BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company for Approval of Ratepayer Funding to Perform Additional Seismic Studies Recommended by the California Energy Commission.

Application No. 10-01-014

(U 39 E)

OPENING BRIEF OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)

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Date: May 18, 2012

SUMMARY OF RECOMMENDATIONS

The Commission should issue a decision approving A.10-01-014. In so doing, the Commission should rule as follows:

- The revised, expanded scope of the seismic studies proposed by PG&E in this Application is reasonable.
- PG&E's revised cost estimate of \$64.25 million for the expanded seismic studies addressed in this Application is reasonable.
- PG&E is authorized to recover the additional costs of the seismic studies addressed in this Application in customer rates and PG&E's ratemaking proposal is accepted.
- Should there be a need for additional funding above the \$64.25 million estimate approved in this decision, PG&E may file a Tier 3 advice letter to request recovery of any additional costs incurred to complete the seismic studies addressed in this Application.
- The recommendations of the Division of Ratepayer Advocates to establish the \$64.25 million cost of the seismic studies as a cost cap and to require PG&E to file a new application if costs exceed that cap are rejected.
- The alternative scope for the seismic studies proposed by the Alliance for Nuclear Responsibility is rejected.
- The proposal by the Alliance for Nuclear Responsibility that there be a cost sharing between customers and utility shareholders is rejected.

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Pursuant to Rule 13.11 of the California Public Utilities Commission ("CPUC" or "Commission") Rules of Practice and Procedure, and in keeping with the Assigned Administrative Law Judge's ruling establishing the briefing schedule in this proceeding, Pacific Gas and Electric Company ("PG&E") respectfully submits this opening brief in support of PG&E's Application (A.) 10-01-014. In re-opening the Application, PG&E requests authority to recover in customer rates an additional \$47.5 million above the \$16.73 million approved by this Commission in Decision 10-08-003, issued on August 12, 2010, for a total of \$64.25 million, to perform additional seismic studies recommended by the California Energy Commission ("CEC").

A. Introduction

In 2006, the California legislature enacted Assembly Bill (AB) 1632, which directed the CEC to: "...assess the potential vulnerability of California's largest base load power plants, Diablo Canyon and San Onofre Generating Station, to a major disruption due to a major seismic event or plant aging"¹ Thereafter, in November 2008, the CEC issued a report documenting its assessment and including numerous recommendations directed to PG&E and others ("AB

 $[\]frac{1}{2}$ See Cal. Pub. Resources Code section 25303.

1632 Report").²

Relevant to this Application, the AB 1632 report recommended that, in addition to continuing the work performed by PG&E as part of the Long Term Seismic Program ("LTSP"), which was established when and has been ongoing since the Diablo Canyon operating license was issued, PG&E should:

- Use three-dimensional geophysical seismic reflection mapping and other advanced techniques to explore fault zones near Diablo Canyon; and
- Assess the implications of a San Simeon-type earthquake beneath Diablo Canyon. This assessment should include expected ground motions and vulnerability assessments for safety-related and non-safety-related plant systems and components that might be sensitive to long-period motions in the near field of an earthquake rupture.³

After the CEC issued its AB 1632 Report, CPUC President Michael R. Peevey directed PG&E to implement and submit information to the CPUC addressing many of the AB 1632 Report recommendations, including those set forth above.⁴

In response, PG&E filed Application (A.) 10-01-014 requesting \$16.73 million in funding for detailed onshore and offshore seismic studies, using two-dimensional (2-D) and three-dimensional (3-D) technologies, in the area surrounding Diablo Canyon. That request also included funding to install four ocean bottom seismometer ("OBS") units to supplement the existing 20 onshore stations. Those OBS units will enable PG&E to locate offshore earthquakes more accurately. The Commission granted PG&E's funding request in Decision (D.) 10-08-003.

Upon issuance of D.10-08-003, PG&E proceeded to implement the 2-D and 3-D seismic studies. That implementation included the presentation of study plans to and receipt of feedback

² California Energy Commission Report, An Assessment of California's Nuclear Power Plants: AB 1632 Report (CEC-100-2008-009-CMF, November 2008).

