BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA


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

PROTEST OF SIERRA CLUB

MATTHEW VESPA
Sierra Club
2101 Webster Street, Suite 1300
Oakland, California 94612
Telephone: (415) 977-5753
Email: matt.vespa@sierraclub.org

Attorney for Sierra Club

Dated September 15, 2016
BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA


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

PROTEST OF SIERRA CLUB


I. INTRODUCTION

PG&E’s announcement that it will retire the Diablo Canyon Power Plant (“Diablo”) at the end of its license period provides the opportunity and lead time to deploy enough additional clean energy replacement resources to ensure greenhouse gas pollution will not increase at the time of Diablo’s retirement compared to a scenario where Diablo remained operational. Sierra Club strongly supports the Application’s stated goal of ensuring that “there is no increase in the use of fossil fuels” as a result of Diablo’s retirement.\(^1\) However, Sierra Club has significant concerns that the Application’s proposed greenhouse gas mitigation is illusory and could even move California backward in meeting its decarbonization objectives. The proposed energy efficiency procurement is likely duplicative of what would already be required under Senate Bill (“SB”) 350 and would be measured under a standard that takes credit for efficiency improvements that would occur in the absence of utility intervention. PG&E’s commitment to a 55 percent Renewables Portfolio Standard (“RPS”) by 2031 is not properly timed with the 2024

\(^1\) Application p. 2.
and 2025 retirement dates of Diablo’s Units, would likely already be required to meet California’s 2030 greenhouse gas reduction targets under SB 32, and comes with proposed changes to cost allocation rules that would needlessly frustrate future growth of Community Choice Aggregation (“CCA”).

For an Application with a stated goal of ensuring no increase in fossil fuel use, PG&E has failed to provide any analysis of the extent to which fossil fuel use will increase at the time Diablo Units 1 and 2 retire as compared to if these units continued operating. PG&E’s stated commitment to greenhouse gas-free replacement for Diablo must be meaningful. Meaningful greenhouse gas mitigation for Diablo are measures that go beyond existing requirements and that are properly timed to avoid an increase in fossil fuel use upon Diablo’s retirement. The Diablo Application does not meet this test.

To improve the Application and move California forward in meeting its 2030 greenhouse gas reduction requirements, PG&E should increase its RPS procurement for the December 31, 2024, compliance period from 40 to 50 percent, with 2030 RPS procurement correspondingly increasing from 50 to 60 percent, and with no changes to existing cost allocation methodologies for departing customers. The December 31, 2024, RPS compliance date is closely aligned with the retirement dates for Diablo Units 1 and 2. In addition, accelerating RPS deployment to achieve a 60 percent RPS by 2030 is consistent with PATHWAYS modelling on the measures necessary to meet California’s 2030 greenhouse gas target.

From its initial review, Sierra Club does not believe energy efficiency procurement should be part of the Application and should instead occur through the energy efficiency proceeding, where SB 350 targets will soon be set and where procurement will be held to more robust standards than contemplated under the Application. While the Application could be revised to require procurement of energy efficiency that is additional to efficiency obligations under SB 350, Sierra Club is concerned with the feasibility of procuring legitimate and cost-effective energy efficiency on top of the doubling of efficiency already required under SB 350. By limiting the carbon-free replacement contemplated in the Application to accelerated and increased RPS procurement, the Application’s greenhouse gas mitigation is simplified and provides greater assurances of additionality. Complementary measures, such as the potential need for additional energy storage and potential obligations of load serving entities outside of PG&E’s service territory, who may also benefit from Diablo’s participation in the CAISO
market, can be resolved in the Integrated Resource Plan proceeding.

Finally, the Application is silent on the fate of the “Diablo Lands,” over 12,000 acres surrounding Diablo properly described in the Application as “a unique and sensitive biome.”\(^2\) PG&E should be held to past commitments supporting permanent conservation of the Diablo Lands and include its conservation as part of the Application’s community benefits.

