

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. )  
\_\_\_\_\_ (U 39 E) )

Application No. 10-01-014

**ALLIANCE FOR NUCLEAR RESPONSIBILITY'S  
OPENING BRIEF**

JOHN L. GEESMAN  
  
DICKSON GEESMAN LLP  
1999 Harrison Street, Suite 2000  
Oakland, CA 94612  
Telephone: (510) 899-4670  
Facsimile: (510) 899-4671  
E-Mail: john@dicksongeesman.com

Date: May 18, 2012

Attorney for  
ALLIANCE FOR NUCLEAR RESPONSIBILITY

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## RECOMMENDATIONS

1. The CPUC should direct PG&E to configure its onshore and offshore seismic surveys to specifically address Dr. Douglas Hamilton's testimony concerning the Diablo Cove Fault and the San Luis Range/Inferred Offshore Fault and their interaction.
2. The CPUC should reiterate that D.10-08-003 requires PG&E's proposed seismic studies be reviewed by the IPRP prior to implementation and remind PG&E that all recovery of seismic study costs is subject to an ex post facto reasonableness review.
3. The CPUC should require PG&E to formally respond in writing to IPRP review comments and, where the company chooses not to accept such recommendations, PG&E should be required to document its scientific reasons for such rejection.
4. The CPUC should direct PG&E to provide the parties in this proceeding, as well as the members of the IPRP, with copies of the written reports submitted by the Participatory Peer Review Panel and the Technical Integration teams after the November 29 – December 1, 2011 SSHAC workshop.
5. The CPUC should reject DRA's proposal for a removable cost cap.
6. The CPUC should allocate seismic study costs between ratepayers and shareholders on the basis of reactor years, with the existing licenses assumed to each be extended by 20 years, and ratepayers paying as an O&M expense that portion of reasonable study costs calculated by dividing the time from the decision in A.10-01-014 to license expiry (i.e., "X") by the sum of X plus 20 years. All other reasonable study costs will be treated as a capital asset with recovery contingent upon re-licensing.
7. The CPUC should reiterate D.10-08-003's authorization for the IPRP "to employ consultants and experts" with costs to be reimbursed by PG&E, and direct the Energy Division to ensure compliance with this Decision.
8. The CPUC should retain the present structure of the IPRP or, if it believes that staff support will be improved by delegating to the Director of the Energy Division, clarify that all provisions of the Bagley-Keene Open Meeting Act will be observed as if the IPRP reports directly to the Commission.

## Introduction

Pursuant to Rule 13.11 of the Rules of Practice and Procedure of the California Public Utilities Commission (Commission or CPUC), the Alliance for Nuclear Responsibility (A4NR) files this Opening Brief addressing each of the five issues set forth in Assigned Commissioner Florio's Scoping Memorandum.<sup>1</sup>

A4NR sees the Commission's decision in this proceeding as a last opportunity to guide PG&E's seismic study process in a useful direction, integrated with the "50.54(f)" design basis re-examination recently ordered for all U.S. nuclear plants by the Nuclear Regulatory Commission.<sup>2</sup> By doing so, the Commission can assure that future financial decisions about possible seismic retrofits to, or the re-licensing of, the two units at the Diablo Canyon Nuclear Power Plant (DCNPP) are based on an appropriately robust scientific record. Failure to do so is likely to squander substantial amounts of ratepayer funds in a flawed effort by PG&E to seek reinforcement for its hotly disputed seismic work of three and four decades ago.

### **I. The scope of the seismic and tsunami studies identified by the applicant.**

First, it should be acknowledged that no tsunami studies were identified by the applicant in this proceeding and no party chose to offer evidence on that subject.

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<sup>1</sup> A.10-01-014, Assigned Commissioner's Scoping Memo and Ruling, March 6, 2012, p. 1.

<sup>2</sup> The March 12, 2012 NRC letter consolidates the information requested pursuant to Section 402 of Public Law 112-074 with that contemplated by the earlier Near-Term Task Force (NTTF) Recommendation 2.1 for Seismic Hazards, and can be accessed at <http://pbadupws.nrc.gov/docs/ML1205/ML12053A340.pdf> The NRC letter, sent to all licensees, outlines the information it requires "to verify the compliance with your plant's design basis and to determine if additional regulatory actions are appropriate." As the letter observes, "In developing Recommendation 2.1, the NTTF recognized that the state of knowledge of seismic hazard within the United States (U.S.) has evolved and the level of conservatism in the determination of the original seismic design bases should be re-examined."

A4NR's principal evidentiary showing in the proceeding was the testimony of Dr. Douglas Hamilton. Dr. Hamilton, from 1971 to 1991 a member of PG&E's geoseismic licensing team for Diablo Canyon, submitted a comprehensive 75-page report on the Diablo Canyon seismic setting, including 21 pages of detailed exhibits.<sup>3</sup> In terms of deficiencies in the scope of PG&E's studies, Dr. Hamilton's testimony zeroed in on two major gaps:

- a continued lack of interest in the Diablo Cove Fault, a local fault on the DCNPP site running from offshore directly under the turbine building and Unit 1 containment foundations, dismissed in 1967 as "inactive"<sup>4</sup> and failing the Atomic Energy Commission's (AEC's) initial standards for "capable" due to lack of recognition of the Hosgri Fault and the Shoreline Fault (a structural relationship to a "capable" fault was an AEC requirement).<sup>5</sup> Subsequently, PG&E's general avoidance of any update to the seismic assessment of the power plant site itself, and its forceful argument against the existence of the Shoreline Fault when that prospect was first raised in 1989, combined to render the 1967 characterization unchanged.<sup>6</sup> Dr. Hamilton testified that the 2008 discovery by USGS of the seismically active Shoreline Fault, and its 3,000 foot proximity to the south headland outcrop of the Diablo Cove Fault, significantly alters the importance of the Diablo Cove Fault.<sup>7</sup> PG&E's proposed studies have yet to address the Diablo Cove Fault.
- the poorly characterized "San Luis Range/Inferred Offshore Fault" in San Luis Obispo Bay inexplicably falls outside PG&E's target zone for enhanced studies. Dr. Hamilton

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<sup>3</sup> A4NR-4.

<sup>4</sup> A4NR-4, p. 20.

<sup>5</sup> A4NR, pp. 21 – 22.

<sup>6</sup> A4NR, p. 22.

<sup>7</sup> A4NR, pp. 22 – 23.

testified that the existence of this structure is required in order to account for the level uplift of the Irish Hills/San Luis Range,<sup>8</sup> and that the geologic and seismologic data now available “clearly show that the San Luis Range is a ‘pop-up’ wedge being uplifted above a northeast-dipping master thrust and a southwest-dipping backthrust ... and that this seismically active thrust system impinges on the seismically active Shoreline fault at shallow crustal depths.”<sup>9</sup>

This means that the Diablo Cove Fault and the nuclear power plant are situated above the leading edge of an active thrust fault and that the stress environment in this area is affected by both the San Luis Range/Inferred Offshore Fault thrust and the Shoreline Fault.<sup>10</sup> Dr. Hamilton testified that a calculation based on NGA (Next Generation Attenuation) relationships indicates a maximum spectral acceleration of 2.35g for ground motion at the power plant site resulting from a M7.0 earthquake on the San Luis Range/Inferred Offshore Fault.<sup>11</sup> This value considerably exceeds the ground motion from maximum earthquakes on either the Hosgri or, separately, the Shoreline Fault.<sup>12</sup>

In Dr. Hamilton’s words, “This has resulted in non-recognition or non-acknowledgement by PG&E of what may well be the controlling seismic hazard to the seismic safety of DCNPP.”<sup>13</sup>

PG&E’s response to Dr. Hamilton’s testimony was not atypical.<sup>14</sup> It moved to strike his testimony as “irrelevant”<sup>15</sup> and beyond the scope of CPUC jurisdiction. “The Commission does

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<sup>8</sup> A4NR-4, p. 31.

<sup>9</sup> A4NR-4, p. 23.

<sup>10</sup> *Ibid.*

<sup>11</sup> A4NR-4, p. 32.

<sup>12</sup> *Ibid.*

<sup>13</sup> A4NR-4, p. 7.

<sup>14</sup> As recounted by California Senator Sam Blakeslee in his testimony in this proceeding: “I first called for additional seismic studies at Diablo Canyon upon being elected to the California legislature in 2005. PG&E penned an opinion

not have authority to issue an order containing even a portion of any of the recommendations proposed in the Hamilton Testimony,” according to PG&E. “Such an order would interfere with the exclusive jurisdiction of the Nuclear Regulatory Commission (NRC) and would, therefore, be preempted by federal law.”<sup>16</sup>

PG&E’s argument, reprised in a cameo appearance by a non-lawyer witness from Southern California Edison (SCE) later in the proceeding,<sup>17</sup> relies upon a willful misreading of the landmark U. S. Supreme Court Case in which the Rehnquist court unanimously slapped the company down three decades ago when it made similar arguments trying to evade California’s nuclear statutes.<sup>18</sup> Nowhere in any of its legal hyperventilating has PG&E ever acknowledged<sup>19</sup> the existence of the decision’s pivotal observation: “the states exercise their traditional authority over the need for additional generating capacity, the type of generating facilities to be licensed, land use, ratemaking, and the like.”<sup>20</sup> Or its devastating next line: “The above is not particularly controversial.”<sup>21</sup>

ALJ Barnett denied the motion at the Prehearing Conference,<sup>22</sup> and PG&E’s appraisal of Dr. Hamilton’s testimony shifted to the point of requesting “at least an additional month”<sup>23</sup> to file rebuttal testimony. As described by PG&E’s attorney, “Really Dr. Hamilton’s testimony is

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in my local newspaper that called my request for further studies as ‘*unnecessary and bad policy for our California customers.*’ A4NR-3 at p. 4.

<sup>15</sup> PG&E’s Motion to Strike Testimony of Douglas H. Hamilton on Behalf of the Alliance for Nuclear Responsibility, February 16, 2012, p. 1.

