

APPENDIX B

ATTACHMENTS

LIST OF ATTACHMENTS FOR CHAPTER 2

#	Attachment	Description
1	2.01	PG&E 2020_LCD_Workpaper 6 Highest Energy Value Days and Price Forecast Summary (CONFIDENTIAL)
2	2.02	PG&E 2020_LCD_Workpaper 6 Highest Energy Value Days (CONFIDENTIAL)
3	2.03	PG&E 2020_LCD_Workpaper 7 Load Bid (CONFIDENTIAL)
4	2.04	Public Advocates Office Workpapers 2015-2020 Load Bid (CONFIDENTIAL)
5	2.05	PG&E 2020_LCD_Workpaper 1 Commitment Cost Decisions (CONFIDENTIAL)
6	2.06	PG&E 2020_LCD_Workpaper Fuel Price VOM IHR GHG (CONFIDENTIAL)
7	2.07	PG&E 2020_LCD_Workpaper 2 Bid Cost Calculation (CONFIDENTIAL)
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14	2.14	Public Advocates Office Workpapers 2020 Helms Pump Gen (CONFIDENTIAL)
15	2.15	PG&E 2020_LCD_Workpaper DR 2 (CONFIDENTIAL)
16	2.16	PG&E 2020_LCD_Workpaper DR 1 (CONFIDENTIAL)

CHAPTER 2
ATTACHMENT 2.01

**PG&E 2020 LCD Workpaper 6: Highest Energy
Value Days and Price Forecast Summary
(Confidential)**

CHAPTER 2
ATTACHMENT 2.02

**PG&E 2020 LCD Workpaper 6: Highest Energy
Value Days (Confidential)**

Available by email

CHAPTER 2
ATTACHMENT 2.03

PG&E 2020 LCD Workpaper 7: Load Bid
(Confidential)

Available by email

CHAPTER 2
ATTACHMENT 2.04

Public Advocates Office Workpapers 2015-2020
Load Bid (Confidential)

Available by email

CHAPTER 2
ATTACHMENT 2.05

**PG&E 2020 LCD Workpaper 1: Commitment
Cost Decisions (Confidential)**

Available by email

CHAPTER 2
ATTACHMENT 2.06

**PG&E 2020 LCD Workpaper: Fuel Price VOM
IHR GHG (Confidential)**

Available by email

CHAPTER 2
ATTACHMENT 2.07

**PG&E 2020 LCD Workpaper 2: Bid Cost
Calculation (Confidential)**

Available by email

CHAPTER 2
ATTACHMENT 2.08

**PG&E 2020 LCD Workpaper 2: Bid Cost
Calculation Summary (Confidential)**

CHAPTER 2
ATTACHMENT 2.09

**PG&E Response to Public Advocates Office Data
Request #16, Question 1 (Confidential)**

CHAPTER 2
ATTACHMENT 2.10

**PG&E 2020 LCD Workpaper 3: Self
Commitment (Confidential)**

Available by email

CHAPTER 2
ATTACHMENT 2.11

**PG&E 2020 LCD Workpaper 3: Self
Commitment Summary (Confidential)**

CHAPTER 2
ATTACHMENT 2.12

**PG&E 2020 LCD Workpaper 4: Hydro
Resources Summary (Confidential)**

CHAPTER 2
ATTACHMENT 2.13

PG&E 2020 LCD Workpaper 4: Hydro Top 500
(Confidential)

Available by email

CHAPTER 2
ATTACHMENT 2.14

**Public Advocates Office Workpapers 2020 Helms
Pump Gen (Confidential)**

Available by email

CHAPTER 2
ATTACHMENT 2.15

PG&E 2020 LCD Workpaper DR 2
(Confidential)

Available by email

CHAPTER 2
ATTACHMENT 2.16

PG&E 2020 LCD Workpaper DR 1
(Confidential)

Available by email

LIST OF ATTACHMENTS FOR CHAPTER 3

#	Attachment	Description
	3.1	PG&E Responses to Data Request 2 Questions 1 to 9
	3.2	PG&E Responses to Data Request 2 Question 10 (CONFIDENTIAL) (Available via email)
	3.3	PG&E Responses to Data Request 2 Questions 11 to12
	3.4	PG&E Responses to Data Request 14 Questions 1 to 8
	3.5	PG&E Responses to Data Request 14 Questions 9 to 13 (CONFIDENTIAL)
	3.6	PG&E Responses to Data Request 14 Questions 14 to 16
	3.7	PG&E Responses to Data Request 14 Questions 17 to 20 (CONFIDENTIAL)
	3.8	PG&E Responses to Data Request 14 Questions 21 to23
	3.9	PG&E Responses to Data Request 14 Questions 24 to 26 (CONFIDENTIAL)
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	3.11	PG&E Responses to Data Request 14 Question 73 to SCE Response (CONFIDENTIAL) (Available via email)

CHAPTER 3
ATTACHMENT 3.1

PG&E Responses to Data Request 2

Questions 1 to 9

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 002C-Q01		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 002C-Q01		
Request Date:	March 29, 2021	Requester DR No.:	002C
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Pit Powerhouses

QUESTION 01

How many powerhouses are there in the Pit River system?

ANSWER 01

There are 8 powerhouses on the Pit River system.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 002C-Q02		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 002C-Q02		
Request Date:	March 29, 2021	Requester DR No.:	002C
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Pit Powerhouses

QUESTION 02

What was the Application and the Commission Decision that approved the purchase/construction of the Pit Powerhouses? Provide the dates as well.

ANSWER 02

PG&E objects to this question to the extent it requests information outside the scope of this 2020 ERRA Compliance Proceeding, which includes review of PG&E's operation of Utility Owned Generation during the record period 2020.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 002C-Q03		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 002C-Q03		
Request Date:	March 29, 2021	Requester DR No.:	002C
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Pit Powerhouses

QUESTION 03

What was the Application and the Commission Decision that approved the rate recovery of the Pit Powerhouses? Provide the dates as well.

ANSWER 03

PG&E objects to this question to the extent it requests information outside the scope of this 2020 ERRA Compliance Proceeding, which includes review of PG&E's operation of Utility Owned Generation during the record period 2020.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 002C-Q04		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 002C-Q04		
Request Date:	March 29, 2021	Requester DR No.:	002C
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Pit Powerhouses

QUESTION 04

Please provide the information requested in the below table:

Pit River Powerhouses	MW	# of dams	# of generating units [†]	COD*	Comments
Pit 1					
Pit 7					
Total					

[†]use one line for each generating unit, if more than one.

*COD = Commercial Operation Date.

ANSWER 04

Pit River Powerhouses	MW	# of dams	# of generating units [†]	COD*	Comments
Pit 1	61	2	2	2/28/1922	1 Forebay Dam and 1 Diversion Dam
Pit 3	70	1	3	7/15/1925	1 Diversion Dam
Pit 4	95	1	2	10/1/1955	1 Diversion Dam
Pit 5	160	2	4	4/29/1944	1 Conveyance-related Dam and 1 Diversion Dam
Pit 6	80	1	2	8/14/1965	1 Diversion Dam
Pit 7	112	2	2	9/10/1965	1 Afterbay Dam and 1 Diversion Dam
James B Black	172	2	2	Unit 1 - 2/17/1966	1 Storage Dam and 1 Storage/Diversion Dam

				Unit 2 - 12/17/1965	
Hat Creek 1	8.5	2	1	8/22/1921	1 Forebay Dam and 1 Diversion Dam
Hat Creek 2	8.5	1	1	9/28/1921	1 Diversion Dam
Total	767	14	19		

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 002C-Q05		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 002C-Q05		
Request Date:	March 29, 2021	Requester DR No.:	002C
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Pit Powerhouses

QUESTION 05

Are all of the Pit River Powerhouses managed by the Shasta Area? If not, please explain the geographic split.

ANSWER 05

Yes. All the Pit River Powerhouses are managed by the Shasta Area.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 002C-Q06		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 002C-Q06		
Request Date:	March 29, 2021	Requester DR No.:	002C
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Pit Powerhouses

QUESTION 06

If a powerhouse has more than one generating unit, can one unit operate even though the other unit(s) is(are) out of service? Please explain.

ANSWER 06

Yes. Each unit in a powerhouse can operate independently.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 002C-Q07		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 002C-Q07		
Request Date:	March 29, 2021	Requester DR No.:	002C
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Pit Powerhouses

QUESTION 07

What are the Pit Powerhouses used for – base load, ancillary, peakers or other purpose(s)? Please explain their usages?

ANSWER 07

Pit Powerhouses are used for base load, ancillary services, and peaking. When and how each is used is dependent upon the reservoir storage capacity and time of year and given market dynamics at that time.

PG&E's Energy Policy and Procurement organization determines how to schedule the hydroelectric powerhouses within PG&E's broader electric supply operations to meet customer demand.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 002C-Q08		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 002C-Q08		
Request Date:	March 29, 2021	Requester DR No.:	002C
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Pit 5 Forced Outage – Unit 2 (Page 2-33), February 11, 2020 at 12:03 p.m., to February 14, 2020 at 2:12 p.m. (3.09 days, or 3 days 2 hours and 9 minutes)

QUESTION 08

Please verify the dates and times of the above outage duration. Table 2-6 (page 2-31) shows the outage duration as 4.09 days, while the narrative on page 2-33 indicates the duration between the start and the end of the outage as 3.09 days. Please explain the discrepancy between the 4.09-day and the 3.09-day duration.

ANSWER 08

The 4.09 days stated in Table 2-6 is a typo and should state 3.09 days. The start and end times of the outage in Table 2-6 and the narrative on page 2-33 are the same.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 002C-Q09		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 002C-Q09		
Request Date:	March 29, 2021	Requester DR No.:	002C
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Pit 5 Forced Outage – Unit 2 (Page 2-33), February 11, 2020 at 12:03 p.m., to February 14, 2020 at 2:12 p.m. (3.09 days, or 3 days 2 hours and 9 minutes)

QUESTION 09

If the 4.09-day duration shown in Table 2-6 is correct, please explain to what events the 4.09 days refer as compared to the narrative describing the 3.09 days.

ANSWER 09

Please refer to PG&E's response to Question 8.

CHAPTER 3
ATTACHMENT 3.3

PG&E Responses to Data Request 2

Questions 11 & 12

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 002C-Q11		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 002C-Q11		
Request Date:	March 29, 2021	Requester DR No.:	002C
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Pit 5 Forced Outage – Unit 2 (Page 2-33), February 11, 2020 at 12:03 p.m., to February 14, 2020 at 2:12 p.m. (3.09 days, or 3 days 2 hours and 9 minutes)

QUESTION 11

What is the abbreviation, CA (line 12)?

ANSWER 11

CA is the abbreviation for Corrective Action.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 002C-Q12		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 002C-Q12		
Request Date:	March 29, 2021	Requester DR No.:	002C
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Pit 5 Forced Outage – Unit 2 (Page 2-33), February 11, 2020 at 12:03 p.m., to February 14, 2020 at 2:12 p.m. (3.09 days, or 3 days 2 hours and 9 minutes)

QUESTION 12

What is the abbreviation, CE (line 13)?

ANSWER 12

CE is the abbreviation for Cause Evaluation.

CHAPTER 3
ATTACHMENT 3.4

PG&E Responses to Data Request 14

Questions 1 to 8

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q01		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q01		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

NERC Classification and GADS Cause Code (DR response to #1.1.13 Attachment 01)

QUESTION 01

Why did PG&E use North American Electric Reliability Corporation (NERC) Event Type U1 for this outage (Reference: Excel spreadsheet for MDR #1.1.13 response)? Please explain and cite source.

ANSWER 01

The North American Electric Reliability Corporation (NERC) Generation Availability Data System (GADS) defines U1 as an immediate unplanned, or forced, outage. This is an outage that requires immediate removal of the unit from service, another outage state, or a reserve shutdown state (p. III-8, NERC GADS Data Reporting Instructions, effective January 2020). The Pit 5 Unit 2 outage met the NERC GADS definition of a U1 outage.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q02		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q02		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

NERC Classification and GADS Cause Code (DR response to #1.1.13 Attachment 01)

QUESTION 02

Why did PG&E use the Generating Availability Data System (GADS) Cause Code 7050 (Turbine Governor) for the Pit 5 Unit 2 outage since the outage was caused by oil release from both the bearing and governor? (Reference: Excel spreadsheet for MDR #1.1.13 response)? Please explain and cite source.

ANSWER 02

PG&E used NERC cause code 7050, described as "Turbine Governor" (p. B15-10, NERC GADS Data Reporting Instructions, effective January 2020), as this cause code best represented the cause of the outage.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q03		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q03		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

NERC Classification and GADS Cause Code (DR response to #1.1.13 Attachment 01)

QUESTION 03

PG&E reports this outage as a NERC Event Type U1 and a GADS Cause Code 7050. What are the differences in organization and functions between NERC and GADS with respect to their reporting purpose and requirements?

ANSWER 03

Generation Availability Data System (GADS) is NERC's official reporting system for collecting information about the performance of electric generating equipment.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q04		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q04		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

NERC Classification and GADS Cause Code (DR response to #1.1.13 Attachment 01)

QUESTION 04

Besides outages, are there any other events for which PG&E must assign and report NERC Event Types and GADS Cause Codes?

ANSWER 04

Yes. There are two Event Types that are reported in GADS: Inactive and Active. The Inactive Event Type includes Inactive Reserve, Mothballed, and Retired. The Active Event type includes U1, U2, U2, SF, D1, D2, D3, D4, DM, PD, DM, MO, ME, PO and PE. For a description of these Event Types, please reference the NERC GADS Data Reporting Instructions at

<https://www.nerc.com/pa/RAPA/gads/Pages/Data%20Reporting%20Instructions.aspx>.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q05		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q05		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

NERC Classification and GADS Cause Code (DR response to #1.1.13 Attachment 01)

QUESTION 05

To whom does PG&E report the NERC Event Types and GADS Cause Codes? Please list all persons/organizations (external to PG&E) that receive the information.

ANSWER 05

PG&E reports the NERC Event Types and GADS Cause Codes each quarter to NERC consistent with the NERC GADS Data Reporting Instructions referenced in PG&E's response to Question 4. PG&E also provides this information to the CPUC and various parties in PG&E's CPUC proceedings upon request.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q06		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q06		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

NERC Classification and GADS Cause Code (DR response to #1.1.13 Attachment 01)

QUESTION 06

Is PG&E required to provide follow-up reports/information to the persons/organizations that receive the NERC and the GADS information? How about other entities that did not receive PG&E report of the NERC Event Types and GADS Cause Codes. If so, please provide copies of all such follow-up reports and correspondences for the Pit 5 Unit 2 outage.

ANSWER 06

PG&E complied with all reporting requirements. PG&E does not know what Cal Advocates is referring to by follow-up reports/information.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q07		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q07		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 07

Please enumerate all the plant personnel and their job classifications.