II. BACKGROUND: CALIFORNIA’S GREENHOUSE GAS REDUCTION TRAJECTORY

In 2005, former Governor Schwarzenegger issued Executive Order S-03-05, which set a target for California to reduce greenhouse gas emissions to 1990 levels by 2020 and 80 percent below 1990 levels by 2050. At the time it was issued, the Executive Order tracked scientific consensus on the emissions reduction trajectory needed to avoid significant disruption of the climate. The Legislature subsequently enacted AB 32, the California Global Warming Solutions Act, to require the Air Resources Board (“ARB”) to develop a plan and take sufficient action for California to meet the 2020 target.

With 2020 fast approaching, the State has turned its attention toward meeting the steep and accelerated reductions needed to achieve the 2050 greenhouse gas target. On April 29, 2015, Governor Brown issued Executive Order B-30-15, which established a greenhouse gas reduction target of 40 percent below 1990 levels by 2030. In October 2015, the Legislature passed SB 350 which, among other things, requires a doubling of energy efficiency and an increase in the RPS to 50 percent by 2030. In August 2016, the Legislature passed SB 32, which codified the Executive Order’s 2030 greenhouse gas target by requiring the ARB to “ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit [1990 levels] no later than December 31, 2030.”\(^3\)

Because the pathway to achieving the 2030 greenhouse gas reduction is much steeper than AB 32’s 2020 target, its achievement will require correspondingly more aggressive reduction measures. ARB’s initial reference case illustrates the magnitude of the needed reductions to meet the 2030 reduction target compared to a business as usual (“BAU”) scenario.\(^4\)

\(^3\) SB 32 (2016), Health & Safety Code § 38566.
\(^4\) Slide Presentation, Public Workshop on the Energy Sector to Inform Development of the 2030 Target
The BAU scenario, illustrated in the solid green line, assumes the retirement of Diablo Canyon and pre-SB 350 policies. While ARB is currently in the process of developing the collective suite of measures and sectoral expectations to meet the 2030 target, initial modelling of 2030 emission reduction scenarios has been conducted by the consulting firm E3. The most aggressive target modelled, referred to as the “early deployment” case, is to meet a 2030 target of reducing emissions to 38 percent below 1990 levels, less aggressive than the 40 percent reduction ultimately set by Executive Order B-30-15 and passed into law under SB 32. In addition to assuming significantly increased efficiency, building electrification, and electric vehicle deployment, a key input assumption in the early deployment scenario was a 60 percent RPS. The study further noted that the difficulty in mitigating emissions from cement, enteric fermentation, and other agricultural non-energy GHG emissions meant higher greenhouse gas reduction expectations from the energy sector in order to meet statewide targets. Default

---

5 Id. Slides 17, 19.
8 Id. Slide 27.
9 Id. Slide 14.
III. GROUNDS FOR PROTEST

While Sierra Club is in the preliminary stage of its investigation, this Protest identifies the following issues raised by PG&E’s Diablo Application.

A. PG&E Should Be Required to Provide an Analysis of the Impact on Fossil Fuel Use Upon Diablo’s Shutdown.

In order to ensure fossil fuel use will not increase upon the shutdown of Diablo, it is critical to first understand the impact on dispatch of conventional generation were Diablo to retire compared to a scenario that assumed Diablo remained operational. From there, the suite of measures necessary to avoid an increase in fossil fuel usage that would otherwise result from Diablo’s retirement can be implemented. Yet, while acknowledging that “if Diablo Canyon were retired in 2024 and 2025 and no other preparatory actions were taken, fossil fuel use would immediately increase substantially,” PG&E has conducted no such analysis.11 Instead, the Application focuses on assumptions of future resource needs for PG&E’s bundled customer base, an analysis which provides little, if any, insight into the impact of Diablo’s retirement on the use of fossil fuels.12 As the Application acknowledges, “PG&E and the other investor-owned utilities (IOU) no longer determine which generating units are used to provide electricity to IOU customers.”13 Because Diablo self-schedules into the California Independent System Operator (“CAISO”) market, its retirement has implications for an increase in fossil fuel usage independent of the needs of PG&E’s bundled customers that should be better understood. Prior to consideration, the Commission should require PG&E to file an Amended Application that contains analysis of the impact of fossil fuel use and resulting greenhouse gas emissions upon Diablo’s retirement as compared to a scenario where Diablo remains operational.


