

Decision 10-07-047 July 29, 2010

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Application of Pacific Gas and Electric Company in its 2009 Nuclear Decommissioning Cost Triennial Proceeding. (U39E)

Application 09-04-007  
(Filed April 3, 2009)

Joint Application of Southern California Edison Company (U338E) and San Diego Gas & Electric Company (U902E) for the 2009 Nuclear Decommissioning Cost Triennial Proceeding to Set Contribution Levels for the Companies' Nuclear Decommissioning Trust Funds and Address Other Related Decommissioning Issues.

Application 09-04-009  
(Filed April 3, 2009)

(See Appendix D for List of Appearances.)

**DECISION ON PHASE 1 OF THE TRIENNIAL REVIEW  
OF NUCLEAR DECOMMISSIONING TRUSTS  
AND RELATED DECOMMISSIONING ACTIVITIES  
FOR SOUTHERN CALIFORNIA EDISON COMPANY, SAN DIEGO GAS &  
ELECTRIC COMPANY, AND PACIFIC GAS AND ELECTRIC COMPANY**

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**1. Summary**

The purposes of the nuclear decommissioning cost triennial proceedings (NDCTP) are to set the annual revenue requirements for the decommissioning trusts for the nuclear powerplants owned by Southern California Edison Company, San Diego Gas & Electric Company, and Pacific Gas and Electric Company, to verify the utilities are in compliance with prior decisions applicable to decommissioning, and to determine whether actual expenditures by the utilities for decommissioning activities are reasonable and prudent. (Decision 07-01-003.) These NDCTP proceedings were divided into two phases by an August 3, 2009 ruling which provided that issues relating to trust fund management would be considered in Phase 2.

This decision resolves all issues in Phase 1. It does not adopt the contested settlement proposed by the three utilities and The Utility Reform Network (Settling Parties). Although this is not an all-party settlement, the Settling Parties include the three applicants and The Utility Reform Network, the most active intervenor in these proceedings. The Commission's Division of Ratepayer Advocates and intervenor Scott Fielder opposed the Settlement on several grounds.

Specifically, we reject the proposed change to the reasonableness review process for decommissioning expenditures from Phases 2 and 3 of San Onofre Nuclear Generation Unit 1 and all phases of Humboldt Bay Powerplant 3 because we find the proposal is not in the public interest and is unreasonable in

light of the whole record. This provision alone is of sufficient importance to the Commission that the Settlement is rejected. Instead, the Commission examined the utilities' applications using the reasonableness standard, in light of the other Settlement provisions upon which there was broad, if not complete, agreement, and the evidentiary record developed through hearings.

We find that most of the changes proposed by the Settlement are reasonable including approval of the submitted decommissioning cost estimates and expenditures, and the revised rates of return assumptions and proposed annual trust fund contributions. We also agree with all parties that certain identified areas of inquiry would assist the Commission and ratepayers in future NDCTPs, and adopt the Settlement's plan for an independent panel of decommissioning experts who could examine certain decommissioning cost issues, most importantly to identify what drives differences in cost estimates and to develop common cost reporting methods that would provide better transparency and comparability. In this decision, we slightly modify the panel's tasks, establish a process timeline that incorporates Commission and party input, and clarify the panel's funding.

## **2. Requests**

### **2.1. SCE and SDG&E**

In a Joint Application filed on April 3, 2009, (A.) 09-04-009,<sup>1</sup> SCE and SDG&E request that the Commission:

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<sup>1</sup> On May 7, 2009, Southern California Edison Company (SCE) and San Diego Gas & Electric Company (SDG&E) filed an amendment to their joint application which consists of three corrections relating to SCE's requests in the application.

- (1) find the \$207.2 million (100% share, 2008\$) cost of San Onofre Nuclear Generating Station (SONGS) Unit 1 decommissioning work completed between July 1, 2005 and December 31, 2008 is reasonable;
- (2) find the updated \$184.4 million (100% share, 2008\$) SONGS Unit 1 decommissioning cost estimate for the Remaining Work is reasonable; and
- (3) find the updated \$3,658.8 million (100% share, 2008\$) SONGS Units 2 & 3 decommissioning cost estimate is reasonable.

In addition, SCE requests the Commission:

- (1) find the updated \$708.7 million (SCE's share, 2007\$) Palo Verde (PV) decommissioning cost estimate is reasonable; and
- (2) authorize a revenue requirement of \$66.4 million for contributions to its Nuclear Decommissioning Trust Funds for SONGS Units 2 & 3 and for Palo Verde Nuclear Generating Station Units 1, 2, & 3 through the Nuclear Decommissioning Cost Charge.