 $[\]frac{3}{2}$ Id. at 6-7.

⁴ Exhibit PG&E-3, p.1, f.n. 1, referencing Commission President Peevey's June 25, 2009 letter to Peter Darbee.

from the Independent Peer Review Panel ("IPRP") established by the Commission in D.10-08-003 to perform an independent review of the seismic study plans and results.⁵ Prior to filing the motion to re-open Application 10-01-014 in September 2011, PG&E had already completed the survey design and data acquisition phases of the onshore 2-D seismic studies and the survey design and data acquisition for two of the three survey phases of the offshore low energy 2-D/3-D seismic studies.⁶ As PG&E undertook this work, PG&E determined that the geographical area from which data should be collected should be expanded significantly.⁷

As the scope of the study area expanded the cost to perform the 2-D and 3-D studies onshore and offshore increased, prompting PG&E to request that the Commission re-open Application 10-01-014 to consider the increased cost of the proposed expanded seismic studies.⁸ PG&E's estimate of the cost to complete the seismic studies increased from \$16.73 million to \$64.25 million. The Commission granted PG&E's request to re-open A.10-01-014 and Administrative Law Judge ("ALJ") Robert A. Barnett established an initial schedule for testimony and hearings in his oral ruling on November 30, 2011.⁹

On March 6, 2012, Assigned Commissioner Michael P. Florio issued a Scoping Memo and Ruling amending the schedule and including within the scope of the proceeding the following issues:

- 1. The scope of the seismic and tsunami studies identified by the applicant;
- 2. The costs of the studies; and whether they should be capped;

 $^{^{5}}$ D.10-08-003, Conclusions of Law 3 and 4.

⁶ Exhibit PG&E-3, p. 1.

² Exhibit PG&E-3, p. 2.

<u>8</u> Id.

⁹ November 30, 2011 Prehearing Conference Tr., p. 21, lines 20-23.

- Whether shareholders of Pacific Gas and Electric Company will bear a share of the costs;
- 4. Whether outside experts should be retained to review the planned studies and their costs; and
- The structure of the Independent Peer Review Panel authorized in Decision 10-08-003.¹⁰

In addition to PG&E, the Division of Ratepayer Advocates ("DRA") and the Alliance for Nuclear Responsibility ("A4NR"), and Southern California Edison Company ("SCE") submitted testimony in this proceeding and participated in the hearing that was held on April 18, 2012.

B. Issues To Be Decided

1. The Scope of the Seismic and Tsunami Studies Identified By the Applicant¹¹

The Commission should rule that PG&E's proposed seismic study scope is reasonable and appropriate. As contemplated and recommended by the CEC, PG&E designed the seismic studies proposed in this Application to supplement the ongoing seismic work that is done by on an on-going basis in PG&E's LTSP.¹² The proposed studies use the advanced technologies recommended by the CEC to supplement the existing and ongoing LTSP seismic evaluation of Diablo Canyon.¹³ The data that will be collected as a result of these studies have the potential to help PG&E further reduce the uncertainty of the seismic hazard at Diablo Canyon.¹⁴

As mentioned above, as PG&E implemented the seismic studies authorized in D.10-08-003, PG&E gained important knowledge which enabled it to modify the scope of the seismic

¹⁰ Assigned Commissioner's Scoping Memo and Ruling, A.10-01-014 (Mar. 6, 2012).

 $[\]frac{11}{10}$ PG&E has not proposed any tsunami studies in this Application.

¹² AB 1632 Report, p. 6.

¹³ Exhibit PG&E-3, p. 2.