Sierra Club has significant concerns with the energy efficiency procurement proposed

---

10 See id. Slide 52.
11 Data Request PG&E-Sierra Club-01, Q. 3.
12 See PG&E Prepared Testimony Chapt. 2.
under Tranche #1 and Tranche #2. In response to a Sierra Club data request, PG&E has clarified that its “intent is for Tranche #1 and #2 energy efficiency to contribute to achieving the SB 350 goals.”

Because the proposed gigawatt hours (“GWh”) of efficiency procurement is highly likely to be within the range of what would already be required of PG&E under SB 350, it does not provide greenhouse gas benefits beyond what would otherwise be expected to occur. Instead, the terms of the proposed procurement create weaker standards than are now permitted for traditional efficiency programs and could result in less actual efficiency than would have otherwise occurred through procurement authorized in the Commission’s energy efficiency proceeding.

1. The Proposed Energy Efficiency Procurement is Highly Unlikely to Be Additional to Increased Efficiency Procurement That Will Already Occur Under SB 350.

In D.15-10-028, the Commission set efficiency goals for PG&E for 2016 through 2024, with an expectation that these goals would be updated by 2018. In setting utility efficiency goals, D.15-10-028 did not account for SB 350, which requires that the California Energy Commission set new efficiency targets by November 2017 to achieve a cumulative doubling of statewide energy efficiency savings by January 1, 2030. Expressed in terms of annual gigawatt hour savings, D.15-10-028 set the following efficiency targets for PG&E:

---

14 Data Request Sierra Club-PG&E-01, Q.1 (Sept. 2, 2016).
15 D.15-10-028 pp. 7-8; see also PG&E Prepared Testimony p. 4-3.
The cumulative total of IOU programs for 2018 to 2024 is 3,741 GWh of efficiency procurement. While the specific targets and utility contribution to meeting SB 350 targets have not yet been established, a doubling of PG&E’s GWh goals from 2018 through 2024 would mean another 3,741 GWh of efficiency procurement. The passage of AB 802, which changes the default baseline assumptions from which to measure efficiency improvements, will also increase GWh of efficiency potential.17 Given that PG&E’s Application contemplates 2,000 GWh of new efficiency projects for the period between 2018 and 2024, far less than a doubling of its current procurement, it can reasonably be assumed the 2,000 GWh the Application proposes to procure between 2018 and 2024 would not exceed its SB 350 obligations. Because there is unlikely to be any additional efficiency procurement under PG&E’s Application, it does not serve to ensure there is no increase in fossil fuel use compared to a scenario where Diablo remained operational.


The Application also appears to set weaker standards for efficiency procurement that

---

would allow PG&E to take credit for efficiency that would otherwise have occurred. The efficiency procurement contemplated under the Application is for gross GWh of energy efficiency. However, in D.16-08-019, the Commission returned to the earlier practice of using net, rather than gross savings goals. The reason for this change was that moving from a default existing codes baseline to an existing conditions baseline pursuant to AB 802 “creates a real and significant risk of a widening gap between expected and actual free ridership if programs target projects that customers have traditionally undertaken without any program intervention.” By switching from gross to net savings, energy efficiency goals will be “based on savings net of free ridership, or program activity that would have likely happened in the absence of any ratepayer-funded energy efficiency program.” Accordingly, the Application’s proposed energy efficiency procurement of gross GWh of energy efficiency is inconsistent with Commission procurement rules, increases risk of ratepayer funded programs that target savings that would likely already be realized, and would result in less actual efficiency procurement than would occur if the entirety of PG&E’s SB 350 efficiency obligations were met through the energy efficiency proceeding and its use of the net GWh procurement standard.


