://www.cpuc.ca.gov/FireThreatMaps/.

17 Decision at 66. SDG&E does not have subtransmission infrastructure.

18 Decision at 66.

II. Work Plan and Budget Estimate for Creating the Microgrid Portal

A. Relationship to Other Planned Work

SDG&E is in the process of fulfilling various Commission requirements that include some overlapping data and/or information technology (IT) activities. These requirements have some overlapping similarities, although the purposes, scope, format, and evolution are different. Furthermore, the requirements impact multiple disciplines across SDG&E, including GIS, IT, engineering, infrastructure project development, and wildfire mitigation. This means that the same staff and departments are impacted that have existing work tasks. These overlapping regulatory drivers include:

- The Decision requiring a separate, access-restricted data portal for local and tribal governments (Microgrid Portal)
- Draft Wildfire Safety Division Geographic Information System Data Reporting Requirements (WSD Schema)[19]
- Expanded data points in the database of utility poles and conduit (TEAMS Portal)[20]
- Distribution Resources Plans Distribution Investment Deferral Framework Reforms (DRP portal)[21]

All four of these requirements impact the same core GIS and IT teams and resources. The TEAMS and Microgrid Portals are defined as GIS map applications hosted on a portal infrastructure. The WSD Schema requires a GIS database that includes electric asset, inspection, outage, hardening, weather and other information. This data has to be collected, analyzed, processed and formatted into a data "schema" developed by the WSD. It is projected to have multiple versions, as SDG&E collects and processes the required data. Some of this data will be utilized in the Microgrid Portal and the DRP Portal. The TEAMS and DRP Portals are map applications that will reside on the same portal infrastructure being proposed and developed by the SDG&E GIS and IT teams.

Of the four requirements listed above, the WSD Schema is the highest priority for the GIS and IT teams, given its compliance deadline to the Commission, the safety priority, and fire season impacts. Each of these requirements is important in meeting the Commission's objectives but must be addressed in succession, to varying degrees, given the dependency of similar resources. The cross-functional teams working on each of these Commission directives continue to collaborate on an ongoing basis to assess the components of each requirement that can be developed concurrently, such as compiling

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19 CPUC Wildfire Safety Division, Draft Wildfire Safety Division (WSD) GIS Data Reporting Requirements and Schema for California Electrical Corporations (August 21, 2020).

20 D.20-07-004, *Decision Approving Track 1 Workshop Report Work Plans for San Diego Gas & Electric Company, Southern California Edison Company, Pacific Gas and Electric Company, AT&T, and Frontier Communications of California* (July 21, 2020).

21 R.14-08-013, *Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework – Filing and Process Requirements*, Attachment B.

project data and weather data for multiple regulatory drivers to minimize and prevent duplication of work. However, each of these portals is expected to evolve over time.

B. Key Considerations, Assumptions, and Dependencies

SDG&E considered the following key considerations, assumptions, and dependencies in the development of the implementation work plan:

1. A project team must complete the analysis, design, development, testing, deployment, and maintenance activities of the Microgrid Data Portal. This project team requires contributions by subject-matter experts (SMEs), including from IT, GIS, Transmission and Distribution Planning, and other teams.

    a. These SMEs are currently occupied with development and stabilization of other complex projects. SDG&E estimates to begin Analysis and Design activities for the Microgrid Data Portal no sooner than April 2021.

    b. Specific dates within the work plan are provided for reference only and should only be used as a high-level reference for the durations of activities.

2. New development and testing environments are required. SDG&E is analyzing the feasibility of using a vendor-hosted solution for production for higher performance, and better reliability. Based on the Commission high level requirements so far, a managed cloud services solution has the capabilities necessary to meet security requirements and maintenance. Planning will also include developing a process for secure account management to accommodate the access requests from users.

3. Detailed estimates and schedules are dependent on completion of an architecture document and finalized business requirements document. Finalized business requirements are dependent on the CPUC's resolution of this advice letter and work plan.

