STATE OF CALIFORNIA EDMUND Governor

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298



November 8, 2017

Agenda ID #16094 Ratesetting

TO PARTIES OF RECORD IN APPLICATION 16-08-006:

This is the proposed decision of Administrative Law Judge Peter V. Allen. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's December 14, 2017, Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Parties of record may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure.

The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, ex parte communications are prohibited pursuant to Rule 8.3(c)(4)(B).

/s/ ANNE E. SIMON

Anne E. Simon Acting Chief Administrative Law Judge

AES:jt2

Attachment

Agenda ID #16094 Ratesetting

Decision PROPOSED DECISION OF ALJ ALLEN (Mailed 11/8/2017)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company for Approval of the Retirement of Diablo Canyon Power Plant, Implementation of the Joint Proposal, And Recovery of Associated Costs Through Proposed Ratemaking Mechanisms (U39E).

Application 16-08-006

(See Appendix A for Appearances)

DECISION APPROVING RETIREMENT OF DIABLO CANYON NUCLEAR POWER PLANT

198044679 - 1 -

Table of Contents

Title	Page
DECISION APPROVING RETIREMENT	Γ OF DIABLO CANYON NUCLEAR
POWER PLANT	1
Summary	2
5	2
	6
3. Discussion and Analysis	8
-	Power Plant8
,	ement15
3.3. Proposed Employee Program.	22
3.4. Proposed Community Impacts	Mitigation Program31
	Costs41
	et Allocation Issues45
	48
4. Comments on Proposed Decision	49
±	49
	49
	50
	51

Appendix A – List of Appearances

DECISION APPROVING RETIREMENT OF DIABLO CANYON NUCLEAR POWER PLANT

Summary

Pacific Gas and Electric Company (PG&E) proposes to retire the Diablo Canyon Power Plant in 2024 and 2025, when its federal Nuclear Regulatory Commission operating licenses expire. PG&E requests Commission approval to recover in rates over \$1.76 billion in costs associated with the retirement of Diablo Canyon. Those costs include \$1.3 billion for energy efficiency procurement to partially replace the output of Diablo Canyon, \$363.4 million for Diablo Canyon employee retention and retraining, \$85 million for a Community Impacts Mitigation Program, \$18.6 million in costs previously incurred for its Nuclear Regulatory Commission license renewal process, and an unspecified amount for cancelled capital projects. (PG&E Opening Brief at i-ii.)

This order approves PG&E's proposal to retire Diablo Canyon and approves \$190.4 million in rate recovery for costs associated with the retirement of Diablo Canyon. Specifically, PG&E is authorized to recover in rates \$171.8 million for employee retention and retraining, and \$18.6 million for its license renewal activities, plus a portion of the cost of cancelled capital projects. Rate recovery for the Community Impacts Mitigation Program requires legislative authorization. Replacement procurement issues will be addressed in the Integrated Resource Planning proceeding. This proceeding is closed.

1. Background

Pacific Gas and Electric Company's (PG&E) Diablo Canyon nuclear power plant is located in coastal San Luis Obispo County, and consists of two units that have been operating since 1985 (Unit 1) and 1986 (Unit 2), with a combined generation capacity of 2,240 megawatts (MW). The units are currently licensed

by the Nuclear Regulatory Commission (NRC) to operate until 2024 (Unit 1) and 2025 (Unit 2).

On August 11, 2016, PG&E filed its application proposing to retire Diablo Canyon upon the expiration of its NRC licenses. In addition to retiring Diablo Canyon, PG&E's application requested approval of: 1) procurement of three tranches of greenhouse gas-free resources to partially replace the output of Diablo Canyon; 2) retention, retraining, and severance programs for Diablo Canyon employees; 3) a program that would provide funding to the local community to mitigate the economic impact of the plant's retirement; and 4) rate recovery of various costs, including amounts spent for environmental reviews and PG&E's now-suspended NRC license renewal application. (PG&E Application at 8-12.)

PG&E's application was supported by the Natural Resources Defense Council (NRDC), Friends of the Earth (FOE), Environment California, International Brotherhood of Electrical Workers Local 1245 (IBEW 1245), Coalition of California Utility Employees (CCUE), and the Alliance for Nuclear Responsibility (A4NR), and the proposal in the application was referred as a "Joint Proposal."

Protests to PG&E's application were filed by the California Large Energy Consumers Association (CLECA), Californians for Green Nuclear Power (CGNP), the Energy Producers and Users Coalition (EPUC), Energy Users Forum, Environmental Progress, LEAN Energy US, the Cities of Paso Robles,

¹ The parties supporting the application are referred to as the "Joint Parties." While generally supporting the Joint Proposal, the A4NR did not support PG&E's request for rate recovery of its NRC license renewal costs.

Morro Bay, San Luis Obispo, Arroyo Grande, Pismo Beach and Atascadero (filed jointly), California Solar Energy Industries Association, Sierra Club, Shell Energy North America (US), L.P. (Shell), City of Lancaster, Friends of Wild Cherry Canyon, Central Coast Wave Energy Hub, The Utility Reform Network (TURN), World Business Academy, the Commission's Office of Ratepayer Advocates (ORA), Sonoma Clean Power Authority, Marin Clean Energy, SolarCity Corporation, City and County of San Francisco, A4NR, Women's Energy Matters (WEM), and the Green Power Institute.

Responses to PG&E's application were filed by OhmConnect, Inc, San Luis Obispo Mothers for Peace, Inc. (Mothers for Peace), Independent Energy Producers Association (IEP), South San Joaquin Irrigation District, Direct Access Customer Coalition, Alliance for Retail Energy Markets, Large-scale Solar Association, EnergyHub, CPower, EnerNOC, Inc., Comverge, Inc., California Energy Storage Alliance, San Luis Coastal Unified School District (School District), IBEW 1245, CCUE, Environmental Defense Fund (EDF), FOE, NRDC, Environment California, California Energy Efficiency Industry Council, Center for Energy Efficiency and Renewable Technologies (CEERT) and the County of San Luis Obispo (County).²

The general timeline of the proceeding was:

August 11, 2016 - Application filed.

September 15, 2016 - Protests and Responses filed.

September 26, 2016 - PG&E Reply to Protests and Responses filed.

October 6, 2016 - Pre-hearing Conference held.

 $^{^{2}\,}$ Some responses were filed jointly by multiple parties.

October 20, 2016 – Public Participation Hearings held in San Luis Obispo.

November 18, 2016 - Scoping Memo and Ruling issued.

January 27, 2017 - Intervenor testimony served.

March 17, 2017 - Rebuttal testimony served.

April 19 - 27, 2017 - Evidentiary hearings held.

May 26, 2017 - Opening briefs filed.

June 16, 2017 - Reply briefs filed.

September 14, 2017 – Public Participation Hearings held in San Luis Obispo.

On December 28, 2016, PG&E filed a joint motion requesting approval of a partial settlement between PG&E, the County of San Luis Obispo, the Cities of Arroyo Grande, Atascadero, Morro Bay, Paso Robles, Pismo Beach, and San Luis Obispo (collectively Local Cities), the School District, FOE, NRDC, Environment California, IBEW 1245, CCUE, and A4NR. The proposed settlement modified the Community Impacts Mitigation Program originally proposed by PG&E in its application.

On February 27, 2017, PG&E notified the parties that it was withdrawing its request for two of the three tranches of replacement procurement (and associated cost recovery) that it had proposed in its application, and that this change would be reflected in its rebuttal testimony.

On May 23, 2017, PG&E filed a joint motion requesting approval of a partial settlement between PG&E, A4NR, TURN, ORA, Mothers for Peace, FOE, NRDC, Environment California, IBEW 1245 and CCUE. This second proposed settlement modified PG&E's original request for rate recovery of its NRC license renewal costs and its cancelled project costs.

2. Issues Before the Commission

The Scoping Memo identified the following issues:

Retirement of Diablo Canyon Power Plant

PG&E has proposed to retire Diablo Canyon Unit 1 in 2024, and Unit 2 in 2025. Parties have proposed both earlier and later retirement dates. Parties may present testimony in support of PG&E's proposed dates, or earlier or later retirement dates, including indefinite dates.

Proposed Replacement Procurement

PG&E has made a proposal for procurement of resources to partially replace Diablo Canyon's output. Parties may present testimony supporting alternative procurement proposals, including proposals that all necessary replacement procurement should be addressed in this proceeding, that no replacement procurement should be addressed in this proceeding, or that some replacement procurement should be addressed in this proceeding.

Proposed Employee Program

PG&E has proposed an employee retention, retraining and severance program associated with approximately 1,500 employees at Diablo Canyon. Parties have raised questions about the cost and funding of this program. Parties may present testimony on the need for this program and its size, cost, structure, timing and its source of funding.

Proposed Community Impacts Mitigation Program

PG&E has proposed a community impacts mitigation program to mitigate some of the adverse economic impacts to the residents of San Luis Obispo County as a result of the planned retirement of Diablo Canyon. Parties may present testimony on the community impacts of the proposed retirement of

Diablo Canyon, including economic and emergency response impacts, and on proposals to mitigate those impacts.

Recovery of License Renewal Costs

PG&E has proposed that it be granted rate recovery for costs relating to license renewal activities, including the filing of a license renewal application with the federal NRC. Parties may present testimony on whether it is reasonable for PG&E to recover some or all of these costs in rates.

Proposed Ratemaking and Cost Allocation Issues

PG&E has requested rate recovery for the costs of its proposals, including costs of replacement procurement, its employee program and community impacts mitigation program, and its license renewal activities, as well as other costs relating to the operation of Diablo Canyon facilities. Parties may support or criticize PG&E's proposed rate design and cost allocation, or may present alternative rate design and cost allocation proposals.

Additional Issues Not Addressed Above

Parties may present testimony on issues that are within the general scope of the proceeding, as established by the record to date, that are not specifically addressed in the above sections.

The Scoping Memo determined that it was premature to address land use, facilities and decommissioning issues, and that specific recommendations on those issues would not be considered at this time, but parties were allowed to present testimony recommending how to best preserve these issues for future consideration.

3. Discussion and Analysis

3.1. Retirement of Diablo Canyon Power Plant

PG&E proposes to retire Diablo Canyon upon the expiration of its NRC licenses, which expire on November 2, 2024 for Unit 1 and August 26, 2025 for Unit 2. (Ex. PG&E-1 at 2-1.) PG&E's forecasts and analysis indicates that in the near future there will be a significantly reduced need for electric generation from Diablo Canyon. (PG&E Opening Brief at 11-18.) Because of projected increases in energy efficiency, distributed generation, renewable generation, and customers moving to community choice aggregation (CCA) and direct access, PG&E's conclusion is that there is simply less of a need for Diablo Canyon. (*Id.*) In fact, PG&E believes that the continued operation of Diablo Canyon beyond 2025 would exacerbate over-generation, requiring curtailment of renewable generation. (*Id.* at 16-17; Ex. PG&E-1 at 2-20.) PG&E's analysis indicates that there is no need to replace Diablo Canyon in order to maintain system reliability. (Transcript Vol. 6 at 957-958.)

PG&E has also been unequivocal that the retirement of Diablo Canyon will not have an adverse impact on local reliability. According to PG&E, because Diablo Canyon's output is exported on the bulk transmission system, Diablo Canyon is considered a system resource only, and is not needed for local reliability:

DCPP [Diablo Canyon Power Plant] is located in the Los Padres area of PG&E's service territory, which includes the cities of: San Luis Obispo, Divide, Santa Maria, Mesa, Templeton, Paso Robles, and Atascadero. [...] [M]ost of DCPP's generation is exported to the north and east of the Los Padres division through 500 kilovolts (kV) bulk transmission lines, which includes a transmission connection between the Diablo Canyon and Midway substations. [fn. omitted] Los Padres customer demand is served through a network of 115 kV and 70 kV circuits and does not include DCPP as part of the local

installed generation capacity as DCPP does not serve load within the division. As such, DCPP is not needed for local reliability. Unlike San Onofre Nuclear Generating Station, DCPP is considered as a system resource only and is not needed to provide support for local reliability. (Ex. PG&E-1 at 2-20 to 2-21; *see also* PG&E Opening Brief at 17.)

A number of parties support PG&E's determination that Diablo Canyon is not needed; in addition to the parties supporting the Joint Proposal³, other parties also agree that it is appropriate to retire Diablo Canyon:

IEP concurs with PG&E's decision not to renew the licenses of the two units of the Diablo Canyon Power Plant. Replacement resources that are both less expensive and better able to fit the needs of PG&E's customers and the electric grid are available. (IEP Opening Brief at 7.)

TURN's economic analysis demonstrates that ratepayers would benefit from retiring Diablo Canyon and satisfying customer need with incremental renewable resources. This analysis, along with the recognition that continued operations at Diablo Canyon involve the potential for a catastrophic accident or unexpected premature shutdown, affirms the reasonableness of PG&E's decision to permanently retire the plant by 2025. (TURN Opening Brief at 2.)

The City of San Francisco supports shutting down Diablo Canyon, and states:

PG&E has persuasively demonstrated that Diablo Canyon is a no longer a good fit for PG&E's bundled customers. PG&E has shown that Diablo Canyon should be closed because of the high cost of operating Diablo Canyon, potential regulatory requirements regarding the once through cooling technique used by Diablo Canyon, and system over-generation problems related to Diablo

³ Those parties are: NRDC, FOE, Environment California, IBEW 1245, CCUE and A4NR.

Canyon's constant operation. [fn. omitted] PG&E showed also that continued operation of Diablo Canyon is a bad fit in the context of California's goal of reducing GHG [greenhouse gas] emissions in part by increasing use of renewable energy resources. This is because Diablo Canyon is a baseload, relatively inflexible resource that would exacerbate overgeneration and would result in continued curtailment of renewable resources. PG&E also admits that Diablo Canyon is no longer necessary for reliability. [fn. omitted]

PG&E also projects that its load will shrink considerably by the time Diablo Canyon closes. Between 2017 and 2025, PG&E forecasts that approximately 20,000 GWh [gigawatt hours] of load will migrate to CCAs . [fn. omitted] This is comparable to the amount of bundled customer load (18,500 GWh) Diablo Canyon currently serves. In PG&E's own words "whether CCA loads depart somewhat sooner or later than expected does not change the overall conclusion that DCPP is not needed for PG&E's customers after the expiration of the Nuclear Regulatory Commission licenses in 2024 and 2025." [fn. omitted] (City and County of San Francisco Opening Brief at 3.)

Other parties, while not actively supporting PG&E's proposal, do not oppose it, including: ORA (ORA Opening Brief at 4),⁴ Alliance for Retail Energy Markets, the California Clean DG Coalition, CLECA, the Direct Access Customer Coalition, the Energy Users Forum, Marin Clean Energy, Peninsula Clean Energy, Silicon Valley Clean Energy Authority, and Sonoma Clean Power Authority (Joint Opponents Opening Brief at 2).

