DIVISION OF RATEPAYER ADVOCATES
A.13-02-023 Energy Resource Recovery Acct 2012-Compliance
DRA Response to PG&E DR #1 (2nd Partial Response)

Recipient	Division of Ratepayer Advocates		
PG&E Data Request No.:	PGE_DRA-001		
PG&E File Name:	EnerResourceRecoveryAcct2012-Compliance_DR_PGE_DRA-001/Q4		
Request Date:	September 5, 2013	PG&E Witness:	Redacted
Due Date:	September 12, 2013	DRA Witness:	**Ravinder Mangat**

<u>Question 1.4:</u>

Chapter 3 -- PG&E's Management of Utility-Owned Generation – Fossil (Ravinder Mangat)

1.4. On page 3-1, lines 24-26, DRA states that "As discussed in the SONGS OII (I12-10-013), the utility has ultimate responsibility for collecting incremental "inspection and repair costs" from the manufacturer of components that failed, regardless of the reason for the failure."

a. Please provide PG&E with a copy of the DRA testimony referenced in footnote 48.

b. Please define incremental "inspection and repair costs" as used above.

c. Please provide PG&E with the Commission decision that states that the utility has ultimate responsibility for collecting incremental "inspection and repair costs" from the manufacturer of components that failed, regardless of the reason for the failure.

<u>DRA Response</u>

a. This exhibit is provided. The file name is "DRA SONGS Testimony March 2013".

b. Incremental "inspection and repair costs" refers to the cost of inspecting components of a generator that are suspected to be damaged as the result of a specific incident or set of related incidents, and the further cost of repairing any components that are found to be damaged, to enable the generator to return to normal use.

c. DRA's position is not based on a Commission decision, rather on DRA's testimony in the SONGS OII proceeding.

Recipient	Division of Ratepayer Advocates		
PG&E Data Request No.:	PGE_DRA-001		
PG&E File Name:	EnerResourceRecoveryAcct2012-Compliance_DR_PGE_DRA-001/Q5		
Request Date:	September 5, 2013	PG&E Witness:	Redacted
Due Date:	September 12, 2013	DRA Witness:	**Ravinder Mangat**

Question 1.5:

Chapter 3 -- PG&E's Management of Utility-Owned Generation – Fossil (Ravinder Mangat)

1.5. On page 3-2, lines 8-9, DRA states that "In addition, DRA maintains that PG&E is not eligible to claim in ERRA any "inspection and repair costs" due to equipment failure, regardless of the reason for that failure, nor any energy replacement costs owing to this failure."

a. Please identify the line item(s) in the ERRA balancing account where PG&E has included "inspection and repair costs" for any of its utility owned generation facilities.

b. If DRA is unable to specify where in PG&E's ERRA balancing account PG&E has included "inspection and repair costs" for any of its utility owned generation facilities, please explain why DRA is recommending a disallowance of $1.61 million.

c. Please explain DRA's understanding of whether capital and expense costs of PG&E's utility owned generation are within the scope of PG&E's General Rate Case or ERRA Compliance Proceeding.

DRA Response

a. DRA cannot identify the line item(s) in the ERRA balancing account where PG&E has included "inspection and repair costs" for any of its utility owned generation facilities. DRA maintains that PG&E is not eligible to claim in ERRA any "inspection and repair costs" due to equipment failure, regardless of the reason for that failure, nor any energy replacement costs owing to this failure, if PG&E is seeking recovery of these costs as a separate line item or as an imbedded cost in any line item in the ERRA balancing account.

b. It is not clear from PG&E's application that there are no "inspection and repair costs" included that are related to UOG. DRA is willing to amend its testimony if PG&E can verify that no such costs are part of the application.

c. Capital costs should not be within the scope of the ERRA Compliance proceeding. It depends on the nature of the expense as to whether it falls within the scope of the ERRA Compliance Proceeding or was covered by the most recent General Rate Case.

