

**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  
(U39E).

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

**RESPONSE OF ENVIRONMENTAL DEFENSE FUND TO APPLICATION OF  
PACIFIC GAS AND ELECTRIC COMPANY FOR APPROVAL OF THE  
RETIREMENT OF DIABLO CANYON POWER PLANT**

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**I. INTRODUCTION**

On August 11<sup>th</sup>, Pacific Gas and Electric Company (PG&E) filed an application with the California Public Utilities Commission (CPUC or Commission)<sup>1</sup> with a plan to decommission its Diablo Canyon nuclear facility and replace the plant with a mix of energy efficiency, renewables, energy storage, and other greenhouse gas (GHG)-free resources. Environmental Defense Fund (EDF) submits this response to express support for PG&E's application and the Joint Proposal that inspired PG&E's submission to the Commission.

**II. DISCUSSION**

A. *PG&E's proposal, while ambitious, is attainable and aids in achieving critical state environmental goals.*

The Joint Proposal, signed by PG&E, as well as the Natural Resources Defense Council, Friends of the Earth, Environment California, International Brotherhood of Electrical Workers ("IBEW") Local 1245, the Coalition of California Utility Employees, and the Alliance for

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<sup>1</sup> *Application of Pacific Gas and Electric Company (U 39 E) for Approval of the Retirement of Diablo Canyon Power Plant, Implementation of the Joint Proposal, and Recovery of Associated Costs Through Proposed Ratemaking Mechanisms*, A. 16-08-006 (filed Aug. 11, 2016).

Nuclear Responsibility, lays out a plan to replace the capacity lost with the closure of the Diablo Canyon by committing to an “investment in energy efficiency, renewable resources, and other GHG-free resources while phasing out nuclear power in California in 2024 and 2025.”<sup>2</sup> The Joint Proposal envisions three “tranches” to accomplish this – Tranch 1 will be implemented immediately and will focus on energy efficiency; Tranch 2 envisions procurement of mix of energy efficiency, renewables and GHG-free resources from 2025 - 2030; finally, Tranch 3 creates a voluntary Renewable Portfolio Standard (RPS) of 55% to start in 2031, 5% more than is mandated by Senate Bill 350.<sup>3</sup> The application acknowledges that these tranches do not represent what will be required to fully replace Diablo Canyon’s output and that more resources will need to be procured, which will be addressed via the Integrated Resource Plan (IRP).<sup>4</sup>

EDF supports this proposal because it represents a rational and well-reasoned plan, with potentially significant long-term ratepayer savings,<sup>5</sup> to ensure that closure of Diablo Canyon, a GHG-free nuclear power plant, does not impede the ability of California to meet its ambitious and critical clean energy and climate goals. As well, PG&E’s optimism that this proposal can be achieved is well placed. The California Energy Commission (CEC) has conducted analysis that concludes California is surpassing its RPS targets.<sup>6</sup> As of October 2015, the CEC states California had a capacity of 21,700 megawatts (MW), made up of biomass, geothermal, small hydro, wind, solar thermal, solar photovoltaics (PV), and self-generation capacity.<sup>7</sup> EDF anticipates that the growing abundance of renewables, both distributed and utility owned, along

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<sup>2</sup> *Id.* at 2.

<sup>3</sup> *Id.* at 9.

<sup>4</sup> *Id.* at 3.

<sup>5</sup> Peter Miller, *Diablo Canyon Joint Proposal Moves Forward*, Natural Resources Defense Council (Jun. 28, 2016), <https://www.nrdc.org/experts/peter-miller/diablo-canyon-joint-proposal-moves-forward>.

<sup>6</sup> California Energy Commission, *Tracking Progress: Renewable Energy-Overview* at 1 (updated Dec. 22, 2015), [http://www.energy.ca.gov/renewables/tracking\\_progress/documents/renewable.pdf](http://www.energy.ca.gov/renewables/tracking_progress/documents/renewable.pdf).

<sup>7</sup> *Id.* at 2.

with the facilitation of clean energy resources designed to reduce and shift load, will result in a grid that won't need to fall back on natural gas to ensure reliability.