⁴ Elsewhere, however, ORA states: "ORA supports PG&E's proposed retirement of the DCPP units at the end of their respective operating license periods in 2024 and 2025." (Ex. ORA-2 at 4.)

Only one active party, CGNP, argues that Diablo Canyon should continue to operate beyond 2025.⁵ CGNP makes three substantive arguments for keeping Diablo Canyon operating: Diablo Canyon is more cost effective than the alternative sources of supply, retiring Diablo Canyon would diminish system reliability, and retiring Diablo Canyon would have an adverse impact on GHG emissions. (CGNP Opening Brief at 5.)

On the issue of the cost effectiveness of Diablo Canyon, TURN identified significant flaws and omissions in CGNP's cost calculations and estimates. (*See*, TURN Reply Brief at 1-7; Transcript, vol. 8 at 1,302-1,318.) The record of this proceeding undercuts, rather than supports, CGNP's argument that continued operation of Diablo Canyon would be cost effective. Accordingly, CGNP's testimony on this issue is given little weight.

CGNP's argument that retiring Diablo Canyon would be detrimental to grid reliability seems to be based on the fact that Diablo Canyon has been a reliable resource, and that other generation resources have been less reliable. (CGNP Opening Brief at 40.) The reliability of the plant and the reliability of the system are separate things, and there has been clear testimony that the retirement of Diablo Canyon would not adversely affect the reliability of the system. (Transcript Vol. 6 at 957-958.)⁶ As Joint Opponents unequivocally state: "Diablo Canyon, an inflexible resource, is not needed either for system or local

⁵ One other party, Environmental Progress, made a similar argument in its protest of the application, but did not present testimony or file briefs.

⁶ For example, if a person owned 12 cars, but never used more than three cars at one time, selling cars 11 and 12 – even if they were more reliable than cars 9 and 10 – would not significantly change the ability to have three operable cars.

reliability. [fn omitted] It can be retired without impacting grid reliability." [fn. omitted] (Joint Opponents Opening Brief at 3.)

CGNP's reliability argument also appears to assume that Diablo Canyon could operate as a flexible resource that could ramp up and down to meet changing daily demand, rather than how it has been operated, as a constant-level baseload resource. (CGNP Opening Brief at 40.) PG&E points out that this is a speculative and unrealistic assumption, and would make Diablo Canyon even less cost effective:

Operating in load-following mode⁷ would take Diablo Canyon outside of the currently authorized NRC license conditions and would require extensive technical feasibility studies, redesign of procedures, processes and systems, maintenance practices and nuclear fuel redesign. [...] It is unclear if Diablo Canyon could be retrofitted to safely and reliably operate in a different operating mode, whether the NRC would approve it, and whether it would be cost-effective to do so given the reduction in capacity factor that would result if Diablo Canyon were to be frequently ramped down to minimum operating levels during the daytime hours when solar power is prevalent. (PG&E Reply Brief at 7.)

Finally, CGNP argues that retiring Diablo Canyon will make it "impossible" for the state to meet its GHG reduction goals, and accordingly it should be relicensed and kept available. (CGNP Opening Brief at 41-42.) CGNP claims that the retirement of Diablo Canyon would result in California importing large amounts of fossil fuel generated electricity from PacifiCorp. (*Id.*)

While the specific arguments made by CGNP are not well supported by the record, the GHG impact of Diablo Canyon's retirement (and any replacement

 $^{^{7}\,}$ In this mode Diablo Canyon would ramp up and down to meet daily variations in load.

procurement) does need to be considered. This issue is discussed in more detail below in the section addressing replacement procurement, which finds that the question of the GHG impact of Diablo Canyon's retirement should be addressed in the Commission's Integrated Resource Planning (IRP) proceeding.

Two parties – WEM and Mothers for Peace - argue that Diablo Canyon should be shut down earlier than PG&E's proposed 2024/2025 timing. WEM argues that Diablo Canyon will become "commercially unreasonable" to operate well before 2024/2025, that replacement energy is also available before then, and given the risks associated with nuclear power, Diablo Canyon should be shut down no later than 2020. (WEM Opening Brief at 1-2.) Mothers for Peace similarly recommends a shutdown date of 2019/2020. (Mothers for Peace Opening Brief at 3.)

WEM and Mothers for Peace base their arguments in part upon the potential dangers of nuclear power. While this Commission has broad authority over PG&E and Diablo Canyon (including non-nuclear safety), the Commission's authority over *nuclear* safety is less clear; accordingly, the Commission's decision on this issue is not based on nuclear safety.

But the economics of Diablo Canyon can provide a basis for this Commission's decision, and WEM and Mothers for Peace also argue that Diablo Canyon will be uneconomic to operate well before 2025. WEM points out that as PG&E's bundled load decreases, more of Diablo Canyon's output will need to be sold at a loss on the wholesale market, and that: "This foreseeable development will make continued operation of Diablo Canyon increasingly uneconomic and dysfunctional, and this will likely begin to happen before 2020, not 2025." (WEM Opening Brief at 12.)

Similarly, Mothers for Peace argues that Diablo Canyon costs are already high:

[T]he costs of operating and maintaining Diablo Canyon are disproportionately high for the contribution the power plant makes to PG&E's electrical generation capacity and, therefore, further investment in the continued operation of Diablo Canyon is not a prudent economical capital expense for the utility. (*Id.* at 8.)

Mothers for Peace also raises the additional concern that PG&E will need to spend increasing amounts of money on maintenance and repair of Diablo Canyon due to its age, particularly because of the degradation of a number of major plant components. (Mothers for Peace Opening Brief at 6-9.)

WEM and Mothers for Peace raise valid concerns about the current cost of operating Diablo Canyon, and the potential for significant costs that could be incurred between now and 2024/25, but those concerns cannot be considered in isolation. While shutting down Diablo Canyon in 2019/2020 might provide some short-term cost savings, it would also provide less time for replacement procurement to be considered in the IRP proceeding and for the development and deployment of additional greenhouse gas-free resources.⁸ The balance of facts and policy before this Commission tends to tip against a shutdown before 2024 and 2025.⁹

Based on the record of this proceeding, PG&E's proposed 2024/2025 retirement schedule for Diablo Canyon provides a reasonable amount of time for the transition process, including further examination of replacement

⁸ An early shutdown would also accelerate the impacts on plant employees and the local community.

⁹ To the extent Diablo Canyon costs increase during the interim period, this balance could change.

procurement. Accordingly, PG&E's proposed retirement schedule for Diablo Canyon is approved. If in the interim period the facts change in a manner that indicates Diablo Canyon should be retired earlier, the Commission may reconsider this determination.

3.2. Proposed Replacement Procurement

In its initial Application, PG&E proposed to partially replace Diablo Canyon with greenhouse gas-free resources in three tranches, consisting of:

1) 2,000 gross GWh of energy efficiency; 2) 2,000 GWh of GHG-free energy, including energy efficiency and Renewables Portfolio Standard (RPS) eligible energy resources; and 3) a voluntary 55 percent RPS commitment. (PG&E Application at 9.) PG&E described these three tranches as "[A] first step towards replacing Diablo Canyon with a portfolio of GHG-free resources." (*Id.*)

While proposing this significant procurement of resources, PG&E noted that:

Additional resources beyond those specified in the Joint Proposal may be needed on a system-wide basis to replace the output of Diablo Canyon. The Joint Parties envision that this issue will primarily be addressed through the Commission's Integrated Resource Planning process (i.e., R.16-02-007). (*Id.*)

Multiple parties protested PG&E's replacement procurement proposal, including Shell, Sierra Club, SolarCity, TURN, and Marin Clean Energy. While parties did not object to the idea of replacing Diablo Canyon with GHG-free resources, they challenged the feasibility, effectiveness, cost-effectiveness, cost, and cost allocation of PG&E's specific proposal. (*See*, e.g. Shell Protest at 3-4, Sierra Club Protest at 6-12, SolarCity Protest at 2-7, TURN Protest at 7-11, Marin Clean Energy Protest at 7-10.)

In their testimony, multiple parties expanded upon their criticisms of PG&E's replacement procurement proposal. Some raised procedural objections. For example, ORA argued that no replacement procurement should be addressed in this proceeding, but it should instead be addressed in the IRP proceeding. (Ex. ORA-3 at 1-5, Ex. ORA-5 at 7-8.) Others, such as MCE, questioned the need for any replacement procurement:

It is certainly possible that there is no need at all to replace the generation that will be lost when PG&E closes Diablo Canyon. ...[D]iscontinued operation of the facility, from an operational perspective, is likely a solution to PG&E's declining energy requirements in and of itself. (Ex. MCE-1 at 10.)

Subsequently, on February 27, 2017, PG&E provided notice to the service list that it was withdrawing part of its replacement procurement proposal:

Specifically, after careful review of the important feedback provided by parties in their January 27, 2017 opening testimony on the Diablo Canyon replacement proposal, PG&E is withdrawing the Diablo Canyon Tranches #2 and #3 replacement proposals, as well as the proposal to implement the Clean Energy Charge to recover the costs associated with Tranches #2 and #3. The Joint Parties believe that these aspects of the Diablo Canyon replacement proposal are better addressed in the Commission's Integrated Resource Plan ("IRP") proceeding (Rulemaking 16-02-007). (PG&E February 27, 2017 e-mail.)

PG&E modified its direct testimony to reflect this change. Subsequently, the other parties took a range of positions; some parties (primarily the Joint Parties) supported PG&E's new position, others proposed different partial replacement procurement schemes, and still others recommended that all replacement procurement be addressed in the IRP proceeding.

Some parties recommended that the Commission approve partial replacement procurement for Diablo Canyon in this proceeding, but in a form different than that proposed by PG&E:

The GPI supports the authorization in this proceeding of an early tranche of procurement of greenhouse-gas-free resources that can be brought online prior to the retirement of DCPP, **but only if the procurement is primarily an all-source procurement**. (GPI Opening Brief at 19, emphasis in original.)

Thus, CEERT continues to strongly support the authorization of the Tranche #1 and Tranche #2 competitive solicitations in this Application, without deferral to the IRP Process, as critical "early action" GHG-free energy procurement to meet PG&E's bundled customer need upon the retirement of Diablo Canyon and as a contingency plan in the event of early retirement or shutdown, with cost recovery approved according to existing ratemaking and cost allocation mechanisms. (CEERT Opening Brief at 7, emphasis in original.)

IEP similarly argued that PG&E should immediately be directed to do an "all-source" solicitation in order to take advantage of federal tax credits for renewable generation projects that are expected to expire or decline in the near future. (IEP Opening Brief at 1-2, 11-12.)

Other parties recommend that the Commission NOT authorize any replacement procurement in this proceeding, but instead advocate that the Commission should do a need analysis (and any resulting authorization) in the IRP proceeding. Those parties include Shell:

The appropriate forum for consideration of all Diablo Canyon replacement procurement, including PG&E's proposed first "tranche" of procurement, is the IRP proceeding. Ex. Shell-i at pp. 4-7 (Dyer). SB 350 provides that the investor-owned utilities' ("IOU") procurement planning decisions must be made in the context of a comprehensive planning process. [fn. omitted] PG&E's

proposal in this proceeding, to replace a portion of Diablo Canyon energy output with energy efficiency, interferes with the Commission's ability to establish a comprehensive procurement strategy for PG&E in the IRP proceeding. (Shell Opening Brief at 2-3.)

ORA makes a similar argument as well:

In its testimony, ORA recommended that no replacement procurement be addressed in this proceeding. ORA continues to make that recommendation since PG&E has not withdrawn its Tranche #1 proposal, and other parties may seek Commission approval of the Tranche #2 and #3 proposals even though PG&E has withdrawn them.

As ORA noted in its testimony, R.16-02-007, the Commission's Integrated Resource Planning and Long-Term Procurement Planning rulemaking ("Integrated Resource Planning proceeding") is the appropriate Commission proceeding to address all replacement procurement associated with the closure of the Diablo Canyon units. [...]

PG&E will be required to perform portfolio optimization as part of its IRP in 2017. PG&E has likely included Energy Efficiency as part of its proposed preferred resources portfolio. The correct, optimized levels of these resources will be determined in the Commission's IRP system plan.

PG&E's proposal for replacement procurement outside of the IRP portfolio optimization process creates the potential for over-procurement in PG&E's service territory, thereby leading to higher costs for customers and resulting in a sub-optimal resource plan. (ORA Opening Brief at 4-5, fn. omitted)

In addition to arguments that replacement procurement should be addressed in the IRP proceeding rather than here, a number of parties argued that PG&E's remaining Tranche 1 proposal itself was flawed:

TURN supports PG&E's intention to dramatically scale up its procurement of cost-effective EE [energy efficiency]. However, as shown in TURN's testimony and explained below, PG&E has not met its burden of demonstrating that its Tranche 1 proposal offers the right mechanism through which to do that. [fn. omitted] In sum, Tranche 1 suffers from three fundamental design flaws: it may not be feasible, it does not ensure that the EE savings will be additional to the savings that would otherwise occur, and it does not ensure that the EE savings will still be available when Diablo Canyon comes offline. Moreover, the notion of a major EE procurement outside of PG&E's existing EE portfolio and its new EE Business Plan is ill-conceived, and PG&E has not demonstrated that the benefits of this separate procurement will exceed the costs. (TURN Opening Brief at 20.)

While acknowledging that Tranche 1 may exacerbate conditions of overgeneration and renewable curtailment, PG&E and the other Joint Parties fail to address it: PG&E witness Strauss agreed that procurement of just EE, as proposed in Tranche 1, may worsen overgeneration issues. (Joint Opponents Opening Brief at 4-5, fn. omitted.)

ORA similarly opposes PG&E's request for \$1.3 billion in customer funding for its Tranche #1 EE procurement proposal and associated shareholder incentive payments. According to ORA:

PG&E fails to demonstrate that its requested Tranche #1 procurement, which is an increase of more than 50% of the currently-identified energy efficiency potential, would be cost effective. (ORA Opening Brief at 10.)

As ORA points out, PG&E is already required under California's loading order for energy resources to first meet its resource needs through "all available energy efficiency...resources that are cost effective, reliable, and feasible." (*Id.*, quoting Pub. Util. Code § 454.5(b)(9)(C)(i).) According to ORA, PG&E has acknowledged that in D.15-10-028, the Commission set a goal for PG&E to

procure all cost-effective and feasible EE for the years 2016-2024. For 2018-2024, the period corresponding to the Tranche #1 procurement proposal, that goal is a total of 3,741 gross GWh savings. (*Id.*, citing Ex. PG&E-1, at 4-3, Table 4-1, lines 3-9.)

