Marin Clean Energy
Technical Committee Meeting
Monday, January 11, 2016
5:00 P.M.

The Barbara George Conference Room
1125 Tamalpais Avenue, San Rafael, CA 94901

Agenda Page 1 of 1

1. Board Announcements (Discussion)
2. Public Open Time (Discussion)
3. Report from Chief Executive Officer (Discussion)
4. Approval of 10.5.15 Meeting Minutes (Discussion/Action)
5. Update on 10.5MW MCE Solar 1 Project by Stion Corporation (Discussion)
6. MCE Open Season for Resource Procurement (Discussion)
7. PCIA Reform (Discussion)
8. Board Member & Staff Matters (Discussion)
9. Adjourn

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MARIN CLEAN ENERGY
TECHNICAL COMMITTEE MEETING
October 5, 2015
5:00 P.M.

The Barbara George Conference Room
1125 Tamalpais Avenue, San Rafael, CA 94901

Roll Call
Present:
Kate Sears, County of Marin, Chair
Greg Lyman, City of El Cerrito
Kevin Haroff, Town of Larkspur
Emmett O'Donnell, Town of Tiburon
Ray Withy, City of Sausalito

Absent: Ford Greene, Town of San Anselmo
Carla Small, Town of Ross

Staff: Dawn Weisz, Chief Executive Officer
Greg Brehm, Director of Power Resources

Action taken:

Agenda Item #4 – Approval of Minutes from 9.2.15 Meeting (Discussion/Action)

M/s Lyman/Withy (passed 4-0) approved minutes from 9.2.15 meeting. Director O'Donnell Abstained. Directors Greene and Small were absent.

____
Kate Sears, Chair

ATTEST:

____
Dawn Weisz, Chief Executive Officer

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Open Season 2016

Nick Shah
Power Supply Contracts Manager | Marin Clean Energy

January 11, 2016

Agenda

- Open Season Overview & Identification of Changes for 2016 Process
- Description of Requested Products & Key Requirements
- Rationale for early Open Season and multiple offer due dates
  - -Investment Tax Credit (ITC) extension
- Proposal Evaluation

MCE Open Season – Purpose

- Additional RE purchases will be necessary to meet future demand of MCE customers:
  - MCE will continue to exceed the CA RPS standard
  - Minimum in-state delivery requirements increase from 50% to 85% (of total RE deliveries)
  - MCE aspires to maximize in-state renewable procurement, with an emphasis on Local projects, sited in or near MCE service territory
  - MCE transition to 100% autonomous supply portfolio in 2018
- MCE and RE project developers/marketers benefit from a standardized procurement process with clearly defined requirements
- Ongoing procurement, consistent with annual Integrated Resource Plan:
  - Cost stability
  - Cost minimization
  - Technological diversity
  - Supplier diversity

MCE Open Season – Changes for 2016

- MCE is increasing renewable energy purchases with the goal of supplying Light Green customers with 80 percent renewable energy by 2025.
- MCE will incrementally increase its overall carbon-free energy content to 95 percent of all customer energy deliveries.
- MCE's voluntary 100 percent renewable energy Deep Green service option, will consist of primarily bundled RE products.
- MCE is advancing the its current Open Season process, initiating requests for offers in December, 2015 (rather than February, 2016).
- Offers for requested products must be received by the following dates:

Product	Offers Due
PCC1 ("Bucket 1") deliveries in 2016	Monday, January 11, 2016
Carbon-Free Energy: deliveries in 2016	Monday, January 11, 2016
PCC1 ("Bucket 1") deliveries in 2018	Tuesday, March 1, 2016
PCC3 ("Bucket 3") deliveries in 2016	Tuesday, March 1, 2016
PCC2 ("Bucket 2") deliveries in 2016	Monday, May 2, 2016

MCE Open Season Highlights

MCE is requesting four specific products in the 2016 Open Season:

- Portfolio Content Category 1 (“Bucket 1”) eligible renewable energy
- Portfolio Content Category 2 (“Bucket 2”) eligible renewable energy
- Portfolio Content Category 3 (“Bucket 3”) eligible renewable energy
- Carbon-free energy supply (hydroelectric)

MCE will require selected respondent(s) to submit a Shortlist Deposit of $3.00 per kilowatt upon their acceptance of shortlisting status (*only applicable for new projects not yet online*).

MCE will not accept/discuss contract changes that impose additional credit requirements on MCE or its Members. Any request for such a change after shortlisting will result in supplier disqualification and forfeiture of any shortlist deposit.