In addition to the foregoing, SDG&E requests the Commission:

- (1) Find the updated estimate of SDG&E's ratable share of the decommissioning costs for SONGS Units 2 & 3 of \$731.8 million is reasonable;
- (2) Authorize a revenue requirement for SDG&E's annual contribution to its Nuclear Decommissioning Trust Fund for SONGS Units 2 & 3 in the amount of \$15.284 million, effective May 1, 2010. (SDG&E is not seeking to increase rates in this proceeding.) SDG&E proposes and requests approval to
  - (a) omit any rate impacts from the increase in the nuclear decommissioning revenue requirement in 2010 and utilize the overcollection in its Nuclear Decommissioning Adjustment Mechanism (NDAM) balancing account, forecasted to be \$2.336 million for the period ending December 31, 2009, to offset the revenue requirement increase in 2010 partially; and
  - (b) address the resulting net balance in the NDAM balancing account as part of SDG&E's annual electric regulatory account

update advice filing filed in October of each year for rate effective January 1 of the following year.<sup>2</sup> In addition, SDG&E intends to utilize overcollections in other balancing accounts (e.g., the Transition Cost Balancing Account) or offset any nuclear-decommissioning rate change with revenues from other regulatory accounts;

- (3) Find that SDG&E may reasonably rely upon SCE, as the majority owner of and exclusive operating and decommissioning agent for SONGS Units 1, 2, and 3, to make those reasonable efforts to retain and utilize sufficient qualified and experienced personnel to pursue any decommissioning-related activities for the nuclear generation facilities under their control effectively, safely, and efficiently, as required by the Commission in Decision (D.) 07-01-003, subject to the proviso that SDG&E shall review and provide such advice and consent to SCE as may be necessary and appropriate to the interests of SDG&E as a minority owner and/or on behalf of the interests of SDG&E's retail electric customers;
- (4) Find that SDG&E may reasonably rely upon SCE, as the majority owner of and exclusive operating and decommissioning agent for SONGS Units 1, 2, and 3, to make those reasonable efforts to forecast the costs of low-level radioactive waste storage conservatively, as required by the Commission in D.07-01-003, subject to the proviso that SDG&E shall review and provide such advice and consent to SCE as may be necessary and appropriate to the interests of SDG&E as a minority owner and/or on behalf of the interests of SDG&E's retail electric customers;
- (5) Find that SDG&E may reasonably rely upon SCE, as the majority owner of and exclusive operating and decommissioning agent for SONGS Units 1, 2, and 3, to make all reasonable efforts to

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<sup>2</sup> If the Commission authorizes an increase of annual contributions to SDG&E's nuclear decommissioning trusts but does not permit deferral of rate changes to beyond 2010, SDG&E seeks an allowance for franchise fees and uncollectibles to be added to the annual revenue requirement approved for and billed in 2010.

establish an appropriate contingency factor for inclusion in the decommissioning revenue requirements, as required by the Commission in D.07-01-003, subject to the proviso that SDG&E shall review and provide such advice and consent to SCE as may be necessary and appropriate to the interests of SDG&E as a minority owner and/or on behalf of the interests of SDG&E's retail electric customers; and

- (6) Find that the transfer of funds from the non-qualified trust fund for the decommissioning of SONGS Unit 1 to the qualified trust funds for the decommissioning of SONGS Units 2 & 3 should not be required at the present time due to:
  - (a) the uncertainties associated with determining the actual and final reasonable costs for the decommissioning activities related to SONGS Unit 1;
  - (b) the uncertainties associated with determining whether the actual return on investments will be sufficient to increase total fund assets to an amount no less than the actual and final reasonable costs for the decommissioning activities related to SONGS Unit 1; and
  - (c) the absence of any exigencies or circumstances that would either require the transfer of funds from the non-qualified and/or qualified trust funds for the decommissioning of SONGS Unit 1 to the qualified trust funds for the decommissioning of SONGS Units 2 & 3 at this time or that would preclude such a transfer at a more appropriate and later date when the aforementioned uncertainties would be more largely and likely resolved.