In response to a Sierra Club data request, PG&E in part justifies its proposed efficiency procurement under Tranche #1 and #2 as contributing to “achieving the SB 350 goals by providing for early action energy efficiency.” As an initial matter, it is unclear how Tranche #2 procurement, which would deploy resources in the 2025 to 2030 time period, constitutes early action. While Sierra Club is a strong supporter of early climate action, it is also unclear whether Tranche #1 provides significant timing benefits, particularly when weighed against its deviation from established procurement rules. Under the Application, PG&E would issue an RFO for Tranche #1 “on or before June 1, 2018” to obtain 2,000 GWh of gross energy efficiency by

---

18 D.16-08-019 p. 19.
19 Id.
20 D.16-08-019 p. 18.
21 Data Request PG&E-Sierra Club-01, Q. 1 (Sept. 2, 2016).
January 1, 2025.\textsuperscript{22} Under SB 350, updated efficiency targets will be set by November 2017 and the Commission expects “that the majority of the work to return to net goals and develop cumulative goals can be done within the next year in time for 2018.”\textsuperscript{23} Accordingly, the timing of increased goals and efficiency procurement expectations that would be developed through the energy efficiency proceeding do not appear to substantially differ with the timing of PG&E’s proposed Tranche #1 procurement.

4. **Energy Efficiency Procurement Should Occur Through the Energy Efficiency Proceeding.**

Given that the Application’s proposed procurement is unlikely to be additional to SB 350 requirements, would create inconsistent and less robust rules for efficiency procurement from what would otherwise have occurred through procurement under the energy efficiency proceeding and does not appear to confer significant early action timing advantages, based on Sierra Club’s initial assessment, energy efficiency procurement seems best left for the energy efficiency proceeding to ensure uniform rules for all of PG&E’s efficiency procurement under SB 350. While PG&E could be required to procure efficiency above and beyond its SB 350 obligations as part of the instant Application, Sierra Club is concerned about the reliability of efficiency procurement that exceeds SB 350’s already ambitious requirements. Even without incorporating the doubling of efficiency savings required under SB 350, the Commission determined the efficiency goals set in D.15-10-028 were “ambitious yet achievable.”\textsuperscript{24} D.15-10-028 also recognized that “[u]nrealistic goals may lead to incentives to inflate results falsely” and would give “other governmental entities and market actors bad information for use in their own EE activities.”\textsuperscript{25} Therefore, the risk of setting goals that could result in resorting to untested programs with questionable results cautions against going beyond SB 350’s efficiency objectives at this juncture.

C. **The Application’s RPS Commitment Should Be Increased and Accelerated.**

Sierra Club is concerned with the timing and ambition of PG&E’s commitment to a 55

\textsuperscript{22} PG&E Prepared Testimony p. 4-4:11-12, 4-5:3. 
\textsuperscript{23} D.16-08-019 p. 21. 
\textsuperscript{24} D.15-10-028 p. 17. 
\textsuperscript{25} D.15-10-028 p. 18.
percent RPS by 2031, which delays greenhouse gas mitigation for Diablo until six years after its retirement and is less than what will likely be needed to meet SB 32 greenhouse gas objectives. The timing of emission reductions matters. The warming effect of greenhouse gases is determined by the concentration of greenhouse gases in the atmosphere, not the current level of emissions. Because carbon dioxide emissions can persist in the atmosphere for hundreds, if not thousands of years, it has a cumulative warming effect. Therefore, deferred deployment of greenhouse gas mitigation reduces the likelihood of limiting future temperature rise to below catastrophic levels. As explained by the International Panel on Climate Change, “[d]elaying additional mitigation to 2030 will substantially increase the challenges associated with limiting warming over the 21st century to below 2°C relative to pre-industrial levels.” Accordingly, “the damage caused by present emissions, those for (say) this year, will tend to be greater than from future emissions, e.g., those in five years’ time.” A six-year delay in addressing the greenhouse gas impacts of Diablo’s shutdown is not credible climate mitigation.

A 55 percent RPS by 2031 is also insufficient to meet California’s 2030 greenhouse gas target. Initial PATHWAYS modelling to reach a 2030 emissions reduction target less ambitious than the 40 percent reduction enacted under SB 32 assumed a 60 percent RPS by 2030. Given the deep emissions reduction targets California must reach by 2030, and the further reductions needed to reach 2050 targets, PG&E’s commitment to reach a 55 percent RPS by 2031 is too little, too late.