<sup>16</sup> *Ibid.*

<sup>17</sup> SCE-1.

<sup>18</sup> *Pacific Gas and Electric Co. v. State Energy Resources Conservation & Dev. Comm’n*, 461 U.S. 190 (1983).

<sup>19</sup> Under cross-examination, SCE witness Mark Nelson did admit, “The economic regulation is left to the states.” A.10-01-014 transcript, April 18, 2012, p. 151.

<sup>20</sup> *Pacific Gas and Electric Co. v. State Energy Resources Conservation & Dev. Comm’n*, p. 213.

<sup>21</sup> *Ibid.*

<sup>22</sup> A4NR waived its right to file a written response and argued that the motion should be denied.

<sup>23</sup> A.10-01-014 transcript, February 23, 2012, p. 43.



challenging the entirety of the geosciences program and the seismic hazard that has been adopted for Diablo Canyon and approved by the Nuclear Regulatory Commission. So essentially the testimony starts from scratch and suggests that we should identify new seismic sources and new seismic hazard.”<sup>24</sup>

Not exactly the open-minded spirit of scientific inquisitiveness one would expect of a company asking to use \$64.2 million of its customers’ money to update and intensify its seismic research, but as Senator Blakeslee testified:

*In 2008, the Energy Commission held a public hearing to discuss a draft of the AB 1632 report, which stating that significant uncertainties exist near the Diablo Canyon and recommended that additional 3D seismic studies be completed. PG&E testified before the Energy Commission that they “**believe there is no uncertainty regarding the seismic setting and hazard at the Diablo Canyon Site**”. Mere weeks later, the USGS announced the discovery of the active Shoreline fault running within some 600 meters offshore from Diablo Canyon Nuclear Power Plant – and with an orientation that appears to intersect with the powerful Hosgri fault. Despite the fact that little was previously known about the Shoreline Fault at the time, PG&E was quick to declare, “**We don’t see anything that exceeds the plant’s design basis.**” I am unclear how that conclusion could have been made absent the seismic data called for in 2005, recommended by the Energy Commission in 2008, and before any 3D seismic data had been required. Last spring at a California Senate hearing on the ramifications of Fukushima, I asked if PG&E continued to maintain their previous assertion that there was no uncertainty in the seismic setting near the plant. PG&E responded by saying that although there is always some uncertainty they were “**not concerned about the uncertainty.**”<sup>25</sup> (emphasis in original)*

Senator Blakeslee’s recall of the 2011 post-Fukushima hearing actually understates the degree to which PG&E’s seismic curiosity, or lack thereof, was on full display before the California Senate. The video<sup>26</sup> of the following exchanges between members of the Select

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<sup>24</sup> *Ibid.*

<sup>25</sup> A4NR-3 at pp. 4-5. Senator Blakeslee’s entire testimony was uncontested in A.10-01-014 and no party chose to cross-examine him. As the author of AB 1632, the legislation which initiated the process which culminated in this proceeding, his testimony should be instructive to the Commission: “The thrust of the bill was to better understand the fiscal impact to ratepayers, as well as the inherent reliability challenges associated with replacing that much baseload generation for an extended period of time.” *Ibid.*, p. 1.

<sup>26</sup> California Senate video recording of the Select Committee on Earthquake and Disaster Preparedness, Response and Recovery, March 21, 2011, Tape 2 at 56:50, accessible at <http://www.calchannel.com/legacy-archive/>

Committee on Earthquake and Disaster Preparedness, Response and Recovery and Lloyd Cluff, then head of PG&E's geosciences department,<sup>27</sup> is more revealing:

**Sen. Alquist:** *Back on the topics of uncertainty, because I found your comments intriguing, you said that you had no concern about uncertainty, is that correct...?*

**Lloyd Cluff:** *No, we have a lot of concern about uncertainty, we put it in our models and model the probabilistic...*

**Sen. Alquist:** *How did you state it? I want to be sure that I'm accurate about it.*

**Lloyd Cluff:** *I said that everything we do has uncertainty and we put uncertainty factors into all of our models and when it comes to probabilistic assessment one can see what the likelihood of some of the uncertainty assumptions being surpassed.*

**Sen. Alquist:** *but when it comes to a statistical kinds of models you have less uncertainty when you build in more of a 100 percent accurate facility with everything working properly, with all the public hearings having been done previously so you understand what the issues are, I'm really frustrated that probably for years we have known some of these problems and then plus we get more information on a previously unknown fault, given I have talked in depth with PG&E about what happened in San Bruno because I represent a million people in Santa Clara county, I just don't find PG&E truly forthcoming on addressing all of these issues including what needs to be done on AB 1632 and so I think we need to be clear that we are going to understand what the real issues are and it would be very helpful if we could do it with your support. Thank you.*

**Lloyd Cluff:** *Madame chair, can I just respond to one quick comment?*

**Sen. Corbett:** *Yes briefly and then we go to Senator Kehoe...*

**Lloyd Cluff:** *...Senator Blakeslee and Senator Alquist...The discovery of the Shoreline Fault, it was discovered during a PG&E program in collaboration with the USGS, it was not a sole discovery by someone at the US by themselves. It was team effort, we were deeply involved in all of those studies.*

**Sen. Corbett:** *Well I'm so sorry, but I must ask this question: If you were at the table in the discovery why didn't you get started sooner on responding to that? Doing whatever analysis, whatever studies had to be done, I'm sorry I'm very frustrated with this lineup well we couldn't get there because you know whatever reason or excuse there is. I just*

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<sup>27</sup> Mr. Cluff retired shortly after this hearing and is now a consultant to SCE's seismic studies effort at the San Onofre Nuclear Generating Station.

*think that a utility that knows there's a new seismic fault connected to a fault that the plant was engineered for would start a little sooner. You know, sadly, once again, we have to have disaster in another part of the country for people to have to ask these questions. But I'm just a little frustrated as to why only six months ago you started. These recommendations came from the California Energy Commission and the California Energy Commission was directed to do this study by the California Legislature. So I'm just trying to understand why, why, even on your own initiative, especially since you now just admitted you were at the table for the discovery, why it was not started sooner?*

**Lloyd Cluff:** *We started those studies in 2006. That's when those studies, that collaborative study that we were doing. And we found a lot of things that have been resolved and so forth as we've gone through those studies. In 2008, in November is when we saw this alignment of small earthquakes—microearthquake—and since that time we have initiated a lot of other geophysical studies that have helped us understand the uncertainty around that. Now we're in the process of doing all the 3-D studies and we will continue to do that.*

**Sen. Corbett:** *Thank you very much, Senator Blakeslee wants to follow up on that point.*

**Sen. Blakeslee:** *I guess I am concerned mostly about this culture of disregard of risk and the lack of concern regarding uncertainty. It's a culture which becomes endemic at PG&E and resulted in loss of life and potentially putting my constituents in a place of I believe great risk. I've been asserting for many years, long before these studies were recommended that more study was needed. And I was very disappointed that when the Shoreline Fault was discovered PG&E rushed to say it was a minor fault—and you'll remember your first press release—you may still have it—you then went to NRC and told them what the potential seismic threat was without knowing specifically the proximity of that fault to the facility, because the error bars in microearthquake allow it to be much closer—could potentially be much closer—than some of the modeling that was publicized. The linear extent and length of the fault based on the microearthquake is the roughest of possible methodology for approximating the length of the fault. In fact, the aeromag data and some of the gravity data suggest it could be much longer. And there is an utter disregard for the potential of coupling between the Hosgri Fault and this new Shoreline Fault. And why PG&E would systematically be pumping out press releases and statements to the NRC asserting that they had complete knowledge of how these elements work with regard to the three areas of uncertainty I mentioned—how they interplay with the safety of the facility—before doing the comprehensive 3-D studies—not just the shallow studies—the studies that are recommended by 1632 is of grave concern to me.*

What none of the Senators realized at the March 21, 2011 hearing was that the assessment of the Shoreline Fault which PG&E had transmitted to the NRC just two months

previously<sup>28</sup> would be found to be seriously deficient by the federal regulator.<sup>29</sup> As confirmed in this proceeding by PG&E witness L. Jearl Strickland,<sup>30</sup> on August 1, 2011, the NRC staff issued a letter to PG&E which stated:

- *Although the LTSP margin analysis demonstrated that the new Shoreline Fault Zone information was bounded by the Hosgri Event, the licensee didn't evaluate the new seismic information against the other two design basis earthquakes, the Design Earthquake and the Double Design Earthquake.*
- *... the plant safety analyses concluded that seismic qualification for certain structures, systems and components was more limiting for the Design Earthquake and Double Design earthquakes than for the Hosgri Event.*
- *New seismic information developed by the licensee is required to be evaluated against all three of the seismic design basis earthquakes and the assumptions used in the supporting safety analysis ... Comparison to the LTSP by itself is not sufficient to meet this requirement.*

Had they known of the infraction, the members of the Senate Select Committee might have been even more alarmed by PG&E's reaction to being told of this license violation. Rather than perform the required evaluation, PG&E took the unprecedented step in October 2011, to file a "License Amendment Request" which seeks to **lower the existing design basis** (emphasis added) for Diablo Canyon.<sup>31</sup> This would be a bold move for any nuclear licensee in the year after the Fukushima accident. For a company still reeling from the national uproar over its lax

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<sup>28</sup> PG&E, "Report on the Analysis of the Shoreline Fault Zone, Central Coast California to the USNRC," January 7, 2011, accessible at <http://pbadupws.nrc.gov/docs/ML1101/ML110140400.pdf>

<sup>29</sup> A4NR-1. A4NR ordinarily subscribes to a common view of the NRC: "it's a moribund agency that needs to be revamped and has become captive to the industries which it regulates, and I think that's a problem," as then Senator Barrack Obama told the Keene (New Hampshire) Sentinel editorial board, November 27, 2007, accessible at <http://www.youtube.com/watch?v=xRxl2cVFTLw>

<sup>30</sup> Transcript, April 18, 2012, at pp. 40 – 41.