¹⁴ Exhibit PG&E-3, p. 13. See also, Exhibit PG&E-1, pp. 2-6 to 2-7.

studies to acquire the seismic data important to seismic safety at Diablo Canyon.¹⁵ In particular, PG&E determined that it should significantly expand the geographical areas of study for the 2-D/3-D offshore studies and the 2-D on-shore studies.¹⁶ PG&E made the decision to more than double the geographical scope from which seismic data will be acquired after receiving input from third-party consultants, vendors and the IPRP.¹⁷ PG&E also took into account the preliminary lessons learned from the accident at the Fukushima Daiichi nuclear power plant in Japan and comments by United States Geological Survey ("USGS") personnel questioning regional fault characterizations along the central coast of California.¹⁸ With all of this additional input, PG&E determined that collecting data from a broader geographical area allows for the integrated tectonic assessment of the interaction of faults in the area and improves the ability to evaluate potential seismic hazards.¹⁹

Contrary to the suggestion by A4NR witness Douglas H. Hamilton, PG&E's proposed offshore and onshore 2-D and 3-D seismic studies do not duplicate studies already done by the USGS.²⁰ PG&E knows this because PG&E was a partner to, and funded, many of the USGS marine seismic studies. The offshore studies proposed by PG&E in this Application are much more specific than those performed by the USGS.²¹ PG&E's studies, including high-resolution, low energy 2-D and 3-D marine seismic mapping and the proposed high energy 3-D surveys,

¹⁵ Exhibit PG&E-1, p. 1-3.

¹⁶ Exhibit PG&E-1, pp. 1-2 to1-3.

<u>17</u> Id.

¹⁸ Id. See also, PG&E/Nishenko, Tr. P. 69, lines 8-28.

¹⁹ Exhibit PG&E-3, p. 2.

²⁰ Exhibit A4NR-4, p. 8.

²¹ Exhibit PG&E-3, p. 15.

have been designed to provide the necessary spatial resolution to map both shallow and deeper structures in the area.²² As PG&E's testimony in this proceeding establishes, the proposed offshore studies also will address many of the questions raised by Dr. Hamilton.²³

Onshore, until the studies PG&E did following the Commission's approval of the initial \$16.73 million in funding, there had been no reflection studies conducted in the Irish Hills region near Diablo Canyon comparable to those PG&E conducted in 2011 and plans for 2012.²⁴ PG&E's onshore studies are designed to provide data to improve the constraints on the mechanism responsible for the progressive late Quaternary uplift of the Irish Hills.²⁵

Expanding the survey areas from which seismic information for the 2-D/3-D offshore and 2-D onshore seismic studies is collected is consistent with the continuing safe operation of Diablo Canyon and with PG&E's commitment to support the activities necessary to ensure seismic safety.²⁶ It is also responsive to comments and feedback from the IPRP and to information from other stakeholders.²⁷ Enhanced knowledge of the seismic hazard near Diablo Canyon provides a clear benefit to PG&E's customers in that, as noted above, it enables PG&E to continue the safe operation of this valuable generation resource.²⁸ Accordingly, the Commission should approve the expanded scope of PG&E's proposed seismic studies.

<u>22</u> Id.

²³ Exhibit PG&E-3, p. 14.

²⁴ Exhibit PG&E-3, p. 15.

<u>²⁵</u> Id.

²⁶ Exhibit PG&E-1, p.1-3.

²⁷ Exhibit PG&E-3, p. 2.

²⁸ Exhibit PG&E-1, p. 1-3.

1.1. Seismic Survey Design

PG&E's seismic survey design lays the foundation for all of the project seismic survey activities. This design work includes purchasing and evaluating existing industry data, designing the 2-D/3-D offshore and 2-D onshore surveys, and evaluating and identifying permit and property access requirements.²⁹ In addition to its in-house experts, PG&E retained third party geophysical and environmental consultants to assist with this work.³⁰ The original cost estimate approved by the Commission for these activities was \$500,000. Due to the proposed increased scope of the studies, the current seismic survey design cost estimate is \$900,000.

1.2. Offshore 2-D/3-D Seismic Surveys

PG&E proposes to expand the 3-D high-energy seismic survey area from 400 km² to \sim 1,200 km².³¹ This much larger area includes the originally proposed 400 km² area from Point Buchon to Point San Luis and adds additional areas north of Point Buchon to Cambria and south of Point San Luis to Point Sal. In addition, in response to questions from the IPRP about the intersection of the Shoreline fault and the Hosgri fault and the Los Osos fault with other faults in Estero Bay, PG&E revised the survey racetrack in a more favorable orientation (east-west) to image the intersection of these faults at depth.³²

In addition to more than doubling the offshore area to be studied using 2-D and 3-D technology, PG&E is performing two types of 3-D seismic surveys: high-energy and low-energy.³³ The low-energy survey provides high-resolution imagery at subsurface depths of $\sim 1/2$

²⁹ Exhibit PG&E-1, pp. 2-1 to 2-2. See also D.10-08-003, pp. 3-5.