## **2.2. PG&E**

In a separate application, A.09-04-007, Pacific Gas and Electric Company (PG&E) requests the Commission to authorize the collection, through Commission-jurisdictional electric rates, of the following amounts in 2010 through 2012 for decommissioning of Diablo Canyon and Humboldt Unit 3:

- (1) \$23.329 million for the Diablo Canyon (DC) Nuclear Decommissioning Trusts for Units 1 and 2, respectively (the 2009 revenue requirement is \$1.297 million); and
- (2) \$16.982 million for the Humboldt Unit 3 Nuclear Decommissioning Trust (the 2009 revenue requirement is \$10.995 million);

Additionally, PG&E requests the Commission to:

- (3) authorize revenue requirements to cover the costs of operating and maintaining (O&M) the Humboldt Unit 3 site in a safe condition (SAFSTOR). Specifically, PG&E is requesting SAFSTOR revenue requirement of \$9.218 million in 2009, a decrease from the authorized amounts of \$13.405 million for 2009. PG&E is also requesting attrition for SAFSTOR expenses in 2011 and 2012; and
- (4) find that PG&E's activities with respect to licensing, design, fabrication, and construction of the Independent Spent Fuel Storage Installation (ISFSI) and associated activities were reasonable and prudent.

### **3. Procedural History**

Notice of these two applications appeared in the Commission's Daily Calendar on April 8, 2009. The Commission preliminarily categorized them as ratesetting in Resolution ALJ 176-3232, dated April 16, 2009. The Division of Ratepayer Advocates (DRA) protested both applications. The Utility Reform Network (TURN) filed a protest to SCE/SDG&E's application and a response to PG&E's application. The Merced Irrigation District and Modesto Irrigation District filed a joint response to PG&E's application, but did not otherwise participate.

The proceedings were consolidated in the Scoping Memo and Ruling issued June 15, 2009 and expanded to include an examination of the management of the decommissioning trust funds maintained by each utility. The utilities

were also ordered to serve Supplemental Testimony to 1) describe their compliance with certain requirements from the prior Nuclear Decommissioning Cost Triennial Proceeding (NDCTP) (Ordering Paragraphs 6-8 of D.07-01-003), and 2) provide information about investment fund managers hired by the nuclear decommissioning trust funds, performance of the investment funds, management costs, and efforts to develop emerging investment fund managers. On July 30, 2009, the Commission adopted Resolution E-4258 which referred to these proceedings consideration of a modified procedure sought by PG&E<sup>3</sup> for reviewing and determining the reasonableness of its expenditures for decommissioning the Humboldt Bay Powerplant 3 (HB3). A subsequent ruling by Administrative Law Judge Darling (ALJ) clarified the expanded scope of the proceedings and divided them into two phases. Phase 1 would consider the usual issues for an NDCTP and include the issue of whether to modify the Commission's reasonableness review of decommissioning expenditures. The utilities were directed to file a brief discussing the reasonableness review issue and other parties were permitted to file reply briefs. The issues regarding trust fund management were deferred to Phase 2.

The utilities filed a joint brief in which they presented the reasonableness review proposal as applicable to all phases of decommissioning for SONGS Units 1, 2, and 3 and HB3. Customer-intervenor Scott Fielder (Fielder) filed a brief in opposition to any changes to the current review process. All parties

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<sup>3</sup> On March 27, 2009, PG&E filed Advice Letter 3444-E in which it provided notice of its intent to begin decommissioning of HB3, requested general authorization for interim trust fund disbursements, and sought approval of a procedure whereby its decommissioning costs would be presumed reasonable if within the scope and amount approved in the 2009 NDCTP cost estimates for HB3.

served timely rebuttal and other supplemental testimony as allowed or required by the ALJ. Five days of evidentiary hearings were held from October 13 through October 19, 2009, including a portion reserved for oral argument on the reasonableness review issue which was attended by assigned Commissioner Timothy Alan Simon. At the conclusion of the evidentiary hearings, the underlying testimony of witnesses in this phase of the proceedings was received into evidence without objection. A list of all Exhibits admitted into the record is attached hereto as Appendix A.

Upon notice of a pending Settlement Agreement among some or all of the parties, the ALJ extended the deadlines for filing post-hearing briefs. On December 18, 2009, the utilities and TURN filed a Motion for Approval of Settlement Agreement which purported to resolve all issues in Phase 1. Both DRA and Fielder filed Opposition to the Motion. A hearing on the Motion and terms of the proposed Settlement Agreement was held on April 5, 2010. The Settling Parties filed an opening post-hearing brief on April 16, 2010 and non-settling parties filed reply briefs on April 26, 2010.