Recipient	Division of Ratepayer Advocates		
PG&E Data Request No.:	PGE_DRA-001		
PG&E File Name:	EnerResourceRecoveryAcct2012-Compliance_DR_PGE_DRA-001/**Q6**		
Request Date:	September 5, 2013	PG&E Witness:	Redacted
Due Date:	September 12, 2013	DRA Witness:	**Ravinder Mangat**

<u>Question 1.6:</u>

Chapter 3 -- PG&E's Management of Utility-Owned Generation – Fossil (Ravinder Mangat)

1.6. On page 3-12, lines 18-24, DRA states that PG&E should have included replacement costs in the Wartsila warranty for the Humboldt Generating Station.

a. Is DRA aware of any warranty from a turbine manufacturer that includes a provision addressing replacement costs in the case of a manufacturing or installation defect?

b. If so, please identify all warranties that DRA is aware of from turbine manufacturers that include a provision addressing replacement costs including, but not limited to: the name of the manufacturer, the date the warranty was entered into, the facility where the turbines were installed, the specific terms of the warranty with regard to replacement costs, and the purchasing utility/entity.

<u>DRA Response</u>

Yes, in December 2003, SCE issued a Request for Offers for four Replacement Steam Generators (RSGs) for the SONGS plant. Mitsubishi Heavy Industries (MHI) subsequently were selected to supply the RSGs. In its contract with Mitsubishi provisions were included to cover a broad range of costs, that as noted in the attached notice of dispute could effectively include replacement costs in the case of a manufacturing or installation defect. Please see the following sections of the attached notice of dispute – Section 2, p.19-21; Section 3, page 21; Section 3.B., see page 22 (bullet point): "costs of purchasing power to serve Edison's and the Co-Owner's customers who otherwise would have been served by SONGS"

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A.13-02-023 Energy Resource Recovery Acct 2012-Compliance
DRA Response to PG&E DR #1 (2nd Partial Response)

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PG&E Data Request No.:	PGE_DRA-001		
PG&E File Name:	EnerResourceRecoveryAcct2012-Compliance_DR_PGE_DRA-001/Q7		
Request Date:	September 5, 2013	PG&E Witness:	Redacted
Due Date:	September 12, 2013	DRA Witness:	Ravinder Mangat

Question 1.7:

Chapter 3 -- PG&E's Management of Utility-Owned Generation – Fossil (Ravinder Mangat)

1.7. With regard to the labor and capital cost disallowance recommended by DRA on page 3-15 for the Humboldt Generating Station, describe in detail how DRA proposes that this disallowance be accounted.

a. Would the proposed disallowance mean that PG&E was not able to recover $1.61 million in costs in ERRA?

b. Would the disallowance be applied to the 2014 General Rate Case (GRC)?

c. Would the disallowance be accounted for through some other mechanism other than the ERRA Balancing Account or the GRC? If so, please describe.

DRA Response

See response to 1.5.

DIVISION OF RATEPAYER ADVOCATES
A.13-02-023 Energy Resource Recovery Acct 2012-Compliance
DRA Response to PG&E DR #1 (2nd Partial Response)

Recipient	Division of Ratepayer Advocates		
PG&E Data Request No.:	PGE_DRA-001		
PG&E File Name:	EnerResourceRecoveryAcct2012-Compliance_DR_PGE_DRA-001/Q8		
Request Date:	September 5, 2013	PG&E Witness:	Redacted
Due Date:	September 12, 2013	DRA Witness:	Ravinder Mangat

<u>Question 1.8:</u>

Chapter 3 -- PG&E's Management of Utility-Owned Generation – Fossil (Ravinder Mangat)

1.8. DRA's testimony in Chapter 3 addresses an outage at Humboldt Generating Station, Unit 5 (p. 3-4, lines 4-5). What is DRA's basis for seeking a disallowance for Units 3 and 7 (p. 3-15, Table 3.1, Item #5) when there was no forced outage at these units?

a. Is it DRA's position that in an ERRA proceeding it can recommend disallowances associated with maintenance outages as compared to forced outages?

<u>DRA Response</u>

The basis for seeking disallowances in this case is that a maintenance outage was extended to repair the damage to Units 3 and 7, and as described in the testimony, DRA believes that these damages could have been avoided by following the maintenance schedule provided by Wartsila. Based on PG&E's response to DR # 21, Question 10, the turbochargers at Units 3 and 7 were inspected in response to ABB's service bulletin, and similar to the scenario that unfolded with Unit 5, damage to the turbine blades was identified during the inspection. Unless PG&E can verify otherwise, the root cause of the damage is the same as that of Unit 5. This situation has resulted in costs to repair the damaged turbine blades in Unit 3 and 7, which DRA estimated to be equivalent to the costs indicated in PG&E's response to DR #21, Question15, for the corresponding damage to Unit 5 ($497,000).