ANSWER 07

PG&E objects to this data request on grounds that it is overbroad, irrelevant and outside the scope of this proceeding.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q08		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q08		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 08

Which plant personnel specifically have duties in training others? Please list the names of personnel that train others along with their classifications.

ANSWER 08

PG&E objects to this data request on grounds that it is overbroad, irrelevant and outside the scope of this proceeding.

CHAPTER 3
ATTACHMENT 3.6

PG&E Responses to Data Request 14

Questions 14 to 16

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q14		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q14		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 14

Please provide all records of the bearing and governor oil sample collection activities in the last five years, or in the last five occurrences (whichever yields more information), and the name(s) of the personnel performing the work.

ANSWER 14

PG&E objects to this data request on grounds that it is overbroad, irrelevant and outside the scope of this proceeding.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q15		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q15		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 15

Please provide the procedures for and/or desktop instructions on the bearing and governor oil sampling collection. If there were none on or prior to the February 11, 2020 incident, please explain why not.

ANSWER 15

Please refer to PG&E's response to Question 13b.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q16		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q16		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 16

Enumerate, in steps, the proper way to perform the bearing and governor oil sample collection without causing oil to spill. Please provide, as appropriate, diagrams and photographs showing all the parts and components to support your response.

ANSWER 16

Please refer to PG&E's response to Question 13b.

CHAPTER 3
ATTACHMENT 3.7

PG&E Responses to Data Request 14

Questions 17 to 20

(Confidential)

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q17		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q17		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 17

Please enumerate, in steps, how the [REDACTED] performed the bearing and governor oil sample collection and the missteps that he/she took. Please provide, as appropriate, diagrams and photographs showing all the parts and components to support your response.

ANSWER 17

The ATS Technician performed all steps correctly up until moments before the incident. Due to the unique construction of the particular valve, upon removal of the plug, the internal bushing was inadvertently removed. The technician was unaware that the bushing was being removed because it appeared that the threads showing were from the plug not the bushing. As the tech removed the plug by hand, the internal components no longer had the bushing to hold them in place. Once the internal valve components were removed, the valve was unable to be closed and oil flowed freely through the valve.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q18		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q18		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 18

Why was the [REDACTED] not aware of how the [REDACTED] was performing the bearing and governor oil sample collection?

ANSWER 18

The access area was only large enough for one person. After confirmation of which valve to use was completed, the ATS Technician removed the plug while the AM Engineer stood directly behind him, but the AM Engineer was not able to see his movements.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q19		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q19		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 19

Please explain why and how the [REDACTED] failed to stop the [REDACTED] from making the mistake.

ANSWER 19

Please refer to PG&E's response to Question 18.

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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q20		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q20		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 20

Could the oil spill have been prevented if the [REDACTED] had been directly observing how the [REDACTED] was performing the work?

ANSWER 20

No. The AM Engineer was directly observing the ATS Technician. Even if the AM Engineer been able to see everything clearly, it is unlikely the outcome would have changed because the difference between the plug and bushing threads is very small and difficult to see from a couple of feet away.

CHAPTER 3
ATTACHMENT 3.8

PG&E Responses to Data Request 14

Questions 21 to 23

PACIFIC GAS AND ELECTRIC COMPANY
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Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q21		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q21		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 21

Has PG&E revised the procedures and/or desktop instructions on the bearing and governor oil sampling collection since the February 11, 2020 outage?

- a. If so, please enumerate and explain the changes.
- b. If not, please explain why not.

ANSWER 21

Yes.

- a. PG&E converted the procedure to the new Guidance Document Management (GDM) template, including the following updates: 1. Added clarification to Qualified Person description and job classifications; 2. Added AFW references; 3. Updated PPE requirements; 4. Added clarifications to tools; 5. Added references to PG-1330S Section 5.3; 6. Added clarifications to procedural steps; 7. Added supervisory requirements under implementation responsibilities; 8. Added Appendix A and B (Moved procedural steps for sampling from a sump or valved connection from the body of the standard to the appendices).
- b. N/A.

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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q22		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q22		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 22

Who approved the procedures and/or desktop instructions on the work pertaining to bearing and governor oil sampling collection?

ANSWER 22

The following individuals approved PG-1330P-01: Power Generation Operations and Maintenance (O&M) directors and the Hydro O&M Managers.

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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q23		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q23		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 23

Did the California Occupational Safety and Health Administration (CA OSHA) or other regulatory agencies also review and approve the bearing and governor oil sampling collection procedures/instructions?

ANSWER 23

PG&E objects to this question on grounds that the information is irrelevant and outside the scope of this proceeding.

CHAPTER 3
ATTACHMENT 3.9

PG&E Responses to Data Request 14

Questions 24 to 26

(Confidential)

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q24		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q24		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 24

What kind of work garments, including glasses and hard hats, did the [REDACTED] and the [REDACTED] wear on February 11, 2020? Please provide, as appropriate, color photos and/or illustrations, and records of garments used.

ANSWER 24

PG&E objects to this question on grounds that it is outside the scope of this proceeding.

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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q25		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q25		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 25

Who, including regulatory agencies, approved the work garments that the [REDACTED] and the [REDACTED] wore on February 11, 2020?

ANSWER 25

PG&E objects to this question on grounds that the information is irrelevant and outside the scope of this proceeding.

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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q26		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q26		
Request Date:	May 14, 2021	Requester DR No.:	014C
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PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 26

Were the garments able to withstand the hazards of the task, such as [REDACTED]
[REDACTED]? Please explain the ratings of the garments used on
February 11, 2020.

ANSWER 26

PG&E objects to this question on grounds that it is irrelevent and outside the scope of this proceeding.

CHAPTER 3
ATTACHMENT 3.10

PG&E Responses to Data Request 14

Questions 27 to 103

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q27		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q27		
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PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Instructions, Procedures and Drawings

QUESTION 27

Did PG&E or anyone else notify CA OSHA about the February 11, 2020 incident?

- a. If so, please provide CA OSHA's report(s) and findings.
- b. If not, please explain why not.

ANSWER 27

PG&E objects to this question on grounds that it is irrelevant and outside the scope of this proceeding.

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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q28		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q28		
Request Date:	May 14, 2021	Requester DR No.:	014C
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PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 28

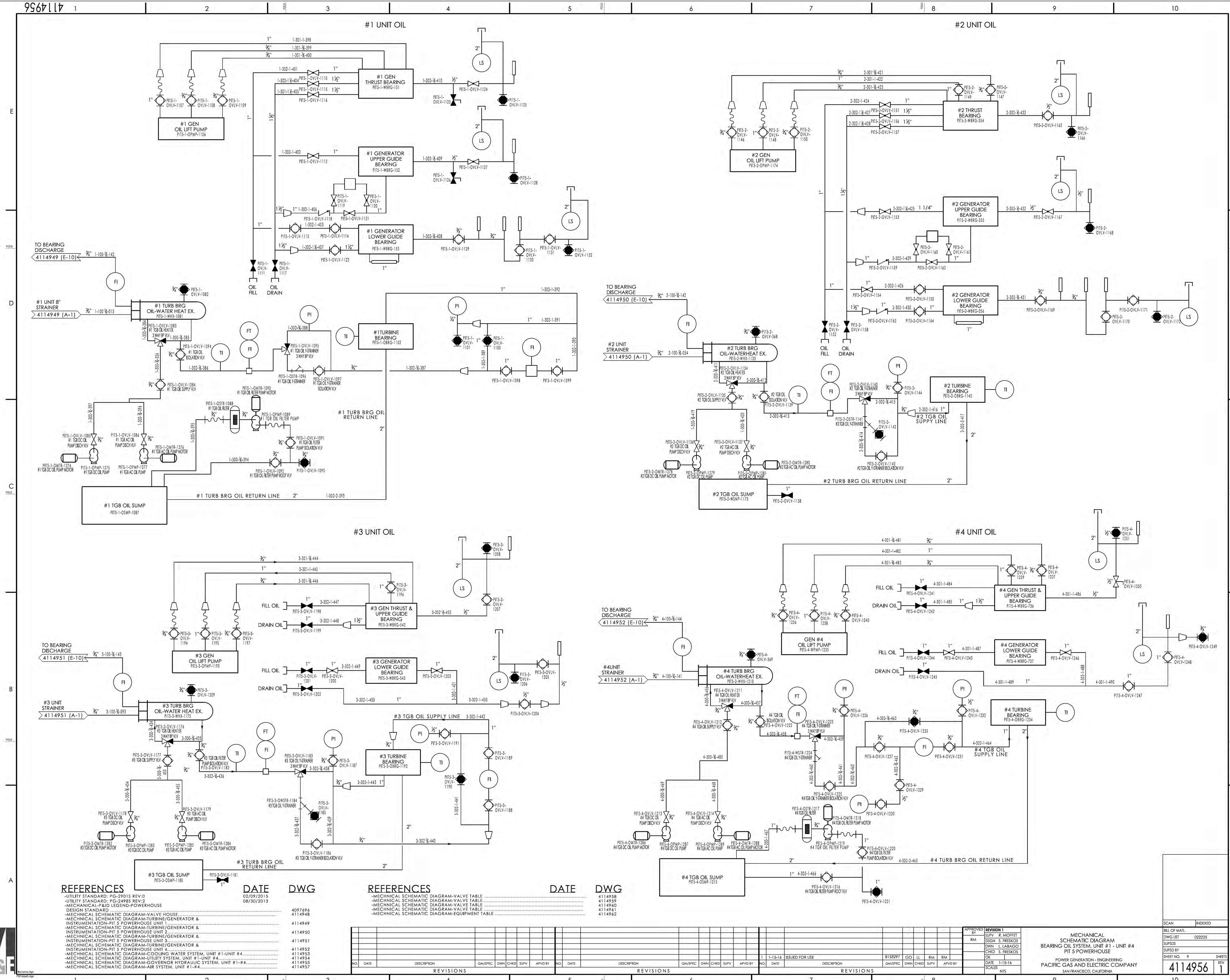
What is the bearing in the February 11, 2020 outage? What is its function? Please provide a diagram and photograph(s) of the bearing, showing all the parts and components.

ANSWER 28

A bearing is a machine element that constrains relative motion to only the desired motion and reduces friction between moving parts. See ERRA-2020-PGE-Compliance_DR_CalAdvocates_014C-Q28Atch01 for a photo of a bearing and ERRA-2020-PGE-Compliance_DR_CalAdvocates_014C-Q28Atch02 for a mechanical schematic diagram of the bearing oil system at Pit 5, Units 1-4.



2014/06/13



DATE	DWG
02/09/2015	4097694
08/30/2015	4114948
	4114949
	4114950
	4114951
	4114952
	4114953
	4114954
	4114955
	4114957

DATE	DWG
02/09/2015	4114958
08/30/2015	4114959
	4114960
	4114961
	4114962

DATE	DWG
02/09/2015	4114958
08/30/2015	4114959
	4114960
	4114961
	4114962

DATE	DWG
02/09/2015	4114958
08/30/2015	4114959
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08/30/2015	4114959
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DATE	DWG
02/09/2015	4114958
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	4114961
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DATE	DWG
02/09/2015	4114958
08/30/2015	4114959
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	4114961
	4114962

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Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q29		
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PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 29

What is the purpose of the oil in the bearing?

ANSWER 29

The main purpose of lubrication in bearings is to separate metal surfaces, support loads, and eliminate or minimize wear. By developing a layer of oil between the rollers and raceways, oil actually can separate the moving components, fully support the bearing loads and minimize wear.

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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q30		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q30		
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PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 30

What is the purpose of sampling the bearing oil?

ANSWER 30

Oil sampling and testing is considered routine maintenance and integral to on-going maintenance of power generation plants, including hydro generating units. It provides the necessary information to determine the condition of various equipment. By following the trends of the oil analysis data, users can monitor equipment condition and take corrective actions before equipment failure.

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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q31		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q31		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 31

What does PG&E do with the results of the bearing oil sampling?

ANSWER 31

PG&E's Lubricating Oil for Mechanical Systems Standard (PG-1330S), Sections 6 and 7 describes the oil test result classifications and corrective actions steps that are taken if oil test results come back classified as monitor, abnormal, or critical. See ERRA-2020-PGE-Compliance_DR_CalAdvocates_014C-Q31Atch01 for Utility Standard: PG-1330S, Lubricating Oil for Mechanical Systems.

Lubricating Oil for Mechanical Systems

SUMMARY

This standard establishes the process for selecting, purchasing, sampling, and testing lubricating oils.

Power Generation Procedure PG-1330P-01, "Oil Sampling of Mechanical Systems," identifies preferred oil sampling port locations on turbine bearing lubrication systems.

For dashpot oils, see Power Generation Procedure PG-2307P-01, "Governor Dashpot Oil."

NOTE

COMPARE the publication date AND version number on your working copy of this document against the most recently approved electronic version to verify that it is current.

Approved guidance documents are published on the Guidance Document Library (GDL):

- [Power Generation GDL](#)
- [Corporate GDL](#)

TARGET AUDIENCE

This standard applies to all Power Generation operations and maintenance qualified personnel.

Qualified Personnel:

Power Generation personnel that have completed level 1 oil technician training (example: Noria Machinery Lubrication I or higher) AND have at least 5 years of experience maintaining and/or operating lubrication systems OR are working under the guidance of a qualified person.

PG&E personnel trained to level 2 (example: Noria Oil Analysis II) or higher AND/OR are a Principal Engineer with a minimum 15 years relevant lubrication experience, are the ONLY Qualified Personnel that will edit this document. Changes to this standard must not be made without the express approval of Power Generation Asset Management.

Lubricating Oil for Mechanical Systems

TABLE OF CONTENTS

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2	Oil Storage	3
3	Sampling Frequency	3
4	Requirements	4
5	Sample Identification for Shipment	4
6	Test Results	5
7	Corrective Actions	6
8	Adding Make-Up Oil or Replacement Oil	7
9	Exempt Equipment	8
10	Responsibilities	8

REQUIREMENTS

1 Selecting and Ordering Lubrication Oil

- 1.1 All oils selected must meet the criteria established by the equipment manufacturer or approved by PG&E Hydro Engineering or Applied Technology Services (ATS).
- 1.2 When ordering oil, list the following:
 - Warehouse code number (if applicable)
 - Manufacturer
 - Full Description of the oil
 - ISO contamination guaranty certificate
 - New Oil test results
 - Date ordered

Lubricating Oil for Mechanical Systems

1.2 (continued)

- Container type (i.e., Poly Tote, 55 Gal steel drums)
- Volume (e.g., 400 Gals)
- Lan ID ordering oil
- Reason for order (i.e. Outage, Preventive Maintenance, other) and if for an outage reference project SAP number

2 Oil Storage

- 2.1 The lubricating properties of oil deteriorate with time. Oil has a service life of 10 – 15 years when properly stored and maintained.
- 2.2 Oil must be kept in service until chemical analysis determines that the oil has reached the end of its useful life. This is determined by the recommendations of Qualified Personnel from Asset Management, Engineering, and ATS, comparing the initial baseline tests with subsequent annual laboratory tests.
- 2.3 All lube oil must be stored and maintained in accordance to governing law and regulations.
- 2.4 All storage containers must be marked with a delivery date, test lab name and report number.
- 2.5 Oil storage containers must be kept sealed at all times when not actively in use.
- 2.6 The use of Desiccant breathers must be installed on all oil drums, totes and other long-term storage containers, to prevent the ingress of moisture and particulate contamination.
- 2.7 Before storing lubrication oils onsite, contact your local environmental field specialist (EFS) for compliance requirements.