Accordingly, the basis for adjudicating issues in this phase of the proceedings consists of (1) the evidence developed through written testimony and oral cross-examination on the underlying merits of issues in dispute, (2) the Settlement Agreement which represents a negotiated compromise of certain parties and the written comments filed in response to this agreement, and (3) the evidence developed through testimony and oral cross-examination at the hearing on Settlement and post-hearing written briefs.

#### **4. Standard of Review**

Pursuant to Rule 12.1(d) of the Commission's Rules of Practice and Procedure (Rules), the Commission's standard of review for both contested and

uncontested settlements is whether the settlement taken as a whole is reasonable in light of the whole record, consistent with the law, and in the public interest. Rule 12.4 provides that the Commission may reject a proposed settlement whenever it determines the settlement is not in the public interest.

The applicants alone bear the burden of proof to show that the rates they request are just and reasonable and the related ratemaking mechanisms are fair.<sup>4</sup> Thus, if the settlement is rejected, then the reasonableness standard applies to the issues in the proceedings.

For the purposes of these proceedings and as used in the scope set forth above, we define reasonableness for decommissioning expenditures consistent with Commission findings, i.e., that the reasonableness of a particular management action depends on what the utility knew or should have known at the time that the managerial decision was made.<sup>5</sup> However, with respect to Phase 1 SONGS Unit 1 decommissioning work, the Commission in D.99-06-007 adopted a ratemaking settlement that included a presumption that the utilities' expenses are reasonable in performing Phase 1 SONGS Unit 1 decommissioning work if the scope of the work completed and the most recently approved SONGS Unit 1 decommissioning cost estimate bound the costs incurred.<sup>6</sup>

We consider the applications and proposed Settlement based on these standards.

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<sup>4</sup> D.07-01-003 at 7.

<sup>5</sup> See, e.g., D.02-08-064 at 5-8.

<sup>6</sup> 86 CPUC2d 604, 620 (Settlement § 4.2.2.2c) (1999).

## 5. Settlement Agreement

A copy of the proposed Settlement Agreement is attached hereto as Appendix B. The key terms of the Settlement Agreement are as follows:

- SCE and SDG&E's decommissioning costs for SONGS Unit 1 (Phase 1) for the period July 1, 2005 through December 31, 2008 are reasonable.
- SCE and SDG&E's decommissioning cost estimates for SONGS Unit 1 (Phases 2 and 3) and SONGS Units 2 and 3; SCE's decommissioning cost estimates for Palo Verde Units 1, 2, and 3; and PG&E's decommissioning cost estimates for Diablo Canyon Units 1 and 2 and HB3 are reasonable for purposes of settling the authorized revenue requirement in this NDCTP and for future review of SONGS Unit 1 (Phase 2) and HB3 decommissioning expenditures in the next NDCTP application.
- Trust fund contributions for units owned by SCE or SDG&E would be based, among other things, on the following assumptions:
  - 8.75% pre-tax equity returns.
  - 4.2% post tax debt returns.
  - 6.93% burial escalation rate.
- Trust fund contributions for units owned by SCE and SDG&E would be based on the December 31, 2009 trust fund balances.
- PG&E funding for Diablo Canyon would be established as a fixed amount at \$9 million per year, commencing January 1, 2010, with rate of return and fixed income assumptions to be adjusted to reach this funding requirement.
- HB3 funding would be generally determined in accordance with PG&E's application, based on updated after-tax fund balances as of December 31, 2009, reflecting unrealized capital losses.
- PG&E's completed activities and decommissioning expenditures at Humboldt as set forth in its application were reasonable in amount and prudently incurred.