Recipient	Division of Ratepayer Advocates		
PG&E Data Request No.:	PGE_DRA-001		
PG&E File Name:	EnerResourceRecoveryAcct2012-Compliance_DR_PGE_DRA-001/Q9		
Request Date:	September 5, 2013	PG&E Witness:	Redacted
Due Date:	September 12, 2013	DRA Witness:	Ravinder Mangat

Question 1.9:

Chapter 3 -- PG&E's Management of Utility-Owned Generation – Fossil (Ravinder Mangat)

1.9. On page 3-3, lines 13-20, DRA describes its overall approach to investigating PG&E's administration of UOG resources. DRA's approach was: (1) "Identify whether there has been any forced outage, or maintenance/planned outages that were significantly longer than originally planned"; and (2) "Determine whether any failure of PG&E to act prudently and as a reasonable manager in the operation of this resource lead to these outages occurring or lasting longer than they should have done."

a. In its approach to investigating PG&E's administration of UOG resources, did DRA consider whether PG&E's fossil generation portfolio operated at a higher reliability level during the 2012 record period when compared to the industry benchmarks?

DRA Response

In determining which individual outages should be investigated further, DRA did not consider whether PG&E's fossil generation portfolio operated at a higher reliability level during the 2012 record period when compared to industry benchmarks. DRA's review of PG&E's UOG performance is not only focused on industry benchmarks, it is also focused on verifying whether the utility has acted as a reasonable manager and prudently operated its individual resources to avoid unnecessary capital damage and/or outages.

DIVISION OF RATEPAYER ADVOCATES
A.13-02-023 Energy Resource Recovery Acct 2012-Compliance
DRA Response to PG&E DR #1 (2nd Partial Response)

Recipient	Division of Ratepayer Advocates		
PG&E Data Request No.:	PGE_DRA-001		
PG&E File Name:	EnerResourceRecoveryAcct2012-Compliance_DR_PGE_DRA-001/Q11		
Request Date:	September 5, 2013	PG&E Witness:	Redacted
Due Date:	September 12, 2013	DRA Witness:	Ravinder Mangat

Question 1.11:
Chapter 5 – Least Cost Dispatch (Ravinder Mangat)

1.11. On page 5-2, DRA recommends that PG&E provide a performance evaluation, comparison tool, or other quantitative analysis that demonstrates their effectiveness in achieving the least cost dispatch standard.

a. Please explain how this recommendation is consistent with Section 454.5(d)(2) of AB57, which states in part that one of the objectives of a Commission-approved procurement plan is to "Eliminate the need for after-the-fact reasonableness reviews of an electrical corporation's actions in compliance with an approved procurement plan, including resulting electricity procurement contracts, practices, and related expenses."

DRA Response

DRA's suggested performance evaluation or other quantitative analysis demonstrating PG&E's effectiveness in achieving the least-cost dispatch standard are only examples of tools that PG&E may use to meet its burden of proof in the area of least-cost dispatch. Such analytical tools would allow PG&E to demonstrate that it: (1) dispatched the dispatchable contracts under its control when it is most economical to do so; (2) disposed of economic long power and purchased economic short power in a manner that minimized ratepayer costs; and (3) used the most cost-effective mix of its total resources, thereby minimizing the cost of delivering electrical services.[1]

The interpretation of Section 454.5(d)(2) of the Public Utilities Code (which codified Assembly Bill 57) and the term "after-the-fact reasonableness" are legal issues. DRA objects to question 11(a), to the extent that PG&E's question calls for an answer that would reflect the mental impressions, conclusions, opinions, or theories of an attorney.

1 *See* D.10-07-049, pp. 5–6 (quoting D.02-12-074, Ordering Paragraph 24b).

Recipient	Division of Ratepayer Advocates		
PG&E Data Request No.:	PGE_DRA-001		
PG&E File Name:	EnerResourceRecoveryAcct2012-Compliance_DR_PGE_DRA-001/Q12		
Request Date:	September 5, 2013	PG&E Witness:	Redacted
Due Date:	September 12, 2013	DRA Witness:	Ravinder Mangat

Question 1.12:

Chapter 5 – Least Cost Dispatch (Ravinder Mangat)

1.12. Describe in detail the "performance evaluation or other type of quantitative analysis that demonstrated PG&E's effectiveness in achieving the least-cost dispatch standard in the record year" that DRA describes on p. 5-1, lines 20-22.