4. SDG&E utilizes small teams to plan, prioritize, and execute work tasks in completing projects. Upon further evaluation of the finalized business requirements, SDG&E teams will create detailed plans to develop the Microgrid Data Portal in stages.

5. This work plan does not account for incremental requirements or changes based on Commission review. Any changes to the listed requirements may require further evaluation and adjustments to the proposed work plan.

6. Estimates related to the Managed Cloud Services subscription are based on current understanding of expected user volume. An increase above the current estimated user volume could result in a commensurate increase in the Managed Cloud Services subscription cost.

C. Milestones and Timeline

SDG&E's work plan includes a list of key tasks, a tentative schedule for those tasks, and any interdependencies among the tasks and milestones. Based on limited evaluations of existing datasets, systems, and required functionality, the *Go-Live* date of the new Microgrid Data Portal can occur within 24 months from the initiation of the project. SDG&E identified the following milestones as part of the Microgrid Data Portal work plan, denoted in a T_0 + *Months* notation, where T_0 is the start date of the project and *Months* is the duration of activities leading up to the milestone.

Milestone	Scope of Work
Project Preparation & Kick-Off T_0	• Project management tasks – Identification of required data, formation of work teams. • Team meetings to identify required data, terminology, and guide requirements and system design phases of project.
Requirements Development & System Design T_0 + 4 months	• Team requirements meetings, requirements gathering, formalize requirements and define system design and components, vendor consultation, engineering review of requirements and system design. • Upon final approval of business and functional requirements, the project team will undertake design activities involving system architecture. System architecture will dictate implementation of required functionality and data. • Typical system architecture activities include data modeling, system integration, and hardware and software evaluations.
Project Construction T_0 + 18 months	• Once business and functional requirements are translated into a system design, the team will commence development activities. • Projected development tasks include the processing and spatial display of various engineering databases, export of electric asset GIS data, and outage and weather data. • Tasks also include installation of required hardware and software, retrieval, and creation of new data structures in databases, building of data and system interfaces, as well as development of new procedures to support on-going maintenance of the system(s). • Core development activities completed, and prototype map application released in the portal environment.
System Testing & Release T_0 + 23 months	• Develop test plans and scripts. • Execute test scripts, log defects, and fix issues. • Test performance and perform necessary data changes to meet performance benchmarks.

Milestone	Scope of Work
	• Onboard users and complete user acceptance testing (UAT) with users. • System testing, including end-to-end testing of the solution from data intake to publication of data on maps and performance benchmarking to support adequate processing times and response from the installed applications. • SDG&E proposes for a vendor-based hosting solution for the production application which should help to streamline testing, troubleshooting, and managing performance.
Map Application Live T_0 + 24 months	• New microgrid map application with required data published in tabular and spatial format. • User operability testing for production release. • Create maintenance team to support Microgrid map application and data.
User Operability & Stabilization Ongoing (Maintenance)	• SDG&E project team will continue to evaluate the Microgrid Map Application in its production environment. • SDG&E project team will also transition required ongoing activities to SDG&E teams in support of maintenance.

D. Budget Estimate

There are many factors that drive the cost for developing the Microgrid Data Portal. Understanding the multiple Commission directives that have elements of overlapping data requirements, SDG&E first considered ways to leverage existing IT infrastructure to minimize costs. As the Decision discusses:

> Use of the existing Distribution Resources Plans (DRP) Data Portals should be carefully considered by the utilities. PG&E and SDG&E require registration and a login to access data on their DRP Data Portals, for example. This approach could be used to restrict access to certain data while making the same data available to specific users.[22]

SDG&E first evaluated whether to adopt this approach within its DRP portal. However, SDG&E's DRP portal was not architected to manage additional user groups, greater security needs and the capacity to support larger volumes of data, and added functionality that have occurred over time within the DRP proceeding. For the Microgrid Portal, the Commission anticipated that further supplementary parameters for the platform's growth will be developed in Track 2 or Track 3 of the proceeding, given the lack of broad consensus regarding the data.[23]

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[22] *Id.* at 67-68.
[23] Decision at 65.