- As required by Ordering Paragraph 6 of D.07-01-003, PG&E, SCE, and SDG&E have demonstrated that they have made all reasonable efforts to retain and utilize sufficiently qualified and experienced personnel to effectively, safely, and efficiently pursue any decommissioning activities at the Humboldt, Diablo Canyon, SONGS, and Palo Verde facilities.
- PG&E's request for SAFSTOR O&M expense plus attrition as presented in its application is reasonable.
- An independent panel will be created to review certain decommissioning-related issues and prepare a report that the Utilities will address in their cost estimates for the next NDCTP. Among other things, the independent panel will:
  - Identify, compare, and explain the key cost and financial assumptions driving differences in the cost estimates.
  - Identify, compare, and explain similarities and differences in decommissioning costs, challenges, and approaches for California nuclear units and plants of similar design and configuration in other states.
  - Identify and explain cost and financial assumptions that could be applied on a common basis to the estimates for Diablo Canyon, SONGS, and Palo Verde sites.
  - Identify and suggest steps that could be taken to minimize decommissioning costs in the future.
  - Evaluate whether emerging radiological contamination issues could increase decommissioning costs.
  - Suggest a common format for preparation of decommissioning cost estimates that would permit greater transparency and comparability.
- In the next NDCTP application, the applicants will provide contribution estimates that would assume successful completion of license renewal, for informational purposes only.

- In the next NDCTP application, the applicants will provide contribution estimates that assume some equity investment by the trust funds after unit shutdown.
- The Settling Parties request that the Commission and other state agencies formally ask the United States Department of the Navy (i.e., the lessor of the SONGS site) to clarify the site restoration and remediation standards that would be required to terminate the SONGS site lease contract. Consistent with this effort, SCE and SDG&E agree to propose a partial termination of the Nuclear Regulatory Commission (NRC) license(s) for the SONGS site that would exclude the ISFSI.
- The reasonableness review method adopted in D.99-06-007 for decommissioning activities and expenditures from Phase 1 at SONGS Unit 1 would be continued for all other phases at SONGS Unit 1 and applied to all post-2008 decommissioning activities and expenditures for HB3.

## **6. Parties' Final Positions on Contested Issues**

### **6.1. DRA**

With the exception of PG&E's burial escalation rate, DRA generally supports the cost estimates provided by the utilities and has not disputed any of the claimed expenditures. However, DRA opposes the Settlement provisions setting PG&E's contribution for the DC units, the extension of the modified reasonableness review to Phases 2 and 3 of SONGS Unit 1, and some aspects of the proposed independent panel. DRA contends the Settlement, as a whole, has no public benefit for consumers, violates the law, and violates the Commission's purpose in creating the NDCTP.

Calling it the "most contentious and inappropriate" term of Settlement, DRA argues there is no support in the record for the negotiated \$9 million per year annual contribution for the DC trust funds. Using the trust fund balances as of December 31, 2009 and SCE's proposed Low Level Radioactive Waste (LLRW)

burial escalation rate, DRA calculates that a \$1.8 million annual contribution is enough to fully fund the trusts. Even if PG&E's higher burial escalation rate is used, the record only supports a \$5 million annual contribution. Because there is no testimony in the record in support of a \$9 million annual contribution, DRA also concludes the Settlement improperly proposed a new issue.

As for modification of the reasonableness review process, DRA draws a distinction between remaining phases for SONGS Unit 1 and the complete decommissioning of HB3. DRA supports the creation of a reasonableness presumption for all phases of HB3 where PG&E says it will finish decommissioning by the end of the decade. In contrast, DRA characterizes the previously approved SONGS Unit 1 process as a "one-time exemption for an imminent decommissioning"<sup>7</sup> phase. DRA opposes extension of the modified procedure to Phases 2 and 3 of the SONGS Unit 1 decommissioning because it views these activities as far in the future and the estimated costs as too speculative. DRA contends the proposal would undermine Commission authority to review such expenditures on behalf of ratepayers and would violate past decisions and policies. Phases 2 and 3 are not projected to be completed until 2053. Over the years, DRA emphasizes, the Commission has repeatedly acknowledged that forecasts of nuclear decommissioning costs into the future are very speculative and subject to substantial error. Because Pub. Util. Code § 8322(3) states ratepayers should only be charged for costs reasonably and prudently incurred, DRA concludes the Commission cannot legally make such a determination based solely on advance estimates.

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<sup>7</sup> Comments of the Division of Ratepayer Advocates Opposing the Settlement (DRA Comments) at 17-18.