MCE Open Season – Requested Products

RPS Qualified Products:

Marin Clean Energy Resource Balance

Dec-15

*RPS open positions are based on MCE's internal renewable procurement targets, which exceed state-wide mandates

	2016	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Energy Requirements (GWh)										
Retail Load	1,857	1,870	1,884	1,897	1,911	1,924	1,938	1,951	1,965	1,969
Renewables Open Position (GWh)										
Portfolio Content Category 1	45	31	44	425	473	515	563	610	658	705
Portfolio Content Category 2	188	254	268	283	299	314	328	343	357	371
Portfolio Content Category 3	58	58	58	58	58	58	58	58	58	58
Total Renewables Open Position (GWh)	**290**	**342**	**370**	**766**	**829**	**887**	**949**	**1,011**	**1,072**	**1,134**

Carbon free supply (typically sourced from hydroelectric generators located within California or the Pacific Northwest):

Marin Clean Energy Resource Balance

Dec-15

	2016	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Energy Requirements (GWh)										
Retail Load	1,857	1,870	1,884	1,897	1,911	1,924	1,938	1,951	1,965	1,969
Additional Carbon Free Open Position (GWl	80	51	206	215	223	232	240	249	257	264

Evaluation Methodology and Key Offer Requirements

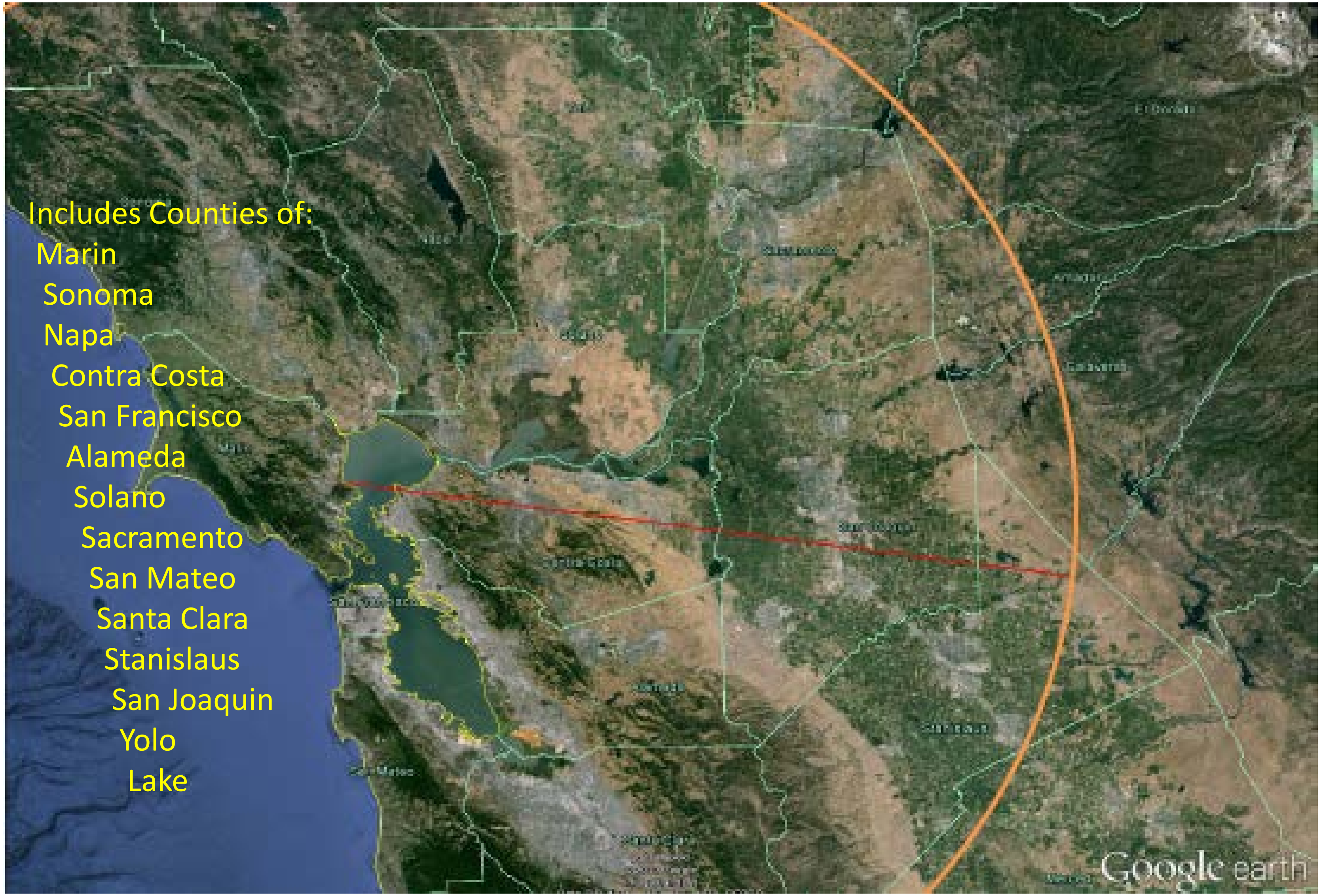
MCE Evaluation of Responses

Projects will be ranked based upon the following criteria:

- Project location & local benefits, i.e. local hiring & prevailing wages
- Interconnection status, queue position & RA deliverability status
- Siting, zoning, permitting status
- Price & Congestion impacts
- Resource type & proposed product, i.e. PCC1, PCC2, etc.
- Qualifications of project team
- Demonstrated experience w/ Union Labor and Project Labor Agreements
- Environmental impacts & related mitigation requirements
- Financing plan & financial stability of project owner/developer
- Acceptance of MCE's standard contract terms
- Development milestone schedule

Project proponents with multiple sites and/or project configurations are encouraged to limit submittals by identifying the "best matched" opportunities for MCE. Such determinations should be made in consideration of the aforementioned criteria.

MCE PCC 1 Resource Location Preference



Evaluation of Congestion in LMP

Energy offers delivered at a Project's Pricing Node (P-Node) rather than MCE preferred NP15 Trading Hub can subject MCE to additional costs /benefits not reflected in the offer price.

The Locational Marginal Price (LMP) includes 3 components:

Energy - the same at all nodes statewide

Losses - nominal variability

Congestion - significant variability, can be a benefit or cost depending upon the season, resource type, and delivery period. This congestion risk can be mitigated with Congestion Revenue Rights (CRRs)

MCE staff evaluate all offers based on estimated cost or benefit of the delivery node.