SDG&E's understanding of the Microgrid portal requirements should be considered fluid and constantly changing and improving. As the electric system evolves, operational and situational awareness increases, and regulatory and legislative requirements change, the nature and scope of planned work/grid investment data included in this portal may also change over time. SDG&E holds the same expectation for the DRP portal as a result of ongoing rulings, reforms, and decisions within the DRP proceeding.

Therefore, a robust portal infrastructure is needed that can accommodate all of the portal map applications, API's and data. The proposal to utilize the ESRI secure, hosted cloud platform is an important part of building a sustainable solution providing the flexibility to scale to growing demands. The DRP portal was designed as a map application within SDG&E's internal hosted environment published to the ESRI ArcGIS online portal. For the Microgrid Data Portal, SDG&E proposes to create a new map instance on the more secure ESRI ArcGIS Managed Cloud Services (EMCS) platform. This platform consists of improvements in scalability and support while incorporating a high level of cybersecurity. For future portal deployments including the SDG&E's DRP Portal will benefit by standardizing on the ESRI Managed Cloud Service (EMCS) approach.

Based on these considerations and SDG&E's current understanding of the Microgrid Data Portal requirements, SDG&E estimates the development cost[24] as outlined below:

Phase	Estimated Cost	Timeframe
Initial Portal Development	$2 million	2 years
Post-Project Operation & Maintenance Support	$1 million	5 years
Managed Cloud Services Subscription	$1.5 million	5 years
SDG&E Total Expense	$4.5 million	5 Years

SDG&E's underlying cost assumptions include development of:

- *Restricted User Access Features:* A separate restricted user access mechanism must be built to ensure protection of potential confidential information. A validation process must also be developed and implemented to verify user credentials.
- *User Account Volume:* Estimates related to the Managed Cloud Services subscription are based on current understanding of expected user volume. SDG&E will seek to reconcile the user volume with the Managed Cloud Services requirements. As SDG&E works with ESRI on that process, the estimated costs for Managed Cloud Services subscription may be reduced.
- *New data sets as required by the Resolution:* The additional data volume may exceed the existing IT infrastructure capacity, requiring new or additional

[24] Estimated costs for this work plan as proposed in this advice letter are presented in fully loaded dollars and not revenue requirements. For the Initial Portal Development, the costs presented are fully loaded capital expenditures whereas the costs for the Post-Project Operation and Maintenance Support and the Managed Cloud Services Subscription are fully loaded operations and maintenance (O&M) costs.

infrastructure to accommodate. Additional support and resources are required to implement and manage portal development. IT Engineering & Delivery resources needed to execute the listed work plan activities (*e.g.*, analysis to stabilization).

EFFECTIVE DATE

SDG&E believes this submittal is subject to Energy Division disposition and should be classified as Tier 2 (pending Energy Division disposition) pursuant to GO 96-B. SDG&E respectfully requests that this submittal be effective on October 19, 2020, thirty-two days from the date submitted.

PROTEST

Anyone may protest this Advice Letter to the Commission. The protest must state the grounds upon which it is based, including such items as financial and service impact, and should be submitted expeditiously. The protest must be made in writing and must be received no later than October 7, 2020, which is 20 days after the date this Advice Letter was submitted with the Commission. There is no restriction on who may submit a protest. The address for mailing or delivering a protest to the Commission is:

CPUC Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102

Copies of the protest should also be sent via e-mail to the attention of the Energy Division at EDTariffUnit@cpuc.ca.gov. A copy of the protest should also be sent via e-mail to the address shown below on the same date it is mailed or delivered to the Commission.

Attn: Greg Anderson
Regulatory Tariff Manager
E-mail: GAnderson@sdge.com & SDGETariffs@sdge.com

NOTICE

A copy of this submittal has been served on the utilities and interested parties shown on the attached list, including interested parties in R.19-09-009, by providing them a copy electronically. Any address changes should be directed to SDG&E Tariffs by email to SDG&ETariffs@sdge.com.