(After hours, use the Environmental Hotline for questions: 1-800-874-4043.)

- 2.8 Store all oil in a clean and dry environment.

3 Sampling Frequency

- 3.1 All lubrication oils must be sampled at least annually, or more frequently based on system conditions, manufacturer's specifications, or operating experience.
- 3.2 Use SAP Work Management to initiate a work notification.
- 3.3 Draw samples under the following conditions:
- A minimum of 100 days prior to annual outage.

Lubricating Oil for Mechanical Systems

3.3 (continued)

- Within 24 hours after filtration of oil (constitutes a NEW BASELINE).
- Within 24 hours after full replacement of oil (constitutes a NEW BASELINE).
- Within 24 hours following startup testing activities at the end of a major overhaul or project.
- After replenishing 10% of the oil or more (Use Attachment 1: "Makeup Oil Quantities" to track volumes) (constitutes a NEW BASELINE).
- In response to alarming conditions; e.g., abnormal test results, high vibration, overheating, etc.

4 Requirements

- 4.1 All sampling points must be placed in areas of high circulation, away from areas of stagnation or static flow.
- 4.2 PG-1330P-01 and drawing 4131588 list preferred oil sampling locations for various lubrication systems.
- 4.3 Samples must be taken during normal operating conditions of load and temperature.
 - IF samples can only be taken when the equipment is shut down,
THEN samples must be drawn as soon as possible, but no later than 1 hour after the equipment has been shut down.
- 4.4 All equipment that contains lubricating oil must have an equipment identification number in SAP.
 - IF there is no equipment ID in SAP,
THEN your local maintenance planner must be contacted to add the equipment ID in SAP.

5 Sample Identification for Shipment

- 5.1 All sample bottles must be properly labeled.
- 5.2 Labels must be electronic printed labels, OR legibly written on blank labels in black or blue indelible ink.

Lubricating Oil for Mechanical Systems

5.3 Each sample label must contain the following information:

- Date and Time the sample was taken in the form MONTH/DAY/YEAR (MM/DD/YYYY); The time is to be in 24 hour format (HHMM).
- Area name
- Powerhouse or fossil generating station name - acronyms are not acceptable.
- Unit number
- SAP equipment number with equipment name. If more than one asset shares the same oil bath/tub, then include equipment numbers of all affected assets. (Example Pit 3 U1 Thrust, UGB, and LGB share same tub, so list 806191/806192/806190)
- LAN ID of person taking sample
- Oil operating temperature at time of sampling and average oil operating (run) temperature as available (°F or °C are both acceptable)

NOTE

Oil operating temperatures should not be below 37°C (100°F) or above 82°C (180°F). If these thresholds are unobtainable, Engineering and Asset Management must be contacted immediately for evaluation.

- If the sample is a new baseline sample, the words NEW BASELINE must be added to the sample label.
1. Label Example:
- 1-15-2012 14:30 Pit 5 Unit 1 (807696) Generator Lower Guide Bearing, 115°F, 120°F Avg Run, [LAN ID] – NEW BASELINE

NOTE

Electronic printed labels may be obtained through the approved laboratory.

6 Test Results

- 6.1 All test laboratories must provide oil condition using the most accurate method of the requested tests.
- 6.2 All oil samples must be measured against a baseline sample provided by each generating facility. The baseline sample must meet one of the following two criteria:
- Non-used oil of the same make and manufacturer.

Lubricating Oil for Mechanical Systems

6.2 (continued)

- Used but filtered or centrifuged within the last 24 hours.

6.3 All test laboratories must indicate the oil condition using one of the following classifications:

1. **Normal** – Physical properties of the lubricant are within acceptable limits, and no signs of excessive contamination or wear are present.
2. **Monitor** – Specific test results are outside acceptable ranges, but are not yet serious enough to confirm abnormal conditions. Caution is advised. The initial stages of abnormality often show the same pattern of results as temporary conditions, such as extended usage or overloading.
3. **Abnormal** – Lubricant physical properties, contamination, and/or component wear is clearly unsatisfactory, but not critical. A confirming resample should be submitted and additional diagnostic procedures may be needed to confirm each condition. Corrective actions are necessary to prevent reduction of service life or overall loss of performance.
4. **Critical** – Lubricant physical properties, contamination, and/or component wear is clearly serious enough to require immediate diagnostic and corrective action to prevent major long-term loss of performance or component failure. Increases in operating hazards are likely and short-term loss of performance may already be present. Large-scale repairs may be required.

NOTE

Abnormal test results must be interpreted on an individualized basis, relevant to the specific unit and typical operating conditions.

7 Corrective Actions

- 7.1 Normal – When test results indicate that the oil is “normal,” no action is required.
- 7.2 Monitor – When test results indicate that the oil is “monitor,” the equipment and oil condition must continue to be monitored.
 1. A SAP work notification to filter the oil must be generated if system conditions warrant.
- 7.3 Abnormal – When test results indicate that the oil is “abnormal,” another oil sample must be submitted to confirm the test results.
 1. IF the test results from the follow-up test indicate that the oil is “abnormal,”

THEN a Priority 2 SAP work notification to filter the oil and investigate root cause of abnormal condition must be generated.

Lubricating Oil for Mechanical Systems

7.3 (continued)

NOTE

The test result must be attached to the work notification closing orders.

After filtering the oil, another oil sample must be submitted to confirm that the oil is no longer “abnormal.”

2. Filtering may not address the root cause of contamination. Filtering removes contaminants to decrease risk of issues caused by contaminated oil. The root cause may require additional work to remediate issues and should be done within a practical time to ensure the system is operating under proper conditions.

IF the test results from the follow-up test indicate that the oil is “normal” or “monitor,”

THEN the actions in Steps 7.1 or 7.2 above must be followed.

3. Following investigation into root cause of abnormal results, Engineering and Asset Management must be consulted and corrections made immediately, if possible.
4. IF unable to correct root cause immediately, a Priority 2 SAP tag or an EPPM entry must be generated to correct the issue.

- 7.4 Critical – When test results indicate that the oil is “critical,” a Priority 2 SAP work notification to filter the oil and investigate root cause of abnormal condition must be generated.

1. After filtering the oil, another oil sample must be submitted to confirm that the oil is no longer “critical” (or “abnormal”).
2. Following investigation into root cause of abnormal results, Engineering and Asset Management must be consulted and corrections made immediately, if possible.
3. IF unable to correct root cause immediately, a Priority 2 SAP tag or an EPPM entry must be generated to correct the issue.

8 Adding Make-Up Oil or Replacement Oil

- 8.1 Only add oil of the same manufacture or grade (viscosity) to an oil system.

- 8.2 IF mixing of oil types occurs,

THEN the Maintenance Supervisor, Engineering and Asset Management must be immediately contacted.

- 8.3 All replacement oil must be filtered to the minimum cleanliness outlined in PG-2305P-01, “Cleaning Hydro Generation Oil Systems” before use in a Hydro Generation oil system.

Lubricating Oil for Mechanical Systems

NOTE

Non-filtered oil may only be used in emergency conditions.

Improper planning during planned outage work is not considered an emergency condition.

- 8.4 Any oil that contains visible debris or is beyond its service life must NOT be used.

9 Exempt Equipment

- 9.1 Equipment that is not critical for generation may be exempt from the testing requirements of this standard.

- 9.2 Equipment that is critical for generation may be exempt under the following conditions:

- IF the oil reservoir has a capacity of 10 gallons or less
- AND the oil is completely replaced at least once every calendar year.

10 Responsibilities

- 10.1 Operations and Maintenance Supervisors are responsible for the following:

- Reviewing oil analysis reports within 24 hours of receipt.
- Uploading all reports into SAP for each corresponding equipment ID in the "Attachments" section within 24 hours of receipt.
- Developing and implementing corrective actions as outlined in Section 7, "Corrective Actions."

- 10.2 Maintenance planners are responsible for the following:

- Issuing SAP notifications on any corrective actions presented by a maintenance or operations supervisor.
- Processing completed inspection records in SAP Work Management.

END of Requirements

Lubricating Oil for Mechanical Systems

DEFINITIONS

NA

IMPLEMENTATION RESPONSIBILITIES

The Director of Hydro Operations and Maintenance (O&M North) and the Director of Hydro Operations and Maintenance (O&M South) are responsible for approving, issuing, and revising this standard. The directors may delegate document issuing and revising responsibilities to a supervisor within the department.

Hydro area managers and fossil generating station managers are responsible for ensuring compliance with this standard.

First line supervisors are responsible for enforcing this standard and for communicating this standard to their affected employees.

GOVERNING DOCUMENT

NA

COMPLIANCE REQUIREMENT / REGULATORY COMMITMENT

NA

REFERENCE DOCUMENTS

Developmental References:

- NA

Supplemental References:

- Power Generation Guideline PG-2305P-01 "Cleaning Hydro Generation Oil Systems"
- Power Generation Procedure PG-2307P-01, "Governor Dashpot Oil"
- Power Generation Procedure PG-1330P-01, "Oil Sampling of Mechanical Systems"
 - Drawing 4131588 "Hydroelectric Design Standard Bearing Oil Sample Port Installation"

APPENDICES

NA

ATTACHMENTS

PG-1330S-Att01, "Makeup Oil Quantities"

Lubricating Oil for Mechanical Systems

DOCUMENT REVISION

This document supersedes Standard PG-1330S, "Lubricating Oil for Mechanical Systems," 03/25/2013, Rev 0.

DOCUMENT APPROVER

Alvin Thoma, Director – Power Generation Operations and Maintenance (O&M South)

Steve Royall, Director – Power Generation Operations and Maintenance (O&M North)

DOCUMENT OWNER

Phil Ly, Supervisor – Power Generation, Hydro Asset Management

DOCUMENT CONTACT

Vlad Chernev, Bearing Program Lead – Hydro Asset Management

Robert Miller, Oil Technical Lead – ATS

John Cohn, Senior Hydro Engineer – Hydro Asset Management

Andy Urteaga, Senior Hydro Engineer – Hydro Asset Management

REVISION NOTES

Where?	What Changed?
This Revision, Rev 1 (11/25/2019)	
Throughout	Added Qualified Personnel designation, clarified wording and requirements, updated Doc Approvers, Owner, and Contacts.
Revision 0 (03/25/2013)	
NA	New Procedure.

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PG&E Data Request No.:	CalAdvocates 014C-Q32		
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PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 32

What actions has PG&E previously implemented as a result of the bearing oil sampling results?

ANSWER 32

A SAP work notification has previously been created to filter and/or replace the oil.

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PG&E Data Request No.:	CalAdvocates 014C-Q33		
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Request Date:	May 14, 2021	Requester DR No.:	014C
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PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 33

How often does PG&E perform the sampling, and explain the basis/bases for the sampling frequency?

ANSWER 33

In PG-1330S provided in PG&E's response to Question 31, Section 3 dictates sampling frequencies. All lubrication oils must be sampled at least annually, or more frequently based on system conditions, manufacturer's specifications, or operating experience. Additional sampling requirements are specified in PG-1330S.

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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q34		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q34		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 34

What is the governor in the February 11, 2020 outage? What is its function? Please provide a diagram and photograph(s) of a governor, showing all the parts and components.

ANSWER 34

Governing system or governor is the main controller of the hydraulic turbine. The governor varies the water flow through the turbine to control its speed or power output. Generating units speed and system frequency may be adjusted by the governor. See ERRA-2020-PGE-Compliance_DR_CalAdvocates_014C-Q34Atch01 for a photo of the Pit 5, Unit 2 governor cabinet and governor and ERRA-2020-PGE-Compliance_DR_CalAdvocates_014C-Q34Atch02 for the Mechanical Schematic Diagram of the Governor Hydraulic System at Pit 5, Units 1-4.



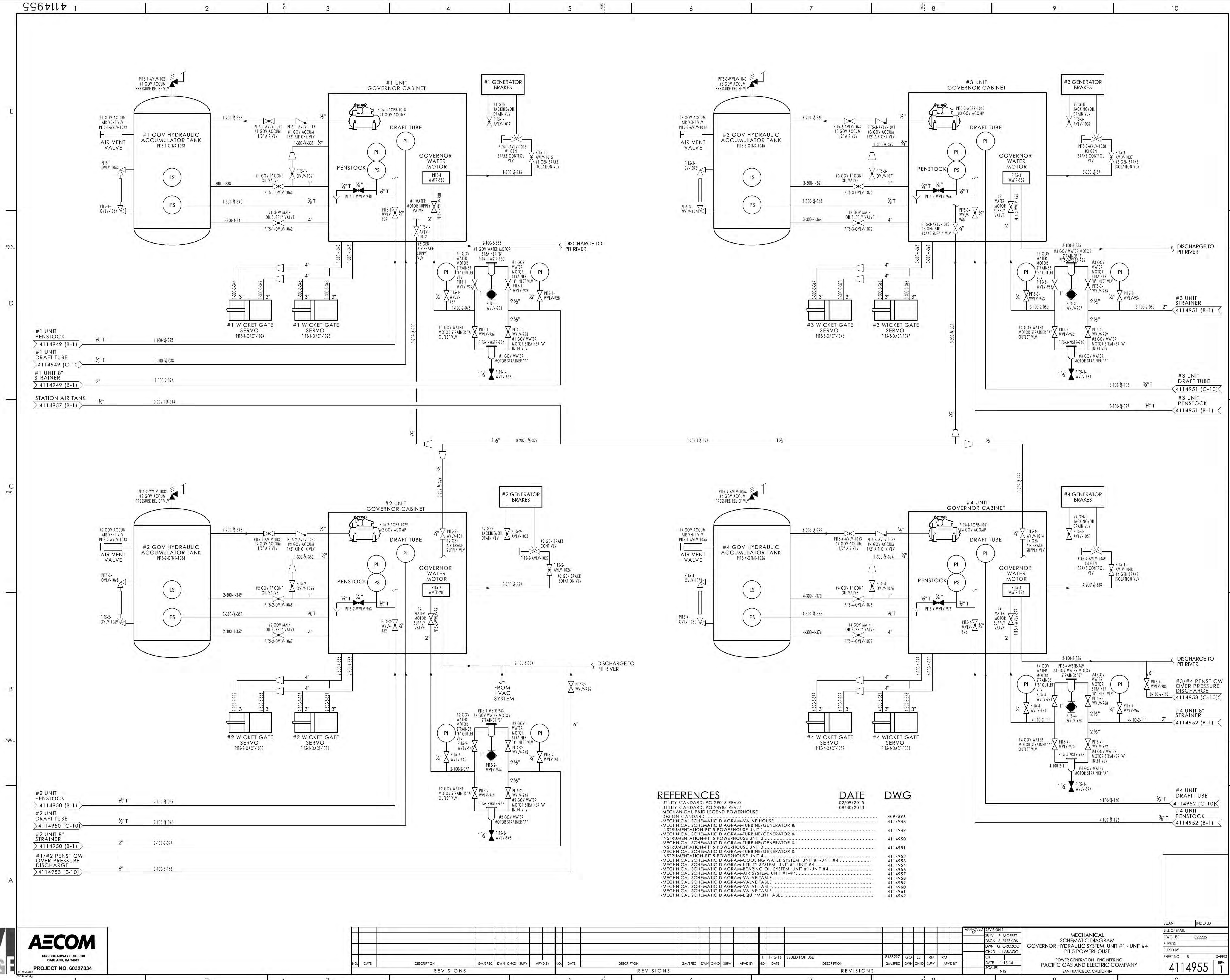
Valve location

Pit 5 Powerhouse Unit
2 Governor Cabinet.