ORA concludes:

Yet, PG&E's Diablo Canyon application proposes to procure an additional 2,000 gross GWh installed in its service territory in the same period 2018-2024. [fn. omitted] This represents an increase of 53.5% over currently approved goals for the years 2018-2024. Such a substantial increase in the EE potential is only possible by lowering the Commission's threshold criteria for cost-effectiveness. Lowering the cost-effectiveness standards would burden customers with the cost of Energy Efficiency measures that provide insufficient value to qualify under current standards. (ORA Opening Brief at 11.)

EPUC makes a similar argument:

While labor unions, local governments, environmental organizations and shareholders all receive firm, defined benefits, there are no benefits and no protections for ratepayers. Instead they shoulder greater uncertainty and risks, and the revenue consequences as these uncertainties are resolved. These include:

- whether any replacement of DCPP's output is needed;
- when, if ever, that replacement should be procured;
- whether the quantity of energy efficiency (EE) to be procured in Tranche 1 is feasible and whether it will be cost-effective, and
- whether the authorization of the Tranche 1 procurement will conflict with and potentially impair the targets of the Rolling Portfolio Business Plans filed by PG&E and the other utilities.
 [fn. omitted] The ratepayers assume the risk that all cost effective EE will have been procured through the Business Plan and each of its annual updates, and that any EE authorized in this docket will be more expensive and raise rates inefficiently. (EPUC Opening Brief at 1-2.)

ORA and EPUC make a good point – it is not clear that PG&E could actually procure over 50% more energy efficiency than a goal that is already supposed to include all cost-effective energy efficiency (unless PG&E procures energy efficiency that is not cost effective). There is no reason to approve a \$1.3 billion rate increase for a proposal that will most likely either fail to achieve its goal or will achieve a goal not worth reaching. Accordingly, PG&E's Tranche 1 proposal is not adopted.

While we are rejecting the specific replacement procurement proposed here by PG&E, the larger question remains about what, if anything, should be done here to ensure that the retirement of Diablo Canyon will not result in an increase in GHG emissions. The answer to that is that we simply cannot tell based on the record in this proceeding. Given the time between now and 2024 and 2025, the rapid changes in the California electricity market, and the growth of renewable generation and CCAs, it is not clear based on the limited record in this proceeding what level of GHG-free procurement (if any) may be needed to offset the retirement of Diablo Canyon.

The IRP proceeding, however, is better equipped to make that determination. The IRP is supposed to incorporate the analysis leading to an optimized portfolio of resources, reflecting constraints such as GHG emissions, reliability, cost, and RPS and energy efficiency requirements, while ensuring safe and reliable electricity service at just and reasonable rates. (R. 16-02-007 at 13.) In short, the IRP has the ability to look at a bigger picture than this proceeding, and can better analyze the potential impacts of the retirement of Diablo Canyon and its interaction with other dynamics in the electricity markets in a manner consistent with state policies. PG&E's previous Tranche 2 and 3 proposals would better be considered in the IRP proceeding.

Overall, practical and policy reasons indicate that it is better for potential replacement procurement issues to be addressed in the Commission's IRP process, rather than addressing it in a more piecemeal fashion in this proceeding. Accordingly, the need for and authorization of any replacement procurement should be addressed in the IRP proceeding.¹⁰

3.3. Proposed Employee Program

PG&E proposes to implement an employee retention, severance and retraining program for its Diablo Canyon employees, and requests three related approvals from the Commission:

- [1]. Recover \$352.1 million in costs associated with retaining approximately 1,500 employees at Diablo Canyon to ensure the plant's continued safe and efficient operation through the end of each unit's license in 2024 and 2025, respectively, over a 7-year period through an annual expense-only revenue requirement of \$50.9 million beginning January 1, 2018 through December 31, 2024 through the Nuclear Decommissioning Non-Bypassable Charge (NDNBC).
- [2]. Implement the Employee Severance Program and authorize PG&E to continue to forecast and recover the cost of the Employee Severance Program in each subsequent Nuclear Decommissioning Cost Triennial Proceeding (NDCTP).
- [3]. Recover \$11.3 million in costs associated with retraining eligible employees at Diablo Canyon and to recover these costs over a 5-year period through an annual expense-only revenue requirement of \$2.3 million from January 1, 2021 through December 31, 2025 through the NDNBC. (PG&E Opening Brief at i.)

¹⁰ Or in another proceeding as determined in the IRP proceeding.

Starting with the last one, the retraining of Diablo Canyon employees is intended to support the placement of Diablo Canyon employees who are interested in transitioning to other employment roles within PG&E as a result of the retirement of Diablo Canyon. (Ex. PG&E 1 at 7-8.) While the precise components and details of this program have not been determined, PG&E identifies possible elements of the program, including support for an internal PG&E job search, limited wage protection, professional and technical training and relocation assistance. (*Id.*)

PG&E forecasts the cost of the retraining program to be approximately \$11.3 million, to be recovered through the NDNBC. (*Id.* at 7-11.) PG&E also requests a new two-way expense-only subaccount (the Employee Retraining Program Subaccount) within the existing Diablo Canyon Retirement Balancing Account.

The proposed retraining program is directly related to the retirement of Diablo Canyon, and the cost of the program is recoverable in rates through the NDNBC. (Pub. Util. Code sections 8322(g) and 8330.) PG&E's request for the retraining program, the new two-way expense-only subaccount, and associated rate recovery through the NDNBC is approved.

PG&E has in place an Employee Severance Program, which provides payments of specified amounts to employees whose jobs will be eliminated upon the closure of Diablo Canyon. (Ex. PG&E -1 at 7-7.) The Employee Severance Program is directly related to the decommissioning of Diablo Canyon, and \$148 million in estimated costs for the program are already incorporated into

PG&E's decommissioning estimate. (Ex. PG&E-1 at 7-11.)¹¹ PG&E does not request rate recovery for the severance program in this proceeding, as the forecast and recovery of costs are being addressed in PG&E's NDCTP. (*Id.*) A severance program for Diablo Canyon employees is appropriate in light of the plant's pending retirement, and the cost and ratemaking for that program should continue to be addressed in PG&E's nuclear decommissioning proceeding.

PG&E's proposed employee retention program, however, is not so clearly related to the decommissioning of the plant. EPUC argues that the costs of the retention program are not related to the decommissioning of the plant, but rather to its continued operation:

The retention program is part of the operating costs of the plant, incurred to ensure there are qualified employees to continue to operate the plant. As Ms. King testified, it has been a regular practice in the past to increase wages of plant employees to retain them. [fn. omitted] Such operating costs have been, and should continue to be, recovered through the energy rates charged to bundled customers, who benefit from the operation of the plant. (EPUC Reply Brief at 6.)

In response, PG&E argues that the retention program is related to the retirement of the plant, as absent that there would not be a need for the retention plan:

The only reason the Employee Program is necessary is due to the announcement that PG&E would retire and decommission the plant. Accordingly, there is a direct causal link between the closure of the plant and the Employee Program, making it appropriate to recover the costs of the Employee Program through decommissioning rates. (PG&E Reply Brief at 66.)

¹¹ PG&E's more recent estimate of the cost of the program is \$168 million.

At the same time, however, PG&E acknowledges that it intends to continue to operate Diablo Canyon for almost a decade before it plans to actually retire the plant. (Ex. PG&E-1 at 7-2.) Looking at PG&E's proposal, it appears to confirm that EPUC's position is correct: PG&E is proposing to keep operating Diablo Canyon until 2024/2025, and is proposing the retention program for the purpose of keeping the plant operating, not for the purpose of shutting it down. (PG&E Reply Brief at 49.) This is further reinforced by the fact that the retention program ends on August 31, 2023, but the plant will not completely retire until 2025. (Ex. PG&E-1 at 7-4.) Accordingly, rate recovery for the employee retention plan should come through the existing ratemaking treatment for the operation of Diablo Canyon, not through the NDNBC.

In addition, there are problems with the design and the resulting cost of PG&E's proposal. PG&E, with the support of the Joint Parties, proposes to pay retention bonuses to every employee of the plant who continues to work through specified time periods. PG&E proposes two "tiers" of retention payments. Tier 1 would run from September 1, 2016 through August 31, 2020, would provide a retention payment to each employee of 25% of the employee's base salary at the end of each of the four years, and would cost \$191.6 million. Tier 2 would run from September 1, 2020 through August 31, 2023, would provide a retention payment to each employee of 25% of the employee's base salary at the end of each of the three years, and would cost \$160.5 million. (Ex. PG&E-1 at 7-4 and 7-6.) PG&E's estimated \$352.1 million cost for the retention plan assumes that approximately 1,500 employees would be retained until August 31, 2023. (*Id.* at 7-6.)

ORA and CGNP oppose PG&E's employee retention program as proposed. ORA argues that ratepayers should not pay for the \$191.6 million cost of Tier 1, but generally supports rate recovery for the \$160.5 million cost of Tier 2. (ORA Opening Brief at 25.) CGNP argues that the entire retention program is unnecessary (CGNP Opening Brief at 14-17), but does note that retention payments may be necessary for a very limited set of hard-to-fill positions. (*Id.* at 15.)

PG&E's proposal appears to have a significant "free rider" problem that PG&E does not address, and as such the proposal is overly generous with ratepayer funding. The 1,500 employees eligible to receive the retention payments include all active full-time employees working at Diablo Canyon, plus those who support Diablo Canyon operations and those whose job or job functions would be eliminated as a result of Diablo Canyon's retirement. Contractors and temporary or rotational employees would not be eligible. (Ex. PG&E-1 at 7-4, fn. 1.) In short, PG&E is asking the ratepayers to pay for a retention payment for every full-time PG&E employee at Diablo Canyon. As PG&E puts it: "The Employee Retention Program is aimed to keep the entire employee population retained until August 31, 2023." (*Id.* at 7-6.)

PG&E's testimony does not adequately address factual questions such as how many employees would continue to work at Diablo Canyon (until it closes) without a retention payment, or how many employees would leave their employment at Diablo Canyon regardless of a retention payment. In both of

those situations, the retention payment provides no benefit to ratepayers.¹² PG&E has significant data about the Diablo Canyon workforce, including retirement eligibility, and has done modeling of potential retirements (PG&E Opening Brief at 45; Ex. PG&E-6), but has chosen to just pay every employee, rather than using that information to more efficiently use ratepayer funds.

CGNP, on the other hand, has used PG&E's data to support its analysis, and comes to a more nuanced conclusion than that embodied by PG&E's broad-brush proposal:

In response to Commission_001-Q15, PG&E witness King stated that there are 442 employees eligible for full retirement and 471 eligible for retirement with partial benefits before 2024. [fn. Omitted] These employees constitute 63% of the 1458 regular Diablo employees, and it is highly unlikely they would be eager to leave when they could continue to work towards retirement. Older workers face well-known difficulties in finding new employment, thus given the choice of transferring within PG&E vs. a severance package if their job was eliminated, there would be little incentive for employees to leave voluntarily. (CGNP Opening Brief at 15.)

In another area where there is a paucity of analysis, PG&E does not address how many employees would continue to work at Diablo Canyon after its retirement, on tasks such as decommissioning, nuclear fuel storage, maintenance and security. In fact, PG&E states that it does not currently know how many employees it expects will remain at Diablo Canyon after its retirement. (Ex. PG&E-6 at 24.) Because these employees would have continuing employment after the plant retires, they would presumably have less of an

¹² There may also be employees who would continue to work at Diablo Canyon only because of the retention payment, but are otherwise unhappy or unmotivated with their job, so their retention would provide little or no benefit to ratepayers.

incentive to leave because of the retirement. But under PG&E's proposal, all of these employees would still receive ratepayer-funded retention payments.

PG&E likewise does not address the potential employment prospects for nuclear power plant employees. PG&E cites to CCUE witness Dalzell for the argument that many Diablo Canyon employees are "high-skill, high-wage workers and would be attractive candidates for other jobs." (PG&E Opening Brief at 46.) PG&E explains the basis for that argument:

The CCUE witness, Tom Dalzell, testified that based on his experience with divestiture of PG&E's fossil fuel and geothermal generation facilities in the late 1990s, he was certain that absent an employee retention package, employees would find jobs outside of DCPP once a closure date was announced. (PG&E Opening Brief at 46.)

This is not a valid comparison; there are many more fossil fuel plants than there are nuclear plants, and the situation today is different from the divestiture of plants in the 1990s. A better comparison would be to look at the relative current and forecasted supply and demand of nuclear power plant jobs and experienced nuclear power plant employees. These factors have a significant impact on how likely Diablo Canyon employees will be to look for and obtain outside employment. PG&E did not present such an analysis in this proceeding.¹³

While there is certainly ratepayer benefit from Diablo Canyon being operated in a safe and reliable manner until its retirement, PG&E has failed to

¹³ Nor did ORA or CGNP. One commenter at a public participation hearing stated: "Given the current status of the nuclear industry, there is no need to pay Diablo Canyon employees an additional \$352 million in order to retain them for the eight years in question. The industry is in serious decline." (Transcript v. 9 at 1,446.)

show that the amount of ratepayer dollars requested is necessary or reasonable. Based on the record of the proceeding, the funding level recommended by ORA is more reasonable, and we authorize rate recovery of \$160.5 million for PG&E's employee retention program.

One aspect of PG&E's proposed employee retention program is that PG&E requested Commission approval of a very specific and detailed proposal, including a payment schedule. (Ex. PG&E-1 at 7-5.)¹⁴ Under PG&E's approach, the specifics of the retention program would effectively be locked in place by a Commission decision, meaning that neither employees, nor unions, nor PG&E could renegotiate a new deal absent Commission approval. In essence, PG&E has delegated management of the program to the Commission. ORA proposes to provide PG&E a little more flexibility in implementing the retention program, but limiting the payments to three years, similar to PG&E's proposed Tier 2. (ORA Opening Brief at 25-26.)

Because the level of funding authorized by this decision is significantly different than the amount proposed by PG&E (and its unions), PG&E should have the opportunity to consider (and negotiate with its unions) the best way to implement the employee retention program. Accordingly, this decision authorizes rate recovery for up to \$160.5 million for an employee retention program that is designed to provide incentives as needed for sufficient PG&E employees to continue working at Diablo Canyon up until the date of its retirement, but this decision does not specify a particular structure or schedule for that program. PG&E is responsible for the effective management of Diablo

¹⁴ By comparison, the PG&E's retraining program is only a general outline and an overall budget.

Canyon and its employees. PG&E shall file a Tier 2 Advice Letter no later than six months from the date of this decision with a description of its employee retention plan.

Finally, it appears that PG&E (with the participation of at least some of its unions) has already executed retention agreements with its employees, presumably incorporating the terms proposed by PG&E in this proceeding. CCUE cites to these agreements, and the fact that 86% of IBEW 1245's represented employees¹⁵ at Diablo Canyon have signed them, as showing that PG&E's retention program is working. (CCUE Opening Brief at 13-14.) CGNP, however, points out that: "[T]he 86% only means that workers will accept free money until such times as they may quit." (CGNP Reply Brief at 10.)