a. Describe with specificity the information that DRA believes would be appropriate to use in this performance evaluation or analysis.

b. Describe with specificity the output and/or results that DRA believe this performance evaluation or analysis should produce.

c. Has either Southern California Edison Company or San Diego Gas & Electric Company provided in their ERRA compliance proceedings a "performance evaluation or other type of quantitative analysis that demonstrated [that utility's] effectiveness in achieving the least-cost dispatch standard in the record year."

   i. If so, identify which utility(ies) and the Application Number for the ERRA Compliance proceeding.

d. In discovery in this proceeding, including the Master Data Request, did DRA request a "performance evaluation or other type of quantitative analysis that demonstrated PG&E's effectiveness in achieving the least-cost dispatch standard in the record year."

   i. If so, identify the specific request number(s).

e. Is DRA aware of any Commission decision, resolution or precedent that requires a "performance evaluation or other type of quantitative analysis" that demonstrates the "effectiveness in achieving the least-cost dispatch standard in the record year" in an ERRA Compliance proceeding.

   ii. If so, identify the decision, resolution or precedent.

DRA Response

a. DRA's suggested performance evaluation or other type of quantitative analysis is only illustrative. However, such a quantitative tool should include, at a minimum, an assessment of how each dispatchable resource performed over the course of each day, in terms of the actual costs incurred and the actual revenues earned by that resource. Further, this type of performance assessment should include two sets of calculations for any given day, to show the results of self-scheduling and market bidding of a resource.

b. The performance evaluation or other quantitative analysis would show the difference between the net cost (costs - revenue) of market bids and self-schedule resources for each dispatchable resource for any given day.
c. DRA did not consider the ERRA applications of Southern California Edison or San Diego Gas & Electric in its evaluation of PG&E's ERRA application.
d. No. This recommendation was reached at the end of DRA's review process.
e. No, DRA is not aware of any Commission decision, resolution or precedent that specifically requires a "performance evaluation or other type of quantitative analysis" that demonstrates the "effectiveness in achieving the least-cost dispatch standard in the record year" in an ERRA Compliance proceeding. Given the inconclusiveness of PG&E's application, DRA offered an example of a tool that PG&E may use to meet its burden of proof in the area of least-cost dispatch in the future.

Recipient	Division of Ratepayer Advocates		
PG&E Data Request No.:	PGE_DRA-001		
PG&E File Name:	EnerResourceRecoveryAcct2012-Compliance_DR_PGE_DRA-001/Q13		
Request Date:	September 5, 2013	PG&E Witness:	Redacted
Due Date:	September 12, 2013	DRA Witness:	Ravinder Mangat

Question 1.13:

Chapter 5 – Least Cost Dispatch (Ravinder Mangat)

1.13. On page 5-2, line 2, DRA states that PG&E has submitted its bids in a cost effective manner. Please explain and supply all supporting analyses on how DRA reached this conclusion.

DRA Response

As DRA indicated on page 5-1, lines 24 to 26, and page 5-2, lines 1 and 2, of its testimony, given the voluminous amounts of data included in PG&E's filing, DRA focused on a small sample of energy bids submitted by PG&E's dispatchable fossil fueled resources to CAISO in the day ahead market.

As part of PG&E's response to DRA's Data Request (DR) 10 and DR 12, PG&E submitted two spreadsheets, which included a number of highlighted cells that illustrate where incremental cost had been incorrectly calculated. The files are called:

- "DR_10_ssheet"
- "DR_12_Gateway"

Similarly, I attach the following spreadsheets, in which DRA has attempted to replicate PG&E's incremental cost (i.e. energy bids submitted to CAISO):

- Inc_Cost_PNCHEG_2_PL1X4
- Inc_Cost_HUMBPP_6_UNITS1

The highlighted cells in the attached spreadsheets (and the files in DR#10 and DR#12) show that, although there were some errors in the calculation of incremental cost, these represent a minority of bids in the sample. Therefore, DRA was able to replicate PG&E's incremental cost calculation for the majority of energy bids in the sample.