Valve in question

View of cabinet showing
location of valve



REFERENCES

UTILITY STANDARD: PG-2901S REV-0	4097694
UTILITY STANDARD: PG-2498S REV-2	4114948
MECHANICAL P&ID LEGEND-POWERHOUSE	4114949
DESIGN STANDARD	4114950
MECHANICAL SCHEMATIC DIAGRAM-TURBINE/GENERATOR & INSTRUMENTATION-PIT 5 POWERHOUSE UNIT 1	4114951
MECHANICAL SCHEMATIC DIAGRAM-TURBINE/GENERATOR & INSTRUMENTATION-PIT 5 POWERHOUSE UNIT 2	4114952
MECHANICAL SCHEMATIC DIAGRAM-TURBINE/GENERATOR & INSTRUMENTATION-PIT 5 POWERHOUSE UNIT 3	4114953
MECHANICAL SCHEMATIC DIAGRAM-TURBINE/GENERATOR & INSTRUMENTATION-PIT 5 POWERHOUSE UNIT 4	4114954
MECHANICAL SCHEMATIC DIAGRAM-COOLING WATER SYSTEM, UNIT #1-UNIT #4	4114955
MECHANICAL SCHEMATIC DIAGRAM-UTILITY SYSTEM, UNIT #1-UNIT #4	4114956
MECHANICAL SCHEMATIC DIAGRAM-BEARING OIL SYSTEM, UNIT #1-UNIT #4	4114957
MECHANICAL SCHEMATIC DIAGRAM-VALVE TABLE	4114958
MECHANICAL SCHEMATIC DIAGRAM-VALVE TABLE	4114959
MECHANICAL SCHEMATIC DIAGRAM-VALVE TABLE	4114960
MECHANICAL SCHEMATIC DIAGRAM-EQUIPMENT TABLE	4114961
MECHANICAL SCHEMATIC DIAGRAM-EQUIPMENT TABLE	4114962

DATE

02/09/2015

08/30/2013

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NO.	DATE	DESCRIPTION	GM/SPC	DWN	CHKD	SUPV	APVD BY	NO.	DATE	DESCRIPTION	GM/SPC	DWN	CHKD	SUPV	APVD BY
1	1-15-16	ISSUED FOR USE						1	1-15-16	ISSUED FOR USE					

APPROVED BY	REVISION 1	MECHANICAL SCHEMATIC DIAGRAM
SUPV R. MORFET	4114948	GOVERNOR HYDRAULIC SYSTEM, UNIT #1 - UNIT #4
DSGN S. FRESKOS	4114949	PIT 5 POWERHOUSE
DWNL G. ORIZCO	4114950	POWER GENERATION - ENGINEERING
CHKD L. LASAGO	4114951	PACIFIC GAS AND ELECTRIC COMPANY
SUPD BY	4114952	SAN FRANCISCO, CALIFORNIA
DATE 1-15-16	4114953	
NTS	4114954	
SCALES	4114955	
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	4114961	
	4114962	

SCAN	INDEXED
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DWG LIST	022225
SUPD	
SHEET NO. 8	SHEETS
4114955	1

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
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PG&E Data Request No.:	CalAdvocates 014C-Q35		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q35		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 35

What is the purpose of the oil in the governor?

ANSWER 35

Oil in the governor is used to move hydraulic cylinders/servomotors to allow water in the penstock to enter the turbine to produce power.

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PG&E Data Request No.:	CalAdvocates 014C-Q36		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q36		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 36

What is the purpose of sampling the governor oil?

ANSWER 36

The purpose of sampling oil is to understand its condition. Similar to oil in a car, governor oil needs to be periodically cleaned in order to prevent premature failures of the components in the governor system. If an oil sample suggests that the oil is getting dirty, the oil is cleaned or replaced.

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PG&E Data Request No.:	CalAdvocates 014C-Q37		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q37		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 37

What does PG&E do with the results of the governor oil sampling?

ANSWER 37

PG&E's Lubricating Oil for Mechanical Systems Standard (PG-1330S), Sections 6 and 7 describes the oil test result classifications and corrective actions steps that are taken if oil test results come back classified as monitor, abnormal, or critical. PG-1330S is included in PG&E's response to Question 31.

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PG&E Data Request No.:	CalAdvocates 014C-Q38		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q38		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 38

What actions has PG&E previously implemented as a result of the governor oil sampling results?

ANSWER 38

A SAP work notification has previously been created to filter and/or replace the oil.

PACIFIC GAS AND ELECTRIC COMPANY
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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q39		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q39		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Bearing and Governor (page 2-33, line 3 to 4)

QUESTION 39

How often does PG&E perform the sampling and explain the basis/bases for the sampling frequency?

ANSWER 39

In PG-1330S provided in PG&E's response to Question 31, Section 3 dictates sampling frequencies. All lubrication oils must be sampled at least annually, or more frequently based on system conditions, manufacturer's specifications, or operating experience. Additional sampling requirements are specified in PG-1330S.

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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q40		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q40		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Mini-Ball Valve (page 2-33, line 5)

QUESTION 40

What is the mini-ball valve in the February 11, 2020 outage? What is its function? Please provide a diagram and photograph(s) of the mini-ball valve, showing all the parts and components.

ANSWER 40

It is the 1/4" maintainable ball valve that was used to take the sample in question. Its function is to restrict flow when required which is typical of any valve. See ERRA-2020-PGE-Compliance_DR_CalAdvocates_014C-Q40Atch01 for a photo of the mini-ball valve with the plug installed and with the plug removed and ERRA-2020-PGE-Compliance_DR_CalAdvocates_014C-Q40Atch02 for a close-up photo of the mini-ball valve.



View with plug partially
reinstalled

Photo 2



View with plug
removed

Photo 3



Bushing becoming
unthreaded

Close up of plug partially
reinstalled after incident,
showing how bushing
looked when partially
unthreaded with plug.

PACIFIC GAS AND ELECTRIC COMPANY
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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q41		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q41		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Mini-Ball Valve (page 2-33, line 5)

QUESTION 41

What is the plug in the February 11, 2020 outage? What is its function? Please provide a diagram and photograph(s) of the plug, showing all the parts and components.

ANSWER 41

The plug is a stop that was screwed into the end of the valve to prevent any leakage should any occur due to valve failure or inadvertent operation of the valve handle. Attachment 1 included in PG&E's response to Question 40 includes a photo of the mini-ball valve with the plug installed.

PACIFIC GAS AND ELECTRIC COMPANY
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PG&E Data Request No.:	CalAdvocates 014C-Q42		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q42		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Mini-Ball Valve (page 2-33, line 5)

QUESTION 42

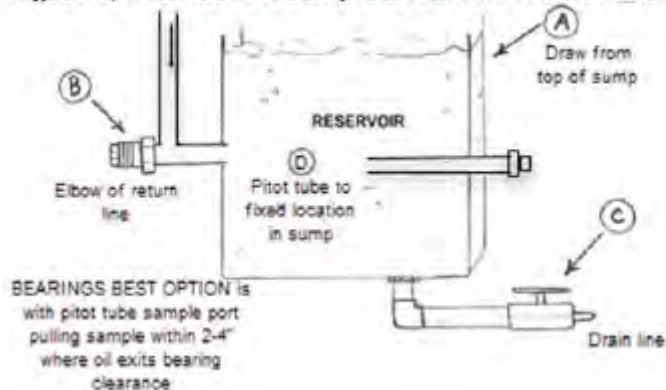
PG&E Testimony, page 2-33, line 5, states that the plug from the mini-ball valve is at a non-standard location.

- a. What does a non-standard location mean?
- b. What are the differences between a standard and a non-standard location? Please provide a diagram and photograph(s) of the differences between a standard and a non-standard location, showing all the parts and components.
- c. Please explain what effect the non-standard location of the plug has on the oil sampling work.

ANSWER 42

- a. A standard location means a location that is considered a "desired or preferred location" as specified in procedure PG-1330P-01. Non-standard would be an acceptable location but less preferred. For example, for bearing oil sampling, a pitot tube location is considered a standard or desired sampling location. A non-standard location is considered a sump drain line or a sight glass location. These are acceptable locations but not the preferred location for bearing oil sampling. Desired sampling locations do not always have a sampling port and could require sampling from a valve connection, which is what occurred in this instance.
- b. See ERRA-2020-PGE-Compliance_DR_CalAdvocates_014C-Q42Atch01 for a diagram of desired or preferred location for oil sampling on mechanical systems.
- c. PG&E interprets this question as what effect does the plug inside the mini-ball valve located a non-standard location have on oil sampling. Taking an oil sample from a valve connection can increase the risk of inadvertent oil discharge when the oil is under pressure.

Figure 1, Potential Oil Sample Locations for Mechanical Systems



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PG&E Data Request No.:	CalAdvocates 014C-Q43		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q43		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Mini-Ball Valve (page 2-33, line 5)

QUESTION 43

Why was a non-standard location used in the Pit 5 Unit 2 unit?

- a. Is the non-standard location used in all Pit 5 units?
- b. If not, please explain why not.

ANSWER 43

A non-standard location was used because an oil sampling port was not available.

- a. No. Typically oil is sampled from standard locations. Oil sampling ports have also been installed near standard locations (or desired or preferred locations) so non-standard location sampling at this unit is no longer required.
- b. In this instance of oil sampling, the non-standard location was selected by the AM engineer to ensure a quality oil sample.

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PG&E Data Request No.:	CalAdvocates 014C-Q44		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q44		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Mini-Ball Valve (page 2-33, line 5)

QUESTION 44

What is the internal valve in the February 11, 2020 outage? What is its function?
Please provide a diagram and photograph(s) of the internal valve, showing all the parts and components.

ANSWER 44

The internal valve that PG&E discusses in its testimony, refers to the mini-ball valve discussed at length in the cause evaluation. As discussed in the cause evaluation, the mini-ball valve is a three-part maintainable valve which can be disassembled by removing a threaded bushing that holds the ball in place with a plug connected to it. The internal valve is synonymous with the threaded bushing that holds the ball in place. Please see the photo included in PG&E's response to Question 40.

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PG&E Data Request No.:	CalAdvocates 014C-Q45		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q45		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Mini-Ball Valve (page 2-33, line 5)

QUESTION 45

What are the differences between the min-ball valve and the internal valve? Please describe, and provide, as appropriate, diagrams and photographs to illustrate the differences.

ANSWER 45

Please see PG&E's response to Question 44.

PACIFIC GAS AND ELECTRIC COMPANY
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PG&E Data Request No.:	CalAdvocates 014C-Q46		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q46		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Mini-Ball Valve (page 2-33, line 5)

QUESTION 46

What is the internal valve bushing in the February 11, 2020 outage? What is its function? Please provide a diagram and photograph(s) of the internal valve bushing, showing all the parts and components.

ANSWER 46

Please see PG&E's response to Question 44.

PACIFIC GAS AND ELECTRIC COMPANY
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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q47		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q47		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Oil Release (page 2-33, line 7)

QUESTION 47

Before February 11, 2020, was there any oil leakage in the area of the governor and bearing? Please explain how PG&E would know if there was any oil leakage.

- a. Provide all records and documentations of those oil leakage inspections and oil leakage incidents.
- b. Please also provide all corrective actions. If there were none, please explain why not.

ANSWER 47

No. There was no oil leakage in the area of the governor and bearing prior to February 11, 2020 event.

- a. PG&E objects to this request on grounds that it is irrelevant (oil leakage), overbroad and outside the scope of this proceeding.
- b. PG&E objects to this request on grounds that it is irrelevant (oil leakage), overbroad and outside the scope of this proceeding.

PACIFIC GAS AND ELECTRIC COMPANY
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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q48		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q48		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Oil Release (page 2-33, line 7)

QUESTION 48

What oil was released – is it from the governor, the bearing and/or other parts? Please explain, and provide, as appropriate, diagrams and photographs to illustrate the leak.

ANSWER 48

Oil from the governor was released. See ERRA-2020-PGE-Compliance_DR_CalAdvocates_014C-Q48Atch01 for a photo of the oil soaked turbine deck.

Attachment 3: Photo – Oil Soaked Turbine Deck



PACIFIC GAS AND ELECTRIC COMPANY
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PG&E Data Request No.:	CalAdvocates 014C-Q49		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q49		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Oil Release (page 2-33, line 7)

QUESTION 49

Was the type of oil used in the governor, bearing and/or other parts the same? Please state what type of oil was used and explain the differences among them.

ANSWER 49

PG&E objects to this data request on grounds that this information is irrelevant.

**PACIFIC GAS AND ELECTRIC COMPANY
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Data Response**

PG&E Data Request No.:	CalAdvocates 014C-Q50		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q50		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Oil Release (page 2-33, line 7)

QUESTION 50

How much oil from each piece of equipment or part was released?

ANSWER 50

PG&E estimates that approximately 250-275 gallons of governor oil was released.

PACIFIC GAS AND ELECTRIC COMPANY
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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q51		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q51		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Oil Release (page 2-33, line 7)

QUESTION 51

What was the temperature and pressure of all the oil released?

ANSWER 51

The pressure was 300 PSI. The temperature of the oil was slightly above room temperature.

PACIFIC GAS AND ELECTRIC COMPANY
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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q52		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q52		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Oil Release (page 2-33, line 7)

QUESTION 52

At what temperature is the oil considered hazardous?

ANSWER 52

PG&E objects to this data request on grounds that this information this information is irrelevant.

PACIFIC GAS AND ELECTRIC COMPANY
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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q53		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q53		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Oil Release (page 2-33, line 7)

QUESTION 53

At what pressure is the oil considered hazardous?

ANSWER 53

PG&E objects to this data request on grounds that this information this information is irrelevant.

PACIFIC GAS AND ELECTRIC COMPANY
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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q54		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q54		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Oil Release (page 2-33, line 7)

QUESTION 54

Were there work protection signs to warn personnel of any hazardous work conditions?