<sup>31</sup> PG&E, "License Amendment Request 11-05, 'Evaluation Process for New Seismic Information and Clarifying the Diablo Canyon Power Plant Safe Shutdown Earthquake,'" October 20, 2011, accessible at <http://pbadupws.nrc.gov/docs/ML1131/ML11312A166.pdf>

attention to safety in its natural gas operations, such a response is nothing short of brash. Nor should there be any doubt about its significance. As PG&E stated in its November 3, 2011 10-Q filing with the SEC:

*...in early August 2011, the NRC found that a report submitted by the Utility to the NRC on January 7, 2011 to provide updated seismological information did not conform to the requirement of the current Diablo Canyon operating license. On October 21, 2011, the Utility filed a request that the NRC amend the operating license to address this issue. If the NRC does not approve the request the Utility could be required to perform additional analyses of Diablo Canyon's seismic design which could indicate that modifications to Diablo Canyon would be required to address seismic design issues. The NRC could order the Utility to cease operations until the modifications were made or the Utility could voluntarily cease operations if it determined that the modifications were not economical or feasible.<sup>32</sup>*

Regarding PG&E's response to Dr. Hamilton's testimony, however, the much ballyhooed start-from-scratch rebuttal that was supposed to come after the extra time allowed by ALJ Barnett shrank considerably by the time the testimony was filed.<sup>33</sup> Apart from more arm-waving about the NRC's exclusive jurisdiction<sup>34</sup> -- and a belabored lurch through dusty archives in defense of seismic assessments from three, four, and five decades ago<sup>35</sup> -- this purported rebuttal timidly suggested that Dr. Hamilton had "speculatively" linked an east-west bedrock

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<sup>32</sup> PG&E Corporation, Form 10-Q filing, November 3, 2011, p. 63.

<sup>33</sup> PG&E-3.

<sup>34</sup> PG&E might do well to pay closer attention to the 2008 testimony to the CEC of one of its more prominent geoscientists, Dr. Norman Abrahamson: "When we talk about reliability we are generally looking at the performance of the plant for a below design basis earthquake that is actually likely to happen. For example, at Diablo Canyon we would be concerned with a magnitude say 6.25 earthquake on the Hosgri Fault that might give us .2 or .3 Gs of peak acceleration. Less than half of what our design basis is. But it is the non-safety-related systems that are potentially being damaged, would be damaged by those and then would put us out of operation, even though all our safety systems performed properly ... Really reliability is going to be driven by a more frequent but lower level of shaking for which our non-safety-related systems are not designed for ... And the NRC has been focused on safety. And they were arguing, what is our design basis. But again, we think reliability is going to be driven by a much more frequent, smaller magnitude earthquake for which our non-safety-related systems would be damaged ... That has not been addressed by the industry in general. It has been so focused on safety that we have let that part go." CEC transcript, Docket Nos. 07-AB-1632 and 08-IEP-1F, September 25, 2008, pp. 83 – 85.

<sup>35</sup> Reliance on such ancient artifacts may provide questionable comfort in a NRC 50.54(f) process launched with the admonition that "the state of knowledge of seismic hazard within the United States (U.S.) has evolved and the level of conservatism in the determination of the original seismic design bases should be re-examined."

fault, then meekly opined, “the information collected by the seismic studies proposed in this application will allow PG&E to assess the seismic characterization of the area Dr. Hamilton refers to with greater specificity.”<sup>36</sup>

By the time of the evidentiary hearing, some four weeks later, Dr. Hamilton’s concerns appeared to have been transformed into a component of PG&E’s study design itself. PG&E declined to cross-examine Dr. Hamilton, but its own witness, Dr. Stuart Nishenko, reiterated – under questioning by A4NR -- PG&E’s willingness to address Dr. Hamilton’s concerns:

*Q: Has there ever been any offshore study of the character or extent of this faulting?*

*A: This again, is part of the studies that we are currently proposing to do in this Application.*

*Q: As they are currently designed?*

*A: Yeah.*

*Q: Offshore?*

*A: Offshore studies that we have conducted and we intend to conduct will address these questions, yes.*

*Q: The draft environmental impact report for your studies shows a gap in the proposed vibroseis 2-D lines along the Irish Hills shoreline, does it not?*

*A: I am not quite clear exactly what area you are referring to.*

*Q: Well, I’m referring exactly at the location of the so-called Diablo Cove fault.*

*A: So these are additional data that we can collect there.*

*Q: Can collect or plan to collect?*

*A: We plan to collect to address these questions.*

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<sup>36</sup> PG&E-3 at p. 14.

*Q: And do you plan to collect these data both onshore and offshore to address these questions?*

*A: Yes.*<sup>37</sup>

Dr. Nishenko's witness-stand flexibility, a contrast to PG&E's feverish deadline insistence to the IPRP and the State Lands Commission, is not dissimilar to what he told the scientists gathered at the Senior Seismic Hazard Assessment Committee (SSHAC) public workshop in San Luis Obispo last November 30:

*STU NISHENKO: Well, I would say it's not cast in stone yet because the time where things were get cast in stone is once that environment impact report, the public comment period closes, we go into negotiations and look at alternatives based on those public comments, we kind of address everything and start fine tuning ...*<sup>38</sup>

In light of PG&E's well-publicized execution challenges, A4NR does not consider the company's declared plans a reliable predictor of what actually happens. PG&E's most recent seismic work has not been without its own logistical embarrassments. As disclosed in the SSHAC workshop, major gaps in the 2011 onshore surveys actually took place at the DCPD site itself:

*Q: Dan, the north side of the hills had a bunch of red dots. That's a 3D?*

*DAN O'CONNELL: Yes.*

*Q: Why didn't you have that on the PG&E properties on the southwest side?*

*DAN O'CONNELL: It took awhile to get clearance.*

*Q: From PG&E?*<sup>39</sup>

Or, as Dr. William Lettis, the SSHAC workshop leader for seismic source characterization, would later put it,

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<sup>37</sup> A.10-01-014 transcript, April 18, 2012, pp. 95-96.

<sup>38</sup> PG&E transcript of SSHAC workshop, November 29 – December 1, 2011, p. 140.

<sup>39</sup> *Ibid.*, p. 176.



*“In Dan’s presentation it came up that we may redeploy or future deployment of the nodes on DCPD properties to sort of fill in. I’m also wondering, Bill’s like gosh we have all these 3D nodes set up off of PG&E’s property; what happened on the DCPD property. So I like the idea of redeploying those nodes if possible ...”*<sup>40</sup>

Consequently, A4NR believes it essential that the CPUC not rely on PG&E’s professed intent alone in assuring that Dr. Hamilton’s recommendations concerning the Diablo Cove and San Luis Range/Inferred Offshore faults, and their interaction, are included in PG&E’s study program. The appropriate mechanism, especially considering the eventual deference shown Dr. Hamilton’s recommendations by PG&E in this proceeding, is for the Commission simply to direct PG&E to do so.<sup>41</sup>

**A4NR Recommendation: The CPUC should direct PG&E to configure its onshore and offshore seismic surveys to specifically address Dr. Douglas Hamilton’s testimony concerning the Diablo Cove Fault and the San Luis Range/Inferred Offshore Fault and their interaction.**

## **II. The costs of the studies, and whether they should be capped.**

To emphasize the necessity of independent external review, A4NR purposely sponsored expert testimony from two witnesses with divergent views of the costs of PG&E’s proposed seismic studies. Dr. Hamilton had a harsh appraisal of the value of the 3-D survey data PG&E displayed at the SSHAC workshop: “None of this data provided any information useful for significantly improving understanding of the seismic hazard to the DCNPP and nothing in the planned additional surveys, both onshore and offshore, offers any prospect for any result

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<sup>40</sup> *Ibid.*, p. 182.

<sup>41</sup> Consistent with PG&E’s attempt to find refuge in seismic work largely completed by 1988, A4NR suggests the Commission adhere to President Reagan’s famous neologism: trust, but verify. Maps identifying Dr. Hamilton’s areas of concern are attached to this brief as an Appendix and have been submitted to the State Lands Commission permitting process by geologist Erik Layman.



beyond marginal improvement to what is already known.”<sup>42</sup> He recommended elimination of ratepayer sponsored onshore and offshore geophysical programs, “especially those duplicating investigations by USGS and others.”<sup>43</sup>

Senator Blakeslee’s similar misgivings led him to a different conclusion:

*What concerns me is that the IPRP questioned both the geographic scope of the study as well as the specific types of studies to be complete. In particular, the IPRP questioned whether the current footprint of the study is sufficient to provide meaningful data on the intersection of the Hosgri and Los Osos Faults, as well as the southern terminus of the Shoreline Fault ... (D)espite these fundamental and significant questions regarding PG&E’s study plan, it appears that PG&E plans to proceed with the current study plan and has made no representation that they intend to address the IPRP’s questions or concerns. The IPRP stated that should they obtain the requested information, it may result in a determination by the IPRP that the study plan is insufficient. I would argue that the more prudent course of action is for the Commission to require PG&E to provide the requested information to the IPRP before further steps are taken...*

*My concern regarding costs is that the study plan as it is currently designed may not be sufficient to address issues raised in the AB 1632 report. This concern is heightened by the questions raised by the IPRP, as well as by myself, that remain unanswered. PG&E’s reticence to share the particulars about how they designed the study, who they spoke with, and what feedback they received from industry stakeholder, does not inspire confidence that the study plan is as robust as it should be. Given the lengthy history of PG&E either misunderstanding or mischaracterizing the seismic setting of Diablo Canyon dating back to the 1960’s and continuing on even after the discovery of the Shoreline Fault, my main concern with cost is that the current study plan will ultimately prove inadequate.<sup>44</sup>*

A4NR Executive Director Rochelle Becker’s testimony rebutting DRA’s proposals emphasized the need for CPUC diligence to reconcile the superficial differences between geology Ph.D. Hamilton and geophysicist Ph.D. Blakeslee and protect against waste of ratepayer resources:

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<sup>42</sup> A4NR-4, p. 43.

<sup>43</sup> *Ibid.*, p. 53.