In addition, the PG&E proposal highlights an important point – while a utility must, and should, consider cost to ratepayers in its procurement of resources, it is not necessarily the paramount consideration. As stated by EDF, Sierra Club, and the California Environmental Justice Alliance (CEJA) in comments in the IRP proceeding, putting *clean* resources on the grid in a way that meets state environmental goals is the number one priority.<sup>8</sup> Indeed, section 454.52(a)(2)(B) of the California Public Utilities Code states “the commission may approve procurement of resource types that will reduce overall greenhouse gas emissions from the electricity sector and meet the other goals specified in paragraph (1), but due to the nature of the technology or fuel source may not compete favorably in price against other resources over the time period of the integrated resource plan”<sup>9</sup> – which clearly corroborates the assertion made in the aforementioned IRP comments. While EDF certainly does not believe that cost should be a “distant second” factor, we believe PG&E’s commitment to procuring clean energy provides important societal benefits that must be considered. By preventing the construction of natural gas power plants that emit harmful pollution and instead opting for flexible, clean, more cost-effective distributed assets that have locational value, PG&E’s proposal can prevent the cost of, for example, hospital visits, treatment for respiratory and cardiovascular illnesses, and missed

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<sup>8</sup> *Comments of the California Environmental Justice Alliance, Sierra Club, and Environmental Defense Fund on the Staff Concept Paper on Integrated Resource Planning*, Order Instituting Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements, R. 16-02-007 at 4-5 (submitted Aug. 31, 2016).

<sup>9</sup> California Public Utilities Code Section 454.52(a)(2)(B), <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=puc&group=00001-01000&file=451-467>.

work days.<sup>10</sup> In addition, the massive costs of large energy assets that increasingly fail to reflect our energy needs can be avoided.

*B. EDF requests clarification on two aspects of PG&E's application.*

PG&E's application states "the Joint Parties developed a proposal that would increase investment in energy efficiency, renewable resources, and other GHG-free resources while phasing out nuclear power in California in 2024 and 2025."<sup>11</sup> EDF assumes that PG&E's procurement plan includes important resources such as demand response (DR) and dynamic pricing, both of which will be increasingly critical components of California's clean energy economy. DR is "an important resource for keeping the electricity grid stable and efficient; deferring upgrades to generation, transmission, and distribution systems; and providing other customer economic benefits."<sup>12</sup> Additionally, as recognized by the Commission recently, DR can and should play a role in reducing greenhouse gas emissions; to that end, it formulated an overarching principle in a recent decision to ensure "Commission-regulated demand response programs shall assist the State in meeting its environmental objectives, cost-effectively meet the needs of the grid, and enable customers to meet their energy needs at a reduced cost."<sup>13</sup>

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<sup>10</sup> Union of Concerned Scientists, *Benefits of Renewable Energy Use*, [http://www.ucsusa.org/clean\\_energy/our-energy-choices/renewable-energy/public-benefits-of-renewable.html#references](http://www.ucsusa.org/clean_energy/our-energy-choices/renewable-energy/public-benefits-of-renewable.html#references) ("the air and water pollution emitted by coal and natural gas plants is linked to breathing problems, neurological damage, heart attacks, and cancer...replacing fossil fuels with renewable energy has been found to reduce premature mortality and lost workdays, and it reduces overall healthcare costs").

<sup>11</sup> *Application of Pacific Gas and Electric Company (U 39 E) for Approval of the Retirement of Diablo Canyon Power Plant, Implementation of the Joint Proposal, and Recovery of Associated Costs Through Proposed Ratemaking Mechanisms*, A. 16-08-006 at 2 (filed Aug. 11, 2016).

<sup>12</sup> Peter Alstone, et al., *Interim Report on Phase I Results – 2015 California Demand Response Potential Study: Charting California's Demand Response Future*, Lawrence Berkeley National Laboratory at 3 (Apr. 1, 2016).