The retention payments negotiated and agreed to by PG&E and its unions require funding from ratepayers, and accordingly require Commission approval for their funding. Why PG&E and its unions executed these agreements with individual employees in advance of Commission approval is unclear, as at the time it entered into those agreements, PG&E did not have authority to make the payments that the agreements (appear to) promise. This puts the Commission in the position of potentially saying "no" to PG&E's proposal, while the employees may already be thinking that the answer is "yes." PG&E should not be making promises (even implied ones) to its employees that it does not know it can keep. PG&E is not authorized to recover in rates the cost of the existing agreements.

 $^{^{15}}$ 410 out of 476 represented employees.

3.4. Proposed Community Impacts Mitigation Program

In its Application, PG&E proposed a Community Impacts Mitigation Program (CIMP), which was described as follows:

Diablo Canyon is one of the largest employers, taxpayers, and charitable contributors in the San Luis Obispo County area. Diablo Canyon currently contributes approximately \$22 million in property taxes to the local community. With the retirement of Diablo Canyon, this could decline to zero by 2025. The Parties will support funding of continuing revenue streams to address community needs and concerns. PG&E will propose to compensate San Luis Obispo County for the loss of property taxes associated with the declining rate base in Diablo Canyon through a transition period ending in 2025. The payment in lieu of taxes will be recovered through nuclear decommissioning funding. PG&E estimates that the total cost of the Community Impacts Mitigation Program is approximately \$49.5 million. As specified in Section 5.4.1, as a condition of the program, PG&E will recover the costs of the Community Impacts Mitigation Program through CPUC-approved rates for nuclear decommissioning. (PG&E Application, Attachment A (Joint Proposal) at 10-11.)

Later in the proceeding, PG&E entered into a proposed settlement with the County, the Local Cities and the School District, along with the original Joint Parties. This proposed settlement primarily addressed the Community Impacts Mitigation Program, with PG&E agreeing to increase the payment to the communities to a total \$85 million, compared to the prior \$49.5 million. (Joint Motion re Settlement on Community Impacts at 2.)

¹⁶ PG&E filed a joint motion on December 28, 2016 with the County Of San Luis Obispo, the Cities of Arroyo Grande, Atascadero, Morro Bay, Paso Robles, Pismo Beach, San Luis Obispo, the San Luis Coastal Unified School District, FOE, NRDC, Environment California, IBEW 1245, CCUE, and A4NR. (Joint Motion re Settlement on Community Impacts.)

It is uncontested that the retirement of Diablo Canyon would result in reduced local tax revenues and a loss of well-paying jobs, with a corresponding potential for significant adverse economic impacts on the local area. The question before this Commission is not whether there will be economic impacts, or even the potential size and scope of those impacts, but rather whether PG&E ratepayers should pay to mitigate these impacts.¹⁸

The parties presented a range of policy and legal arguments on this issue. The policy arguments focus on issues of fairness: who benefitted from Diablo Canyon, who bore the costs and risks of Diablo Canyon's operation, and who should bear the costs and risks of the plant's retirement. (*See*, e.g. County Opening Brief at 1-3, 16-17; TURN Opening Brief at 43-44.) While it is reasonable for this Commission to consider whether the proposed payment to the community is fair, the Commission must also consider whether that payment is legal.

Consistent with this Commission's decision in D.97-05-088, and in the absence of legislative authorization, the CIMP is not approved. Utility rates should be used to provide utility services, not government services, no matter how beneficial those services may be. In addition, we have some concerns about the fairness of the CIMP under the proposed settlement.

Looking first at whether the CIMP under the proposed settlement is fair to PG&E, to the community, and to ratepayers, it is clear that the proposed

¹⁷ The economic impacts of the retirement of Diablo Canyon are to be studied pursuant to Pub. Util. Code § 712.5, enacted in 2016.

¹⁸ Existing support for local emergency services provided through PG&E rates is not at issue in this proceeding, and remains in effect.

settlement on this issue is fair to PG&E. Because the cost of the payment would be recovered in rates, PG&E itself bears no out-of-pocket costs.

ORA and TURN argue that PG&E's willingness to provide funding to the community is essentially a type of charitable giving, intended to enhance PG&E's goodwill in the community, and as such should be funded with shareholder dollars, not ratepayer dollars. (ORA and TURN Joint Comments at 6-7.) PG&E, the Local Cities and the County respond that the CIMP payments do not meet the technical definitions of a charitable gift or a goodwill payment. (PG&E Reply at 10-13; Coalition Cities¹9 Reply at 10-11; County Brief at 17-19.) While PG&E and its supporters may be correct that the payments (in large part due to their multiplicity of benefits) may not squarely fall into the technical definitions of charitable giving or goodwill payments, ORA and TURN raise a fair point that as a practical matter, PG&E will garner praise and enhance its reputation in the community as a result of the CIMP. (ORA and TURN Comments at 6-7.)

PG&E also gets another benefit: the support (or at least non-opposition) of the settling parties for its other litigation positions. The settling parties agreed to:

[S]upport the Employee Program as proposed by PG&E in its Application initiating this proceeding, and the County, the Cities, and the District agree not to oppose or to take no position on the remaining relief requested in PG&E's Application, as modif[i]ed by the Agreement. (Joint Motion, December 28, 2016 at 2.)

¹⁹ The "Coalition Cities" are the same as the "Local Cities": Arroyo Grande, Atascadero, Morro Bay, Paso Robles, Pismo Beach, and San Luis Obispo.

In short, this appears to be a very good deal for PG&E – it gains some community goodwill, and gets support (or eliminates potential opposition) for its litigation positions, and all at no financial cost.

The fairness to the community is less clear. While the proposed settlement's payment of \$85 million is a clear benefit to the recipient community, it is not clear that the payment is allocated fairly. The County, Local Cities, and the School District, which are parties to the proceeding, negotiated the proposed payment with PG&E, are getting a total of \$85 million in funding. There are, however, other cities and local districts that will be affected by the retirement of Diablo Canyon that are not parties to the settlement, and do not receive direct funding under the proposal. (See, Transcript vol. 9 at 1,389-91, 1,436-37.)

Overall, the amount and allocation of payments appears to have more to do with PG&E's litigation needs than the economic needs of the community. While the community strongly supports the proposed settlement, we cannot tell from the record whether the proposed payment, and particularly its allocation, is fair to the affected communities. A clearer picture of the economic impacts on the community should be available upon completion of the assessment required under Pub. Util. Code § 712.5.

Finally, it is essential to consider whether the proposed settlement is fair to PG&E's ratepayers, who are being asked to pay the \$85 million cost of the payment program. ORA and TURN oppose the proposed payment. ORA argues that the payments to be made "would effectively be a substitute for

²⁰ They may, however, get funds allocated to them via the County.

PG&E's property taxes," and should not be funded by PG&E customers. (ORA Opening Brief at 29.)

In its reply brief, PG&E argues that the CIMP: "is not intended to be an in-lieu or substitute tax." (PG&E Reply Brief at 53.) According to PG&E: "The decline in tax revenues is one measure of the magnitude of the direct fiscal impacts to local governments, and it was therefore appropriate for the settling parties to consider the size of those tax revenue declines in negotiating the appropriate amount of mitigation," but the payment should not be thought of as a tax payment or a substitute for a tax payment. (PG&E Reply Brief at 53-55; see also County Opening Brief at 19.)

One problem with this attempt to finesse the nature of the CIMP into something other than a substitute for lost tax revenue is that it is contradicted by other statements on the record:

With regard to economic and fiscal impacts, the Cities argued that, at a minimum, PG&E should be required to make payments to the Cities equal to their combined property, sales, and other local taxes over the nine-year period to mitigate the decline in the taxes that the plant's operations have traditionally provided. (Joint Motion at 10, citing to Protest.)

And: "The District intervened in this proceeding because the property tax PG&E pays for Diablo Canyon each year accounts for a significant portion of the District's annual funding." (*Id.* at 10, citing to Response of School District.)

While all of the money at issue may not be specifically designated as a substitute for tax payment, as a practical matter a significant amount of the money to be collected from ratepayers is in fact a substitute for tax revenue. Accordingly, we have to analyze whether it is appropriate to substitute ratepayers for taxpayers, which raises legal as well as policy issues.

The parties contesting this issue cite to Commission Resolution E-3535, adopted in 1998, which addressed a similar issue, also for Diablo Canyon. The parties are correct that Resolution E-3535 is on point here; but in order to understand and apply the logic of Resolution E-3535, it is essential to consider D.97-05-088, which led to the Commission's adoption of Resolution E-3535. In the proceeding leading to D.97-05-088, in the wake of electric restructuring:

The County of San Luis Obispo and the San Luis Coastal Unified School District (County) seek protection against the risk that Diablo Canyon-related property taxes will decrease precipitously and jeopardize the ability of the County to provide basic public and educational services. If the threat actually materializes, the County wants to be made whole. By its recommendation, the County seeks adoption by the Commission of a mechanism that insures that the County has the opportunity to recover the property tax revenues they had a reasonable expectation of receiving but for electric restructuring. (D.97-05-088 at 91.)

In that proceeding, the Commission held that: "The County's proposal that ratepayers pay for property taxes that PG&E does not incur is not permitted under either general ratemaking principles or public utility law." (*Id.* at 100.) As a result, the Commission held that the County should direct its request for relief to the Legislature, not the Commission.²¹ (*Id.*) The Commission reaches the same result today.

Because the analysis set forth by the Commission in D.97-05-088 is directly on point, we quote it here at length:

The County of San Luis Obispo and the San Luis Coastal Unified School District (County) seek protection against the risk that Diablo

²¹ The County did so, and received limited relief, which was then implemented via Resolution E-3535.

Canyon-related property taxes will decrease precipitously and jeopardize the ability of the County to provide basic public and educational services. If the threat actually materializes, the County wants to be made whole. By its recommendation, the County seeks adoption by the Commission of a mechanism that insures that the County has the opportunity to recover the property tax revenues they had a reasonable expectation of receiving but for electric restructuring.

The County recommendation is that this Commission should:

- Find that \$ 158 million (NPV in 1999 dollars) represents a reasonable estimate of the potential difference between property tax revenues that the County would have received from PG&E in the absence of accelerated recovery of Diablo Canyon depreciation and what the County could actually receive given restructuring.

 [...]
- Order that the \$ 158 million in potentially forgone property taxes be collected by PG&E as CTC at a rate of \$ 39.5 million per year during the CTC recovery period and held in a separate, segregated interest-bearing account until 2026.
- Order PG&E, starting in 1999 and continuing thereafter on an annual basis, to withdraw funds from the segregated CTC account and to remit to the County the difference between the estimated tax payments based upon straight-line depreciation of Diablo Canyon through the year 2026 [...] and any amount of property taxes actually determinated [sic] to be due and payable by PG&E to the County in each year, to the extent such actual taxes are less than the estimated straight-line depreciation based property taxes [...].

The County asserts that adoption of its recommendation will provide protection against the possibility that the County will experience drastic reductions in property tax revenues as a direct result of electric restructuring. If the risk of property tax reductions does not materialize or produces lower tax revenue losses than predicted, any excess amounts otherwise reserved for payment to the County will be returned to ratepayers.

The County contends that the evidence produced by it shows:

- that the County enjoys unique status by reason of long-standing, mutual commitments with PG&E relating to the location and operation of Diablo Canyon within the County;
- that electric restructuring, and PG&E's related pricing proposal for Diablo Canyon in particular, create the real possibility that the County will suffer far greater negative consequences from restructuring than any other similarly situated stakeholder, primarily in the form of dramatic reductions in the level of otherwise expected property tax revenues to be received from PG&E;
- that the consequence for the County of any property tax revenue reductions resulting from PG&E's Diablo Canyon pricing proposal includes severe reductions in essential public services available to the residents and schoolchildren of San Luis Obispo County;
- that the mutual commitments between the County and PG&E and, in particular, the County's reliance on PG&E's promises to provide identifiable economic benefits in exchange for siting and operating a nuclear generation facility within San Luis Obispo County, create an enforceable entitlement to a stable and predictable level of property tax revenues for the County throughout the projected operating life of Diablo Canyon; and
- that the difference between property tax revenues that the County would have received from PG&E in the absence of accelerated recovery of Diablo Canyon depreciation and what the County actually receives given implementation of electric restructuring is properly recoverable (by PG&E and payable to the County)[...].

This evidence, in the opinion of the County, leads to only one conclusion of law: It is consistent with law, policy, and the public interest for the Commission to adopt a mechanism that will provide a safety net for the County by ensuring that the County's property tax receipts are unaffected by any accelerated depreciation of Diablo Canyon authorized by the Commission in conjunction with its initiative to restructure the state's electric industry.

PG&E and ORA oppose the County. [...]

In addition to the problems in predicting the actual impacts of restructuring on the County, PG&E asserts that the County's proposal to recover lost property tax revenues is legally suspect. AB 1890 contains no explicit provision to allow utilities to recover costs or lost governmental revenues that they are not liable for but which are incurred by third parties, such as counties, under restructuring. In addition, as a general principle of ratemaking, utilities are not permitted to include in their cost of service payments which in fact they have not incurred or accrued, or forecast to incur, and which they have not become legally obligated to incur or accrue.

ORA states that the County has not cited any statute or rule that would support its position. ORA notes that there has never been any guarantee that Diablo Canyon property tax revenues would not decrease, even in the absence of electric restructuring and PG&E's accelerated depreciation proposal. For example, if Diablo Canyon continued to perform at current levels in the future such that PG&E recovered more in revenues than intended under the original ratemaking settlement, the Commission could require a reduction in prices as was done in 1995, or the early termination of the ratemaking treatment. This would impact San Luis Obispo tax revenues, even in the absence of electric restructuring. In addition, nothing in the existing Diablo Canyon ratemaking treatment precludes the facility from shutting down, not just for catastrophic failure, but for economic reasons as well. Under such circumstances, regardless of electric restructuring, there would likely be no tax revenues for San Luis Obispo. [...]

[...]

Most telling is ORA's argument that San Luis Obispo would have the Commission impose on ratepayers what is essentially a tax that is entirely unrelated to utility service. The County's proposal that ratepayers pay for property taxes that PG&E does not incur is not permitted under either general ratemaking principles or public utility law. Section 451 of the PU Code requires:

"All charges demanded or received by any public utility ... for any product or commodity furnished or to be furnished or any service rendered or to be rendered shall be just and reasonable. Every

unjust or unreasonable charge demanded or received for such product or commodity or service is unlawful."