26 Unlike other human-generated greenhouse gases, there is no single estimate for the atmospheric lifetime of carbon dioxide because it is removed from the atmosphere from a variety of different processes that operate on vastly different timescales. The IPCC estimates 15-40 percent of carbon dioxide emitted into the atmosphere will persist for up to 2000 years. IPCC, Climate Change 2013, The Physical Science Basis, Chapter 6, Carbon and Other Biogeochemical Cycles p. 544, http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter06_FINAL.pdf. See also David Archer et al., Atmospheric Lifetime of Fossil Fuel Carbon Dioxide, Anny, Rev, Earth Planet Sci. 2009 7:117-34, http://www.annualreviews.org/doi/pdf/10.1146/annurev.earth.031208.100206 (about half of emitted carbon dioxide “is removed over a timescale of 30 years; a further 30% is removed within a few centuries; and the remaining 20% will typically stay in the atmosphere for many thousands of years.”).


To provide timely and meaningful greenhouse gas mitigation for Diablo, PG&E should commit to a 50 percent RPS by the December 31, 2024, RPS compliance period and reach 60 percent by 2030. Because PG&E’s December 2024 RPS compliance period closely corresponds to the retirement dates of Diablo Units 1 and 2, it is an appropriate target date from which to build on the RPS. As Public Utilities Code Section 399.15(b) makes clear, the existing RPS is a floor, not a ceiling, and may be increased by the Commission. Raising the RPS by 2024 furthers the Application’s goal of ensuring fossil fuel use does not increase upon Diablo’s retirement and moves California closer to achieving its 2030 greenhouse gas reduction requirements. Requiring increased RPS procurement as part of this Application, as opposed to awaiting resolution in the IRP proceeding, will provide additional lead time to ensure resources are deployed in time for Diablo’s retirement.


Sierra Club has significant concerns with the Application’s proposed changes to cost recovery and cost allocation for RPS procurement. As the Application notes, current cost allocation rules for renewable procurement apply the Power Charge Indifference Adjustment (“PCIA”) for departing customers, whereby a customer that departs from a utility’s bundled electric service “is responsible for RPS procurement contracts executed on or before the customer’s date of departure.” As Sierra Club understands PG&E’s proposal, customers that depart bundled electric service after Commission approval of the Application, but prior to execution of RPS contracts would nonetheless be responsible for the costs associated with that procurement. Notably, the Application defines Tranche #3 procurement as “any RPS-eligible procurement for PG&E’s bundled electric portfolio made after the Commission approves the Application.” Given that the Application contemplates Commission approval in June 2017 and the Application sets an increased RPS commitment for 2031, a customer who departs PG&E’s bundled service in 2018 would be subject to charges for all of PG&E’s RPS procurement for the

30 Public Utilities Code § 399.15(b)(3).
31 PG&E Prepared Testimony, page 6-4 (emphasis added).
32 Prepared Testimony p. 6-4:12-13 (“departing customers would pay for Tranche #3 and future RPS procurement”).
33 PG&E Prepared Testimony page 6-2.
34 Application p. 18.
next 13 years. If this is in fact PG&E’s proposed change to existing cost allocation rules, it would erect needless barriers to future growth of CCAs and should be rejected. Additional RPS procurement authorized under this Application should be subject to existing cost allocation rules for departing customers.35

**E. Application Approval Should Be Conditioned on Continued Protection of Diablo Lands.**

Missing from PG&E’s Application is a commitment to ensure the continued conservation of the over 12,000 acres that buffer the Diablo Canyon facility (“Diablo Lands”). As the Diablo Economic Impact Study included in PG&E’s Prepared Testimony notes, “Diablo Canyon is located in a unique and sensitive biome” with surrounding lands “comprised of 14 miles of pristine coastline.”36 Yet, while the Economic Impact Study states that “PG&E is proud of its long history of managing lands and waters in a responsible and environmentally sensitive manner .... exemplified by PG&E’s preservation of the 12,820 acres that make up the land upon which Diablo Canyon sits,” the Joint Proposal is silent as to whether the Diablo Lands would continue to be preserved at the time of the plant’s retirement.37 Ensuring the continued preservation of the Diablo Lands is consistent with PG&E’s previously stated commitments, avoids exacerbating the greenhouse gas impacts from Diablo’s closure, and should be a condition of Commission approval of PG&E’s Application.