Congestion ($ per MWh of month's deliveries)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Weighted Average
OffPeak	(0.21)	(0.17)	(0.67)	(1.85)	(2.82)	(0.89)	(0.58)	(0.76)	(0.43)	(0.39)	(0.77)	(0.26)	(0.94)
OnPeak	(1.40)	(0.94)	(3.96)	(8.51)	(9.14)	(5.87)	(3.06)	(4.13)	(2.12)	(2.71)	(3.03)	(1.52)	(4.40)

MCE Open Season – PCC 1 for 2016

Key Requirements:

• Product: PCC1-eligible; in-state (only NP15 POIs); preference given to resources located in proximity to Marin County & the Greater Bay Area Local Resource Area; minimum capacity: 1 MW AC

• Annual energy limitations:

Delivery Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
GWh	45	31	44	425	473	515	563	610	658	705

Initial date of delivery: No sooner than January 1, 2016

• Term of agreement: Not less than 1 year; not more than 25 years

• Pricing:

1) Index Plus REC Premium – A single fixed REC premium for each MWh of electric energy delivered from the proposed resource plus the hourly day-ahead market clearing price per MWh. (required)

2) Single, flat price/MWh throughout contract term (voluntary)

3) Alternative pricing options (voluntary)

MCE Open Season – PCC 1 for 2019

Key Requirements:

- Product: PCC1-eligible; in-state (<u>only NP15 POIs</u>); preference given to resources located in proximity to Marin County & Greater Bay Area Local Resource Area; minimum capacity: 1 MW AC

- Annual energy limitations:

Delivery Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
GWh	425	473	515	563	610	658	705	705	705	705

Initial date of delivery: No sooner than October 31, 2018

- Term of agreement: Not less than 2 years; not more than 25 years

- Pricing:

  1) Single, flat price/MWh throughout contract term (required)

  2) Index Plus REC Premium – A single fixed REC premium for each MWh of electric energy delivered from the proposed resource plus the hourly day-ahead market clearing price (voluntary)

  3) Alternative pricing options (voluntary)

MCE Open Season – PCC 2

Key Requirements:

- Product: PCC2-eligible; WECC-located, preference to resources located in proximity to California, Substitute Energy exclusion for coal or nuclear fuels.
- Annual energy limitations:

Delivery Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
GWh	188	254	268	283	299	314	328	343	357	371

- Initial date of delivery: No sooner than Jan 1, 2016
- Term of agreement: Not less than 1 year; not more than 3 years
- Pricing:
  1) Index Plus REC Premium – A single fixed REC premium for each MWh of electric energy delivered from the proposed resource plus the hourly day-ahead market clearing price per MWh. (required)
  2) Single, flat price/MWh throughout contract term (required)
  3) Alternative pricing options (voluntary)

MCE Open Season – PCC 3

Key Requirements:

•Product: PCC3-eligible; WECC-located, preference to resources located in proximity to California, Substitute Energy exclusion for coal or nuclear fuels.