A utility cannot charge ratepayers costs that are unrelated to the provision of any product or commodity or service, and the Commission cannot lawfully order such charges. [fn. omitted]

However, ORA supports San Luis Obispo's efforts to seek relief in a more appropriate forum. It is within the state's powers, not the Commission's, to levy taxes and to disburse tax revenues. [...]

The arguments of PG&E and ORA are persuasive. There is no legal basis for this Commission to authorize PG&E to include in its rates and cost of service estimated property taxes which it is not lawfully obligated or forecasted to pay. Taxes which are included in rates are those in effect at the time the rates are approved, unless the existing law provides for a change at a future date. (Re Pac. Tel. & Tel. (1954) 53 CPUC 276, 295.) Absent legislative change, or Board of Equalization change, PG&E's taxes are what they are under existing law and the County's proposal will not change that fact. The County must direct its request for relief to the Legislature and the Board, not this Commission. (D.97-05-088 at 91-100.)

As in 1997, this Commission is reluctant to require ratepayers to pay for the cost of local government services that are typically paid for by taxpayers, no matter how beneficial those services may be. Absent legislative authorization, utility rates should be used to provide utility services, not government services. While Resolution E-3535 subsequently did authorize ratepayer payment to the County and the School District, it is important to take into consideration what happened in between D.97-05-008 and Resolution E-3535. As described in Resolution E-3535:

After the Commission's Decision was issued, the California Legislature passed into law Chapter 282, section 8660-001-0462, paragraph 3, of Statutes of 1997. This new law states that if PG&E

and the County and School District enter into a settlement that resolves claims by the latter parties relating to the effects of AB 1890 (Brulte), enacted 1996, Chapter 854, then PG&E may recover an additional amount, not to exceed \$ 10 million, through base rates in 1998. (Resolution E-3535 at 3.)

In short, there was express legislative authorization for rate recovery for a payment to the community, which was implemented by Resolution E-3535.

Accordingly, ratepayer funding of the CIMP is not authorized. If legislation specifically directs this Commission to provide ratepayer funding for the CIMP (or a similar payment to the community), the Commission would do so, as it did in 1998. PG&E may also choose to use shareholder funds to support the CIMP.

3.5. Recovery of License Renewal Costs

In its Application, PG&E requested rate recovery for \$52.688 million in costs incurred for its efforts to renew the NRC operating licenses for Diablo Canyon. (Ex. PG&E-1 at 9-1.) This request was opposed by TURN, ORA, A4NR and Mothers for Peace, who argued that PG&E should not get rate recovery for any of the costs associated with relicensing Diablo Canyon. (*See*, e.g. TURN Protest at 4-6; A4NR Protest at 5-13.)

In late 2009, PG&E filed an application with the NRC to renew Diablo Canyon's operating licenses. In early 2010, PG&E filed an application with this Commission requesting rate recovery for its estimate of \$85 million in costs for Diablo Canyon NRC license renewal and related activities. (Ex. PG&E-1 at 9-4.)

In that proceeding (A.10-01-022), PG&E, the Commission's Division of Ratepayer Advocates (DRA)²² and TURN reached a tentative settlement. (D.12-02-004 at 2.)

In March, 2011, prior to a hearing on the settlement, an earthquake and tsunami caused serious damage to a nuclear plant located at Fukushima, Japan, and the NRC effectively halted the relicensing of Diablo Canyon pending further seismic studies. (*Id.* at 2-4; Ex. PG&E-1 at 9-5 to 9-6.) The Commission then closed A.10-01-022 without addressing the proposed settlement. (D.12-02-004 at 5-7.) The proposed settlement between PG&E, DRA and TURN would have allowed PG&E rate recovery for \$80 million in licensing renewal costs. (Ex. PG&E-5-2 at 5-19.)

While the license renewal process at the NRC was suspended, PG&E reduced its spending on license renewal activities, but continued with some activities in order to keep its application up-to-date (Ex. PG&E-1 at 9-6) and to retain the ability to re-start and complete the license renewal process in the future. (Ex. PG&E 5-2 at 5-22.) PG&E's license renewal spending ramped back up significantly in 2014 (although PG&E's testimony does not clearly identify when it re-started active work on the license renewal). (Ex. PG&E -7 at 278.) PG&E did not return to the Commission to request approval for rate recovery of the license renewal costs it incurred until it filed the present application in August 2016.

PG&E divides the costs it incurred for Diablo Canyon license renewal into three time periods: Original LRA Review (2009-11), LR On-Hold (2012-13), and LR Re-Start (2014-16). (*Id.*) PG&E's request breaks down as follows:

²² Now ORA.

Original LRA Review (2009-11) \$23,651,457

LR On-Hold (2012-2013) \$ 9,290,172

LR Re-Start \$19,744,364

Total \$52,687,764

For all three periods, PG&E's original request included rate recovery for Allowance for Funds Used During Construction (AFUDC), reflecting the financing cost of the license renewal project. (*Id.*) TURN and A4NR questioned PG&E's request for recovery of AFUDC, given that the license renewal project was abandoned or cancelled. (*See*, Transcript Vol. 8 at 1214-1246.)

Subsequent to evidentiary hearings, a joint motion for adoption of a settlement agreement was filed by PG&E, A4NR, TURN, ORA, Mothers for Peace, FOE, NRDC, Environment California, IBEW 1245, and CCUE (Settling Parties). The proposed settlement addresses the costs incurred by PG&E for its license renewal activities, and recommended that PG&E be granted \$18.6 million in rate recovery. (May 23, 2017 Joint Settlement Motion at 13, 15.) The motion explained the basis for this number:

In approaching settlement on this issue, the Settling Parties desired to identify a set of principles upon which to base that settlement. One principle was that PG&E should recover its direct costs incurred during the time that the project was reasonably and prudently undertaken. In this regard, the Settling Parties agreed, for the purpose of compromise and without conceding their litigation positions, that the Commission should consider the project reasonably and prudently undertaken from its inception in 2009 until April 10, 2011, when PG&E requested that the Nuclear Regulatory Commission ("NRC") defer issuance of the Diablo Canyon renewed operating licenses. [fn. omitted] The Settling Parties then agreed that PG&E should not recover the direct costs incurred subsequent to that deferral request. After reviewing the costs of the project as summarized in Exhibit PG&E-2, as corrected in Attachment 2 to this Motion, the Settling Parties submit that

\$18.6 million is a reasonable approximation of the direct costs incurred between the project inception and April 10, 2011 that should be authorized for recovery. Finally, the Settling Parties agreed that no AFUDC should be recovered for the License Renewal Project as a reasonable sharing of risk between customers and shareholders. (*Id.* at 12-13.)

The parties opposing PG&E's original request support the settlement. The \$18.6 million figure is supported by the record, is well within the range of possible litigation outcomes in this proceeding, and provides significant ratepayer saving compared to PG&E's original request of more than \$52 million. It was reasonable for PG&E to have spent that amount of money in 2009 to 2011 to seek to renew the operating licenses for Diablo Canyon. The removal of AFUDC from the amount sought, given that the relicensing was not completed, also supports the conclusion that the amount is reasonable. The proposed settlement meets the requirements of Rule 12.1(d).

While nuclear power plants are controversial, and renewal of Diablo Canyon's licenses would have drawn opposition, the record supports a finding that PG&E's decision to seek renewal of Diablo Canyon's operating license (and its approach for doing so) from 2009 to April 2011 was reasonable. PG&E requested Commission approval for rate recovery of the costs of renewal at approximately the time they began to actively pursue license renewal, which provided an opportunity for parties (and the Commission) to address the reasonableness of their decision. In that proceeding, DRA and TURN agreed to a proposed settlement allowing PG&E rate recovery for its relicensing costs, which implies that they believed PG&E's course of action to be reasonable, or at a minimum that they believed the Commission would find it reasonable. The Commission also had a potential opportunity to determine that it was

unreasonable for PG&E to seek to renew Diablo Canyon's NRC licenses, but did not do so. And finally, the realities on the ground in California were very different in 2009 than they are in 2017. Our current situation, with the rapid growth of renewable generation and CCAs, had not so fully manifested itself yet, making Diablo Canyon look to be a potentially more valuable asset then than it is now. There is not a good basis to now find unreasonable PG&E's decision in 2009 to pursue relicensing of Diablo Canyon.²³ Accordingly, it is reasonable to grant PG&E rate recovery for the costs (not including AFUDC) that it incurred through April 2011, as proposed by the settlement.

The rate recovery structure of the proposed settlement is described:

The Agreement further provides that PG&E should be authorized to recover the \$18.6 million through an annual, levelized, expense-only revenue requirement to be recovered from customers over an 8-year period from January 1, 2018, through December 31, 2025, through the generation rate component of PG&E's rates. (May 23, 2017 Joint Settlement Motion at 15.)

The proposed settlement on license renewal costs is approved, including the amount of cost recovery and the ratemaking structure. The provisions of the proposed settlement addressing cancelled capital projects are discussed in the Proposed Ratemaking and Cost Allocation Issues section below.

3.6. Proposed Ratemaking and Cost Allocation Issues

PG&E's proposed ratemaking treatment for Diablo Canyon as it approaches retirement does not alter the existing ratemaking treatment, which

²³ Whether PG&E was reasonable to continue relicensing activities after April 2011 is less clear, and the proposed settlement's use of that date as a cutoff is reasonable and is supported by the record.

has generation rates based on a depreciation schedule that assumes Diablo Canyon will be retired (and depreciated to zero) at the end of 2024 for Unit 1 and the end of 2025 for Unit 2. (PG&E Opening Brief at 70.)²⁴ PG&E does propose to add an annual true-up to reflect actual depreciation and capital spending at Diablo Canyon. (*Id.*, citing Ex. PG&E-1, at 10-4.)

PG&E also proposes:

For capital additions after 2016, PG&E proposes to simplify the recovery over the remaining years of Diablo Canyon's operations by calculating a remaining life depreciation rate based on the vintage of the addition. Thus, a capital addition project that goes into service in 2017 would have an assumed 8-year life/depreciation schedule and a capital addition project added in 2018 would have an assumed 7-year life/depreciation schedule.

Beginning in 2017, PG&E will true-up the depreciation rates for plant and capital additions set in the 2017 GRC [general rate case] with the actual costs incurred/recorded for these two categories. To implement this proposal, PG&E proposes to establish a new 2-way subaccount within the proposed Diablo Canyon Retirement Balancing Account that would be called the "Diablo Canyon Capital Depreciation Subaccount." This subaccount would track and adjust the capital revenue requirements associated with Diablo Canyon's net book value and capital additions. Starting in 2018, PG&E proposes to file in May of each year a Tier 3 advice letter trueing-up the prior year's forecast to recorded costs and establishing the amount of the depreciation rate adjustment that will be incorporated into the AET advice letter for January 1 of the next year. (PG&E Opening Brief at 70-71, fn. omitted.)

²⁴ The net plant cost for Diablo Canyon (which PG&E forecasts to be \$1.805 billion) and its recovery in rates are addressed in PG&E's GRC.

In general, this approach (and the new subaccount) is reasonable. However, the review and true-up process should be reviewed in a GRC (or in a process established in a GRC) rather than by advice letter.

For the employee retraining program, as discussed in the employee program section above, the estimated cost of \$11.3 million is recoverable in rates through the NDNBC. PG&E's request for a new two-way expense-only subaccount (the Employee Retraining Program Subaccount) within the existing Diablo Canyon Retirement Balancing Account is approved.

For the employee retention program, as discussed in the employee program section above, PG&E is authorized rate recovery for up to \$160.5 million through the existing ratemaking treatment for the operation of Diablo Canyon. PG&E is authorized to establish a two-way expense-only balancing account (or sub-account) consistent with this decision. PG&E shall file a Tier 2 Advice Letter no later than six months from the date of this decision with a description of its employee retention plan.

For the costs of PG&E's NRC license renewal project, as discussed in the license renewal costs section above, PG&E is authorized to recover \$18.6 million for the license renewal project through an annual, levelized, expense-only revenue requirement of approximately \$2.4 million to be recovered from customers over an 8-year period from January 1, 2018, through December 31, 2025, through the generation rate component of PG&E's rates.

For cancelled capital projects at Diablo Canyon, PG&E is authorized rate recovery generally consistent with the proposed settlement on relicensing costs, under which:

PG&E would be authorized to recover 100% of the direct costs associated with cancelled capital projects at Diablo Canyon recorded to the project as of June 30, 2016, and would be further authorized to

recover 25% of the direct costs associated with cancelled capital projects recorded after June 30, 2016. All other direct costs and the Allowance for Funds Used During Construction ("AFUDC") associated with such projects would not be recovered from customers. (May 23, 2017 Joint Settlement Motion at 3.)

PG&E's original position in its Application was that:

In any instance in which PG&E decided in the future to cancel Diablo Canyon capital projects, PG&E proposed that the total projects costs incurred at the time of the decision to cancel be recovered from customers.²⁵ (*Id.* at 8)

Accordingly, the proposed settlement results in potentially significant (albeit unquantified) cost savings to ratepayers. The proposed settlement on cancelled capital projects is approved, with one modification. PG&E should make its specific cost recovery requests through its GRC process (or another formal application), rather than through an advice letter process.

3.7. Additional Issues

The Scoping Memo in this proceeding stated:

It is premature to address land use, facilities and decommissioning issues. At the same time, parties expressed concern that deferring consideration of these issues could result in PG&E making changes that would preclude future options. PG&E must obtain Commission approval under Pub. Util. Code § 851 prior to selling, leasing, or otherwise encumbering utility-owned land or facilities. While some of the land at issue is owned by a subsidiary of PG&E, PG&E has committed to take no action with any of the lands and facilities, whether owned by the utility or a subsidiary, before completion of a future process including a public stakeholder process, and states that the parties will not be prejudiced by excluding these issues from

²⁵ In addition, those capital project costs charged would include AFUDC.

the current scope of this proceeding. PG&E is directed to abide by that commitment. (Scoping Memo at 6.)

The commitments and directions in the Scoping Memo are reiterated here in order to ensure that there will be local input and further Commission review prior to the disposition of Diablo Canyon facilities and surrounding lands.

All unaddressed motions are denied.

4. Comments on Proposed Decision

The proposed decision of ALJ Allen was mailed to the parties in			
accordance with Section 311 of the Public Utilities Code, and comments were			
allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure.			
Comments were filed on by Reply comments were filed on			
by			

5. Assignment of Proceeding

Michael Picker is the assigned Commissioner and Peter V. Allen is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

- 1. Continuing operation of Diablo Canyon Unit 1 beyond 2024 and Unit 2 beyond 2025 would require renewal of NRC licenses, and would not be cost effective.
- 2. The retirement of Diablo Canyon will not cause adverse impacts on local or system reliability.
- 3. The impact of the retirement of Diablo Canyon on greenhouse gas emissions is not clear.
- 4. The IRP proceeding is broader in scope than this proceeding, and is considering issues including greenhouse gas emissions and optimized portfolios of generation resources.