<sup>44</sup> A4NR-3, pp. 6 – 7.

*The Alliance for Nuclear Responsibility (A4NR) shares DRA’s concern that a quadrupling in costs of PG&E’s proposed seismic studies without adequate justification is indicative of a program in serious disarray. A4NR is astonished, however, at DRA’s apparent indifference to the obvious red flags<sup>45</sup> that signal the study program’s severe scoping deficiencies. Rather than roll its sleeves up and assure that the study program is repurposed to accomplish its worthy objective of better seismic risk assessment at Diablo Canyon, DRA resorts to tired and ineffectual remedies like imposition of a removable cost cap and threats of after-the-fact audits. DRA’s unexplained rejection of cost-sharing to compel a modicum of business prudence by the utility is baffling.*

*This sets up a replay of the CPUC staff’s uninformed and remarkably uncurious rubber stamping of Southern California Edison’s proposed seismic study program.<sup>46</sup>*

Nor was PG&E’s testimony on likely future costs any source of assurance. Under cross examination, PG&E witness Kent Ferre – identified as “the project manager for the AB 1632 Seismic Studies”<sup>47</sup> and “the SSHAC manager”<sup>48</sup> -- acknowledged that the SSHAC workshop had generated a list of 55 potential new data needs but was dismissive about their costs:

*Q: Now, in that same transcript, your name was mentioned and I believe one of your consultants, Bill Lettis, said that when he was at No. 30 on the list of 55, you had observed to him that that list was already over a billion dollars’ worth of study projects. Is that reference in the transcript accurate?*

*A: That reference in the transcript is accurate. But I believe anybody that was at the workshop understood that that was said in a light tone, not in a real serious tone.*

*Q: So by the time the number got to 55, what was the general –*

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<sup>45</sup> Ms. Becker testified that, “The most visible sign of how far this process has gone off track is the degree to which the CPUC Energy Division staff has allowed PG&E to debase the IPRP. The two published reports by the IPRP make clear that several of the state agencies are chafing under the indefensible constraints that have been placed on their review. How PG&E can be allowed to simply show up to a meeting with a Power Point presentation in the face of repeated demands for more detail and more time to review materials defies credulity. That PG&E is not required to formally respond to IPRP comments or document its scientific reasons for rejecting IPRP recommendations is deplorable. The CPUC staff’s continued foot dragging in retaining the promised technical consultants for the IPRP – an 18-month fiasco at this point – suggests the CPUC’s creation of the IPRP was for window dressing, not for meaningful review.” A4NR-2, pp. 3 – 4.

<sup>46</sup> A4NR-2, p. 2.

<sup>47</sup> PG&E-1, p. KSF-1.

<sup>48</sup> A.10-01-014 transcript, April 18, 2012, p. 108.

A: *It's an irrelevant number.*<sup>49</sup>

The number, though, might seem more relevant to PG&E's customers, who are still paying for more than \$4 billion (1982 dollars) in construction cost overruns caused by the changes required in Diablo Canyon's seismic design after discovery of the Hosgri Fault during the licensing process. Indeed, Finding of Fact #6 in the Commission's recently adopted D.12-05-004 approving SCE's \$64 million seismic study program bluntly declared, "It is reasonably foreseeable that the costs for SONGS 2 & 3 seismic activities may exceed the current estimates of \$64 million."<sup>50</sup> Dr. Lettis explained what would become of the list of data needs developed at the SSHAC workshop:

*...starting right after our workshop tomorrow and next week, I want to condense that list and ... improve that list, relate that list to specific issues, and then begin to prioritize that list relative to the key issues to hazard.*

*That obviously will then go through a number of iterations among our TI<sup>51</sup> team, the PPRP<sup>52</sup> will review it and then we'll discuss it with PG&E management and decide on what is the best path forward ...<sup>53</sup>*

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<sup>49</sup> *Ibid.*, pp. 109 – 110. Dr. Lettis mentioned the billion dollar number twice during the three-day SSHAC workshop, initially on day two: "As I went over the project goals each of the last two mornings, I don't have the slide again to reiterate, but one of our primary goals is once again not only to review the available data, both the legacy data and new data, but also to talk about potential data needs to address key significant issues. And those last few words are very important – data needs to address key significant issues ... and we've gone through several iterations – to try to really focus the hazard analysis down to what are the key significant issues. And yesterday we developed, I think we're on number 35. Kent Ferre said Bill, at about the 30 mark you passed the one billion funding level." PG&E SSHAC transcript, November 30, 2011, p. 189. Dr. Lettis recounted the same story the next day, when the list had grown to "over 50 ideas and potential data needs" and acknowledged "there's only so much schedule and only so much budget, and we need to focus on what's most important ... we are really going to distill this list down to, I guess for Kent, at least we want to get it down into below a billion, I'm sure, but probably into a respective – and Kent, every Monday morning I hear Kent first thing. Bill, budget, you know, we're over budget. What are we going to do? So I have to be very respectful of that." PG&E SSHAC transcript, December 1, 2011, pp. 250 – 251.

<sup>50</sup> D.12-05-004, adopted May 10, 2012, p. 17. In terms of regulatory signaling, this may be the equivalent of announcing that drinks are on the house.

<sup>51</sup> Technical Integration, as prescribed by the SSHAC methodology of NUREG-2117 and NUREG/CR-6372.

<sup>52</sup> Participatory Peer Review Panel, as prescribed by the SSHAC methodology of NUREG-2117 and NUREG/CR-6372.

<sup>53</sup> PG&E SSHAC Transcript, November 30, 2011, p. 189.

Mr. Ferre acknowledged that written prioritizations of the list mentioned by Dr. Lettis, and a similar one for the ground motion side of the analyses, have been prepared and that PG&E is “currently funding projects that are coming out of the list.”<sup>54</sup> Additionally, he said, the Participatory Peer Review Panel “did develop a report that addressed sort of the process that we were following.”<sup>55</sup> A4NR requested that these written evaluations be made a part of the evidentiary record to allow an informed review of the \$64.2 million portfolio of studies that is the subject of A.10-01-014.<sup>56</sup> Predictably, PG&E objected:

*MS. POST: ... We're not considering the broader context of the ongoing seismic program that PG&E continuously uses to look at the seismic hazard around Diablo Canyon. The appropriate place to look at those studies is when PG&E requests funding for those studies.*

*MR. GEESMAN: Your Honor, if PG&E was using its own money for this, I think Ms. Post would have a point. But every single one of these studies is being funded by the ratepayers. Every single one. We need a context in which to evaluate where the different pieces fit. They're only letting us see a tiny piece of the iceberg.*<sup>57</sup>

To A4NR's dismay, its request was denied without explanation. The consequence of indulging PG&E's desire for opacity, periodically punctuated by piecemeal review, could not be more clear: continued spiraling upward of costs with no accountability for how ratepayer funds are expended. The Commission should recognize that a regulatory philosophy of willed

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<sup>54</sup> A.10-01-014 transcript, April 18, 2012, p. 110.

<sup>55</sup> *Ibid.*, p. 113.

<sup>56</sup> Mr. Ferre had earlier testified that the budget for the SSHAC process is approximately \$3 million per year. A.10-01-014 transcript, April 18, 2012, p. 67. Experts in canine engineering could probably confirm that before such a comparatively small tail could be relied upon to dependably wag a dog of \$64.2 million to \$1 billion in size, it would at least need to be visible.

<sup>57</sup> A.10-01-014 transcript, April 18, 2012, pp. 112 – 113.

ignorance, particularly given the torturous history of seismic issues at Diablo Canyon, is inexcusable.

**A4NR Recommendation: The CPUC should reiterate that D.10-08-003 requires PG&E's proposed seismic studies be reviewed by the IPRP prior to implementation and remind PG&E that all recovery of seismic study costs is subject to an ex post facto reasonableness review.**

**A4NR Recommendation: The CPUC should require PG&E to formally respond in writing to IPRP review comments and, where the company chooses not to accept such recommendations, PG&E should be required to document its scientific reasons for such rejection.**

**A4NR Recommendation: The CPUC should direct PG&E to provide the parties in this proceeding, as well as the members of the IPRP, with copies of the written reports submitted by the Participatory Peer Review Panel and the Technical Integration teams after the November 29 – December 1, 2011 SSHAC workshop.**

**A4NR Recommendation: The CPUC should reject DRA's proposal for a removable cost cap.**

### **III. Whether shareholders of Pacific Gas and Electric Company will bear a share of the costs.**

In A4NR's judgment, the only effective way to gain some control of the costs of PG&E's proposed seismic studies is to require that the shareholders initially bear some of the costs. As explained by A4NR witness Becker,

*These costs should not be the exclusive responsibility of the ratepayers. Customers are on the hook to pay for the current operation of the plant, but the seismic study expenditures also relate to the investment and development cost of a relicensed Diablo Canyon as well. PG&E shareholders ought to shoulder responsibility for that portion until the licenses are extended. How else will the CPUC get the focused attention of PG&E's management on the prudent design and execution of these studies?<sup>58</sup>*

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<sup>58</sup> A4NR-2, p. 3.

Ms. Becker recommended dividing the study costs on the basis of reactor years, with the customers responsible for that portion represented by the time from decision to license expiry dates (November 1, 2024 for Unit 1 and August 1, 2025 for Unit 2) and the shareholders responsible initially for the portion represented by the 20 years of license extension contemplated for each unit thereafter. Depending upon how quickly A.10-01-014 moves to a Commission decision, that formula would assign roughly 61 – 62% of the study costs to the shareholders (until relicensing occurs, at which time return on shareholder investment would begin to be paid).<sup>59</sup>

In attempting to justify why “customers should bear the full cost” PG&E witness O’Flanagan cast the issue in terms of the basics of utility finance:

*Established cost of service ratemaking principles provide that an investor-owned utility (IOU), such as PG&E, invests in projects beneficial to customers and earns an authorized rate of return on that investment. Customers provide funding required to operate and maintain the IOU’s assets ...The data collected from the seismic studies will be used to help assess the seismic hazard at Diablo Canyon, contributing to the safe and reliable operation of the plant.*<sup>60</sup>

When cross-examined, Mr. O’Flanagan initially tried to maintain this distinction between an “investment” and the “cost of operating an investment” but found that difficult when asked about the license extension.