•Annual energy limitations:

Delivery Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
GWh	58	58	58	58	58	58	58	58	58	58

•Initial date of delivery: No sooner than Jan 1, 2016

•Term of agreement: Not less than 1 year; not more than 3 years

•Pricing:

1) Fixed Price– A single fixed price per REC (required)

2) Single, flat price/MWh throughout contract term (required)

3) Alternative pricing options (voluntary)

MCE Open Season – Carbon Free

Key Requirements:

• Product: Carbon Free; WECC-located; preference given to resources located in proximity to California/Marin County; minimum capacity: 1 MW AC

• Annual energy limitations:

Delivery Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
GWh	80	51	206	215	223	232	240	249	257	264

• Initial date of delivery: No sooner than Jan 1, 2016

• Term of agreement: Not less than 1 year; not more than 3 years

• Point of delivery: NP15 trading hub (per CAISO)

• Pricing:

1) single, flat price/MWh throughout contract term (required)

2) alternative pricing options (voluntary)

MCE Open Season – Response Prep

- **Email Responses due no later than 5:00 P.M. (Pacific) on Monday, Jan 11**

  PCC1 (“Bucket 1”) deliveries commencing in 2016

  Carbon-Free Energy: deliveries commencing in 2016

- **Email Responses due no later than 5:00 P.M. (Pacific) on Tuesday, March 1**

  PCC1 (“Bucket 1”) deliveries commencing in 2018

  PCC3 (“Bucket 3”) deliveries commencing in 2016

- **Email Responses due no later than 5:00 P.M. (Pacific) on Monday, May 2**

  PCC2 (“Bucket 2”) deliveries commencing in 2016

Questions? Comments?

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Electric Utility Exit Fee Oversight: Improvements through Transparency, Accountability and Proper Valuation

The California Public Utilities Commission (CPUC) just approved doubling the exit fees that PG&E can charge consumers who want to obtain their electrical service from another provider. This means that consumers who want to purchase energy derived from clean and renewable resources will now pay more for that service. The primary exit fee charged to departing customers is called the Power Charge Indifference Adjustment (PCIA).

Background

Unavoidable Costs Can Be Collected by Investor-Owned Utilities

Utilities can recover "estimated net unavoidable" electricity costs, offset by "the value of any benefits that remain with bundled service customers." § 366.2(f)-(h).

Rates Must Be Just and Reasonable

"All charges demanded or received by any public utility… shall be just and reasonable." §451.

Remaining Customers Should Be Treated Fairly

The CPUC has developed a policy of "bundled customer indifference," meaning that remaining customers are not unfairly impacted by other customers leaving. This policy is not embodied in statute.

Solutions

Transparency

Information provided to parties regarding the calculation of exit fees is heavily redacted. The CPUC should require delivery of unredacted actual and projected costs included in the calculations. Utilities must also provide an end date for exit fees charged.

Accountability

Utility-imposed exit fees are not currently audited. MCE recommends that the CPUC implement a third-party audit of exit fees calculations.

Proper Valuation

To date the CPUC has not required utilities to mitigate damages – that is, the costs and risks imposed by exit fees. The CPUC should:

- Require utilities to take reasonable steps to reduce costs and risks imposed on departing customers
- Require utilities to make reasonable assumptions about departing load
- Evaluate a fixed exit fee reflecting reasonable energy cost projections and benefits retained by bundled customers
- Revise the methodology to more accurately reflect long-term energy prices

Applicable Law and Regulations

Public Utilities Code Section 366.2(d)-(g)