- 5. PG&E employees at Diablo Canyon who want to transfer to other jobs at PG&E due to the retirement of Diablo Canyon may require retraining and related assistance.
 - 6. PG&E's proposed employee retention plan is costly and inefficient.
- 7. A reasonable employee retention plan may help to ensure the continued safe operation of Diablo Canyon until its retirement.
 - 8. The CIMP is largely intended to substitute for anticipated lost tax revenue.
- 9. PG&E's original request for rate recovery for relicensing costs totaled \$52.688 million for expenses from 2009 through 2016, including AFUDC.
- 10. The proposed settlement on relicensing costs would provide PG&E \$18.6 million in rate recovery for expenses from 2009 through 2011, and excludes AFUDC.
- 11. The proposed settlement on cancelled capital projects reduces ratepayer exposure to the cost of those projects.
 - 12. It is premature to address land use, facilities and decommissioning issues.
- 13. PG&E has committed to take no action with any of the Diablo Canyon lands and facilities before completion of a future public stakeholder process.

Conclusions of Law

- 1. PG&E's proposal to retire Diablo Canyon Unit 1 in 2024 and Unit 2 in 2025 is reasonable, and should be approved.
- 2. The need for procurement to replace Diablo Canyon should be addressed in the IRP proceeding.
- 3. The greenhouse gas impacts of retiring Diablo Canyon and any procurement to replace Diablo Canyon should be addressed in the IRP proceeding.

- 4. Implementation of a retraining program for PG&E employees at Diablo Canyon is reasonable, and should be approved.
- 5. PG&E's proposed employee retention plan is not reasonable, and should not be approved.
- 6. A focused and cost-effective employee retention plan for employees at Diablo Canyon is reasonable, and should be approved.
- 7. Having ratepayers take the place of taxpayers in paying for government services is not reasonable, and should not be approved.
- 8. The proposed settlement on relicensing costs is reasonable, and should be approved.
- 9. The proposed settlement on cancelled capital projects is reasonable as modified, and should be approved.
- 10. Land use, facilities and decommissioning issues do not need to be addressed in this decision.
- 11. The proposed settlement on NRC license renewal cost meets the requirements of Rule 12.1.

ORDER

IT IS ORDERED that:

- 1. Pacific Gas and Electric Company's proposal to retire Diablo Canyon Unit 1 in 2024 and Unit 2 in 2025 is approved.
- 2. Pacific Gas and Electric Company's "Tranche 1" proposal to procure 2,000 gigawatt hours of energy efficiency is not approved.
- 3. Pacific Gas and Electric Company's withdrawn "Tranche 2" and "Tranche 3" replacement procurement proposals are not approved.

- 4. Replacement procurement will be addressed in the Integrated Resource Planning proceeding or a proceeding designated by the Integrated Resource Planning proceeding.
- 5. Greenhouse gas issues relating to the retirement of Diablo Canyon, including any replacement procurement, will be addressed in the Integrated Resource Planning proceeding or a proceeding designated by the Integrated Resource Planning proceeding.
- 6. Pacific Gas and Electric Company is authorized to recover \$11.3 million in rates for its Diablo Canyon employee retraining program.
- 7. Pacific Gas and Electric Company's proposed employee retention program is not approved.
- 8. Pacific Gas and Electric Company shall file a Tier 2 Advice Letter no later than six months from the date of this decision with a description of its employee retention plan
- 9. Pacific Gas and Electric Company is authorized to recover \$160.5 million in rates for a Diablo Canyon employee retention program.
- 10. Ratepayer funding of the Community Impacts Mitigation Program is not approved.
- 11. The proposed settlement on Nuclear Regulatory Commission (NRC) license renewal costs is approved, and PG&E is authorized to recover \$18.6 million in rates for its NRC license renewal costs.
- 12. The proposed settlement on cancelled capital projects is approved as modified.
- 13. Pacific Gas and Electric Company will take no action with respect to any of the lands and facilities, whether owned by the utility or a subsidiary, before completion of a future process including a public stakeholder process; there will

be local input and further Commission review prior to the disposition of Diablo Canyon facilities and surrounding lands.

14.	Application 16-08-006 is closed
14.	Application 16-08-006 is closed

This order is effective today.	
Dated	, at San Francisco, California.

Appendix A

******* PARTIES *********

Marc D. Joseph Attorney At Law

ADAMS, BROADWELL, JOSEPH & CARDOZO

601 GATEWAY BLVD., STE. 1000 SOUTH SAN FRANCISCO CA 94080

(650) 589-1660

MDJoseph@AdamsBroadwell.com

For: IBEW Local Union 1245 and The Coalition of California

Utility Employees

Evelyn Kahl Counsel

ALCANTAR & KAHL LLP 345 CALIFORNIA ST., STE. 2450 SAN FRANCISCO CA 94104

(415) 421-4143 EK@a-klaw.com

For: Energy Producers and Users Coalition

Nora Sheriff Counsel

ALCANTAR & KAHL LLP 345 CALIFORNIA ST., STE. 2450 SAN FRANCISCO CA 94104

(415) 421-4143

(415) 421-4143 nes@a-klaw.com

For: California Large Energy Consumers Association

Danielle O. Mills

Dir

AMERICAN WIND ENERGY ASSN CALIF CAUCUS

1970 MEADOW OAK LANE MEADOW VISTA CA 95722

(916) 320-7584

Danielle@RenewableEnergyStrat.com

For: American Wind Energy Association California Caucus

(AWEA)

Tv Tosdal

Of Counsel

BRAUN BALISING MCLAUGHLIN & SMITH, P.C.

915 L. STREET, SUITE 1270 SACRAMENTO CA 95814

(916) 682-9702 Ty@TosdalLaw.com

For: City of Lancaster

Scott Blaising

Counsel

BRAUN BLAISING SMITH WYNNE P.C.

915 L STREET, SUITE 1480

SACRAMENTO CA 95814

(916) 712-3961

Blaising@Braunlegal.com

For: Silicon Valley Clean Energy

Kellie Smith

Policy Dir.

CAL. ENERGY EFFICIENCY INDUSTRY COUNCIL

1535 FARMERS LANE, SUITE 312

SANTA ROSA CA 95405

(707) 480-1844

Policy@EfficiencyCouncil.org

For: California Energy Efficiency Industry Council

Barbara Hale

President

CALIFORNIA COMMUNITY CHOICE ASSOCIATION

1125 TAMALPAIS AVE.

SAN RAFAEL CA 94901

info@cal-cca.org

For: California Community Choice Association (CalCCA)

Brad Heavner, Policy Dir.

CALIFORNIA SOLAR ENERGY INDUSTRIES

1107 9TH STREET, NO.820

SACRAMENTO CA 95814

(415) 328-2683

Brad@Calseia.org

For: California Solar Energy Industries Association

0,

Gene Nelson, Ph.D., Co-Government Liaison

CALIFORNIANS FOR GREEN NUCLEAR POWER

1375 EAST AVE, STE. 103 NO. 523

ARROYO GRANDE CA 93420

(805) 363-4697

Liaison@CGNP.org

For: Californians for Green Nuclear Power

Sam Blakeslee, Ph.D., Dir

CENTRAL COAST WAVE ENERGY HUB

1530 BROAD STREET

SAN LUIS OBISPO CA 93401

(805) 234-7313

Samuel@Blakeslee-Blakeslee.com

For: Central Coast Wave Energy Hub

Austin M. Yang Deputy City Attorney CITY AND COUNTY OF SAN FRANCISCO 1 DR. CARLTON B. GOODLETT PL, RM 234 SAN FRANCISCO CA 94102-4682 (415) 554-6761

Austin.Yang@sfgov.org

For: City and County of San Francisco

David P. Lowrey Director, Regulatory Strategy COMVERGE, INC. 999 18TH STREET, SUITE 2300 DENVER CO 80202 (626) 260-2698 DLowrey@Comverge.com

For: Comverge, Inc. (Joint DR Parties)

Jennifer A. Chamberlin Exe Dir - Mrkt Development / Caiso **CPOWER** 2633 WELLINGTON COURT CLYDE CA 94520 (925) 332-5960 JAC@CPowerEnergyManagement.com For: CPower (Joint DR Parties)

Vidhya Prabhakaran Attorney DAVIS WRIGHT & TREMAINE LLP 505 MONTGOMERY STREET, SUITE 800 SAN FRANCISCO CA 94111 (415) 276-6568 VidhyaPrabhakaran@dwt.com For: South San Joaquin Irrigation District

Vidhya Prabhakaran Attorney DAVIS WRIGHT TREMAINE LLP 505 MONTGOMERY ST., STE. 800 SAN FRANCISCO CA 94111-6533 (415) 276-6500 VidhyaPrabhakaran@dwt.com For: SolarCity Corporation

Patrick Ferguson Attornev DAVIS WRIGHT TREMAINE, LLP EMAIL ONLY EMAIL ONLY CA 00000 (415) 276-6500 PatrickFerguson@dwt.com For: Peninsula Clean Energy

Ann L. Trowbridge Attorney At Law DAY CARTER & MURPHY LLP 3620 AMERICAN RIVER DRIVE, STE. 205 SACRAMENTO CA 95864 (916) 246-7303 ATrowbridge@DayCarterMurphy.com For: California Clean DG Coalition

John W. Leslie Attorney DENTONS US LLP 4655 EXECUTIVE DRIVE, SUITE 700 SAN DIEGO CA 92121 (619) 699-2536 John.Leslie@Dentons.com For: Shell Energy North America (US), L.P.

Daniel W. Douglass Attorney DOUGLASS & LIDDELL 4766 PARK GRANADA, STE. 209 **WOODLAND HILLS CA 91302** (818) 961-3001 douglass@energyattorney.com For: Direct Access Customer Coalition (DACC)

Donald C. Liddell, Pc Counsel DOUGLASS & LIDDELL 2928 2ND AVENUE SAN DIEGO CA 92103 (619) 993-9096 liddell@EnergyAttorney.com For: California Energy Storage Alliance (CESA)

Gregory Klatt, Attorney **DOUGLASS & LIDDELL** 411 E. HUNTINGTON DRIVE, STE. 107-356 ARCADIA CA 91006 (626) 802-5733 Klatt@EnergyAttorney.com For: San Luis Coastal Unified School District

Matthew Vespa Attorney EARTHJUSTICE, CALIF. OFFICE 50 CALIFORNIA STREET, STE. 500 SAN FRANCISCO CA 94111 (415) 217-2000 MVespa@Earthjustice.org For: Sierra Club

Andrew B. Brown, Attorney At Law ELLISON SCHNEIDER & HARRIS LLP 2600 CAPITOL AVENUE, SUITE 400 SACRAMENTO CA 95816-5905 (916) 447-2166

abb@eslawfirm.com

For: Alliance for Retail Energy Market (AreM)

Carolyn M. Kehrein, Consultant **ENERGY MANAGEMENT SERVICES** 2602 CELEBRATION WAY **WOODLAND CA 95776** (530) 668-5600 cmkehrein@ems-ca.com

For: Energy Users Forum

Erika Diamond **ENERGYHUB** 232 3RD STREET, SUITE 201 **BROOKLYN NY 11215** (718) 522-7051 diamond@energyhub.net For: EnergyHub (Joint DR Parties)

Mona Tierney-Lloyd, Sr. Dir., Western Regulatory Affairs ENERNOC, INC. **PO BOX 378** CAYUCOS CA 93430 (805) 995-1618 MTierney-Lloyd@enernoc.com For: EnerNOC, Inc. (Joint DR Parties)

Dan Jacobson Legislative Dir ENVIRONMENT CALIFORNIA 3435 WILSHIRE BLVD., STE. 385 LOS ANGELES CA 90010 (916) 446-8062 X305 DJacobson@EnvironmentCalifornia.org For: Environment California

Larissa Koehler Senior Attorney ENVIRONMENTAL DEFENSE FUND 123 MISSION STREET, 28TH FLOOR SAN FRANCISCO CA 94105 (415) 293-6093 lkoehler@edf.org For: Environmental Defense Fund

Kara A. Woodruff, J.D. Founder FRIENDS OF WILD CHERRY CANYON 1163 PISMO ST. SAN LUIS OBISPO CA 93401 (805) 440-6650 KaraSlo@Charter.net For: Friends of Wild Cherry Canyon

Mark Shahinian President **FUTURE GRID COALITION** 15 LAPIDGE STREET, APT. 2 SAN FRANCISCO CA 94110 (917) 902-5721 Mark.Shahinian@FutureGridCoalition.org

For: Future Grid Coalition

Brian T. Cragg Attorney GOODIN, MACBRIDE, SQUERI & DAY, LLP 505 SANSOME STREET, SUITE 900 SAN FRANCISCO CA 94111 (415) 392-7900 BCragg@GoodinMacBride.com For: Independent Energy Producers Association

Megan Somogyi Attorney GOODIN, MACBRIDE, SQUERI, & DAY, LLP 505 SANSOME ST., STE. 900 SAN FRANCISCO CA 94111 (415) 392-7900 MSomogyi@GoodinMacBride.com For: County of San Luis Obispo

Gregory Morris
Director
GREEN POWER INSTITUTE
2039 SHATTUCK AVENUE, STE 402
BERKELEY CA 94704
(510) 644-2700
GMorris@emf.net
For: Green Power Institute

Laurence G. Chaset Counsel KEYES & FOX LLP 436 14TH STREET, STE. 1305 OAKLAND CA 94612 (510) 314-8386 LChaset@kfwLaw.com For: World Business Academy

Tim Mason
Policy Director
LARGE-SCALE SOLAR ASSOCIATION
EMAIL ONLY
EMAIL ONLY CA 00000
(510) 812-1416
Tim@LargeScaleSolar.org
For: Large-Scale Solar Association

Alvin S. Pak
Attorney At Law
LAW OFFICES OF ALVIN S. PAK
827 JENSEN COURT
ENCINITAS CA 92024
(619) 209-1865
Apak@AlPakLaw.com
For: Alliance for Nuclear Responsibility (A4NR)

Megan M. Myers, Attorney LAW OFFICES OF SARA STECK MYERS 122 - 28TH AVENUE SAN FRANCISCO CA 94121 (415) 994-1616 MeganMMyers@yahoo.com For: Geothermal Energy Association (GEA)

--

Sara Steck Myers, Attorney At Law LAW OFFICES OF SARA STECK MYERS 122 - 28TH AVENUE SAN FRANCISCO CA 94121 (415) 387-1904 ssmyers@att.net For: Center for Energy Efficiency and Renewab

For: Center for Energy Efficiency and Renewable Technologies (CEERT)

Shawn Marshall, Director LEAN ENERGY US PO BOX 961 MILL VALLEY CA 94941 (415) 888-8007 SMarshall@LeanEnergyUS.org For: Lean Energy US

Frank R. Lindh, Attorney At Law 340 SANTA MARGARITA SAN RAFAEL CA 94901 (415) 596-3931 FrankRichLindh@gmail.com For: Friends of the Earth (FOE)

Michael Callahan, Reg. Counsel MARIN CLEAN ENERGY EMAIL ONLY EMAIL ONLY CA 00000 (415) 464-6045 MCallahan@MCECleanEnergy.org For: Marin Clean Energy (MCE)

Steven R. Meyers, Attorney
MEYERS NAVE
555 12TH STREET, STE. 1500
OAKLAND CA 94607
(510) 808-2100
SMeyers@MeyersNave.com
For: City of San Luis Obispo, Pismo Beach, Paso Robles, Arroyo Grande, Morro Bay and Atascadero.