³⁰ Exhibit PG&E-1, p. 2-2.

<u>³¹</u> Id.

³² Exhibit PG&E-5, pp. 4-5.

³³ Exhibit PG&E-1, p. 2-2.

kilometer. The high-energy survey provides imagery at depths of up to 12 kilometers, but provides poor resolution imagery at shallow depths, so the high- and low-energy technologies complement each other.³⁴ PG&E plans to perform high- and low-energy 2-D and 3-D surveys to illuminate shallow and deep structures and resolve uncertainties related to the Shoreline, Los Osos and Hosgri/San Simeon fault zones. Understanding the geometry of these faults at seismogenic depths, coupled with slip rate information that PG&E hopes to obtain from the lowenergy surveys, will improve PG&E's ability to define the seismic hazard in the region.³⁵

PG&E initial cost estimate to conduct offshore 3-D, high-energy seismic surveys over a 400 km² survey area, from Point Buchon to Point San Luis, was \$11 million.³⁶ The additional cost for more than doubling the area to be studied and for performing low-energy surveys in addition to high-energy surveys is \$35.8 million, for a total of \$46.8 million to perform high-energy and low-energy offshore 2-D and 3-D studies.³⁷

1.3. Onshore 2-D Seismic Surveys

Before moving to re-open this Application, PG&E concluded that it should also expand the study area for the onshore 2-D seismic surveys and decided that it would be best to use two seismic sources to collect information.³⁸ In the Shoreline Fault Zone Report (PG&E 2011) submitted to the Nuclear Regulatory Commission (NRC), PG&E identified the Los Osos and San Luis Bay fault zones as having a deterministic seismic hazard that was comparable to the offshore Shoreline and Hosgri fault zones. Reducing the uncertainty in the source

<u>³⁴</u> Id.

<u>35</u> Id.

³⁶ Exhibit PG&E-1, p. 2-2.

³⁷ Exhibit PG&E-1, p. 2-3

³⁸ Exhibit PG&E-1, p. 2-7.

characterization (geometry, slip rate) of these fault zones will further define the seismic hazard at Diablo Canyon. Additionally, the data collected from the onshore 2-D surveys will provide additional constraints on the geometry and style of faulting beneath the Irish Hills.³⁹ Using this data, PG&E will develop a 3-D model of the geologic structure beneath the Irish Hills to address the geometry and rate of uplift of the hills and the distribution of hypocenters beneath the range.⁴⁰

PG&E also concluded that it should implement 2-D seismic surveys rather than 3-D surveys onshore because of the difficulty and cost of using instruments in rugged hilly terrain, as well as land ownership and environmental issues.⁴¹ Even then, the highly folded and deformed nature of the rocks in the Irish Hills region limits the resolution possible with conventional 2-D seismic surveys.⁴² In light of that reality, PG&E conducted computer-based illumination studies to optimize the proposed onshore source and receiver routes. Based on this analysis, PG&E modified the four survey routes it had originally proposed. This revised survey plan covers ~2.5 times the mileage originally proposed in 2010 and uses two types of seismic sources: (1) Vibroseis trucks for deep (~10 km) penetration; and (2) Accelerated Weight Drop (AWD) trucks for shallow (~5 km) penetration and infilling in areas that the larger Vibroseis trucks are unable to access.⁴³ The seismic sources were recorded by self-contained portable nodal units that were

 $\frac{40}{1}$ Id.

<u>42</u> Id.

³⁹ Exhibit PG&E-3, p. 14.

⁴¹ Exhibit PG&E-1, p. 2-7.