Conservation of the Diablo Lands has long been a goal PG&E has publicly supported. In 2000, Measure A, the Diablo Resources Advisory Measure (“DREAM Initiative”), was placed on the ballot following a unanimous vote by the San Luis Obispo County Board of Supervisors. Measure A asked:

> Shall the County Board of Supervisors recognize the Diablo Canyon Lands as an exceptionally precious coastal resource by adopting policies that promote habitat preservation, sustainable agricultural activities, and public use and enjoyment consistent with public safety and property rights once the lands are no longer needed as an emergency buffer for the Diablo Canyon Nuclear Plant after its remaining operating life?

35 Sierra Club supports allowing CCA and Direct Access customers to elect to self-provide to meet a higher RPS requirement.
Measure A passed with 75 percent of the vote, supported by a long and bipartisan list of elected officials, business groups, environmental groups, and PG&E itself. PG&E explained that “It’s because of PG&E’s good stewardship that we support the DREAM Initiative” and that “It’s consistent with what we are doing out there already.”

The Commission should hold PG&E to its commitment to preserve the Diablo Lands. Sierra Club’s concerns over potential development of the Diablo Lands, and in particular, Wild Cherry Canyon, are not academic. Wild Cherry Canyon is 2,400 acres of undeveloped coastal property containing a diverse and largely undisturbed collection of natural resources upon which private developers are seeking to build a 1,500 unit residential development. On top of impairing its conservation value, transformation of Wild Cherry Canyon to a residential subdivision would result in further increases in the greenhouse gas impacts resulting from Diablo’s closure. The pathway to reaching 2030 greenhouse gas targets includes substantial improvements in transportation efficiency, with E3’s pathway model estimating an 8 percent needed reduction in vehicles miles travelled (“VMT”). Exurban development such as that proposed for Wild Cherry Canyon increases, rather than reduces, average VMT and should not be a consequence of Diablo’s decommissioning.

IV. EFFECT OF THE APPLICATION ON THE PROTESTANTS

Sierra Club is a non-profit public benefit corporation with over 600,000 members nationwide, and more than 140,000 members living in California. Many of these members are residential customers of Pacific Gas & Electric. Sierra Club’s mission is to “explore, enjoy, and protect the planet.” Sierra Club advocacy extends to both preserving areas of scenic, recreational and ecological value and rapidly decarbonizing the energy system through the development of affordable renewable energy and integrative resources. The instant proceeding harms the

38 See http://www.smartvoter.org/2000/03/07/ca/slo/meas/A/.
interests of Sierra Club members because the proposed GHG-free replacement for Diablo is facilitate additional and timely clean energy deployment and fails to ensure the conservation of the Diablo Lands.

V. NEED FOR EVIDENTIARY HEARINGS

PG&E’s Application may require resolution of disputed issues of material fact. Sierra Club is currently attempting to resolve questions on the terms of the Joint Proposal through data requests. Depending on the clarity of responses, Sierra Club may require the opportunity for cross-examination in evidentiary hearings.

VI. SCHEDULE

Sierra Club believes PG&E should provide more analysis on the increase in fossil fuel use as a result of Diablo’s retirement prior to an evaluation of merits of its Application.

VII. COMMUNICATION OF SERVICE

For the purpose of receipt of all correspondence, pleadings, orders and notices in this proceeding, the following representative for Sierra Club should be placed on the service list as a “party”:

Matthew Vespa  
Senior Attorney  
Sierra Club  
2101 Webster Street, Suite 1300  
Oakland, California 94612  
Telephone: (415) 977-5753  
Email: matt.vespa@sierraclub.org

The following additional representative for Sierra Club should be placed on the service list as “information only”:

Alison Seel  
Associate Attorney  
Sierra Club  
2101 Webster Street, Suite 1300  
Oakland, California 94612
VIII. CONCLUSION

Sierra Club appreciates the opportunity to submit this protest.

Dated September 15, 2016

Respectfully submitted,

/s/

Matthew Vespa
Senior Attorney
Sierra Club
2101 Webster Street, Suite 1300
Oakland, California 94612
(415) 977-5753
matt.vespa@sierraclub.org