Ralph Cavanagh Counsel NATURAL RESOURCES DEFENSE COUNCIL 111 SUTTER STREET, 21/F SAN FRANCISCO CA 94104

(415) 875-6100

R Cavanagh@nrdc.org

For: Natural Resources Defense Council

Matthew Duesterberg Ceo OHMCONNECT, INC. 350 TOWNSEND ST., STE. 210 SAN FRANCISCO CA 94107 (404) 881-8659

Matt@ohmConnect.com For: OhmConnect, Inc.

William V. Manheim

Attorney

PACIFIC GAS & ELECTRIC COMPANY LAW DEPT. 77 BEALE STREET / PO BOX 7442 (B30A)

SAN FRANCISCO CA 94120

(415) 973-6628 wvm3@pge.com

For: Pacific Gas and Electric Company

Charles R. Middlekauff
PACIFIC GAS AND ELECTRIC COMPANY
LAW DEPT.
77 BEALE STREET, B30A / BOX 7442
SAN FRANCISCO CA 94105
(415) 973-6971
CRMd@pge.com
For: Pacific Gas and Electric Company

Frank Jablonski Attorney PROGRESSIVE LAW GROUP, LLC

354 W. MAIN STREET MADISON WI 53703

(608) 258-8511

FrankJ@ProgressiveLaw.com For: Environmental Progress

Marcie Milner

Vp - Regulatory Affairs

SHELL ENERGY NORTH AMERICA (US), L.P.

4445 EASTGATE MALL, SUITE 100

SAN DIEGO CA 92121

(858) 526-2106

marcie.milner@shell.com

For: Shell Energy North America (US), L.P.

Steven S. Shupe

General Counsel

SONOMA CLEAN POWER AUTHORITY

50 SANTA ROSA AVE., 5TH FL.

SANTA ROSA CA 95404

(707) 890-8485

SShupe@SonomaCleanPower.org

For: Sonoma Clean Power Authority

Matthew Freedman, Staff Attorney THE UTILITY REFORM NETWORK 785 MARKET STREET, 14TH FL SAN FRANCISCO CA 94103 (415) 929-8876 X-308

matthew@turn.org

For: TURN

Laura J. Tudisco

Legal Division

505 Van Ness Avenue, RM. 5032

San Francisco CA 94102 3298

(415) 703-2164

ljt@cpuc.ca.gov

For: ORA

Sabrina D. Venskus, Attorney

VENSKUS & ASSOCIATES P.C.

603 WEST OJAI AVE., STE. F

OJAI CA 93023

(805) 272-8628

venskus@lawsv.com

For: San Luis Obispo Mothers for Peace, Inc.

Jean Merrigan

WOMEN'S ENERGY MATTERS

PO BOX 2615

MARTINEZ CA 94553

(925) 957-6070

jnmwem@gmail.com

For: Women's Energy Matters

****** STATE EMPLOYEE *******

Peter V. Allen Administrative Law Judge Division RM. 5022 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-2195 pva@cpuc.ca.gov

Daniel Buch Office of Ratepayer Advocates AREA 4-A 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-2292 db1@cpuc.ca.gov

Truman L. Burns Office of Ratepayer Advocates RM. 4205 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-2932 txb@cpuc.ca.gov

Leuwam Tesfai Energy CALIFORNIA PUBLIC UTILITIES COMMISSION EMAIL ONLY EMAIL ONLY CA 00000 (415) 703-2403 Leuwam.Tesfai@cpuc.ca.gov

David Peck CPUC - EXEC EMAIL ONLY EMAIL ONLY CA 00000 (415) 703-1213 dbp@cpuc.ca.gov

Suzanne Casazza Energy Division 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-5906 sc8@cpuc.ca.gov

Radu Ciupagea Office of Ratepayer Advocates RM. 4104 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-5235 rc5@cpuc.ca.gov Eric Greene Energy Division AREA 4-A 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-5560 eg1@cpuc.ca.gov

Mea Halperin Office of Ratepayer Advocates 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-1368 mh3@cpuc.ca.gov

Iryna Kwasny Legal Division RM. 4107 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-1477 iak@cpuc.ca.gov

Diana L. Lee Legal Division RM. 4107 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-4342 dil@cpuc.ca.gov

Dina S. Mackin Energy Division AREA 4-A 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-2125 dm1@cpuc.ca.gov

Rachel Peterson Executive Division AREA 4-A 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 757-7844 rp1@cpuc.ca.gov

Robert M. Pocta Office of Ratepayer Advocates RM. 4205 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-2871 rmp@cpuc.ca.gov

Terrie D. Prosper Executive Division RM. 5301 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-2160 tdp@cpuc.ca.gov

James Ralph Executive Division RM. 5037 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-4673 jr8@cpuc.ca.gov

Sean A. Simon Executive Division AREA 4-A 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-3791 svn@cpuc.ca.gov

Clayton K. Tang Office of Ratepayer Advocates RM. 4205 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-2728 ckt@cpuc.ca.gov For: ORA

Sarah R. Thomas Legal Division RM. 5033 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-2310 srt@cpuc.ca.gov

David Zizmor Energy Division 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-1575 dz1@cpuc.ca.gov

********* INFORMATION ONLY *********

Gerald Lahr ABAG PUBLICLY OWNED ENERGY RESOURCES 101 8TH STREET (P.O. BOX 2050) OAKLAND CA 94607 (510) 464-7908 jerryl@abag.ca.gov

Mila A. Buckner
Attorney
ADAMS BROADWELL JOSEPH & CARDOZO
601 GATEWAY BLVD., STE. 1000
SOUTH SAN FRANCISCO CA 94080
(650) 589-1660
MBuckner@AdamsBroadwell.com

James S. Adams 9394 MIRA DEL RIO DRIVE SACRAMENTO CA 95827 (916) 361-0606 jsadams4910@yahoo.com

Donald Brookhyser Attorney At Law ALCANTAR & KAHL LLP 345 CALIFORNIA STREET, SUITE 2450 SAN FRANCISCO CA 94104 (415) 421-4143 deb@a-klaw.com For: Energy Producers and Users Coalition

Nora Sheriff
Counsel
ALCANTAR & KAHL LLP
345 CALIFORNIA ST., STE. 2450
SAN FRANCISCO CA 94104
(415) 421-4143
nes@a-klaw.com

For: California Large Energy Consumers Association

Amie Burkholder ALCANTAR & KAHL, LLP 345 CALIFORNIA STREET, SUITE 2450 SAN FRANCISCO CA 94104 (415) 421-4143 filings@a-klaw.com

Mike Cade Industry Specialist ALCANTAR & KAHL, LLP EMAIL ONLY EMAIL ONLY OR 00000 (503) 402-8711 wmc@a-klaw.com

David Jay Weisman
ALLIANCE FOR NUCLEAR RESPONSIBILITY
EMAIL ONLY
EMAIL ONLY CA 00000
DavidJayWeisman@gmail.com

Rochelle Becker Executive Director ALLIANCE FOR NUCLEAR RESPONSIBILITY EMAIL ONLY EMAIL ONLY CA 93406 (858) 337-2703 Rochelle@A4NR.org

Jerimiah Booream
Power And Utilities Research
BANK OF AMERICA MERRILL LYNCH
ONE BRYANT PARK
NEW YORK NY 10036
(646) 855-2109
jerimiah.booream@baml.com

Josephine Moore Power And Utilities Research BANK OF AMERICA MERRILL LYNCH ONE BRYANT PARK NEW YORK NY 10036 (646) 855-1470 josephine.moore@baml.com

Julien Dumoulin-Smith
Head Of Us Pwr, Utilities & Alt Energy
BANK OF AMERICA MERRILL LYNCH
ONE BRYANT PARK
NEW YORK NY 10036
(646) 855-5855
julien.dumoulin-smith@baml.com

Nicholas Campanella Power And Utilities Research BANK OF AMERICA MERRILL LYNCH ONE BRYANT PARK NEW YORK NY 10036 (646) 743-2122 nicholas.campanella@baml.com

Barbara Barkovich Consultant BARKOVICH & YAP EMAIL ONLY EMAIL ONLY CA 00000 (707) 937-6203 Barbara@BarkovichAndYap.com For: California Large Energy Consumers Camille Stough, Esq.
BRAUN BLAISING MCLAUGHLIN & SMITH PC
915 L STREET, STE. 1480
SACRAMENTO CA 95814
(415) 314-8312
Stough@BraunLegal.com
For: Silicon Valley Clean Energy

Regulatory Clerk BRAUN BLAISING SMITH WYNNE 915 L STREET, STE. 1480 SACRAMENTO CA 95814 Regulatory@BraunLegal.com

S. David Freeman C/O FRIENDS OF THE EARTH 1100 15TH STREET, NW, 11TH FLOOR WASHINGTON DC 20005 (310) 902-2147 greencowboysdf@gmail.com

James H. Caldwell, Jr. EMAIL ONLY EMAIL ONLY CA 00000 JHCaldwellJr@gmail.com

Kavya Balaraman CALIFORNIA ENERGY MARKETS EMAIL ONLY EMAIL ONLY CA 00000 (347) 342-6484 kavya@newsdata.com

Matthew Barmack Dir. - Market & Regulatory Analysis CALPINE CORPORATION 4160 DUBLIN BLVD., SUITE 100 DUBLIN CA 94568 (925) 557-2267 BarmackM@calpine.com

Liz Anthony Ph.D Director CENTER FOR ENERGY EFFICIENCY 1100 11TH STREET, STE. 311 SACRAMENTO CA 95814 (916) 442-7785 liz@CEERT.org

Jeanne M. Sole
Deputy City Attorney
CITY AND COUNTY OF SAN FRANCISCO
1 DR. CARLTON B. GOODLETT PLACE, RM. 234
SAN FRANCISCO CA 94102-4682
(415) 554-4619
jeanne.sole@sfgov.org

J. Christine Dietrick
City Attorney
CITY OF SAN LUIS OBISPO
990 PALM STREET, ROOM 10
SAN LUIS OBISPO CA 93401
(805) 781-7140
CDietrick@slocity.org
For: City of San Luis Obispo

Tam Hunt COMMUNITY RENEWABLES SOLUTIONS, LLC EMAIL ONLY EMAIL ONLY CA 00000-0000 (805) 214-6150 tam@communityRenewables.biz

Howard Choy
General Mgr.
COUNTY OF LOS ANGELES
OFFICE OF SUSTAINABILITY
1100 NORTH EASTERN AVENUE
LOS ANGELES CA 90063
(323) 267-2006
HChoy@isd.lacounty.gov

For: County of Los Angeles Office of Sustainability

DAVIS WRIGHT TREMAINE LLP EMAIL ONLY EMAIL ONLY CA 00000 (415) 276-6500 dwtcpucdockets@dwt.com

Emily P. Sangi Attorney DAVIS WRIGHT TREMAINE LLP 505 MONTGOMERY ST., STE. 800 SAN FRANCISOC CA 94111-6533 (415) 276-6500 EmilySangi@dwt.com For: SolarCity Corp. Katie Jorrie DAVIS WRIGHT TREMAINE, LLP EMAIL ONLY EMAIL ONLY CA 00000 (415) 276-6500 katiejorrie@dwt.com

Constantine Lednev
Associate-Us Utilities & Power Research
DEUTSCHE BANK SECURITIES INC.
60 WALL STREET
NEW YORK CITY NY 10005
(212) 250-2591
Constantine.Lednev@db.com

Jonathan Arnold DEUTSCHE BANK SECURITIES INC. 60 WALL STREET NEW YORK NY 10005 (212) 250-3182 jonathan.arnold@db.com

Donald H. Korn Principal DHK ASSOCIATES 355 N SAN ANTONIO ROAD LOS ALTOS CA 94022 (650) 941-1055 dhkorn@earthlink.net

DIABLO CANYON INDEPENDENT SAFETY COMM 857 CASS STREET, STE. D MONTEREY CA 93940 Info@dcisc.org

John L. Geesman Attorney DICKSON GEESMAN LLP EMAIL ONLY EMAIL ONLY CA 94612 (510) 899-4670 John@DicksonGeesman.com

For: Alliance for Nuclear Responsibility

Gregory Klatt DOUGLASS & LIDDELL 4766 PARK GRANADA, STE. 209 CALABASAS CA 91302 (818) 961-3002 klatt@energyattorney.com

Sean M. Neal Attorney

DUNCAN WEINBERG GENZER & PEMBROKE, P.C.

915 L STREET, STE. 1410 SACRAMENTO CA 95814

(916) 498-0121 smn@dwgp.com

For: Imperial Irrigation District (IID) and Transmission Agency

of Northern California (TANC)

Michael Postar Attorney

DUNCAN WEINBERG, GENZER & PEMBROKE

EMAIL ONLY

EMAIL ONLY DC 00000

(202) 467-6370 mrp@dwgp.com

Nkechi Ogbue

Mgr - Regulatory Affairs

ECOBEE, INC.

250 UNIVERSITY AVE. SUITE 400

TORONTO ON M5H 3E5

CANADA (647) 531-2342

NkechiO@ecobee.com

Ronald Liebert

Attorney At Law

ELLISON SCHNEIDER HARRIS & DONLAN LLP

2600 CAPITOL AVENUE, STE. 400

SACRAMENTO CA 95816

(916) 447-2166

RL@eslawfirm.com

For: California Manufacturers & Technology Association

(CMTA)

Cynthia Mitchell

ENERGY ECONOMICS, INC.

EMAIL ONLY

EMAIL ONLY NV 00000

(775) 324-5300

CynthiaKMitchell@gmail.com

Jayant Kairam

California Dir. - Clean Energy

ENVIRONMENTAL DEFENSE FUND 123 MISSION STREET, 28TH FL.