⁴³ Exhibit PG&E-1, pp. 2-7 to 2-8.

deployed in 8,000 locations throughout the survey area and a 1000-channel high-resolution geophone cable that was deployed along the survey routes themselves.⁴⁴

The additional line mileage, the deployment of geophones, and the use of two different types of seismic sources will enable improved imaging of fault structures at depth that will approach the resolution of conventional 3-D seismic coverage.⁴⁵

Given the significant increase in the scope of this work, the estimated costs for the data acquisition, processing and interpretation increased substantially from \$1.6 million to \$7.6 million.⁴⁶ In addition to these costs, additional costs were incurred to: improve the geologic and geophysical mapping along the survey routes, conduct environmental reviews, conduct environmental compliance monitoring, map buried infrastructure along onshore survey routes in urban/suburban areas, and conduct traffic control during surveys. PG&E's initial estimate of \$2.03 million for four onshore 2-D seismic surveys (~50 miles in length) included costs for actual survey planning (e.g., permitting and route surveying for source and receiver locations) and for data acquisition/processing and interpretation.⁴⁷ The revised estimate for the 2-D onshore studies is \$10.1 million.

1.4. Ocean Bottom Seismometer Installation

The scope and cost of the OBS installation remains unchanged from that already reviewed and authorized by the Commission in D.10-08-003.⁴⁸ As the Commission noted in that Decision:

<u>44</u> Id.

<u>45</u> Id.

<u>46</u> Id.

⁴⁷ Exhibit PG&E-1, p. 2-7.

⁴⁸ Exhibit PG&E-1, p. 1-4. See also PG&E/McLaren, Tr. 121, lines 17-25.

PG&E proposes to purchase and install up to four ocean bottom seismometer (OBS) units offshore, on the west side of the known fault zones, to provide the critical seismological station coverage necessary to improve the quality of present earthquake monitoring locations. The earthquake location uncertainties will be reduced by having seismometers on both sides of the earthquake fault zones.⁴⁹

The activities associated with the OBS installation include: manufacture and delivery of the instrument packages; permits for installation; installation offshore, including determining the best locations; and obtaining, processing, modeling and interpreting the data collected by the OBS equipment.⁵⁰ The estimated total cost for purchasing and installing the four OBS units is unchanged at \$2.05 million.⁵¹

1.5 Project Management

PG&E's initial cost estimate for Project Management was \$1.15 million. PG&E's revised cost estimate is \$4.4 million. This updated projection includes additional expenses for management activities and third-party oversight of a Nuclear Quality Assurance (NQA) program, as well as costs incurred to support the IPRP.⁵²

1.5.1 PG&E Labor and Personnel Support

PG&E's cost estimates for labor and personnel support, including activities to produce a Final Report, PG&E project management (to advise and review consultants' work, track scopes and manage costs and schedules), and DCPP personnel support (e.g., on-site work to support the OBS installation), have increased from approximately \$1.15 million to \$2.9 million.⁵³

<u>53</u> Id.

⁴⁹ D.10-08-003, p 8.

<u>50</u> Id.

⁵¹ Exhibit PG&E-1, p. 1-4.

⁵² Exhibit PG&E-1, p. 2-9.

1.5.2 Nuclear Quality Assurance Program

PG&E has determined that all of the geological and geophysical data collected as part of this program are subject to NQA program specifications and, accordingly, PG&E has initiated a NQA management and oversight program.⁵⁴ This program documents and verifies all seismic data acquisition processes and procedures, as well as data acquisition equipment, data processing software, data processing procedures, interpretation and report preparation. All reports considered quality-related are prepared, reviewed and approved according to NQA standards.⁵⁵ While all of the contractors selected for the seismic studies program implement their own industry-level Quality Control programs, none have had experience with a nuclear-level program. Project management costs for administering a NQA management and oversight program by an independent 3rd party are estimated to be ~\$0.63 million for three years.⁵⁶

1.5.3 Independent Peer Review Panel

The revised cost estimate includes \$0.95 million to support activities of the IPRP.⁵⁷ In Decision 10-08-003, the CPUC established the IPRP, whose members include the CEC, California Geological Survey, California Coastal Commission, and the California Seismic Safety Commission. More recently, the County/City of San Luis Obispo has become a member of the IPRP. The IPRP has reviewed and commented on PG&E's seismic study plans.⁵⁸ PG&E continues to meet with and provide information to the IPRP to support its review. The IPRP will also perform an independent review of and comment on the seismic survey planning and study

<u>56</u> Id.

