

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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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

Application 16-08-006
(Filed August 11, 2016)

WOMEN'S ENERGY MATTERS' REPLY COMMENTS ON PROPOSED DECISION

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Having reviewed the Opening Comments submitted by diverse parties on November 29th, Women's Energy Matters (WEM) offers the following Reply Comments:

REDUCED NEED FOR DIABLO CANYON SHOULD BE FULLY ACKNOWLEDGED

Throughout this proceeding WEM has presented facts and analysis demonstrating that California's clean energy policies, together with rapid growth of CCA's over the next few years, will (1) reduce the need for Diablo Canyon Power Plant before 2024/25; and (2) reduce GHG emissions.

In Opening Comments WEM stated that the record supports a finding of fact that:

"In the near future there will be a significantly reduced need for electric generation from DC, because of projected increases in energy efficiency, distributed generation, renewable generation, and customers moving to community choice aggregation (CCA) and direct address."

Some parties do not seem to accept the changing facts, and the danger of over-procurement. Over-procurement will lead to stranded costs that customers will have to pay, which, in turn, could put California's clean energy programs at risk. It makes no sense to "replace" power that is not needed; so before ordering procurement there should be a correct assessment of need.

CHANGING FACTS LIMIT THE NEED FOR "REPLACEMENT" PROCUREMENT

To evaluate need for Diablo Canyon (which is also the context for evaluating replacement need), PG&E modeled three scenarios for 2017, 2025, and 2030. *This had multiple key problems:*

1) There was no analysis for 7 interim years between 2017 and 2025, and for 4 interim years between 2025 and 2030. Therefore it is impossible to determine the correct amount and timing of any need, or even if there is a need for additional procurement.

2) Procurement of Tranche 1 Energy Efficiency takes place in the years 2019 to 2024, years for which no analysis was presented.

3) The situation for the interim period of 2018 to 2024 rapidly evolved during the past year, and changing facts have not been reflected in the record.

The decrease in PG&E's electricity sales from Community Choice Aggregation (CCA) will be equivalent to about double the size of Diablo Canyon, reducing PG&E's need for

electricity by more than half to about 35,000 gigawatt-hours per year by 2020-- affecting the period for which Tranche 1 applies.

PG&E's existing electricity supply commitments through contracts and direct ownership, includes annual supplies of a) about 20,000 gigawatt-hours of renewable energy through at least 2021, b) about 9,000 gigawatt-hours of large hydro for the foreseeable future, c) combined heat and power contracts of about 5,000 gigawatt-hour per year in 2017, decreasing to about 3000 gigawatt-hours in 2025, and d) the need for about 3,000 gigawatt-hours of natural gas power to balance load in the context of integrating renewable energy. These add up to about 35,000 gigawatt-hours of generation in 2020, which is very close to PG&E's likely demand for electricity generation. Then there is the 18,000 gigawatt-hours of generation from Diablo Canyon, additional to all of the above, which implies a huge generation surplus by 2020, certainly of most, and possibly of nearly all, of the electricity generation from the plant.

Therefore it is not clear if PG&E can use an additional 2,000 gigawatt-hours of energy efficiency for its bundled customers. If the Commission has not determined to retire Diablo Canyon by 2020, then it seems absurd to procure Tranche 1, because the surplus would be huge. But even if the plant retires early, the amount of generation seems very close to what PG&E may need in foreseeable circumstances. The numbers are close enough that it is difficult to say how much, if any, of Tranche 1 will fit in with PG&E's resource needs.

Because of the total lack of analysis in this proceeding for the years 2018 to 2024, and because the data we have suggests it is questionable whether PG&E has any additional need between now and 2025, it seems unwise to require procurement of exactly 2000 gigawatt-hours of efficiency between 2019 and 2025. This appears to be just an arbitrary back of the envelope number, put forward because it sounded harmless based on its apparently relatively small size. But this EE procurement proposal completely ignores the near term development of CCAs, and PG&E's existing resource commitments.

CONFUSION REGARDING "REPLACEMENT PROCUREMENT" FOR DIABLO

Another problem causing confusion is that there is no consistency in how parties define and quantify "replacement procurement for Diablo". Multiple concepts of what "replacement" of Diablo Canyon might mean have been presented in the course of this proceeding, including:

- a) replacing 100% of its annual 18,000 gigawatt-hours of energy with zero carbon sources;

- b) An ambiguous potentially lesser amount of gigawatt hours, presented in the original Joint Proposal's three tranches, where PG&E would only commit to a maximum 55% renewable energy after 2030 as the long-term "replacement";
- c) The revised Joint Proposal, with only 2000 gigawatt-hours of efficiency, and an undefined amount of replacement procurement deferred to the IRP, and
- d) insuring that greenhouse emissions do not increase as a result of the plant's retirement.

None of these concepts of "replacement for Diablo" have been adequately defined based on the record in this proceeding; none are consistent with the others; and little effort has been made to align any of these alternatives with existing or likely state policy.

The only attempt to accommodate Diablo "replacement" with state policy goals was in the original Tranche 3 procurement, which declared that the 55% target would "terminate on the earlier of 2045 or when superseded through implementation of an RPS requirement (or equivalent GHG reduction regulation) that exceeds 55 percent."¹ In other words, advances in state policy would alter the Diablo replacement, which makes sense if state policy is going to procure more clean energy than a "replacement" proposal. PG&E subsequently withdrew Tranche 2 and Tranche 3 from this proceeding.