<sup>13</sup> *Decision Adopting Guidance for Future Demand Response Portfolios and Modifying Decision 14-12-024*, Order Instituting Rulemaking to Enhance the Role of Demand Response in Meeting the State's Resource Planning Needs and Operational Requirements, R. 13-09-011 at 45 (filed Aug. 30, 2016).

Well-structured pricing similarly has the potential to affect load in a positive way – helping to shift demand to times when it is cheapest and cleanest to consume.<sup>14</sup> As such, PG&E’s proposal would be deficient if it did not contemplate the value of DR as a supply-side resource and the potential of dynamic pricing to dramatically shape demand in the future. EDF therefore requests PG&E clarify their vision to specifically include and factor in these resources where appropriate, either as part of the second and third tranche, or in replacement resources that PG&E has yet to determine.

*C. PG&E should adopt a strategy of adaptive management.*

There are currently efforts underway at the Commission to change the landscape of energy use in California in order to create a clean, resilient, and reliable grid. For example, the DR proceeding recently made explicit that DR programs “shall be market-driven leading to a competitive, technology-neutral, open-market in California with a preference for services provided by third-parties through performance-based contracts at competitively determined prices, and dispatched pursuant to wholesale or distribution market instructions, superseded only for emergency grid conditions.”<sup>15</sup> In addition, pilots currently being developed in the time-of-use (TOU) proceeding need to consider important changes on the grid, including “not just peak usage periods, but also the deepening afternoon valleys resulting from increased deployment of solar, and the need for flexible ramping capacity.”<sup>16</sup> Finally, guidance given to the utilities in order to develop their distribution resource plans (DRP) states that in addition to aiding in the

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<sup>14</sup> Dr. Stephen S. George, *et al.*, *SMUD SmartPricing Options Pilot Evaluation*, Nexant at 4-5 (Aug. 6, 2014), [https://www.smartgrid.gov/files/SMUD-CBS\\_Final\\_Evaluation\\_Submitted\\_DOE\\_9\\_9\\_2014.pdf](https://www.smartgrid.gov/files/SMUD-CBS_Final_Evaluation_Submitted_DOE_9_9_2014.pdf).

<sup>15</sup> *Decision Adopting Guidance for Future Demand Response Portfolios and Modifying Decision 14-12-024*, Order Instituting Rulemaking to Enhance the Role of Demand Response in Meeting the State’s Resource Planning Needs and Operational Requirements, R. 13-09-011 at 42 (filed Aug. 30, 2016).

<sup>16</sup> *Decision on Residential Rate Reform for Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company and Transition to Time-of-Use Rates*, Order Instituting Rulemaking on the Commission’s Own Motion to Conduct a Comprehensive Examination of Investor Owned Electric Utilities’ Residential Rate Structures, the Transition to Time Varying and Dynamic Rates, and Other Statutory Obligations, R. 12-06-013 at 4 (filed Apr. 21, 2015).

achievement of state environmental goals, the DRPs must consider and reflect three parallel goals: “1) to modernize the electric distribution system to accommodate two-way flows of energy and energy services throughout the IOUs’ networks; 2) to enable customer choice of new technologies and services that reduce emissions and improve reliability in a cost efficient manner; and 3) to animate opportunities for DERs to realize benefits through the provision of grid services.”<sup>17</sup>

All three of these are excellent examples of how the Commission is working on enacting beneficial and potentially sweeping changes to the state’s electricity system. To that end, EDF urges PG&E to act in an adaptive manner to this era of regulatory uncertainty and rapid transformation in the electricity sector, and cautions against acting too hastily and potentially procuring resources that won’t maximize benefits to ratepayers and the grid. As lessons are learned from new Commission regulations, PG&E should be nimble enough to adapt how and which resources they procure.

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<sup>17</sup> *Assigned Commissioner’s Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resource Planning*, Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769, R. 14-08-013 at 3 (filed Feb. 06, 2015).

### **III. CONCLUSION**

EDF thanks the Commission for the opportunity to comment on this Application and Joint Proposal and urges the CPUC to approve this innovative and exciting proposal.

Respectfully signed and submitted on September 15, 2016.

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