⁵⁴ Exhibit PG&E-1, p. 2-10.

<u>55</u> Id.

⁵⁷ Exhibit PG&E-1, p. 2-10.

⁵⁸ Exhibit PG&E-2, pp. 2-3.

results.

2. The Costs of the Studies; and Whether They Should Be Capped.

As described in Section 1 above, the expanded scope of the proposed 2-D and 3-D offshore and onshore seismic studies is reasonable and justifies PG&E's request for recovery of the increased costs to conduct those expanded seismic studies at Diablo Canyon. Accordingly, the Commission should approve PG&E's request for authority to collect in customer rates an additional \$47.5 million, bringing the total cost of the studies to \$64.25 million. PG&E designed the proposed seismic studies to use the advanced technologies recommended by the CEC to explore fault zones near Diablo Canyon. ⁵⁹ These studies were also designed to address the CEC recommendation that PG&E assess the implications of a San Simeon type earthquake beneath Diablo Canyon.⁶⁰

PG&E expanded the scope of the offshore and onshore 2-D and 3-D seismic studies based on its experience during implementation of the initial scope of activities, as well as the preliminary lessons learned from the nuclear accident at the Fukushima-Daiichi nuclear power plant caused by the Tohoku Japan earthquake and subsequent tsunami.⁶¹ The expanded study scope also reflects input from a number of third parties, including seismic consultants and vendors, environmental consultants, environmental agencies, the IPRP, and public comments from USGS personnel.⁶² As such, PG&E's proposed studies address not only the language of

⁵⁹ The IPRP states, "PG&E plans to perform these studies for on-shore and off-shore areas by using enhanced 2-D and 3-D reflection mapping and other advanced geophysical techniques to explore fault zones in the vicinity of DCPP, as recommended by the CEC AB 1632 Report." IPRP Report No.3, Comments on PG&E's Enhanced Seismic Study Plans for Diablo Canyon Power Plant, April 6, 2012.

⁶⁰ Exhibit PG&E-3, p. 14.

⁶¹ Exhibit PG&E-1, p. 1-2.

⁶²Exhibit PG&E-1, p.1-3. See also, PG&E/Nishenko, Tr. 69, lines 8-28.

the CEC's AB 1632 Report recommendations, but also the goal behind them, namely to reduce the uncertainties of the seismic hazard at Diablo Canyon.⁶³ PG&E shares this goal, as demonstrated by its support of the continuous and ongoing seismic evaluation and analysis performed in the context of the LTSP.⁶⁴

| Line No. | Activity | Original Estimate | Current Request |
|----------|----------------------------|-------------------|-----------------|
| | | (\$ million) | (\$ million) |
| 1 | Seismic Survey Design | \$0.5 | \$0.9 |
| 2 | Offshore 2-D and 3-D (High | \$11.0 | \$46.8 |
| | Energy and Low Energy) | | |
| 3 | Onshore 2-D | \$2.03 | \$10.1 |
| 4 | OBS Installation | \$2.05 | \$2.05 |
| 5 | Project Management | \$1.15 | \$4.4 |
| 6 | Total | \$16.73 | \$64.25 |

2.1. Enhanced Seismic Study Costs⁶⁵

PG&E's original estimates were based on a narrow scope of activities and estimates available from vendors at the time PG&E prepared its original Application. The revised estimates reflect PG&E's experience with the procurement and permitting processes, as well as the significantly increased scope of the offshore and onshore 2-D and 3-D studies.⁶⁶

2.2 The Commission Should Continue the Ratemaking Treatment Authorized in D.10-08-003 for the Initial Cost Estimate of \$16.73 Million

The Commission approved a cost recovery and ratemaking methodology for the original

⁶³ See AB 1632 Report.

⁶⁴ As PG&E Witness Sharp testified, "The Long Term Seismic Program is a commitment by the utility to the NRC to continue to do investigation in the geosciences area. The 3-D studies are a way to reduce uncertainty, not to say that the LTSP was in adequate or deficient but to continue to look at removing uncertainties from the design...."