- a. If so, what do the signs state? Were the **AM Engineer** and the **ATS Technician** aware of the signs and the hazardous conditions? Please provide evidence of their awareness.
- b. If not, explain why not.

ANSWER 54

Yes, there are protective signs throughout each of PG&E's hydro powerhouses for various hazards. The personnel who work on plant equipment are trained professionals and are also escorted by dedicated operation and maintenance personnel. In this case, procedural error and inadequate oversight over the work created a hazard. The hazard is evident to the personnel working on the hydro equipment when the unit is online and equipment is pressurized.

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PG&E Data Request No.:	CalAdvocates 014C-Q55		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q55		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Chronology of Outage

QUESTION 55

Please describe how the outage and equipment failure happened in chronological order, and provide the amount of time spent for each activity. For example (please list all other relevant event items not mentioned below):

- i. There was an outage on <provide date> and the following tasks were performed:
 - a. Replaced <specify items replaced> and dates and time spent.
 - b. Repaired <specify items repaired> and dates and time spent;
 - c. Reworked <specify items reworked> and dates and time spent.
- ii. At the conclusion of the outage work on <provide date>, PG&E noted the following issues <provide specifics and explanations>.
- iii. On <date>, PG&E started the following repair work:
 - a. PG&E did this <please enumerate> for this amount of time spent;
 - b. PG&E did that <please enumerate> for this amount of time spent, etc.

ANSWER 55

Below is the list of events that occurred that resulted in the oil discharge that took the unit offline.

1. AM engineer and ATS technician performed oil sample on Pit 5 Unit 1 (2 hours)
2. AM engineer and ATS technician started to perform oil sample on Pit 5 Unit 2. With AM engineer oversight, ATS technician loosened the plug from the mini-ball valve at a non-standard location to take an oil sample. During this step, the the plug disengaged from the valve body and the pressure behind the valve dislodged the internal components of the valve and an uncontrolled release of oil began. AM engineer notified the Operator to shut down unit (1 hour)
3. Operations secured the unit and made safe (ensured all systems are shutdown, isolated, the oil spill was contained, and clearances were in place) (12 hours)

4. Dismantled the governor cabinet (panels, motors, relays, and other electrical equipment contaminated with oil) (12 hours)
5. Cleaned the governor cabinet equipment and wash non-electrical equipment, floors, walls, stairways (36 hours)
6. Reassembled governor cabinet, test and start-up unit (14 hours)

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PG&E Data Request No.:	CalAdvocates 014C-Q56		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q56		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Chronology of Outage

QUESTION 56

What tests/inspections did PG&E and/or its contractor(s) perform at the conclusion of the repair to assure that the work was done correctly? Please include the time spent.

ANSWER 56

The systems that had been cleared were restored and energized, visually inspected for leaks or signs of problems, verified instrumentation reads were within normal range, and verified all alarms cleared. The replacement valve and piping was inspected to confirmed that the governor system held oil pressure. The restoration time (including removal of clearances and final inspections and start-up) was approximately 4 hours.

PACIFIC GAS AND ELECTRIC COMPANY
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Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q57		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q57		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Unit Shutdown and Restoration

QUESTION 57

How were the operators alerted of the failure?

ANSWER 57

The AM Engineer involved in the incident went to the control room and alerted the operator of the incident.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q58		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q58		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Unit Shutdown and Restoration

QUESTION 58

Did the operators manually shut down the facility?

ANSWER 58

Yes. The unit was manually shutdown by the operator.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q59		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q59		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Unit Shutdown and Restoration

QUESTION 59

Did the facility shut down automatically? Please explain.

ANSWER 59

No, the Operator put the unit in manual control before the oil sample was taken. As a result of being placed in manual control, the automatic trips for low oil pressure and low oil level were disabled. The operator manually shut down the unit after being alerted to the oil discharge. Had the unit been in automatic mode, the unit would have automatically shut down due to low oil pressure or oil level indication.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q60		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q60		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Unit Shutdown and Restoration

QUESTION 60

What is/are the interlocking device(s) which shut down the engine? Are there any Instrumentation and Controls (I&C) devices which control the shutdown? Please explain.

ANSWER 60

Please see PG&E's response to Question 59.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q61		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q61		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Unit Shutdown and Restoration

QUESTION 61

What are the set points and/or operating characteristics which cause the facility to shut down? Who established those set points/operating characteristics, and why?

ANSWER 61

Please see PG&E's response to Question 59.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q62		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q62		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Unit Shutdown and Restoration

QUESTION 62

What did PG&E and/or its contractor(s) need to test before the unit was returned to service on February 14, 2020? Please explain and provide a diagram and photograph(s) of the all the parts and components that PG&E and/or its contractor(s) needed to test.

ANSWER 62

As described in PG&E's response to Question 56, the replacement valve and piping was inspected to confirmed that the governor system held oil pressure. The attachment PG&E included in its response to Question 97 is the standard replacement (fixed) valve that replaced the miniball valve.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q63		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q63		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Unit Shutdown and Restoration

QUESTION 63

Please explain why the oil leak necessitated Pitt 5 Unit 2 to shut down.

ANSWER 63

The oil discharge required Unit 2 to be shut down as a result of loss of pressure (and oil) from the governor system.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q100		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q100		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	June 2, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Other Corrective Actions

QUESTION 100

Were the parts installed in the repair/rework identical to the original design specifications? Please explain.

ANSWER 100

No repair/rework was required. Refer to PG&E's response to question 66.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q101		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q101		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Other Corrective Actions

QUESTION 101

Please provide the documentation and/or inspection report when the replaced parts/items were installed and all associated tests before the unit was returned to service.

ANSWER 101

The only test that was required was to inspect the replacement valve and piping to confirmed that the governor system held oil pressure. Once it was confirmed that the system held oil pressure, no additional tests were required. This required a visual verification that pressure was being held. Inspection/test reports were not required.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q102		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q102		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Other Corrective Actions

QUESTION 102

Did PG&E inspect the integrity of the other hydro units? Please explain, and provide records of inspection.

ANSWER 102

Please see PG&E's response to Question 91.

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 014C-Q103		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 014C-Q103		
Request Date:	May 14, 2021	Requester DR No.:	014C
Date Sent:	May 28, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Eric Van Deuren	Requester:	Karl Stellrecht

Other Corrective Actions

QUESTION 103

Please provide all corrective actions done or to be done to prevent the recurrence of similar incidents, including scheduled inspections and maintenance.

ANSWER 103

Please see PG&E's response to Question 93.

FILE PATH	FILE NAME	ITEM TYPE	DATA ID	VERSION	STATUS	DETAILS
	ERRA-2020-PGE-Compliance_DR_CalAdvocates_002C-Q01.pdf	Document	392033269	1	Succeeded	
	ERRA-2020-PGE-Compliance_DR_CalAdvocates_002C-Q02.pdf	Document	392033328	1	Succeeded	
	ERRA-2020-PGE-Compliance_DR_CalAdvocates_002C-Q03.pdf	Document	392033302	1	Succeeded	
	ERRA-2020-PGE-Compliance_DR_CalAdvocates_002C-Q04.pdf	Document	392033301	1	Succeeded	
	ERRA-2020-PGE-Compliance_DR_CalAdvocates_002C-Q05.pdf	Document	392033366	1	Succeeded	
	ERRA-2020-PGE-Compliance_DR_CalAdvocates_002C-Q06.pdf	Document	392033284	1	Succeeded	
	ERRA-2020-PGE-Compliance_DR_CalAdvocates_002C-Q07.pdf	Document	392033354	1	Succeeded	
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	ERRA-2020-PGE-Compliance_DR_CalAdvocates_014C-Q02.pdf	Document	392033342	1	Succeeded	
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ERRA-2020-PGE-Compliance_DR_CalAdvocates_014C-Q63.pdf	Document	392033288	1	Succeeded	

CHAPTER 3
ATTACHMENT 3.11

PG&E Responses to Data Request 14

Question 73 to SCE Response

(Confidential)

(Available via E-mail)

LIST OF ATTACHMENTS FOR CHAPTER 5

#	Attachment	Description
1	5.1	PG&E Response to Cal Advocates Data Request 15, Question 1.
2	5.2	PG&E Response to Cal Advocates Data Request 15, Question 1 Confidential Attachment (Confidential, Available Via Email)

CHAPTER 5
ATTACHMENT 5.1

PG&E's Response to Cal Advocates
Data Request 15, Question 1

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates_015-Q01		
PG&E File Name:	ERRA-2020-PGE-Compliance_DR_CalAdvocates_015-Q01		
Request Date:	June 10, 2021	Requester DR No.:	015
Date Sent:	June 17, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	John Ulloa	Requester:	Karl Stellrecht

QUESTION 01

Regarding PG&E Testimony Table 6B-1, Summary of 2020 PG&E Gas Deliveries by Facility or Tolling Agreement. Please provide a breakdown of the “total cost (\$ millions)” amounts by balancing account for line numbers 1 through 29.

ANSWER 01

**An attachment to this data response contains confidential information
Protectable Under Decision 14-10-033, Decision 06-06-066, and/or Public Utilities
Code Section 454.5(G)**

The breakdown of the “total cost (\$ millions)” amounts by balancing account for line numbers 1 through 29 are included in the attachment:
ERRA-2020-PGE-Compliance_DR_CalAdvocates_015-Q01_Atch01-CONF.xlsx

CHAPTER 5
ATTACHMENT 5.2

PG&E's Response to Cal Advocates
Data Request 15, Question 1
Confidential Attachment
(Confidential, Available Via Email)

LIST OF ATTACHMENTS FOR CHAPTER 6

#	Attachment	Description
1	6.1	PG&E Response to CalAdvocates Master Data Request Question 52 Attachment 01, spreadsheet “ERRA-2020-PGE-Compliance_DR_CalAdvocates_MDR001-Q52Atch01-CONF.xlsx,” tab “Attch C, Table 12-1 & 12-2.” (Confidential, Available via email)
2	6.2	PG&E Workpaper for Chapter 7, “Ch7_ERRA-2020-PGE-Compliance_Phys vs Fin Workpaper CONF Version.xlsx.” (Confidential, Available via email)

CHAPTER 6

ATTACHMENT 6.1

**PG&E Response to CalAdvocates Master
Data Request Question 52 Attachment 01,
spreadsheet “ERRA-2020-PGE-
Compliance_DR_CalAdvocates_MDR001-
Q52Atch01-CONF.xlsx,” tab “Attch C,
Table 12-1 & 12-2.”**

(Confidential)
(Available via E-mail)

CHAPTER 6
ATTACHMENT 6.1

**PG&E Workpaper for Chapter 7,
“Ch7_ERRRA-2020-PGE-Compliance_Phys vs
Fin Workpaper CONF Version.xlsx.”**

(Confidential)
(Available via E-mail)

LIST OF ATTACHMENTS FOR CHAPTER 7

#	Attachment	Description
1	7.1 Compiled Data Requests	PG&E Response Public Advocates Office Data Requests. Only relevant data request responses included. Some attachments are abridged. (Partially Confidential)
2	7.2 02_RA Portfolio Breakdown Q4 2020	PG&E summary of end-of-record period RA positions. (Confidential)
3	7.3 January 2020 Q2 Balance of Year RA and Import Energy	QCR workpaper showing results of the 2020 Q2 Balance of Year RA solicitation. (Confidential, Available via E-Mail)
4	7.4 April 2020 Q3 through Balance of Year and 2021-2023	QCR workpaper showing results of the 2020 Q3 Balance of Year RA solicitation. (Confidential, Available via E-Mail)
5	7.5 July Q4 through Balance of Year and 2021-2022 RA S	QCR workpaper showing results of the 2020 Q4 Balance of Year RA solicitation. (Confidential, Available via E-Mail)
6	7.6 August 2020 MYRAS Phase 1 - RA Solicitation Shortlist	QCR workpaper showing results of the Multiyear RA solicitation, phase 1. (Confidential, Available via E-Mail)
7	7.7 October 2020 MYRAS Phase 2 - RA Solicitation Shortlist	QCR workpaper showing results of the Multiyear RA solicitation, phase 2. (Confidential, Available via E-Mail)
8	7.8 November Draft Shortlist - Confidential	QCR Workpaper showings results of a November, 2020, RA and Import Energy E-Solicitation. (Confidential, Available via E-Mail)
9	7.9 PRG Slides	PG&E slides from Procurement Review Group meetings on September 15, 2020 and March 16, 2021 describing electric positions. (Confidential)

CHAPTER 7

ATTACHMENT 7.1

**PG&E Response Public Advocates Office
Data Requests. Only relevant data request
responses included. Some attachments are
abridged.**

**Abridged to only include portions relevant to
Cal Advocates testimony**

(Partially Confidential)

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 005-Q05		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 005-Q05		
Request Date:	March 26, 2021	Requester DR No.:	005
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Scott Ranzal	Requester:	Karl Stellrecht

QUESTION 05

Please provide the executed agreements resulting from PG&E's bilateral transaction with SCE as described at Testimony, p. 8-9.

- a. If the PG&E Buys agreements are those located in file path of Question 4, do not include them in response. However, please provide the SCE Buys agreements and any Import Allocation Rights transaction agreements which do not appear to be present at the file path.

ANSWER 05

THE ATTACHMENT TO THIS DATA RESPONSE CONTAINS CONFIDENTIAL INFORMATION PROTECTABLE UNDER DECISION 06-06-066, DECISION 14-10-033, AND/OR PUBLIC UTILITIES CODE SECTION 454.5(G)

SCE's Buy Agreements are attached as file name "ERRA-2020-PGE-Compliance_DR_CalAdvocates_005-Q05_Atch01-CONF.zip".

There will be an amendment to PG&E's prepared Chapter 8 ERRA testimony at a future date to indicate no Import Allocation Rights were transacted.

[REDACTED]

[REDACTED]

[REDACTED]

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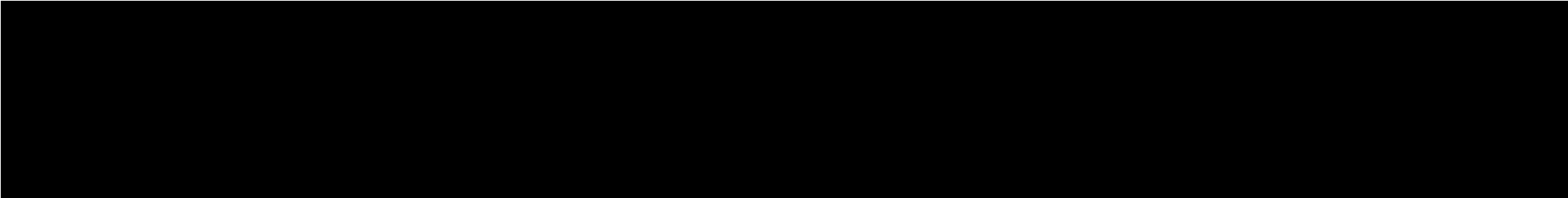
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PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 005-Q08		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 005-Q08		
Request Date:	March 26, 2021	Requester DR No.:	005
Date Sent:	April 12, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Scott Ranzal	Requester:	Karl Stellrecht

QUESTION 08

PG&E Advice Letter 5989-E provided a demonstration of PG&E's "PG&E Other" local RA requirements in compliance with D.20-06-031 Ordering Paragraph 22(a). Please provide the following:

- a. A copy of a Commission response approving or rejecting Advice Letter 5989-E.
- b. PG&E's local RA position at each local capacity area in PG&E's TAC area as of November 2, 2020.