SAN FRANCISCO CA 94105

(512) 691-3456

JKairam@edf.org

Kelly Crandall EO RESEARCH, LLC

1580 LINCOLN STEET, SUITE 880

DENVER CO 80203

(720) 573-8109

CPUCdockets@eq-research.com

Alexey Orkin

Consultant

FLYNN RESOURCE CONSULTANTS INC

5440 EDGEVIEW DRIVE

DISCOVERY BAY CA 94505

(301) 787-6204

AlexeyOrkin@FlynnRCI.com

Barry R. Flynn

FLYNN RESOURCE CONSULTANTS, INC.

5440 EDGEVIEW DRIVE

DISCOVERY BAY CA 94505

(888) 634-7516

BRFlynn@Flynnrci.com

Pushkar Wagle

FLYNN RESOURCE CONSULTANTS, INC.

2900 GORDON AVENUE, STE. 100-3

SANTA CLARA CA 95051

(888) 634-3339

PushkarWagle@flynnrci.com

Damon Moglen

Sr. Advisor - Climate & Energy Project

FRIENDS OF THE EARTH

1100 15TH STREET NW, 11TH FL.

WASHINGTON DC 20005

(202) 783-7400

DMoglen@foe.org

Rhonda Mills

Western Issues Rep

GEOTHERMAL ENERGY ASSOCIATION

EMAIL ONLY

EMAIL ONLY CA 00000

Rhonda@rtides.com

John Mcintyre

Attorney

GOODIN, MACBRIDE, SQUERI & DAY, LLP

505 SANSOME ST., STE. 900

SAN FRANCISCO CA 94111

(415) 392-7900

JMcIntyre@GoodinMacBride.com

Lujuana Medina Regulatory Mgr.

ICF

601 W. 5TH STREET, STE. 900 LOS ANGELES CA 90071

(213) 312-1781

Lujuana.Medina@ICF.com

Jamie Asbury

Deputy Energy Mgr., Bus / Regulartory IMPERIAL IRRIGATION DISTRICT 333 E. BARIONI BLVD. IMPERIAL CA 92251

(760) 482-3379 jlasbury@iid.com

Robert A. Laurie

Assistant General Counsel - Energy IMPERIAL IRRIGATION DISTRICT

333 E.BARIONI BLVD. IMPERIAL CA 92251 (760) 335-3640

RALaurie@iid.com

Curt Barry Senior Writer

INSIDE WASHINGTON PUBLISHERS

EMAIL ONLY

EMAIL ONLY CA 00000

(916) 449-6171

cbarry@iwpnews.com

Jeff Hirsch

JAMES J. HIRSCH & ASSOCIATES

12185 PRESILLA ROAD

SANTA ROSA VALLEY CA 93012-9243

(805) 553-9000

James.J.Hirsch@gmail.com

Kathy Treleven

KATHY TRELEVEN CONSULTING

103 BANDOL CT. SAN RAMON CA 94582

(925) 719-3749

KTreleven@gmail.com

Tim Lindl Counsel

KEYES & FOX LLP

436 14TH STREET, STE. 1305

OAKLAND CA 94612

(510) 314-8385

TLindl@kfwlaw.com

Jason Caudle

LANCASTER CHOICE ENERGY

44933 FERN AVE.

LANCASTER CA 93534

JCaudle@CityofLancaster.org

Danielle O. Mills

Sr. Policy Advisor

LARGE-SCALE SOLAR ASSOCIATION

EMAIL ONLY

EMAIL ONLY CA 00000

(916) 320-7584

Danielle@LargeScaleSolar.org

Shannon Eddy

LARGE-SCALE SOLAR ASSOCIATION

EMAIL ONLY

EMAIL ONLY CA 00000

(916) 731-8371

eddyconsulting@gmail.com

For: Large-Scale Solar Association

Irene K. Moosen

Attorney At Law

LAW OFFICE OF IRENE K. MOOSEN

53 SANTA YNEZ AVENUE

SAN FRANCISCO CA 94112

(415) 587-7343

irene@igc.org

For: Local Government Sustainable Energy Coalition (LGSEC)

Mce Regulatory

MARIN CLEAN ENERGY

EMAIL ONLY

EMAIL ONLY CA 00000

(888) 632-3674

regulatory@mceCleanEnergy.org

Dawn Weisz

MARIN CLEAN ENERGY 1125 TAMALPAIS AVE. SAN RAFAEL CA 94901

DWeisz@mceCleanEnergy.org

Nathaniel Malcolm

Regulatory Law Clerk MARIN CLEAN ENERGY 1125 TAMALPAIS AVE.

SAN RAFAEL CA 94901

(415) 464-6048

NMalcolm@mceCleanEnergy.org

Shalini Swaroop

Regulatory & Legislative Counsel

MARIN CLEAN ENERGY

EMAIL ONLY

EMAIL ONLY CA 00000

(415) 464-6040

SSwaroop@mceCleanEnergy.org

Susan Griffin Paralegal

MEYERS NAVE

555 12TH STREET, STE. 1500

OAKLAND CA 94607

(510) 808-2055

sgriffin@meyersnave.com

Brandon Halter

Attorney

MEYERS, NAVE, RIBACK, SILVER & WILSON

555 12TH STREET, STE. 1500

OAKLAND CA 94607

(510) 808-2059

BHalter@MeyersNave.com

Britt Strottman

Attorney At Law

MEYERS, NAVE, RIBACK, SILVER & WILSON

555 12TH STREET, STE. 1500

OAKLAND CA 94607

(510) 808-2083

bstrottman@meyersnave.com

Sarah M. Keane

Attorney

MORGAN LEWIS & BOCKIUS, LLP

ONE MARKET, SPEAR STREET TOWER

SAN FRANCISCO CA 94105

(415) 442-1000

sarah.keane@morganlewis.com

Dustin C. Elliott

Attorney

MORRISON & FOERSTER LLP

425 MARKET STREET

SAN FRANCISCO CA 94105

(415) 268-6286

DElliott@MoFo.com

MRW & ASSOCIATES LLC

EMAIL ONLY

EMAIL ONLY CA 00000

(510) 834-1999

MRW@mrwAssoc.com

Peter Miller

NATURAL RESOURCES DEFENSE COUNCIL

EMAIL ONLY

EMAIL ONLY CA 00000

(415) 875-6100

pmiller@nrdc.org

David Cohen

NAVIGANT CONSULTING

2855 SW SCENIC DRIVE

PORTLAND OR 97225

(503) 708-7852

DCohen@navigant.com

Martin A. Mattes

Attorney

NOSSAMAN LLP

50 CALIFORNIA STREET, 34TH FL.

SAN FRANCISCO CA 94111

(415) 398-3600

mmattes@nossaman.com

Brian Kooiman

OHMCONNECT, INC.

350 TOWNSEND ST., STE. 210

SAN FRANCISCO CA 94107

(415) 697-1271

Brian@ohmConnect.com

M. Grady Mathai-Jackson

Attorney

PACIFC GAS & ELECTRIC COMPANY

EMAIL ONLY

EMAIL ONLY CA 00000

(415) 973-3386

MGML@pge.com

Shilpa Ramaiya

PACIFIC GAS & ELECTRIC COMPANY

77 BEALE STREET, 9BA

SAN FRANCISCO CA 94105

(415) 973-3186

SRRD@pge.com

PACIFIC GAS AND ELECTRIC COMPANY

REGULATORY FILE ROOM

PO BOX 7442

SAN FRANCISCO CA 94120

(415) 973-4377

cpuccases@pge.com

Case Coordination
PACIFIC GAS AND ELECTRIC COMPANY
EMAIL ONLY
EMAIL ONLY CA 94177
RegRelCPUCCases@pge.com

Conor Doyle Regulatory Affairs PACIFIC GAS AND ELECTRIC COMPANY PO BOX 770000, MC B23A SAN FRANCISCO CA 94177 (415) 973-7817 JCDT@pge.com

Deanna Toy PACIFIC GAS AND ELECTRIC COMPANY EMAIL ONLY EMAIL ONLY CA 00000 dct4@pge.com

William Toman
PACIFIC MARINE RENEWABLES, LLC
391 SOUTH COURT ST.
LOS OSOS CA 93402
(707) 731-9261
WITomanium@gmail.com

Jan Pepper PENINSULA CLEAN ENERGY 455 COUNTY CENTER, 4TH FL. REDWOOD CITY CA 94063 JPepper@PeninsulaCleanEnergy.com For: CalCCA

Luisa F. Elkins Sr. Associate PROCOPIO, CORY, HARGREAVES & SAVITCH LLP 1117 S CALIFORNIA AVE., STE. 200 PALO ALTO CA 94304 (650) 645-9032 Luisa.Elkins@Procopio.com

Sue Mara Consultant RTO ADVISORS, LLC 164 SPRINGDALE WAY REDWOOD CITY CA 94062 (415) 902-4108 sue.mara@RTOAdvisors.com Emma D. Salustro Attorney SAN DIEGO GAS & ELECTRIC COMPANY 8330 CENTURY PARK COURT, CP32D SAN DIEGO CA 92123 (858) 654-1861 ESalustro@SempraUtilities.com

Brian Stevens Cleanpowersf-Power Enterprise SAN FRANCISCO PUBLIC UTILITIES COMM. 525 GOLDEN GATE AVE., 7TH FL. SAN FRANCISCO CA 94102 (415) 554-3439 BStevens@sfwater.org

James Hendry Utilities Specialist SAN FRANCISCO PUBLIC UTILITIES COMM. 525 GOLDEN GATE AVE., 7TH FLOOR SAN FRANCISCO CA 94102-3220 (415) 554-1526 jhendry@sfwater.org

Clean Power Sf - Power Enterprise SAN FRANCISCO PUC 525 GOLDEN GATE AVE. SAN FRANCISCO CA 94102 (415) 554-3439 RegCleanPowers@SFWater.org

Lauren Alper SAN FRANCISCO PUC 525 GOLDEN GATE AVENUE, 7TH FLOOR SAN FRANCISCO CA 94103 LAlper@sfwater.org

Ellen Sheffer Trustee SAN LUIS COASTAL UNIFIED SCHOOL DISTRICT EMAIL ONLY EMAIL ONLY CA 00000 esheffer@slcusd.org

Sherry Lewis
SAN LUIS OBISPO MOTHERS FOR PEACE, INC.
PO BOX 3608
SAN LUIS OBISPO CA 93403
Sherry.Lewis66@att.net

David A. Silberman General Counsel SAN MATEO COUNTY COUNSEL'S OFFICE 400 COUNTY CENTER, 6TH FL. REDWOOD CITY CA 94063 (650) 363-4749 DSilberman@smcgov.org For: Peninsula Clean Energy

Phillip Muller President SCD ENERGY SOLUTIONS 436 NOVA ALBION WAY SAN RAFAEL CA 94903 (415) 479-1710 PhilM@SCDenergy.com

Tom Habashi SILICON VALLEY CLEAN ENERGY EMAIL ONLY EMAIL ONLY CA 00000 TomH@SVCleanEnergy.org

Hilary Staver
Manager Regulatory & Legislative Affairs
SILICON VALLEY CLEAN ENERGY AUTHORITY
333 W. EL CAMINO REAL, STE. 290
SUNNYVALE CA 94087
(408) 721-5301
Hilary.Staver@SVCleanEnergy.org

Audra Hartmann Principal SMITH, WATTS & HARTMANN 925 L STREET, SUITE 220 SACRAMENTO CA 95814 (916) 446-5508 AHartmann@swmconsult.com

Neal Reardon Regulatory Affairs Manager SONOMA CLEAN POWER EMAIL ONLY EMAIL ONLY CA 00000 (707) 890-8488 NReardon@SonomaCleanPower.org

Case Administration SOUTHERN CALIFORNIA EDISON COMPANY 8631 RUSH STREET ROSEMEAD CA 91770 (626) 302-6906 Case.Admin@sce.com Walker A. Matthews, Iii Sr. Attorney SOUTHERN CALIFORNIA EDISON COMPANY 2244 WALNUT GROVE AVE. / PO BOX 800 ROSEMEAD CA 91770 (626) 302-6879 walker.matthews@sce.com

Steve Mccarty STEVEN MCCARTY AND ASSOCIATES 2460 LAVENDER DRIVER, SUITE 101 WALNUT CREEK CA 94596 (925) 330-4776 sjm001@sbcglobal.net

Alex Morris
Dir - Policy & Regulatory Affairs
STRATEGEN CONSULTING
2150 ALLSTON WAY, STE. 210
BERKELEY CA 94709
(310) 617-3441
amorris@strategen.com

Jin Noh Sr. Consultant STRATEGEN CONSULTING 2150 ALLSTON WAY, STE.210 BERKELEY CA 94709 (703) 507-8809 JNoh@Strategen.com

Yuliya Shmidt Executive Division RM. 4209 505 Van Ness Avenue San Francisco CA 94102 3298 (415) 703-2719 ys2@cpuc.ca.gov

Damon Franz Dir - Policy & Electricity Markets TESLA, INC. 444 DE HARO STREET, STE. 101 SAN FRANCISCO CA 94107 (415) 636-9341 DFranz@Tesla.com

Francesca Wahl Sr. Associate, Bus. Development TESLA, INC. 444 DE HARO STREET, STE. 101 SAN FRANCISCO CA 94107 (650) 435-0422 FWahl@Tesla.com

Hayley Goodson, Staff Attorney THE UTILITY REFORM NETWORK 785 MARKET ST., STE. 1400 SAN FRANCISCO CA 94103 (415) 929-8876 X360 hayley@turn.org

Kevin Kitz U.S. GEOTHERMAL, INC. 390 E. PARKCENTER BLVD., STE. 250 BOISE ID 83706 KKitz@USGeothermal.com

Laura Wisland, Sr. Energy Analyst UNION OF CONCERNED SCIENTISTS 500 12TH ST., STE. 340 OAKLAND CA 94607 (510) 809-1565 lwisland@ucsusa.org

Michael Cohen
Western States Power Systems Engineer
UNION OF CONCERNED SCIENTISTS
EMAIL ONLY
EMAIL ONLY CA 00000
(510) 809-1572
MCohen@ucsusa.org
For: Union of Concerned Scientists

Sarah Kozal, Attorney WESTERN ENERGY & WATER 500 CAPITOL MALL, STE. 2350 SACRAMENTO CA 95814 (916) 877-8872 SKozal@weawLaw.com

Robert Freehling, Consultant WOMENS ENERGY MATTER E-MAIL ONLY EMAIL ONLY CA 00000 rfreeh123@sbcglobal.net

Kevin Woodruff WOODRUFF EXPERT SERVICES 1127 - 11TH STREET, SUITE 514 SACRAMENTO CA 95814 (916) 442-4877 kdw@woodruff-expert-services.com Jerry B. Brown, Ph.D Director - Safe Energy Project WORLD BUSINESS ACADEMY 2020 ALAMEDA PADRE SERRA, STE. 135 SANTA BARBARA CA 93103 (805) 892-4600 JBBrown@gate.net

(End of Appendix A)