⁶⁵ Minor errors due to rounding. Exhibit PG&E-1, p.1-4.

⁶⁶ Exhibit PG&E-1, p. 1-4.

scope of seismic studies in D.10-08-003. It should continue to use that existing ratemaking approach, with two revisions. First, PG&E requests that the Commission increase the amount recoverable through the Diablo Canyon Seismic Studies Balancing Account ("DCSSBA") from \$16.73 million to \$64.25 million. Second, PG&E requests that it be allowed to include an allowance for Franchise Fees & Uncollectibles ("FF&U"). PG&E will continue to record its actual costs in the DCSSBA and, on an annual basis, PG&E will transfer up to the amount authorized by the Commission and an allowance for FF&U from the DCSSBA to the Utility Generation Balancing Account or its successor, as part of the Annual Electric True-Up for recovery through CPUC-jurisdictional rates.

If costs increase beyond the authorized amount of \$64.25 million (not including the allowance for FF&U), PG&E requests authority to track these costs in the DCSSBA and requests Commission authority to request cost recovery of the additional costs through the submission of a Tier 3 Advice Letter. While DRA recommends that the Commission requires PG&E to file a new application or request recovery in PG&E's next General Rate Case should PG&E's seismic study costs increase beyond \$64.25 million.⁶⁷ PG&E does not believe it is necessary or efficient for the Commission to adopt DRA's recommendation. The advice letter process is an appropriate process through which to review unexpected, increased costs of activities previously approved by the Commission. It is a more efficient process than an application because Commission and intervenor review occurs on a faster schedule while still subjecting the costs to Commission review and approval.⁶⁸ In a recent decision the Commission stated that the Tier 3 advice letter process, "… provides many of the due process protections provided by the application process

⁶⁷ Exhibit DRA-1, p. 1.

⁶⁸ D.12-05-004, p. 13.

...,"in that it is, "subject to protest by intervenors and disputed issues could go to hearing if the Commission desired." $\frac{69}{2}$

3. Whether Shareholders of Pacific Gas and Electric Company Will Bear a Share of the Costs

A4NR recommends a ratepayer/shareholder cost sharing mechanism that would impose a portion of the seismic study costs on shareholders.⁷⁰ The Commission should reject this proposal as contrary to cost-of-service ratemaking applicable to these and all other reasonable and prudent costs of Utility operations.⁷¹ Customers provide funding required to operate and maintain the IOU's assets consistent with federal and state laws, regulations and directives. The reasonableness of customer funding is assessed in periodic rate cases and applications like this one.⁷² The Commission recently rejected a cost sharing proposal for similar seismic study costs, stating

The legal standard for ratemaking is one of reasonableness. In meeting this standard, the Commission must afford a utility a reasonable opportunity to earn a return on its investments. This standard fails when reasonable and foreseeable expenses of utility operations are excluded from rates.⁷³

PG&E is conducting the seismic studies addressed in this Application on the recommendation of the CEC and at the direction of the CPUC.^{$\frac{74}{2}$} Additionally, enhanced

<u>72</u> Id.

<u>74</u> Id.

<u>69</u> Id.

⁷⁰ Exhibit A4NR-2, p. 3.

⁷¹ Exhibit PG&E-3, p. 17.

^{<u>73</u>} D.12-05-004, p. 10.

knowledge of the seismic hazard near Diablo Canyon provides a clear benefit to PG&E's customers in that, as noted above, it enables PG&E to continue the safe operation of this valuable generation resource.⁷⁵ As such, the Commission should reject A4NR's cost sharing proposal and authorize PG&E to include the full costs of PG&E's seismic studies in customer rates.

4. Whether Outside Experts Should Be Retained To Review the Planned Studies and Their Costs

PG&E sponsored no testimony on this issue.

5. The Structure of the Independent Peer Review Panel Authorized in Decision 10-08-003

PG&E sponsored no testimony on this issue.

C. Conclusion

For the foregoing reasons, the Commission should approve PG&E's Application as filed.

Respectfully submitted,

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⁷⁵ Exhibit PG&E-1, p. 1-3. See also PG&E/O'Flanagan, Tr. p.128, lines 6-13.