ANSWER 08

THE ATTACHMENT TO THIS DATA RESPONSE CONTAINS CONFIDENTIAL INFORMATION PROTECTABLE UNDER DECISION 06-06-066, DECISION 14-10-033, AND/OR PUBLIC UTILITIES CODE SECTION 454.5(G)

A copy of a Commission response approving Advice Letter 5989-E is attached as file name "ERRA-2020-PGE-Compliance_DR_CalAdvocates_005-Q08_Atch01.zip".

PG&E's local RA positions as of November 2, 2021 are attached to this response as file name "ERRA-2020-PGE-Compliance_DR_CalAdvocates_005-Q08_Atch02-CONF.zip". Note that on November 20, 2021, PG&E submitted a revised 2021 Annual Compliance Showing which corrected minor numerical errors on various capacity values. This correction does not impact PG&E's overall compliance in the cumulative PG&E Other local areas under the Alternative Compliance Mechanism.

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



December 18, 2020

Erik Jacobson
Director, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B13U
P.O. Box 770000
San Francisco, CA 94177

Dear Mr. Jacobson,

On November 2, 2020, Pacific Gas and Electric Company (PG&E) filed a waiver request via Advice Letter 5989-E for its 2021 year-ahead local Resource Adequacy (RA) requirement in four of the disaggregated PG&E Other local areas. However, PG&E has also demonstrated that it met the local RA obligation in the aggregated PG&E Other local area. PG&E seeks relief from its remaining 2021 year-ahead local RA obligation and any potential Commission-imposed penalties for deficiencies. PG&E's waiver request demonstrated that it pursued all commercially reasonable efforts in procuring local capacity to meet its local RA obligations in the six disaggregated local areas. The Energy Division of the California Public Utilities Commission (Commission) approves Advice Letter 5989-E, PG&E's request for a penalty waiver.

Commission Decision (D.) 06-06-064 established waiver provisions for local Resource Adequacy (RA) procurement. D.20-06-031 established criteria for fulfilling local RA obligations in the six disaggregated PG&E Other local areas. D.20-06-031 also established 2021 compliance year obligations for all Load Serving Entities (LSEs). On November 2, 2020, PG&E submitted its year-ahead local RA compliance filing, showing a deficiency in four of the disaggregated PG&E Other local areas, but also showing that it has met the local RA obligation in the aggregated PG&E Other local area. PG&E submitted a request for penalty waiver for this deficiency via Advice Letter 5989-E pursuant to D.06-06-064 and D.20-06-031.

Section 3.8 of D.20-06-031 establishes criteria for fulfilling local RA obligations in the six disaggregated local areas:

Accordingly, an LSE shall have fulfilled their RA obligations in the six disaggregated LCAs if the following requirements are met:

- (1) The LSE makes the required demonstration as part of the current local waiver process through the Tier 2 Advice Letter for its disaggregated PG&E Other local capacity requirements; and*
- (2) The LSE, in its Year Ahead compliance filing, demonstrates procurement of local RA capacity within the PG&E Other LCAs such that the LSE's collective*

procurement in the six disaggregated PG&E Other LCAs meets the LSE's collective requirement for the disaggregated PG&E Other LCAs.

The process and standard for applying for the PG&E Other waiver will otherwise be the same process and standard for all local waiver requests. An LSE may still seek a waiver of one or more of the disaggregated PG&E Other obligations, even if it has not met the aggregation obligation despite commercially reasonable efforts.

Section 3.3.12 of D.06-06-064 describes a standard that an LSE may use to demonstrate that it could not reasonably achieve its LCR obligations:

(1) a demonstration that the LSE reasonably and in good faith solicited bids for its RAR capacity needs along with accompanying information about the terms and conditions of the Request for Offer or other form of solicitation, and

(2) a demonstration that despite having actively pursued all commercially reasonable efforts to acquire the resources needed to meet the LSE's local procurement obligation, it either

(a) received no bids, or

(b) received no bids for an unbundled RA capacity contract of under \$40 per kW-year or for a bundled capacity and energy product of under \$73 per kW-year, or

(c) received bids below these thresholds but such bids included what the LSE believes are unreasonable terms and/or conditions, in which case the waiver request must demonstrate why such terms and/or conditions are unreasonable.

An LSE's waiver request that meets these requirements is a necessary but not a sufficient condition for the grant of such waiver. The Commission will also consider other information brought to its attention regarding the reasonableness of the waiver request.

Energy Division has reviewed PG&E's 2021 year-ahead compliance filing and determines that PG&E has met its local RA obligation in the aggregated PG&E Other local area. Energy Division also reviewed PG&E's actions to procure local RA resources to meet the local RA requirements of the six disaggregated local areas, and finds them reasonable considering the capacity available to meet PG&E's local RA obligation. In this case, Energy Division finds that PG&E held solicitations and pursued all commercially reasonable efforts to acquire the resources needed to meet the LSE's local procurement obligation. PG&E's waiver request includes confidential market-sensitive information supporting this finding. Thus, Energy Division grants Advice Letter 5989-E, PG&E's request for a waiver of Commission penalties related to its 2021 year-ahead local RA procurement for 2021 to 2023.

Advice Letter 5989-E is effective on December 18, 2020.

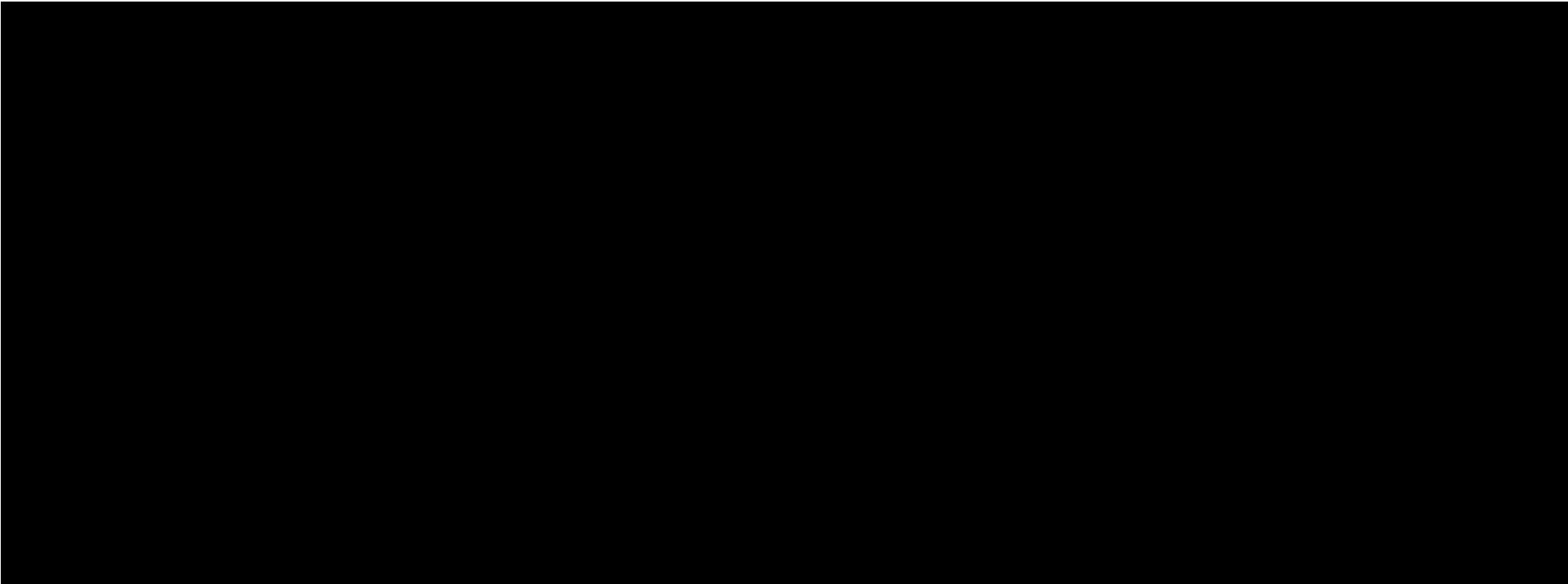
Sincerely,

A handwritten signature in black ink, appearing to read "ER" followed by "(f01)" in parentheses.

Edward Randolph
Deputy Executive Director for Energy and Climate Policy /
Director, Energy Division

Cc: EDComplianceReports@cpuc.ca.gov

This entire Excel Workbook (ERRA-2020-PGE-Compliance_DR_CalAdvocates_005-Q08_Atch02_CONF)
is **CONFIDENTIAL**, per D.06-06-066 and Pub Util Code Section 454.5(g), and should not be disclosed publicly.
CONFIDENTIAL, per D.06-06-066



PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
2020 ENERGY RESOURCE RECOVERY ACCOUNT COMPLIANCE REVIEW
RESPONSES TO THE PUBLIC ADVOCATES OFFICE DATA REQUEST 005
APRIL 12, 2021

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	Justification for Confidential Treatment	Length of Time Data To Be Kept Confidential
Response to DR 005 Question 3 Attachment 1	IV) A) – Forecast of IOU Generation Resources (MW and MWh); IV) B) – Forecast of Qualifying Facility Generation; IV) C) – Forecast of IOU Hydro Greater than 30 Megawatts (MW); IV) E) – Forecast of Pre-1/1/2003 (“Old-World”) Bilateral Contracts; IV) F) – Forecast of Post-1/1/2003 (“New World”) Bilateral Contracts; V) B) – LSE Total Peak Load Forecast – Bundled Customer (MW); VI) A) – Utility Bundled Net Open (Long or Short) Position for Capacity (MW); Pub. Util. Code §454.5(g)	<p>Confidential forecast of capacity rating and/or expected output of utility-owned generation resources, QF resources, utility-owned hydroelectric generation resources greater than 30 MW, and individual contracts. Confidential bundled customer peak load forecast.</p> <p>This information represents PG&E’s forecast of electric capacity (Local RA). It is my understanding that this information, if released, would allow the calculation of PG&E’s confidential bundled customer peak load forecast when combined with other available data.</p> <p>Further, while certain components of the procurement data or information from individual contracts are public in accordance with D.06-06-066 for other uses or purposes, the procurement data and information is not public for purposes of use in PG&E’s Revised 2021 Annual RA Compliance Filing. The fact that PG&E is using certain public contracts and resources to fulfill its RA compliance obligations is subject to confidentiality protections under Public Utilities Code §454.5(g), since the release of this market sensitive procurement information could put PG&E at a competitive disadvantage with regard to other market participants and could detrimentally impact PG&E customers.</p>	3 years
Response to DR 005 Question 5 Attachment 1	Item VII) B) Bilateral Contract Terms and Conditions – contracts and power purchase agreements between utilities and non-affiliated third parties; Item VIII) A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids	<p>Disclosure of bid term, price and notional value information would provide market sensitive information regarding PG&E bid strategy and selection. This is commercially market sensitive information because it could be used by other market participants to gain a commercial advantage and could impact market prices and cause harm to PG&E’s customers.</p>	3 years
Response to DR 005 Question 6 Attachment 1	Item VII) B) Bilateral Contract Terms and Conditions – contracts and power purchase agreements between utilities and non-	<p>Disclosure of bid term, price and notional value information would provide market sensitive information regarding PG&E bid strategy and selection. This is commercially market sensitive information because it could be used by other market participants to gain a commercial advantage and could impact market prices and cause harm to PG&E’s customers.</p>	3 years

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
2020 ENERGY RESOURCE RECOVERY ACCOUNT COMPLIANCE REVIEW
RESPONSES TO THE PUBLIC ADVOCATES OFFICE DATA REQUEST 005
APRIL 12, 2021

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	Justification for Confidential Treatment	Length of Time Data To Be Kept Confidential
	<p style="text-align: center;">affiliated third parties;</p> <p style="text-align: center;">Item VIII) A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids</p>		
<p>Response to DR 005 Question 8 Attachment 2</p>	<p>IV) A) – Forecast of IOU Generation Resources (MW and MWh);</p> <p>IV) B) – Forecast of Qualifying Facility Generation;</p> <p>IV) C) – Forecast of IOU Hydro Greater than 30 Megawatts (MW);</p> <p>IV) E) – Forecast of Pre-1/1/2003 (“Old-World”) Bilateral Contracts;</p> <p>IV) F) – Forecast of Post-1/1/2003 (“New World” Bilateral Contracts;</p> <p>V) B) – LSE Total Peak Load Forecast – Bundled Customer (MW);</p> <p>VI) A) – Utility Bundled Net Open (Long or Short) Position for Capacity (MW);</p> <p>Pub. Util. Code §454.5(g)</p>	<p>Confidential forecast of capacity rating and/or expected output of utility-owned generation resources, QF resources, utility-owned hydroelectric generation resources greater than 30 MW, and individual contracts. Confidential bundled customer peak load forecast.</p> <p>This information represents PG&E’s forecast of electric capacity (Local RA). It is my understanding that this information, if released, would allow the calculation of PG&E’s confidential bundled customer peak load forecast when combined with other available data.</p> <p>Further, while certain components of the procurement data or information from individual contracts are public in accordance with D.06-06-066 for other uses or purposes, the procurement data and information is not public for purposes of use in PG&E’s Revised 2021 Annual RA Compliance Filing. The fact that PG&E is using certain public contracts and resources to fulfill its RA compliance obligations is subject to confidentiality protections under Public Utilities Code §454.5(g), since the release of this market sensitive procurement information could put PG&E at a competitive disadvantage with regard to other market participants and could detrimentally impact PG&E customers.</p>	<p style="text-align: center;">3 years</p>

**PACIFIC GAS AND ELECTRIC COMPANY
2020 ENERGY RESOURCE RECOVERY ACCOUNT (ERRA)
COMPLIANCE REVIEW APPLICATION
APPLICATION 21-03-008**

**DECLARATION OF SCOTT RANZAL IN SUPPORT OF
RESPONSES TO THE PUBLIC ADVOCATES OFFICE DATA REQUEST 005**

I, Scott Ranzal, declare:

1. I am a Director in the Portfolio Management department within the Energy Policy and Procurement organization at Pacific Gas and Electric Company (PG&E). In this position, my responsibilities include overseeing portfolio management activities for PG&E's procurement activities. This declaration is based on my personal knowledge of PG&E's practices and my understanding of the Commission's decisions protecting the confidentiality of market-sensitive information.

2. Based on my knowledge and experience, and in accordance with the Decisions 06-06-066, 08-04-023, 14-10-033, and relevant Commission rules, I make this declaration seeking confidential treatment for certain data and information contained in the responsive documents that PG&E provided in response to Public Advocates Office's Data Request 005 in the 2020 ERRA Compliance Review proceeding filed on March 1, 2021.