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CLAY FABER
Director – Federal & CA Regulatory

California Public Utilities Commission

ADVICE LETTER SUMMARY

ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.:

Utility type:

☐ ELC ☐ GAS ☐ WATER

☐ PLC ☐ HEAT

Contact Person:
Phone #:
E-mail:
E-mail Disposition Notice to:

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #:

Tier Designation:

Subject of AL:

Keywords (choose from CPUC listing):

AL Type: ☐ Monthly ☐ Quarterly ☐ Annual ☐ One-Time ☐ Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #:

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL:

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested? ☐ Yes ☐ No

If yes, specification of confidential information:
Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required? ☐ Yes ☐ No

Requested effective date:

No. of tariff sheets:

Estimated system annual revenue effect (%):

Estimated system average rate effect (%):

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected:

Service affected and changes proposed[1]:

Pending advice letters that revise the same tariff sheets:

[1]Discuss in AL if more space is needed.

Clear Form

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division Attention: Tariff Unit 505 Van Ness Avenue San Francisco, CA 94102 Email: EDTariffUnit@cpuc.ca.gov	Name: Title: Utility Name: Address: City: State: District of Columbia Zip: Telephone (xxx) xxx-xxxx: Facsimile (xxx) xxx-xxxx: Email:
	Name: Title: Utility Name: Address: City: State: District of Columbia Zip: Telephone (xxx) xxx-xxxx: Facsimile (xxx) xxx-xxxx: Email:

Clear Form

General Order No. 96-B
ADVICE LETTER SUBMITTAL MAILING LIST

cc: (w/enclosures)

Public Utilities Commission
Office of Ratepayer Advocates (ORA)
R. Pocta
Energy Division
M. Ghadessi
M. Salinas
L. Tan
R. Ciupagea
Tariff Unit

CA Energy Commission
B. Penning
B. Helft

Advantage Energy
C. Farrell

Alcantar & Kahl LLP
M. Cade
K. Harteloo

AT&T
Regulatory

Barkovich & Yap, Inc.
B. Barkovich

Braun & Blaising, P.C.
S. Blaising
D. Griffiths

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H. Nanjo

California Energy Markets
General

California Farm Bureau Federation
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California Wind Energy
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Poway City Hall

City of San Diego
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J. Cha
D. Heard
F. Ortlieb
H. Werner
M. Rahman

Clean Energy Renewable Fuels, LLC
P. DeVille

Clean Power Research
T. Schmid
G. Novotny

Davis Wright Tremaine LLP
J. Pau

Douglass & Liddell
D. Douglass
D. Liddell

Ellison Schneider Harris & Donlan LLP
E. Janssen
C. Kappel

Energy Policy Initiatives Center (USD)
S. Anders

Energy Regulatory Solutions Consultants
L. Medina

Energy Strategies, Inc.
K. Campbell

EQ Research
General

Goodin, MacBride, Squeri, & Day LLP
B. Cragg
J. Squeri

Green Charge
K. Lucas

Hanna and Morton LLP
N. Pedersen

JBS Energy
J. Nahigian

Keyes & Fox, LLP
B. Elder

Manatt, Phelps & Phillips LLP
D. Huard
R. Keen

McKenna, Long & Aldridge LLP
J. Leslie

Morrison & Foerster LLP
P. Hanschen

MRW & Associates LLC
General

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M. Swindle

NRG Energy
D. Fellman

Pacific Gas & Electric Co.
M. Lawson
M. Huffman
Tariff Unit

RTO Advisors
S. Mara

SCD Energy Solutions
P. Muller

Shute, Mihaly & Weinberger LLP
O. Armi

Solar Turbines
C. Frank

SPURR
M. Rochman

Southern California Edison Co.
K. Gansecki

TerraVerde Renewable Partners LLC
F. Lee

TURN
M. Hawiger

UCAN
D. Kelly

US Dept. of the Navy
K. Davoodi

US General Services Administration
D. Bogni

Valley Center Municipal Water Distr
G. Broomell

Western Manufactured Housing Communities Association
S. Dey

Interested Parties
R.19-09-009