Q: You are not going to earn a rate of return on these studies, are you?

A: No.

Q: So it is not really an investment by PG&E?

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<sup>59</sup> *Ibid.*

<sup>60</sup> PG&E-3, p. 17.

A: *No, it's not. It's a cost of operating an investment, the investment being Diablo.*

Q: *It is an O&M expense?*

A: *Right.*

Q: *I understand that with respect to the existing plant and the existing license. I have a little harder time when I think of a relicensed plant. Isn't that more analogous to a new investment?*

A: *The cost of obtaining the license is considered an asset.*

Q: *An asset upon which you would earn a return?*

A: *That's correct.*

Q: *So there must be some risk to whether you actually obtain that license or not ...*

A: *Yes, there is.*

Q: *If you don't get the license, you are not making a return on your asset absent some extraordinary action by the CPUC?*

A: *That's correct.*

Q: *So in terms of these studies, they really perform two functions, don't they? They both allow you to operate and maintain the existing plant under the existing license, and they may very well be a key feature in being able to obtain a re-license? Isn't that correct?*

A: *Well, my understanding is these studies aren't required as part of the relicensing.*

Q: *Didn't the president of this Commission say it was a prerequisite that you complete these studies before applying for relicensing?<sup>61</sup>*

A: *I believe he did. I don't have that with me.<sup>62</sup>*

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<sup>61</sup> Letter from CPUC President Michael Peevey to PG&E CEO and President Peter A. Darbee, June 25, 2009: "It has come to my attention that PG&E does not believe that it should include a seismic study, and other AB 1632 Report recommended studies, as part of its Diablo Canyon license extension studies for the CPUC. Apparently, PG&E bases this position on the fact that the Nuclear Regulatory Commission's (NRC) license renewal application review process does not require that such a study be included within the scope of a license extension application. That position, however, does not allow the CPUC to properly undertake its AB 1632 obligations to ensure plant reliability, and in turn to ensure grid reliability, in the event Diablo Canyon has a prolonged or permanent outage. Therefore, the Commission directs PG&E to perform the following tasks as part of its license renewal feasibility studies for Diablo Canyon ... PG&E's rate case, D. 07-03-044, specifically linked PG&E's license renewal feasibility study for Diablo Canyon to the AB 1632 assessment and PG&E is obligated to address the above itemized issues in its plant relicensing application. This commission will not be able to adequately and appropriately exercise its authority to fund and oversee Diablo Canyon's license extension without these AB 1632 issues being fully developed."

A4NR acknowledges that capitalizing a portion of the seismic study costs may, from a naively theoretical perspective, pencil out as more expensive than imposing them on the customers immediately and relying on regulatory oversight as the only method of cost control. What gullible souls are willing to presume that utility management will be just as attuned to safeguarding customer funds as shareholder funds? A4NR finds this premise farfetched, especially as the concept of moral hazard -- and its perverse incentives -- becomes better understood at the Commission. The best way to assure more prudence and sobriety in PG&E's planning and implementation of what appear to be mutating into wildly expensive seismic studies is to require the company to have a proportionate amount of skin in the game.

**A4NR Recommendation: The CPUC should allocate seismic study costs between ratepayers and shareholders on the basis of reactor years, with the existing licenses assumed to each be extended by 20 years, and ratepayers paying as an O&M expense that portion of reasonable study costs calculated by dividing the time from the decision in A.10-01-014 to license expiry (i.e., "X") by the sum of X plus 20 years. All other reasonable study costs will be treated as a capital asset with recovery contingent upon re-licensing.**

#### **IV. Whether outside experts should be retained to review the planned studies and their costs.**

Because of the highly specialized technical knowledge required, A4NR continues to believe that it is essential to an informed review of the proposed seismic studies that the IPRP

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<sup>62</sup> A.10-01-014 transcript, April 18, 2012, pp. 125 – 127. After a pause, Mr. O'Flanagan meandered into distinction without difference: "I believe what that was referring to was us continuing to prosecute the cost recovery Application at the CPUC. It wasn't linking the studies to our effort to get the NRC to give us a license extension. It was related strictly to whether the CPUC would continue to process our Application for cost recovery." "Q: Meaning whether the customers would be paying for your attempt to relicense the plant?" "A: That's correct." "Q: So PG&E could conceivably pursue that relicensing without seeking cost recovery up front?" "A: I suppose it could." A.10-01-014 transcript, April 18, p. 127.



be afforded access to outside experts. This need was recognized by the Commission in D.10-08-003, which expressly declared, “The IPRP may employ consultants and experts. Costs incurred by the IPRP shall be reimbursed by PG&E and recovered in the DCSSBA.”<sup>63</sup> As the CPUC made clear in its Budget Change Proposal #1 for the 2011-12 fiscal year, “The CPUC currently has no in-house scientific or technical expertise to review seismic studies or perform analyses on its own...”<sup>64</sup> Outside help is needed to ensure that the enhanced seismic studies are scoped out properly at the front end and reviewed properly during the course of the studies pursuant to the recommendations in AB 1632.”<sup>65</sup>

Despite promising the IPRP at its first meeting on August 31, 2010 that it would have access to a technical consultant,<sup>66</sup> the CPUC has yet to make good on this commitment.<sup>67</sup> In early 2012 -- when both PG&E and the Energy Division staff were concerned about potential delay to the State Lands Commission’s permit review -- the IPRP made clear its immediate need for such external expertise to help evaluate the adequacy of PG&E’s proposed 3-D imaging vessel when compared to those used by the offshore petroleum industry. Because of the ongoing inability of the CPUC Energy Division to retain such assistance, the County of San Luis Obispo took the extraordinary step of offering to be the contracting entity if it could be assured of reimbursement. When this offer was communicated at the IPRP’s February 21, 2012 meeting, it seemed to meet with PG&E’s approval. But when it was raised by the County two

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<sup>63</sup> D.10-08-003, August 12, 2010, p. 11. DCSSBA is the acronym for the Diablo Canyon Seismic Studies Balancing Account.

<sup>64</sup> Department of Finance, State of California Budget Change Proposal for Fiscal Year 2011-12, Public Utilities Commission BCP #1, February 11, 2011, p. I-1.

<sup>65</sup> *Ibid.*, p. II-3.

<sup>66</sup> IPRP Report No. 1, September 30, 2010, p. 5, included as Attachment A of DRA-1.

<sup>67</sup> The oft-repeated, makeshift explanation that the CPUC staff finds the state contracting process “impossible” is contradicted by the Commission’s comparatively rapid retention of outside experts to perform independent reviews of the San Bruno accident and PG&E’s SmartMeter rollout.

days later at the February 23, 2012 Pre-Hearing Conference in A.10-01-014, PG&E's attorney insisted that it be characterized as "testimony"<sup>68</sup> and thereby delayed its consideration until the evidentiary hearing on April 18, 2012.

After communicating in advance with each of the parties, and with the identified support of A4NR, the County appeared at the April 18, 2012 evidentiary hearing and requested an interim ruling – subject to a final decision by the Commission – that would allow the contract to go forward:

*The County's understanding is that a hearing before the State Lands Commission on the seismic studies may be scheduled as early as July; thus, the County believes its imperative for the IPRP to retain an outside seismic expert as soon as possible. However, it's the County's understanding that Energy Division will not be able to execute a contract amendment and begin work without at least an interim or preliminary ruling allowing a budget for the contract amendment.*

*As mentioned, the County's requesting the amount it believes has been budgeted for the County in PG&E's motion to reopen this proceeding...*

*The County also understands that any preliminary budget approval would be subject to a final Commission decision in this proceeding.*

*Based on the foregoing, the County respectfully requests an interim or preliminary ruling authorizing Energy Division to enter into a contract with the County for the County's participation on the IPRP for a cost not exceeding \$210,000.<sup>69</sup>*

DRA indicated it did not oppose the motion<sup>70</sup> and PG&E stated that it "neither supports nor opposes this motion so long as the \$210,000 remains within the \$950,000 PG&E budgeted for IPRP activities ... The IPRP is a CPUC advisory body and it's up to the CPUC to determine

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<sup>68</sup> A.10-01-014 transcript, February 23, 2012, p. 52.

<sup>69</sup> A.10-01-014, April 18, 2012, pp. 2 – 3.

<sup>70</sup> *Ibid.*, p. 5.

whether or not an additional expert to those experts that are already on the panel is necessary for the IPRP to perform its function ...”<sup>71</sup>

Despite the absence of any opposition and despite the County’s stated conformity to a script crafted by the Energy Division, the motion did not go forward. As ALJ Barnett explained:

*Well, I have a problem with the motion. The first is that I just got notice of this yesterday and you’re making an oral motion for \$210,000. I’m not sure what a preliminary order from me would look like at this time. But my problem is that the motion is an oral motion<sup>72</sup> not a formal motion with service on all parties,<sup>73</sup> with time to respond to that motion,<sup>74</sup> assuming everybody agrees to it.<sup>75</sup>*

On May 16, 2012, the County’s motion – having been resubmitted in writing – was granted in a written ruling by Commissioner Florio and ALJ Barnett with the observation,

*“We agree that the most meaningful opportunity to review the design of PG&E’s proposed studies is prior to the State Lands Commission issuance of a permit to perform the studies. Thus, it is imperative for the IPRP to retain an outside seismic expert as soon as possible. In order for the IPRP to retain the necessary outside expertise in the most timely manner possible, we grant the motion.”<sup>76</sup>*

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<sup>71</sup> *Ibid.*, p. 4. A4NR argued in support of the motion: “I would point out to you that this could have been dealt with at the prehearing conference two months ago but for the fact that Ms. Post (PG&E’s counsel) characterized the County’s position as testimony and suggest it be held over until now. We’ve been told from the very outset that time is of the essence with respect to these studies, but I think it should be quite clear the reason for delay here has been solely because of PG&E. The IPRP was assured at its first meeting on August 31, 2010, nearly 20 months ago, that independent consultants would be hired. Independent consultants are identified as one of the features of the IPRP in the Commission’s decision. We support the County’s motion but feel that it’s been a long time coming.” *Ibid.*, at pp. 4 – 5.