3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is seeking to protect constitutes confidential market sensitive procurement data and information covered by D.06-06-066 and Public Utilities Code Section 454.5(g). The matrix also specifies why confidential protection is justified. Further, the data and information cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am incorporating into this declaration all the explanatory text that is pertinent to my testimony in the attached matrix.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed on April 12, 2021, at San Francisco, California.

/s/ Scott Ranzal
SCOTT RANZAL

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

PG&E Data Request No.:	CalAdvocates 012-Q01		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 012-Q01		
Request Date:	April 27, 2021	Requester DR No.:	012
Date Sent:	May 11, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Scott Ranzal	Requester:	Karl Stellrecht

QUESTION 01

Referring to PG&E's response to Cal Advocates Data Request 5, Question 6, PG&E procured [REDACTED] MW of local RA for May 2021 in the [REDACTED] Local Capacity Area (LCA) through the Southern California Edison Company (SCE)'s fourth quarter Request For Proposals (RFP) and executed the corresponding swap contracts on [REDACTED]. PG&E ultimately had a local RA position in the [REDACTED] LCA for May 2021 of [REDACTED] MW on November 2, 2020 as shown in PG&E's response to Cal Advocates Data Request 5, Question 8. Please provide the following:

- a. A description justifying PG&E's procurement of [REDACTED] MW when that led in part or whole to [REDACTED] MW of over procurement to meet Commission RA requirements. Please include any description of regulatory or other uncertainties of [REDACTED] may have been in the interest of ratepayers. Please also include if net qualifying capacity values of PG&E's position was anticipated to change, such as adjustments to hydroelectric capacities made by D.20-06-031.
- b. A brief description of any attempts PG&E made to [REDACTED] local RA position for May 2021 after November 2, 2020.

ANSWER 01

***THIS DATA RESPONSE CONTAINS CONFIDENTIAL INFORMATION
PROTECTABLE UNDER DECISION 14-10-033, DECISION 06-06-066, AND/OR
PUBLIC UTILITIES CODE SECTION 454.5(G) – SUBJECT TO NDA***

- a. PG&E's May 2021 [REDACTED] Local Area position is only one component of the entire set of requirements PG&E needs to address for CPUC and CAISO requirements. As outlined in Testimony [See Section B.1, on pages 8-2 and 8-3], PG&E is responsible for many requirements and attempts to address those requirements in a cost-effective manner for bundled customers. As of late September/early October 2020, PG&E had a [REDACTED] position greater than [REDACTED] MW for its May 2021 [REDACTED] Local requirement. At that time, PG&E also had a [REDACTED] position greater than [REDACTED] MW for its May 2021 [REDACTED] requirement. PG&E was engaged in varied efforts to obtain RA to meet these and many other monthly requirements.

First, given PG&E's experience with SCE, PG&E felt participation in SCE's solicitation to obtain [REDACTED] Local Resource Adequacy could address several months PG&E was short of the [REDACTED] requirement. PG&E's bid into the SCE solicitation was a binding award at the date of entry (September 24, 2020). Awarded volumes were provided on October 9, 2020. PG&E's participation in the SCE solicitation for May 2021 consisted of a simultaneous purchase of [REDACTED] Local RA and a sale of [REDACTED] and the resulting award addressed the [REDACTED] Local need. The transaction was completed between PG&E and SCE on October 29, 2020 – two days before the annual RA filing was due.

At the same time, in late September/early October, PG&E was actively pursuing other potential Resource Adequacy transactions to meet its outstanding requirements for [REDACTED] and [REDACTED] RA (note: as of this time, PG&E had not yet received an award from SCE). PG&E received an offer from [REDACTED] on October 6, 2020 to sell [REDACTED] RA to PG&E. [REDACTED] MW offer provided the most capacity of the bids received to address a significant portion of PG&E's outstanding CAISO System RA need. The transaction was completed between PG&E and [REDACTED] on October 30, 2020 – one day before the annual RA filing was due. PG&E's need to fulfill its [REDACTED] RA requirement led to PG&E executing a contract with [REDACTED] which also happened to meet the [REDACTED] RA requirement.

- b. All excess May 2021 [REDACTED] capacity was made available for sale in the 2021 February through December Balance of Year solicitation issued 11/4/2020, and 2021 April through December Balance of Year solicitation issued on 1/11/2021.

**PACIFIC GAS AND ELECTRIC COMPANY
2020 ENERGY RESOURCE RECOVERY ACCOUNT (ERRA)
COMPLIANCE REVIEW APPLICATION
APPLICATION 21-03-008**

**DECLARATION OF SCOTT RANZAL IN SUPPORT OF
RESPONSES TO THE PUBLIC ADVOCATES OFFICE DATA REQUEST 12**

I, Scott Ranzal, declare:

1. I am a Director in the Portfolio Management department within the Energy Policy and Procurement organization at Pacific Gas and Electric Company (PG&E). In this position, my responsibilities include overseeing portfolio management activities for PG&E's procurement activities. This declaration is based on my personal knowledge of PG&E's practices and my understanding of the Commission's decisions protecting the confidentiality of market-sensitive information.

2. Based on my knowledge and experience, and in accordance with the Decisions 06-06-066, 08-04-023, 14-10-033, and relevant Commission rules, I make this declaration seeking confidential treatment for certain data and information contained in the responsive documents that PG&E provided in response to Public Advocates Office's Data Request 12 in the 2020 ERRA Compliance Review proceeding filed on March 1, 2021.

3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is seeking to protect constitutes confidential market sensitive procurement data and information covered by D.06-06-066 and Public Utilities Code Section 454.5(g). The matrix also specifies why confidential protection is justified. Further, the data and information cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am incorporating into this declaration all the explanatory text that is pertinent to my testimony in the attached matrix.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed on May 11, 2021, at San Francisco, California.

/s/ Scott Ranzal
SCOTT RANZAL

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
2020 ENERGY RESOURCE RECOVERY ACCOUNT COMPLIANCE REVIEW
RESPONSES TO THE PUBLIC ADVOCATES OFFICE DATA REQUEST 012
May 11, 2021

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	Justification for Confidential Treatment	Length of Time Data To Be Kept Confidential
Question and Response to DR 012 Question 1	IV) A) – Forecast of IOU Generation Resources (MW and MWh); IV) B) – Forecast of Qualifying Facility Generation; IV) C) – Forecast of IOU Hydro Greater than 30 Megawatts (MW); IV) E) – Forecast of Pre-1/1/2003 (“Old-World”) Bilateral Contracts; IV) F) – Forecast of Post-1/1/2003 (“New World” Bilateral Contracts; V) B) – LSE Total Peak Load Forecast – Bundled Customer (MW); VI) A) – Utility Bundled Net Open (Long or Short) Position for Capacity (MW); Pub. Util. Code §454.5(g)	<p>Confidential forecast of capacity rating and/or expected output of utility-owned generation resources, QF resources, utility-owned hydroelectric generation resources greater than 30 MW, and individual contracts. Confidential bundled customer peak load forecast.</p> <p>This information represents PG&E’s forecast of electric capacity (Local RA). It is my understanding that this information, if released, would allow the calculation of PG&E’s confidential bundled customer peak load forecast when combined with other available data.</p> <p>Further, while certain components of the procurement data or information from individual contracts are public in accordance with D.06-06-066 for other uses or purposes, the procurement data and information is not public for purposes of use in PG&E’s Revised 2021 Annual RA Compliance Filing. The fact that PG&E is using certain public contracts and resources to fulfill its RA compliance obligations is subject to confidentiality protections under Public Utilities Code §454.5(g), since the release of this market sensitive procurement information could put PG&E at a competitive disadvantage with regard to other market participants and could detrimentally impact PG&E customers.</p>	3 years
Question and Response to DR 012 Question 1	Item VII) B) Bilateral Contract Terms and Conditions – contracts and power purchase agreements between utilities and non-affiliated third parties; Item VIII) A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids	<p>Disclosure of bid term, price and notional value information would provide market sensitive information regarding PG&E bid strategy and selection. This is commercially market sensitive information because it could be used by other market participants to gain a commercial advantage and could impact market prices and cause harm to PG&E’s customers.</p>	3 years

PACIFIC GAS AND ELECTRIC COMPANY
2020 Energy Resource Recovery Account Compliance
Application 21-03-008
Data Response

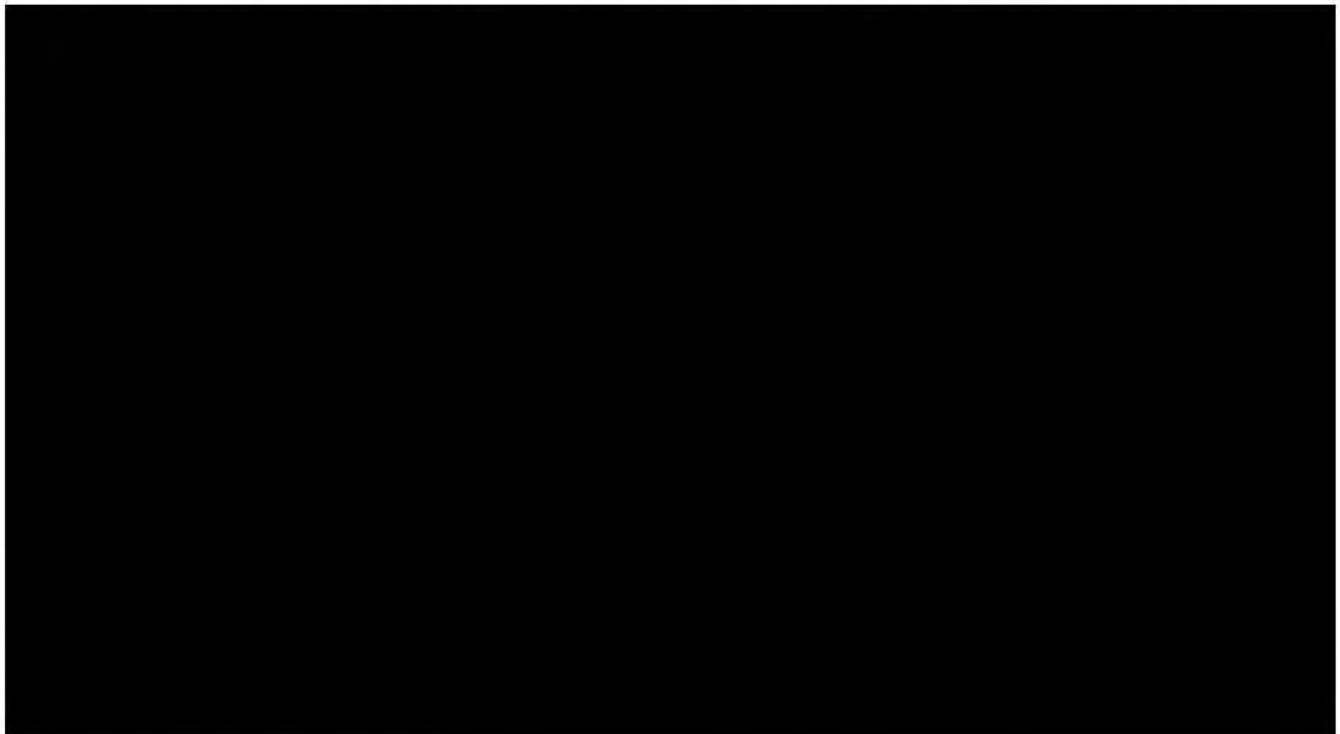
PG&E Data Request No.:	CalAdvocates 013-Q01		
PG&E File Name:	ERRA-2020-PGE-Compliance DR CalAdvocates 013-Q01 CONF		
Request Date:	May 12, 2021	Requester DR No.:	013
Date Sent:	May 26, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:	Scott Ranzal	Requester:	Karl Stellrecht

QUESTION 01

This question refers to tab "Shortlist RA" in the file "2020 Q3 through Balance of Year and 2021-2023.xlsx" attached to file "06_04-23-20 PGE PRG Info 2020 BoY RA Impt Engy 21-23 RA ESol Shrlst" for the 2020 Quarter 2 QCR. Numerous rows include [REDACTED] in the Result column. For offers with the Transaction Type [REDACTED], describe how PG&E calculated the [REDACTED] values. Please relate your response to the calculation methodology provided in PG&E BPP Appendix S section "Calculation Methodology" and describe the interaction between system RA and local RA values in the calculation.

ANSWER 01

This data response contains confidential information Protectable Under Decision 14-10-033, Decision 06-06-066, and/or Public Utilities Code Section 454.5(G).



¹ ERRA-2019-PGE-Compliance_DR_CalAdvocates_004-Q01, 3/23/2020.



**PACIFIC GAS AND ELECTRIC COMPANY
2020 ENERGY RESOURCE RECOVERY ACCOUNT (ERRA)
COMPLIANCE REVIEW APPLICATION
APPLICATION 21-03-008**

**DECLARATION OF SCOTT RANZAL IN SUPPORT OF
RESPONSES TO THE PUBLIC ADVOCATES OFFICE DATA REQUEST 013**

I, Scott Ranzal, declare:

1. I am a Director in the Portfolio Management department within the Energy Policy and Procurement organization at Pacific Gas and Electric Company (PG&E). In this position, my responsibilities include overseeing portfolio management activities for PG&E's procurement activities. This declaration is based on my personal knowledge of PG&E's practices and my understanding of the Commission's decisions protecting the confidentiality of market-sensitive information.

2. Based on my knowledge and experience, and in accordance with the Decisions 06-06-066, 08-04-023, 14-10-033, and relevant Commission rules, I make this declaration seeking confidential treatment for certain data and information contained in the responsive documents that PG&E provided in response to Public Advocates Office's Data Request 013 in the 2020 ERRA Compliance Review proceeding filed on March 1, 2021.

3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is seeking to protect constitutes confidential market sensitive procurement data and information covered by D.06-06-066 and Public Utilities Code Section 454.5(g). The matrix also specifies why confidential protection is justified. Further, the data and information cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am incorporating into this declaration all the explanatory text that is pertinent to my testimony in the attached matrix.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed on May 26, 2021, at San Francisco, California.