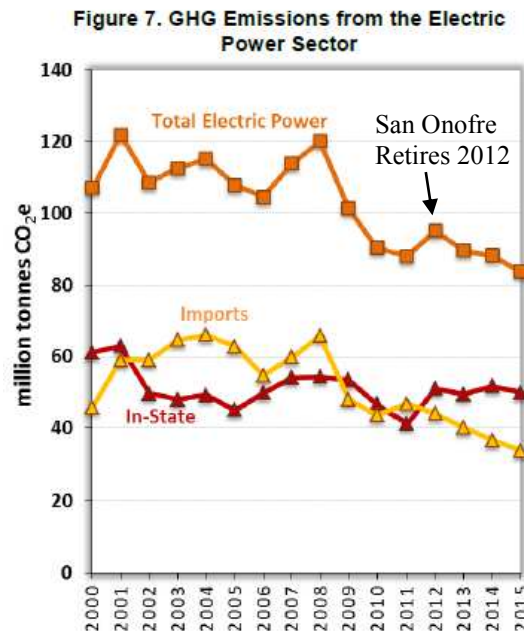
Furthermore, the state's existing policies are rapidly evolving, as evidenced by the CEC's November 8, 2017 decision calling for doubling of energy efficiency by 2030, and the IRP docket, which will decide on a statewide 2030 greenhouse gas target for the electricity sector that is likely to exceed a 55% RPS. It is also likely that SB 100 will return this year, which includes accelerating the 50% RPS to 2025, and increasing the 2030 RPS to 60%. All of these developments make analysis in this Diablo Canyon proceeding, and assumptions about procurement need in the Joint Proposal, obsolete.

GHG INCREASES RELATED TO NUCLEAR PLANT CLOSURE ARE LIMITED

NRDC claims, "The aftermath of the San Onofre shutdown amply demonstrates that closing a nuclear plant can result in a significant increase in greenhouse gas emissions, which

¹ Original Joint Proposal 2.4.2, p. 8

would undercut California's leadership on climate solutions and conflict with state policy."² They provide no analysis to support this claim. Electricity sector emissions increased in 2012, from 88 million tons to 95 million tons. However, the next year greenhouse gas emissions were back down near where they were before San Onofre retired. The Air Resources Board graph below that WEM included in testimony^{3,4} shows increase of electricity emissions in 2012 as a temporary blip, far from the gloom and doom that advocates of nuclear power claim, and some environmental groups fear.



WEM's testimony showed that three factors in 2012 increased greenhouse emissions: a) decreased hydropower due to draught, b) a temporary spike in demand, and c) retirement of San Onofre. Less than half the additional need for generation was from retirement of San Onofre, and the power was not entirely replaced by GHG emitting sources. If retirement of San Onofre had been the only change that year, then greenhouse emissions would only have increased 2 million tons. So, it is important to put retirement of a nuclear plant into the context of other changes.

² Comments of the Natural Resources Defense Council on the Administrative Law Judge's Proposed Decision, p. 3.

³ WEM Testimony, Attachment 1 report, "Clean Energy Replacement for California's Retiring Nuclear Plants", November 7, 2016, Robert Freehling, p. 19.

⁴ 2000-2015 Emissions Trend Report, Air Resources Board, 2017, pp. 6-7.

There has also been no determination of an appropriate metric for PG&E's greenhouse emissions. The state goal for reducing GHG emissions in the electricity sector will be established in the IRP Proceeding. In the IRP three GHG reduction targets have been modeled, and all three scenarios assume retirement of Diablo Canyon.

PG&E's absolute emissions (number of tons) will decrease 80% to 90% from 1990 because of several factors: a) the requirement to increase to 50% renewable energy by 2030; b) the requirement to double additional energy efficiency by 2030; c) growth of rooftop solar, which is forecast to triple in California by 2030; and d) half of PG&E's customers are projected to exit to CCAs.

ONGOING OVERSIGHT IS NEEDED

WEM recommends an ordering paragraph creating a procedure to monitor commercial viability and other issues related to Diablo Canyon during the years 2017 to 2025. This is important because the Proposed Decision sidesteps resolution of key issues in this proceeding by assigning them to other venues (the IRP, the Legislature, advice letter, etc.).

WEM recommends ordering PG&E to provide the Energy Division with twice-yearly reports, allowing the Commission to have a comprehensive view of issues arising from Diablo Canyon: PG&E's bundled sales and departing load, resource commitments, and need for replacement power, greenhouse emissions, employee retention and retraining, disposition of the land, status of community payments if any, and planning for plant contingencies that might affect the need for replacement power. While *WEM believes the growth of CCAs will obviate the need for PG&E to procure GHG-free resources to replace Diablo*, if there is a future need, PGE should be required to procure GHG-free resources to meet that contingency.

If the CPUC's Final Decision refers issues related to DCCP closure to the IRP proceeding, the EE proceeding, or any other proceeding, WEM recommends the Commission provide additional staff and resources to the ALJs who oversee those proceedings.

Dated: December 4, 2017

Respectfully submitted,

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