<sup>72</sup> CPUC Rule 11.1 (c) states that an Administrative Law Judge “may permit an oral motion to be made during a hearing or conference.”

<sup>73</sup> CPUC Rule 11.1(e) states that responses to oral motions “may be made as permitted by the Administrative Law Judge.”

<sup>74</sup> CPUC Rule 11.1 (g) states that “nothing in this rule prevents the Commission or the Administrative Law Judge from ruling on a motion before responses or replies are filed.

<sup>75</sup> A.10-01-014 transcript, April 18, 2012, pp. 5 – 6.

<sup>76</sup> RULING OF ASSIGNED COMMISSIONER AND ADMINISTRATIVE LAW JUDGE’S REGARDING MOTION OF SAN LUIS OBISPO COUNTY FOR INTERIM RULING PROVIDING FOR COSTS: GRANTED, May 16, 2012, p. 6.

If this were football, and PG&E's possession of the ball both clear and acknowledged, this sorry exhibition would be considered a well-executed example of the classic "running out the clock" strategy in order to evade IPRP review before the State Lands Commission permit is granted and the survey contractor's boat leaves the dock.

**A4NR Recommendation: The CPUC should reiterate D.10-08-003's authorization for the IPRP "to employ consultants and experts" with costs to be reimbursed by PG&E, and direct the Energy Division to ensure compliance with this Decision.**

#### **V. The structure of the Independent Peer Review Panel authorized in Decision 10-08-003.**

The Commission's unanimous approval of D.12-05-004, SCE's \$64 million ratepayer-funded seismic study program for San Onofre, on the Consent Calendar of its May 10, 2012 meeting suggests that the handwriting is on the wall for the current IPRP structure. The Decision's peculiar comment, "The working environment in which the IPRP for Diablo Canyon conducts its business has proved to be cumbersome for prompt and efficient action,"<sup>77</sup> would appear indisputable. The prescribed remedy of turning responsibility for peer review over to the Energy Division, however, seems problematic.

But it is the forced *can't-we-all-just-get-along-?* undercurrent in D.12-05-004, and where it may lead<sup>78</sup> that seems most ill-suited to the demands of reviewing PG&E's proposed

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<sup>77</sup> D. 12-05-004, p. 12. A4NR takes little comfort from the softening of the Proposed Decision's critique of the panel itself -- "The IPRP for Diablo Canyon has proved too cumbersome for prompt and efficient action. A modified review panel is needed." -- to the less slanderous D.12-05-004 and its kinder, gentler prescription: "There is a need to modify the way review is conducted." Well, yes.

<sup>78</sup> The same wishful thinking ("We expect a cooperative collegial interaction between SCE and the IPRP, as if they were colleagues, not an adversarial relationship; just as we expect a collegial interaction between the members of the IPRP." *Ibid.*, p. 16) was the mental cornerstone of the Commission's notorious self-reporting program for natural gas pipeline safety.

seismic studies. In the words of the Decision, “It was envisioned by the Commission that the IPRP would be a body of technical expert scientists who would in a collegial interaction be able to talk and discuss amongst themselves, develop ideas, comments and suggestions, and make recommendations to the utility.”<sup>79</sup> The surrealism becomes even more apparent when D.12-05-004 raises the spectre that “some entities” would “refuse to participate in the IPRP because of the formalities associated with reporting directly to the Commission” in contrast to a review process directed by the Energy Division Director. Exactly what aspects of seismology would inhibit even the most hypersensitive government scientists from being able to discuss their views in public is a mystery to A4NR.<sup>80</sup> And the contrived notion that reluctance to do so would lead taxpayer-supported “entitites” to “refuse to participate” is repugnant to our system of government.<sup>81</sup>

The Commission seems to have lost sight in D.12-05-004 of something quite fundamental, and it seems pre-disposed to repeat the mistake in this parallel proceeding. Transparency’s primary objective is not simply the public spectacle of scientific debate. It is the public accountability that naturally flows from transparency that is its most redeeming quality.

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<sup>79</sup> *Ibid.*

<sup>80</sup> The subject seems quite remote from the “personnel matter” or “pending litigation” exemptions found in the public meeting requirements California law imposes on state and local agencies.

<sup>81</sup> Any California public “entity” contemplating such a position would do well to familiarize itself with Government Code § 11120: “It is the public policy of this state that public agencies exist to aid in the conduct of the people’s business and the proceedings of public agencies be conducted openly so that the public may remain informed ... The people of this state do not yield their sovereignty to the agencies which serve them. The people, in delegating authority, do not give their public servants the right to decide what is good for the people to know and what is not good for them to know. The people insist on remaining informed so that they may retain control over the instruments they have created.”

To briefly recap the recent history of the IPRP: A4NR appeared at the IPRP's January 23, 2012 meeting and insisted that the Bagley-Keene Open Meeting Act<sup>82</sup> be properly applied. This demand was repeated by e-mail on January 24, 2012.<sup>83</sup> A representative of the Commission's Legal Division opened the IPRP's February 6, 2012 meeting with the announcement that the IPRP process would henceforth be conducted in compliance with the Bagley-Keene Act. Commissioner Florio attended, saying mistakes had been made, that the Commission placed high value on the IPRP, and that Bagley-Keene requirements would be observed going forward.

What has ensued since the January 23, 2012 IPRP public meeting has been: 1) A4NR's discovery of a consistent pattern of foot dragging by PG&E in responding to information requests by the IPRP<sup>84</sup>; 2) A4NR's discovery of the inexcusably feeble efforts of the CPUC Energy Division to enlist the United States Geological Survey in the IPRP process<sup>85</sup>; 3) Commissioner Florio's personal intervention to obtain a rather open-ended offer of assistance from USGS as a substitute for formal membership on the IPRP<sup>86</sup>; 4) A4NR's discovery and exposure of PG&E's mischaracterization of action taken by the IPRP at its February 6, 2012 public meeting regarding PG&E's permit applications with the State Lands Commission<sup>87</sup>; and

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<sup>82</sup> California Gov. Code §11120 et seq.

<sup>83</sup> E-mail correspondence from John Geesman to CPUC Executive Director Paul Clanon.

<sup>84</sup> The low points of this pattern are detailed in A4NR's successful Opposition to PG&E's Motion for Protective Order, filed March 15, 2012 in A.10-01-014.

<sup>85</sup> Written Ex Parte Communication from Rochelle Becker to CPUC President Michael Peevey, with copies to Commissioners Feron, Florio, Sandoval, and Simon, filed February 1, 2012 in A.10-01-014.

<sup>86</sup> March 1, 2012 letter from Tom Brocher, Director of the USGS Earthquake Science Center, to Commissioner Florio, included as an attachment to the March 2, 2012 letter from CPUC Energy Division Director Edward Randolph to Rochelle Becker, both of which were distributed to the service list in A.10-01-014. Oddly, USGS is not among the government agencies that D.12-05-004 directs the Energy Division Director to consult with in conducting the peer review of SCE's seismic studies – repetition of a significant oversight in the PG&E reviews.

<sup>87</sup> PG&E-2, p. 6, submitted February 17, 2012, stated that the IPRP had "concurred with PG&E's seismic survey project description" and "recommended that the SLC proceed to issue a draft Environmental Impact Report". A4NR alerted both the State Lands Commission and the IPRP to this misstatement, and regards IPRP Report No. 3 as unmistakable corroboration.

5) the March 22, 2012 issuance of draft IPRP Report No. 3, a robustly candid review of PG&E's proposed seismic studies.<sup>88</sup>

Were one to give credence to the "cumbersome for prompt and efficient action" critique of the pre-January 23, 2012 "working environment," a plausible explanation might come from IPRP Report No. 3 itself:

Previous reports by the IPRP were completed prior to completion of Interagency Agreements between CPUC and IPRP participating agencies in late 2011. Because the structure was not in place, meetings and reports were less formal and rigorous. After the Interagency Agreements were finalized in December 2011, CPUC convened and publicly noticed the first official meeting of the IPRP on January 23, 2012.<sup>89</sup>

How the CPUC Energy Division could take nearly a year and a half to slow-walk the interagency agreements, which create the state agency cost-recovery foundation for the IPRP, and yet be considered a less cumbersome, more efficient and prompt vehicle for independent peer review is mystifying. A4NR believes Energy Division staff to be at least partly culpable for the following sample of constraints on the IPRP's work identified during the "collegial" period covered by its first two published reports:<sup>90</sup>

- *More detailed descriptions of study plans as they are being developed ... This information will help the IPRP provide meaningful input to PG&E during the planning process in order for ratepayer funding to be best utilized. (IPRP Report No. 1, p. 4)*
- *The CEC requests clarification on whether this includes or incorporates any review by the USGS. (IPRP Report No. 1, p. 6)*
- *The CEC requests that should PG&E identify new or significant features during this period that PG&E immediately notify the IPRP and further explore the feature while they have the field crew mobilized. (IPRP Report No. 1, p. 7)*

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<sup>88</sup> The March 23, 2012 draft was adopted, with minor changes, April 6, 2012 and is PG&E-5.

<sup>89</sup> *Ibid.*, p. 2.

<sup>90</sup> DRA-1, Attachment A.