/s/ Scott Ranzal
SCOTT RANZAL

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
2020 ENERGY RESOURCE RECOVERY ACCOUNT COMPLIANCE REVIEW
RESPONSE TO THE PUBLIC ADVOCATES OFFICE'S THIRTEENTH DATA REQUEST
MAY 26, 2021

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	Justification for Confidential Treatment	Length of Time Data To Be Kept Confidential
Cal Advocates 013 Question 1	Public Utilities Code §454.5(g)	This information includes PG&E's confidential sales framework. Any discussion of PG&E's sales strategies is market sensitive, and if released, this information could cause harm to PG&E's customers and put PG&E at an unfair business disadvantage.	Indefinite
Cal Advocates 013 Question 1	VIII.A – Bid Information VIII.B – Quantitative analysis for scoring and evaluating bids	Confidential bid information from solicitation e.g., participating bids, counterparty names, prices and quantities offered. Confidential quantitative analysis for scoring and evaluating bids in solicitation.	Three years
Cal Advocates 013 Question 4 part a	VIII.A – Bid Information	Confidential bid information from solicitation e.g., participating bids, counterparty names, prices and quantities offered.	Three years

CHAPTER 7
ATTACHMENT 7.2

PG&E summary of end-of-record period

RA positions

(Confidential)

CHAPTER 7
ATTACHMENT 7.3

**QCR workpaper showing results of the 2020
Q2 Balance of Year RA solicitation**

(Confidential)
(Available via E-Mail)

CHAPTER 7
ATTACHMENT 7.4

**QCR workpaper showing results of the 2020
Q3 Balance of Year RA solicitation**

(Confidential)
(Available via E-Mail)

CHAPTER 7
ATTACHMENT 7.5

**QCR workpaper showing results of the 2020
Q4 Balance of Year RA solicitation**

(Confidential)
(Available via E-Mail)

CHAPTER 7
ATTACHMENT 7.6

**QCR workpaper showing results of the
Multiyear RA solicitation Phase 1**

(Confidential)

(Available via E-Mail)

CHAPTER 7
ATTACHMENT 7.7

**QCR workpaper showing results of the
Multiyear RA solicitation, Phase 2**

(Confidential)

(Available via E-Mail)

CHAPTER 7
ATTACHMENT 7.8

**QCR Workpaper showings results of a
November, 2020, RA and Import Energy E-
Solicitation**

(Confidential)

(Available via E-Mail)

CHAPTER 7

ATTACHMENT 7.9

**PG&E slides from Procurement Review
Group meetings on September 15, 2020 and
March 16, 2021 describing electric positions**

(Confidential)

LIST OF ATTACHMENTS FOR CHAPTER 8

#	Attachment	Description
1	8.1	Email communication with PG&E Staff, June 9, 2021. (Confidential)
2	8.2	<p>PG&E Testimony Confidential Workpapers, Chapter 9, CAISO Transactions for Approval.</p> <p>(Confidential, Available Via Email)</p> <p>List of transactions included in attachment:</p> <ol style="list-style-type: none"> 1. 20200817_33R144_Mesquite Solar 1_Agmt for Short Term Emergency Energy Summary_CONF 2. 20200820_33R254_SPI Biomass_Letter Agmt for Short Term Additional Deliveries_Aug17-31_CONF 3. 20200824_33R406_Wheelabrator Shasta_Letter Agreement for Surplus Delivered Energy_Aug17-31_CONF 4. 20200904_25C002_Chevron U.S.A. (TaftCadet)_Letter Agmt for Short Term Emerg. Energy_Sept5-7_CONF 5. 20200904_25C003_Chevron U.S.A. (Cymric)_Letter Agmt for Short Term Emergency Energy_Sept5-7_CONF 6. 20200904_25C055_Chevron U.S.A. (Coalinga)_Letter Agmt for Short Term Emergency Energy_Sep5-7_CONF 7. 20200904_25C063QPA2_Frito Lay Cogen_Additional Energy Letter Agreement_Sept5-7_CONF 8. 20200904_25C138QPA_Western Power and Steam II_LA for Short Term Addtl Deliveries_Sept5-7_CONF 9. 20200904_33R254_SPI Biomass_Letter Agreement for Short Term Additional Deliveries_Sept5-7_CONF 10. 20200904_33R406_Wheelabrator Shasta_Surplus Delivered Energy Letter Agreement_Sept5-7_CONF

#	Attachment	Description
		<p>11. 20200916_25C138QPA_Western Power and Steam II_LA for Short Term Addtl Deliveries_Sept 16-30_CONF</p> <p>12. 20200917_33R406_Wheelabrator Shasta_Surplus Delivered Energy Letter Agreement_Sept17-30_CONF</p> <p>13. 20200918_25C002_Chevron U.S.A. (TaftCadet)_Letter Agmt for Short Term Emerg. Energy_Sep19-30_CONF</p> <p>14. 20200918_25C003_Chevron U.S.A. (Cymric)_Letter Agmt for Short Term Emerg. Energy_Sept 19-30_CONF</p> <p>15. 20200918_25C055_Chevron U.S.A. (Coalinga) Letter Agmt for Short Term Emerg. Energy_Sept19-30_CONF</p> <p>16. 20200918_33R254_SPI Biomass_Letter Agreement for Short Term Additional Deliveries_Sept18-30_CONF</p> <p>17. 20200922_25C246_Chevron U.S.A. (SE Kern River)_LA for Short Term Emergency Energy_Sept 19-30_CONF</p> <p>18. 20201005_25C138QPA_Western Power and Steam II_LA for Short Term Addtl Deliveries_Oct5-31_CONF</p> <p>19. 20201005_33R254_SPI Biomass_Letter Agreement for Short Term Additional Deliveries_Oct 5-31_CONF</p> <p>20. 20201013_25C002_Chevron U.S.A. (TaftCadet)_Letter Agmt for Short Term Emerg. Energy_Oct13-31_CONF</p> <p>21. 20201013_25C003_Chevron U.S.A. (Cymric)_Letter Agmt for Short Term Emerg. Energy_Oct 13-31_CONF</p> <p>22. 20201013_25C055_Chevron U.S.A. (Coalinga)_Letter Agmt for Short Term Emerg. Energy_Oct13-31_CONF</p>

#	Attachment	Description
		23. 20201013_25C246_Chevron U.S.A. (SE Kern River)_LA for Short Term Emerg. Energy_Oct13-31_CONF
3	8.3	Cal Advocates Prepared Testimony on Pacific Gas and Electric Company Application for Compliance Review Of Utility Owned Generation Operations, Portfolio Allocation Balancing Account Entries, Energy Resource Recovery Account Entries, Contract Administration, Economic Dispatch Of Electric Resources, Utility Owned Generation Fuel Procurement, Diablo Canyon Seismic Studies Balancing Account, And Other Activities For the Period January 1 Through December 31, 2019, July 10, 2020, pp. 8-4 – 8-5. (Confidential)
4	8.4	Email communication with PG&E Staff, May 21, 2021.

CHAPTER 8

ATTACHMENT 8.1

Email communication with PG&E Staff, June 9, 2021.

(Confidential)

From: [Chan, Candice](#)
To: [Navis, Kyle](#)
Cc: [Stellrecht, Karl](#); [Zahariudakis, George](#); [Mandelbaum, Caryn L.](#)
Subject: [EXTERNAL] RE: Follow-up on COD date for Force Majeure claims (ERRA) CONFIDENTIAL
Date: Wednesday, June 9, 2021 4:27:54 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle,
For clarification, PG&E [REDACTED] for the Moss Landing Energy Storage Resource Adequacy Agreement per our conversation on May 6, 2021. The Moss Landing Energy Storage project (PG&E Log No. 40S013) achieved its Initial Delivery Date on June 1, 2021 under the agreement.
Candice

From: Navis, Kyle <Kyle.Navis@cpuc.ca.gov>
Sent: Wednesday, June 9, 2021 2:14 PM
To: Chan, Candice <CWW9@pge.com>
Cc: Stellrecht, Karl <Karl.Stellrecht@cpuc.ca.gov>; Zahariudakis, George <GxZ5@pge.com>; Mandelbaum, Caryn L. <Caryn.Mandelbaum@cpuc.ca.gov>
Subject: Follow-up on COD date for Force Majeure claims (ERRA) CONFIDENTIAL

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Confidential information in email

Hi Candice,

I wanted to follow up on one piece of information from our conversation of [REDACTED] here you explained that the two Moss Landing Storage resources (Log #40S013) [REDACTED]

Did they succeed in achieving their CODs, or have they availed themselves of the force majeure period?

Thanks,

Kyle

Kyle Navis, Analyst [he/him]

Public Advocates Office

California Public Utilities Commission
505 Van Ness Avenue, San Francisco, CA 94102

Kyle.Navis@cpuc.ca.gov

publicadvocates.cpuc.ca.gov

CHAPTER 8

ATTACHMENT 8.2

**PG&E Testimony Confidential Workpapers, Chapter
9, CAISO Transactions for Approval.**

(Confidential, Available Via Email)

CHAPTER 8

ATTACHMENT 8.3

Cal Advocates Prepared Testimony on Pacific Gas and Electric Company Application for Compliance Review Of Utility Owned Generation Operations, Portfolio Allocation Balancing Account Entries, Energy Resource Recovery Account Entries, Contract Administration, Economic Dispatch Of Electric Resources, Utility Owned Generation Fuel Procurement, Diablo Canyon Seismic Studies Balancing Account, And Other Activities For the Period January 1 Through December 31, 2019, July 10, 2020, pp. 8-4 – 8-5.

(Confidential)

1 **A. Other Matters**

2 **1. Thermal Energy Development Corporation (PG&E Log No.**
3 **16P054)**

4 PG&E and the Thermal Energy Development Corporation (Thermal Energy), a
5 biomass facility located in Tracy, CA, are counterparties to a legacy PPA that requires
6 Thermal Energy to meet its Firm Capacity obligations.⁴²⁷ In 2014, PG&E notified
7 Thermal Energy that it had failed to meet its Firm Capacity requirement.⁴²⁸ By 2016,
8 Thermal Energy had failed to “cure its probation,” so PG&E derated the facility’s Firm
9 Capacity level to zero kilowatt-hours (kWh) and demanded \$2,974,197.33 in minimum
10 damages.⁴²⁹

11 Thermal Energy was unable to pay the damages up front but offered to sell the
12 facility to raise the necessary funds. After finding a potential buyer, in 2018, Thermal
13 Energy and PG&E entered into a Settlement Agreement and Release that [REDACTED]
14 [REDACTED]
15 [REDACTED],⁴³⁰ After the close of the sale, [REDACTED]
16 [REDACTED], and the parties terminated the PPA on May 6, 2019.⁴³¹ The Public
17 Advocates Office reviewed the Settlement Agreement and Release and determined that
18 PG&E executed and resolved its contractual matter with Thermal Energy as a reasonable
19 manager.

20 **2. Vantage Wind Energy LLC (PG&E Log No. 33R083)**

21 PG&E and Vantage Wind Energy (Vantage Winds) are counterparties to a PPA
22 that “contains a cost sharing mechanism for transmission-related costs in the event such

⁴²⁷ A.20-02-009, PG&E Testimony, p. 9-15.

⁴²⁸ A.20-02-009, PG&E Testimony, p. 9-15.

⁴²⁹ Settlement Agreement and Release between PG&E and Thermal Energy Development Partnership, L.P., September 13, 2018, p. 1.

⁴³⁰ A.20-02-009, PG&E Testimony, p. 9-15.

⁴³¹ A.20-02-009, PG&E Testimony, p. 9-15.

1 costs exceed a specified threshold for a given Contract Year.”⁴³² In 2019, PG&E
2 “discovered that it had not been applying this cost sharing mechanism” since the
3 beginning of the PPA’s delivery term in 2010.⁴³³ PG&E calculated and invoiced Vantage
4 Winds for the latter’s share of transmission-related costs for 2017 and 2018, amounting to
5 [REDACTED], respectively.⁴³⁴

6 Although PG&E and Vantage Winds were still “in discussions” as of the end of
7 Record Period 2019, and “neither party has invoked the PPA’s dispute resolution
8 process,”⁴³⁵ the Public Advocates Office examined PG&E’s actions thus far. When
9 asked in a data request why it overlooked the PPA’s cost sharing mechanism, PG&E
10 responded that it was due to “unique non-standard settlement provisions in the PPA,” a
11 lack of process documentation, passing of time, staff turnover, and “inadequate follow-
12 up.”⁴³⁶ PG&E noted that none of its PPAs with any other counterparties have a similar
13 cost sharing mechanism.⁴³⁷ Finally, when asked why it only calculated Vantage Wind’s
14 portion of the transmission costs for 2017 and 2018, PG&E responded that it only has
15 invoices for these two years and is in “active discussions with Vantage Wind regarding
16 the cost sharing calculations.”⁴³⁸

17 Because this issue is ongoing, the Public Advocates Office cannot assess PG&E’s
18 overall reasonableness as a contract manager. PG&E will report its “progress on this
19 matter”⁴³⁹ in its 2020 Record Period ERRR Compliance filing.

⁴³² A.20-02-009, PG&E Testimony, p. 9-15.

⁴³³ A.20-02-009, PG&E Testimony, p. 9-15.

⁴³⁴ A.20-02-009, PG&E Testimony, pp. 9-15 – 9-16.

⁴³⁵ A.20-02-009, PG&E Testimony, p. 9-16.

⁴³⁶ PG&E Response to Data Request 11, Question 2a.

⁴³⁷ PG&E Response to Data Request 11, Question 2b.

⁴³⁸ PG&E Response to Data Request 11, Question 2d.

⁴³⁹ PG&E Response to Data Request 11, Question 2f.

CHAPTER 8

ATTACHMENT 8.4

**Email communication with PG&E Staff,
May 21, 2021**

From: [Chan, Candice](#)
To: [Navis, Kyle](#)
Cc: [Stellrecht, Karl](#); [Zahariudakis, George](#); [Mandelbaum, Caryn L.](#); [Leung, Kristy](#); [Yura, Ted](#); [Anderson, Lauren](#)
Subject: [EXTERNAL] RE: PG&E Bankruptcy Agreements (Ch. 9.D.3.)
Date: Friday, May 21, 2021 3:00:02 PM

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Hi Kyle,

The "ten settlement agreements associated with 16 contracts" described in Chapter 9, Section D, 3. "PG&E Bankruptcy" (pp. 9-19 – 9-20) are listed for informational purposes as an update on PG&E's Bankruptcy. PG&E is not seeking review and approval of the settlement agreements through the 2020 ERRA Compliance proceeding.

Candice Chan

Pronouns: she, her, hers

Energy Policy and Procurement | Energy Contract Management & Settlements

Pacific Gas and Electric Company

(415) 412-0263 | candice.chan@pge.com

From: Navis, Kyle <Kyle.Navis@cpuc.ca.gov>
Sent: Friday, May 21, 2021 1:57 PM
To: Chan, Candice <CWW9@pge.com>
Cc: Stellrecht, Karl <Karl.Stellrecht@cpuc.ca.gov>; Zahariudakis, George <GxZ5@pge.com>; Mandelbaum, Caryn L. <Caryn.Mandelbaum@cpuc.ca.gov>
Subject: PG&E Bankruptcy Agreements (Ch. 9.D.3.)

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Hi Candice,

I have an ERRA compliance question on Chapter 9: are the "ten settlement agreements associated with 16 contracts" described in Chapter 9, Section D, 3. "PG&E Bankruptcy" (pp. 9-19 – 9-20) listed for informational purposes only, or are these agreements intended for review in the ERRA proceeding?

Thanks,

Kyle

Kyle Navis, Analyst [he/him]

Public Advocates Office

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