Recipient	Division of Ratepayer Advocates		
PG&E Data Request No.:	PGE_DRA-001		
PG&E File Name:	EnerResourceRecoveryAcct2012-Compliance_DR_PGE_DRA-001/Q14		
Request Date:	September 5, 2013	PG&E Witness:	Redacted
Due Date:	September 12, 2013	DRA Witness:	Ravinder Mangat

<u>Question 1.14:</u>
Chapter 5 – Least Cost Dispatch (Ravinder Mangat)

1.14. On page 5-4, DRA summarizes the Commission's Least Cost Dispatch Standard. On page 5-5 DRA states that "this (i.e., the CAISO's Integrated Forward Market) leads to a least-cost multi-product co-optimization methodology that is designed to maximize economic efficiency and consider physical constraints, thereby relieving network congestion. According to CAISO, in theory, the economic efficiency of the market operation could be achieved through a least-cost resource commitment and scheduling with co-optimization of energy and A/S. However, the economic efficiency of the market depends heavily on the presentation of resources by the bidders, including the IOUs."

a. Does the DRA agree or disagree with the CAISO that resources cleared through the Integrated Forward Market are consistent with the Commission's Least Cost Dispatch Standard? Please provide supporting discussion to your response.

<u>DRA Response</u>

DRA's testimony does not evaluate whether "resources cleared through the Integrated Forward Market are consistent with the Commission's Least Cost Dispatch Standard." The Least Cost Dispatch Standard is a Commission requirement placed on PG&E. DRA is not aware if the CAISO believes that "resources cleared through the Integrated Forward Market are consistent with the Commission's Least Cost Dispatch Standard," and cannot agree or disagree with such a claim without a complete evaluation. However, as noted, the economic efficiency of the market depends heavily on the presentation of resources by the bidders, including the IOUs. At page 5-2, DRA recommends that PG&E provide a performance evaluation, comparison tool, or other quantitative analyses that demonstrates their effectiveness in achieving Least Cost Dispatch.

Recipient	Division of Ratepayer Advocates		
PG&E Data Request No.:	PGE_DRA-001		
PG&E File Name:	EnerResourceRecoveryAcct2012-Compliance_DR_PGE_DRA-001/Q15		
Request Date:	September 5, 2013	PG&E Witness:	Redacted
Due Date:	September 12, 2013	DRA Witness:	Ravinder Mangat

Question 1.15:
Chapter 5 – Least Cost Dispatch (Ravinder Mangat)
1.15. At page 5-2, DRA recommends that PG&E provide a performance evaluation, comparison tool, or other quantitative analyses that demonstrates their effectiveness in achieving Least Cost Dispatch. Please explain how PG&E's response to Master Data Request 1.4.1 does not respond to DRA's recommendation.

For reference, MDR 1.4.1 says this:

1.4.1. Explain (qualitatively) and make a showing (quantitatively) as to whether or not the lowest cost mix of resources within given constraints was achieved for the Record Period. Include in your response:

1.4.1.1. The mix of resources used, for example, utility owned generation versus market purchases and short and long-term contracts and the analysis performed to determine least-cost;

1.4.1.2. The analysis and comparison as to risk and cost basis of utilizing financial trading products day-ahead versus committing utility-owned physical power (energy and capacity) to its optimal capacity in the Integrated Forward Market;

1.4.1.3. The extent of correlation (if any) between PG&E's purchase of financial trading products with PG&E's credit providers during the Record Period (include 2011 for comparison purposes). Make a showing quantitatively and include any workpapers in excel format with formulas intact, which either show or disprove correlation. Identify fully (by volume traded, dollar amount) each financial energy trading entity, which also provides credit facilities to PG&E;

1.4.1.4. An explanation of PG&E's dispatch decisions for the Record Period related to any CAISO tariff changes and FERC rules as to the percentage of load forecast that must be committed in the day-ahead market to avoid penalties. Using for example, the historical precedents of 95% and 85%. Identify in particular, PG&E's day-ahead percentage of load forecast self-scheduled. Disaggregate utility-owned versus utility controlled resources. Include all workpapers in excel format with formulas intact.

DRA Response

PG&E's response to MDR 1.4.1 is balanced toward providing information about PG&E's approach to dispatch activities in the period that leads up to submission of the bid itself. It does not provide an evaluation of the bids performance, based on actual post-market data, that measured whether PG&E

dispatched contracts under its control when it is most economical to do so; disposed of economic long power and purchased economic short power in a manner that minimized ratepayer costs; and used the most cost-effective mix of its total resources. PG&E's response does not verify that its Least Cost Dispatch plans and intentions have succeeded, nor that it took corrective actions if its efforts fell short.