- *Without a complete description of the overall scope of the seismic investigation, and sufficiently detailed technical descriptions of each aspect of the investigation that would allow CGS to comment on the type, quality and potential value of the data to be gathered, the CGS does not believe it can offer proper and valuable technical comments. (IPRP Report No. 1, p. 9)*
- *(T)he CGS does not believe that the panel received sufficient background and context to determine how the data from the studies would be integrated with already existing data ... it is not possible ... to conduct a reasonable analysis of the project based solely on a PowerPoint presentation. (IPRP Report No. 1, p. 9)*
- *In order for the IPRP to be effective, the CGS notes that it should be provided with the details of the study plans as they are determined, and with the data and interpretations as soon as possible after they are developed. The CGS notes that technical review can take time, and constructive review comments cannot be based on brief summary presentations of plans. (IPRP Report No. 1, pp. 9 - 10)*
- *It should be noted that PG&E has not supplied the IPRP with the details of its probabilistic seismic hazard analysis, i.e., the detailed locations, magnitude, and rate of occurrence on each fault considered in the analysis. (IPRP Report No. 2, p. 3)*
- *The IPRP notes that on-land seismic surveys ... are identified ... as 'not part of the IPRP tasks,' apparently because they are 'planned under separate funding' ... All of these studies are within the purview of the panel. Therefore, some or all of the on-shore seismic surveys that are within the LTSP, although funded by PG&E's GRC, would need to be reviewed by the IPRP. (IPRP Report No. 2, p. 3)*

Perhaps, most significant, however, is the fact that the Energy Division staff has yet to provide the IPRP with the expert consultants promised at the IPRP's first meeting August 31, 2010, despite PG&E's obligation to reimburse such cost<sup>91</sup> from the Diablo Canyon Seismic Study Balancing Account. A4NR perceives a pattern of evasion by PG&E of meaningful independent

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<sup>91</sup> Amazingly, PG&E testified in this proceeding that it "learned recently that it will be invoiced for the cost of the IPRP members to perform their responsibilities" (PG&E-1, p. 2-10) despite the clear language of D.10-08-003: "Costs incurred by the IPRP shall be reimbursed by PG&E and recovered in the DCSSBA." (p. 11); "PG&E requests that the decision make clear that the costs of IPRP review and implementation of any IPRP recommendations will be recovered through the DCSSBA, along with the costs to implement the seismic studies. We agree." ( p. 13); and Ordering Paragraph 1 authorized PG&E's recovery of costs "including its costs associated with the Independent Peer Review Panel" (p. 15).



peer review which has been aided and abetted by Energy Division staff indifference.<sup>92</sup> The only corrective remedy – and the beginning of a valuable contribution from the IPRP in the form of its Report No. 3 – has come from forcing this process into the public eye.

Unfortunately, the Commission appears headed in a different direction. One month after the IPRP's self-described "first official meeting"<sup>93</sup> – the meeting in which applicability of the Bagley-Keene Open Meeting Act was first raised by A4NR – ALJ Barnett conducted the Pre-Hearing Conference in this proceeding. He explained<sup>94</sup> the rationale that would ultimately be employed several months later by the Commission in D.12-05-004:

*I'm trying to formulate my problem, the problems that I see about the IPRP, because as it was envisioned, I think it was envisioned by the Commission that this would be a body of people who would talk amongst themselves and make recommendations to PG&E and there would be a collegial kind of reaction, interaction. But with Bagley-Keene and open meetings and giving notice and having the public in there, where is this exchange of ideas going to happen? Or is it going to happen only at times we have these public meetings? Or is it going to happen, as I think the Commission envisioned it, as to be people calling each other up and discussing it and then coming to a conclusion and working with PG&E so that everybody is comfortable with what's going on?<sup>95</sup>*

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*Okay. Well, there are a number of views on it. I, too, have discussed this with counsel, and I want to propose for your consideration the kind of interagency review that the Commission should authorize. And it would go something like this.*

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<sup>92</sup> This look-the-other-way temperament was perhaps best described by CPUC President Peevey's widely reported "culture of complacency" acknowledgment to the California Legislature in its hearings on the San Bruno tragedy.

<sup>93</sup> PG&E-5, p. 2.

<sup>94</sup> A4NR is sufficiently familiar with the ways of the Commission to avoid attributing too much of the flavor of the wine to the vessel in which it is delivered. A4NR holds ALJ Barnett in high regard and believes it has been treated fairly in every CPUC proceeding in which it has appeared before him.

<sup>95</sup> At this point in ALJ Barnett's remarks, A4NR interjected: "Your Honor, the IPRP has established a subcommittee to draft its next written report and has been advised by the Commission's counsel that as long as that subcommittee does not comprise a majority of the IPRP members, those types of private consultations are permitted." A.10-01-014 transcript, February 23, 2012, p. 46. DRA's counsel added, "I did an assessment when I first started regarding the Bagley-Keene Act and Low Income Oversight Board. And we made a few corrections. And the Low Income Oversight Board, which meets once a quarter for the low-income program, seems to be functioning well in terms of notice, service and everything. If you would like, I could probably submit something on the record into how the Bagley-Keene applies to that in order to make that board, LOIB, which is contained of diverse members, not just Commission members, but there are one or two Commission members, and demonstrate how that process goes and see if we can apply that to the IPRP." *Ibid.*, pp. 46 – 47.

*In addition to PG&E's proposal to employ consultants and subject its seismic studies to peer review, the Commission's Energy Division director will seek input from the CEC, the California Geologic Survey, the California Coastal Commission and the California Seismic Safety Commission to participate in review of the seismic studies. The purpose of this directive is to leverage existing expertise within the public sector, the interagency experts. The Energy Division will coordinate review of the seismic studies, including seeking comments on the study plan and completed study findings with the interagency experts.*

*An order in this Application will require PG&E to submit its study plans and complete its study findings to the Energy Division director prior to implementation.*

*Now, that's supposed to be a magic formula to avoid the public hearings required by Bagley-Keene. And I'm not sure that it will work, but that's one of the proposals. And I think you've all heard that proposal in one form or another. And if it avoids the problem of Bagley-Keene, I think that is a virtue because we're dealing here with seismic problems and they shouldn't wait for public hearings down the road. They should be able, the experts, to talk to each other, to come up with a solution and present it to PG&E and work together.<sup>96</sup>*

A4NR believes the Commission has allowed for nearly two years an intolerable circumvention by PG&E of the review requirements specified by D.10-08-003. This activity has been aided and abetted by the misfeasance of the Commission's own Energy Division, despite its Mission Statement to "ensure compliance with Commission decisions."<sup>97</sup> To emasculate the IPRP just as it begins to bring a semblance of public accountability to this process would only further abdicate the Commission's regulatory responsibility. Evading the transparency requirements of the Bagley-Keene Open Meeting Act is unworthy of a once-proud, century old institution trying to lift itself from the reputational muck of its contributory negligence in the San Bruno catastrophe. Californians deserve better.

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<sup>96</sup> *Ibid.*, pp. 45 – 48. A4NR

<sup>97</sup> Accessible on the CPUC web site at <http://www.cpuc.ca.gov/NR/rdonlyres/FA487637-C15F-4569-B72D-50235885049E/0/energyguidingstatements09.pdf>

**A4NR Recommendation: The CPUC should retain the present structure of the IPRP or, if it believes that staff support will be improved by delegating to the Director of the Energy Division, clarify that all provisions of the Bagley-Keene Open Meeting Act will be observed as if the IPRP reports directly to the Commission.**