(d)(1) It is the intent of the Legislature that each retail end-use customer that has purchased power from an electrical corporation on or after February 1, 2001, should bear a fair share of the Department of Water Resources' electricity purchase costs, as well as electricity purchase contract obligations incurred as of the effective date of the act adding this section, that are recoverable from electrical corporation customers in commission-approved rates. It is further the intent of the Legislature to prevent any shifting of recoverable costs between customers.
(2) The Legislature finds and declares that this subdivision is consistent with the requirements of Division 27 (commencing with Section 80000) of the Water Code and Section 360.5 of this code, and is therefore declaratory of existing law.
(f) A retail end-use customer purchasing electricity from a community choice aggregator pursuant to this section shall reimburse the electrical corporation that previously served the customer for all of the following:
(1) The electrical corporation's unrecovered past undercollections for electricity purchases, including any financing costs, attributable to that customer, that the commission lawfully determines may be recovered in rates.
(2) Any additional costs of the electrical corporation recoverable in commission-approved rates, equal to the share of the electrical corporation's estimated net <u>unavoidable</u> electricity purchase contract costs attributable to the customer, as determined by the commission, for the period commencing with the customer's purchases of electricity from the community choice aggregator, through the expiration of all then existing electricity purchase contracts entered into by the electrical corporation.
(g) Estimated net unavoidable electricity costs paid by the customers of a community choice aggregator shall be reduced by <u>the value of any benefits that remain with bundled service customers</u>, unless the customers of the community choice aggregator are allocated a fair and equitable share of those benefits.

Commission Regulations

The PCIA "should, to the extent possible, balance…: <u>accuracy, equity among different generations of CCAs, administrative simplicity, and certainty for CCAs and the utilities</u>. <u>We also anticipate that each CCA's CRS liability would terminate at some point</u>." D.04-12-046 at 27.

"The objective of AB 117 in requiring CCAs to pay a CRS [PCIA] is to protect the utilities and their bundled utility customers from paying for the liabilities incurred on behalf of CCA customers. <u>Our complementary objective is to minimize the CRS (and all utilities liabilities that are not required) and promote good resource planning by the utilities</u>." D.04-12-046 at 29.

The PCIA "<u>should not include costs that may have been avoidable or are not otherwise attributable to the CCA's customers.</u>" D.04-12-046 at 65.

At its inception the Commission stated that "<u>it is our expectation that there should be little if any stranded costs</u>." D.04-12-048 at 60.

A.14-05-024
PG&E 2015 ERRA
Marin Clean Energy - Data Request 2
December 23, 2015

Date for Objections: December 30, 2015
Response Due Date: January 6, 2016

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The following requests are with regard to the upcoming workshop to discuss the Power Charge Indifference Adjustment (PCIA) in February 2016 pursuant to the recent CPUC Decision in the 2016 PG&E ERRA proceeding:

1. For each PCIA customer vintage, beginning with 2010 and continuing through 2016, please provide the expected dates on which PG&E will no longer collect PCIA charges from the customers included in each vintage.

2. For each PCIA customer vintage, please provide the latest end date associated with the portfolio of PG&E power supply contracts that will be referenced when determining PCIA charges.

3. With regard to the portfolio of PG&E power supply contracts included in each PCIA vintage, please quantify the expected annual energy deliveries (in MWh) by contract as well as the expected costs ($/MWh) associated with such deliveries, including any Utility-Owned Generation (UOG) facility contained and to be contained in the Total Portfolio Cost. Please include existing contracts and facilities as well as contracts and facilities which have not yet come online.

4. Please provide the following information for each contract, the cost of which is included in the Total Portfolio Cost for every collection year through the end date of each PCIA vintage. Please present this information in excel format organized separately for each PCIA vintage:

    a. Contract ID
    b. Resource cost in $/MWh
    c. Volume of actual or expected (for contracts not yet delivering electric power) annual electricity deliveries (MWh/Year)
    d. PCIA Vintages that this contract relates to
    e. Contract date or construction start date
    f. Expected or actual start date for contract deliveries
    g. End date for term of agreement
    h. Contribution to the Total Portfolio Cost (as reflected in Line 3 of Table 9-2)
    i. Indication of whether the contract has been renewed or extended
    j. If the contract has been renewed or extended, please separately provide a description of the renewal or extension.