Respectfully submitted,

By: /s/ John L. Geesman

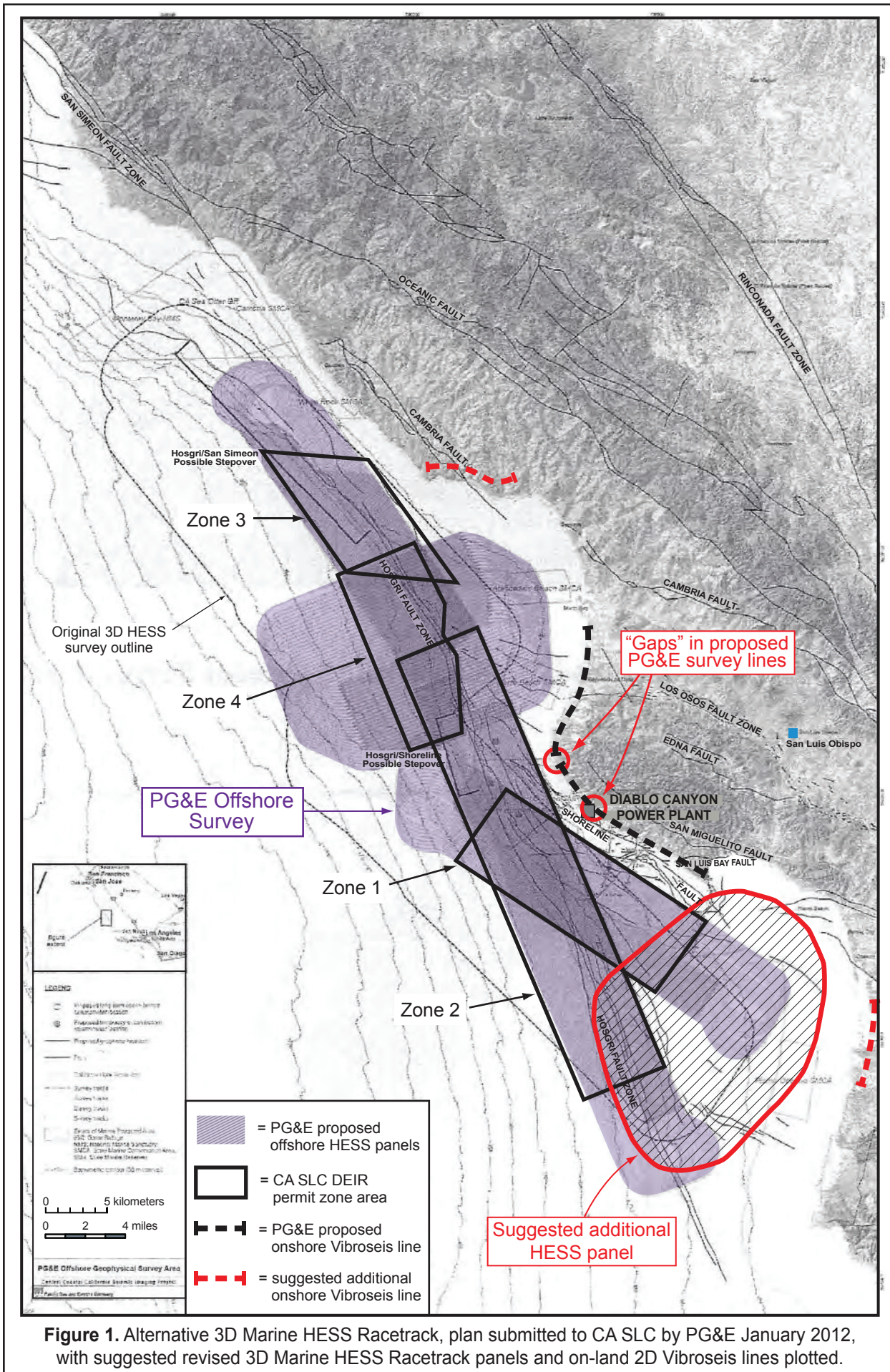
JOHN L. GEESMAN  
DICKSON GEESMAN LLP

Date: May 18, 2012

Attorney for  
ALLIANCE FOR NUCLEAR RESPONSIBILITY

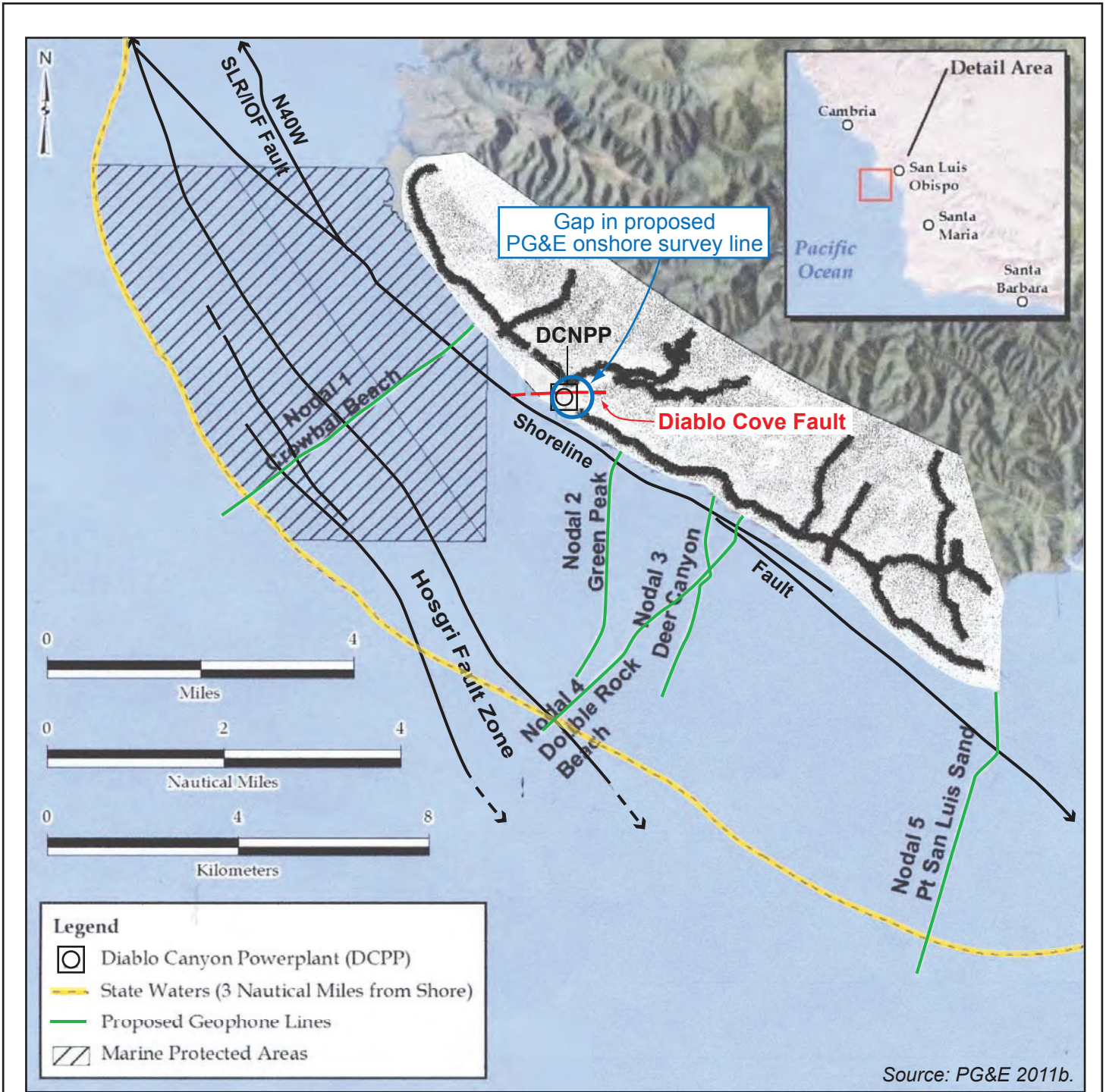
# APPENDIX





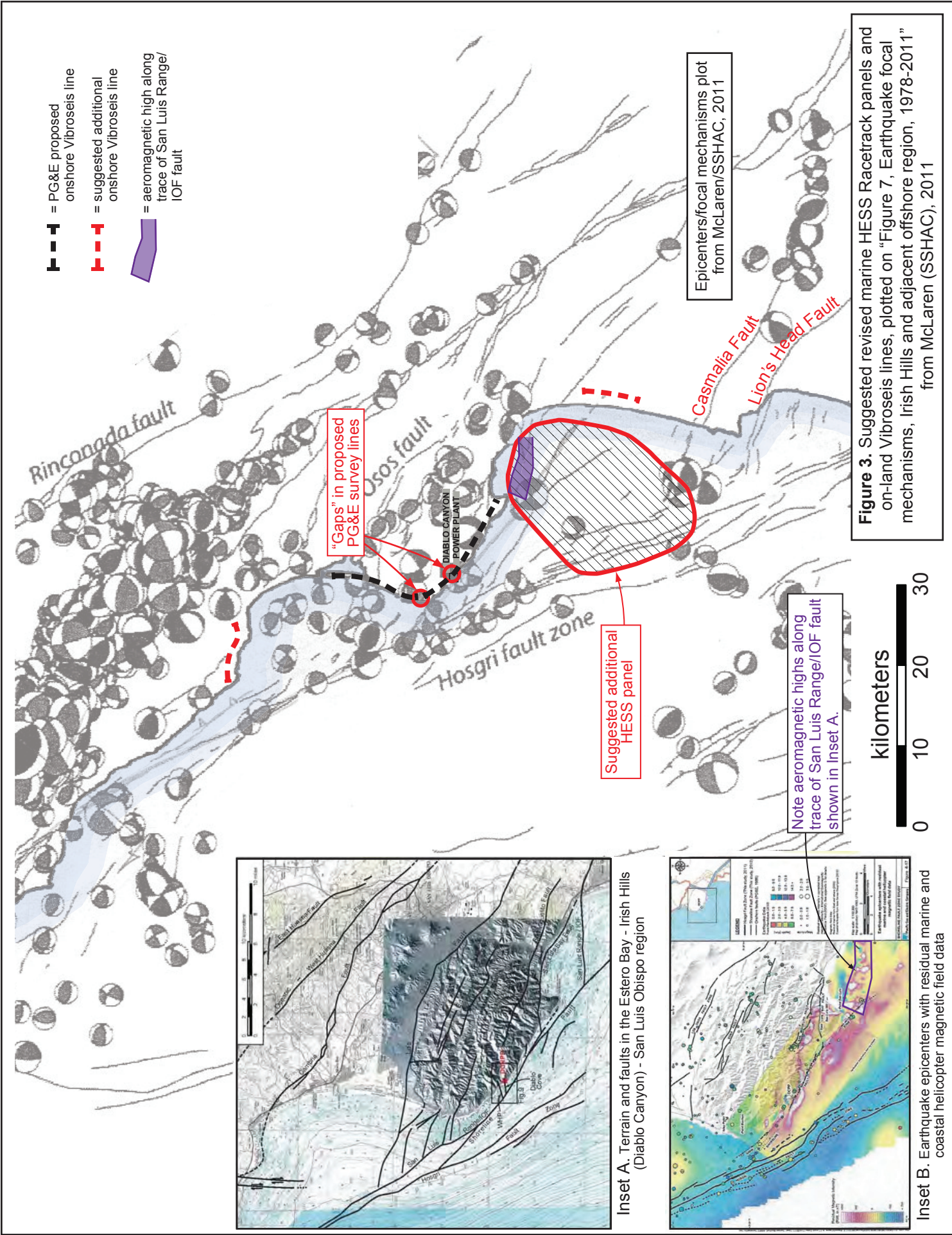
**Figure 1.** Alternative 3D Marine HESS Racetrack, plan submitted to CA SLC by PG&E January 2012, with suggested revised 3D Marine HESS Racetrack panels and on-land 2D Vibroseis lines plotted.





**Figure 2.** PG&E Proposed Nearshore Geophone Line Routes and Onshore Survey Lines





- = PG&E proposed onshore Vibroseis line
- = suggested additional onshore Vibroseis line
- = aeromagnetic high along trace of San Luis Range/IOF fault

"Gaps" in proposed PG&E survey lines

DIABLO CANYON POWER PLANT

Suggested additional HESS panel

Epicenters/focal mechanisms plot from McLaren/SSHAC, 2011

Note aeromagnetic highs along trace of San Luis Range/IOF fault shown in Inset A.



**Figure 3.** Suggested revised marine HESS Rerack panels and on-land Vibroseis lines, plotted on "Figure 7, Earthquake focal mechanisms, Irish Hills and adjacent offshore region, 1978-2011" from McLaren (SSHAC), 2011

**Inset A.** Terrain and faults in the Estero Bay - Irish Hills (Diablo Canyon) - San Luis Obispo region

**Inset B.** Earthquake epicenters with residual marine and coastal helicopter magnetic field data