5. Please provide the following breakdown of power supply contracts and UOG, the cost of which is included in the Total Portfolio Cost associated with each PCIA vintage:

    a. What is the total number of contracts included in the Total Portfolio Cost?
    b. For conventional resource contracts:
        i. How many of these contracts have energy costs that fall within the range of the 2016 Market Price Benchmark (MPB) and 2x the MPB?
        ii. How many of these contracts have energy costs that fall within the range of 2x the 2016 MPB and 3x the 2016 MPB?
        iii. How many of these contracts have energy costs that fall within the range of 3x the 2016 MPB and 4x the 2016 MPB?
        iv. How many of these contracts have energy costs that fall within the range of 4x the 2016 MPB and 5x the 2016 MBP?
        v. How many of these contracts have energy costs that either equal to or in excess of 5x the 2016 MPB
    c. For renewable resource contracts:
        i. How many of these contracts have energy costs that fall within the range of the 2016 Market Price Benchmark plus the Green Adder (MPB w/ GA) and 2x the MPB w/ GA?
        ii. How many of these contracts have energy costs that fall within the range of 2x the MPB w/ GA and 3x the MPB w/ GA?
        iii. How many of these contracts have energy costs that fall within the range of 3x the MPB w/ GA and 4x the MPB w/ GA?
        iv. How many of these contracts have energy costs that fall within the range of 4x the MPB w/ GA and 5x the MPB w/ GA?
        v. How many of these contracts have energy costs that either equal to or in excess of 5x the 2016 MPB w/ GA?
    d. What is the total number of UOG facilities included in the Total Portfolio Cost?
    e. Please provide the same information in 4.c. for all UOG facilities included in the Total Portfolio Cost associated with each PCIA vintage.

   f. Please provide the same information in 4.e. for all UOG facilities included in the Total Portfolio Cost associated with each PCIA vintage.

6. For the purpose of the following question, please assume that PG&E's calculation of damages for CCA customers is comparable to PG&E's calculation of damages from other departing load customers on a "lump sum basis." (*See, e.g.,* Special Condition 3.i. of Electric Schedule E-TMDL.) Using the lump sum basis methodology, what would have been the valuation of damages to PG&E at the time of MCE's initiation of CCA service for an individual customer having an assumed reference period billing determinant of 12,000 kWh over a 12-month period?

7. Since MCE's initial launch has PG&E sold off any energy contracts?

   a. For each instances of an energy contract sale please provide the following:
      i. Was this sale directly or indirectly due to CCA load departure? If so, please explain.
      ii. Was this sale completed in the form of a single-year spot market transaction or a multi-year forward transactions?

8. Please provide the total amount of electricity sales that have become "stranded" and subjected to PCIA treatment due to CCA load departure.

9. What steps has PG&E taken to mitigate "stranded" costs and the PCIA?

10. What opportunities have PG&E had to terminate above-market contracts?

   a. Please provide specific examples of all above-market power supply contracts that PG&E has chosen to terminate when presented with the chance to do so.

11. Please provide the volume of the "stranded" electricity sales that has been sold, rather than retained by PG&E.

   a. Please provide the volume of the "stranded" electricity sales that has been sold in the form of single-year spot market transactions.
   b. Please provide the volume of the "stranded" electricity sales that has been sold in the form of multi-year spot forward transactions.

12. Do any of the contracts receiving stranded costs recovery via the PCIA have clauses within them allowing for *either* a renegotiation of any specified charges or fees, *or* an early termination of the contract due to unforeseen changes in either the competitive market or the regulatory environment (e.g. a regulatory *force majeure* clause)?

   a. If so, please provide copies of the language for these sections for every instance.

13. What PCIA customer vintage will PG&E assign participants in PG&E's Green Tariff Shared Renewables (GTSR) and Enhanced Community Renewables (ECR) programs?

14. Is PG&E willing to consider a bilateral agreement with MCE for the full and final payment of the PCIA and other procurement-related non-bypassable charges, such as the

Competition Transition Charge (CTC) (collectively, Procurement NBCs) for MCE's customers under a lump sum basis methodology?

a. If not, please explain why not.

b. If so, please calculate and propose a lump sum amount for each of the Procurement NBCs, please describe the assumptions PG&E used in calculating these amounts, and please state whether this proposal would account for or be applicable to future MCE load growth and service territory expansion.

END OF REQUEST

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INSTRUCTIONS

The following General Instructions apply to each data request:

1. In response to each data request, provide all relevant and responsive information reasonably available to the Pacific Gas & Electric Company ("PG&E").

2. If any of the information sought in a data request will not be available by the response date for that request, state the projected date on which such information will become available.

3. Each written response or objection should designate the specific data request and data request item under which it is being provided.

4. Identify each person who provided information used in answering each data request. Such information shall include the full name, occupation, title, employer and organization for each such person, and indicate the information provided by each.

5. Please include in your production all exhibits appended to or referenced in the requested analyses, testimony, discovery or presentation.

6. Thank you.

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