Furthermore, DRA argues the utilities have not offered adequate justification for the proposed change and it is unreasonable to shift the burden to consumer advocates who are at a time and expense disadvantage in trying to examine decommissioning costs and actions after-the-fact. According to DRA, this shift conflicts with the Legislature's intent that the Commission provide for "periodic review procedures that create maximum incentives for accurate cost estimations, and provide for decommissioning cost controls."<sup>8</sup> In support, DRA cites *TURN v. Public Utilities Commission*,<sup>9</sup> in which TURN challenged the reasonableness of an approved rate increase granted to PG&E for decommissioning. According to DRA, the Supreme Court rejected the challenge because the Commission would ultimately conduct an after-the-fact review to determine reasonableness and whether to refund any over-collections.<sup>10</sup>

DRA agrees that the goals of the proposed independent panel would be helpful to the Commission. However, DRA is concerned about the lack of details and procedural guidance in the Settlement Agreement as well as composition of the panel. DRA thinks using the same consultants employed by the utilities and TURN in current and prior NDCTPs may not provide "independence" because they will rely on their former and future employers for information and data. Instead, DRA suggests the Commission, rather than the utilities, should establish any such panel and include representation by the Commission and/or DRA.

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<sup>8</sup> Pub. Util. Code § 8323.

<sup>9</sup> 44 Cal. 3d 870 (1988).

<sup>10</sup> 44 Cal. 3d at 878.

## **6.2. Fielder**

Fielder opposes the Settlement on the grounds that 1) the proposed independent panel will lack independence and transparency, 2) the 25% contingency factor is too low, and 3) the proposed rebuttable presumption of reasonableness for decommissioning expenditures lacks justification and violates the law.

He argues the proposed independent panel, formed to study similarities and differences in decommissioning cost studies, would not be “independent” because it only includes the cost experts from these proceedings and does not include either him or DRA. He describes the panel’s prospective work as “secret” and subversive of the NDCTP. He also objects to the exclusion of HB3 costs from those the panel would examine.

Fielder has opposed the application of a 25% contingency factor to HB3 throughout the proceedings and argues again that it fails to address financial risks, regulatory risks, or changes in scope.<sup>11</sup> However, in his comments on the Proposed Decision, Fielder claims he agrees with a 25% contingency factor for HB3.

Lastly, Fielder contends the change to the reasonableness review is without policy justification or legal authority. He argues that the proposed change violates the California Constitution and Pub. Util. Code §§ 8325(c) and 8328 of the California Nuclear Facilities Decommissioning Act of 1985 (NFDA) which require the Commission to limit recovery of decommissioning costs to those reasonable in amount and prudently incurred. Instead, Fielder argues, the

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<sup>11</sup> See, e.g., Fielder’s Notice of Intent to Claim Compensation at 5; Fielder Exh. 1 at 7-9; Fielder Exh. 2 at 4.

proposal merges the cost estimate phase with the after-the-fact review, resulting in no actual burden of proof on the utility so long as the last cost estimate was not exceeded. Minimizing cost would become the only barometer of whether costs were reasonable in amount or prudently incurred. Moreover, Fielder states that both PG&E and SCE have decided to act as their own general contractor for decommissioning which poses a potential conflict-of-interest that calls for a higher, not lower, level of review.

According to Fielder, the proposed change to the reasonableness review violates long-settled Commission policy that utilities have the burden of proving the reasonableness of rate increases. In addition to failing to demonstrate any justification for the change, Fielder charges the proposal ignores strong public policy in favor of keeping the burden of proof on the utilities. Not only has this been the law and the policy of the Commission, it is significant to ratepayers because DRA has limited staff to fully investigate utility decommissioning expenses and decision-making. Thus, Fielder concludes, altering the review process at this time would expose ratepayers to less than full review of the utilities' future decommissioning activities and expenditures.

### **6.3. The Settling Parties**

SCE, SDG&E, PG&E, and TURN, the Settling Parties, assert the following:

A fair reading of the evidentiary record from these proceedings demonstrates the contentiousness of the issues raised and settled by the Settling Parties. Notwithstanding substantial disagreement, the parties were able to find enough common ground to craft a comprehensive settlement which meets the standards for review and approval of settlements. Therefore, sufficient give-and-take is established and the Settlement should be adopted by the Commission.

The Settlement represents compromise of a significant dispute between SCE/SDG&E and TURN over estimation methodologies and results, both of which represented considerable litigation risk to both sides. It also resolved a major dispute between PG&E and TURN over the funding of the DC trust funds which included a number of issues (e.g., rates of return, contingency factors, labor termination costs, etc.) that posed mutual litigation risks. According to the Settling Parties, DRA's charges that no give-and-take occurred and no evidentiary basis exists for compromising the DC contribution are wrong.

Settling Parties believe the \$9 million annual contribution for DC trust funds is a reasonable outcome given PG&E's omitted labor termination costs and potential to claim a higher contingency factor applicable to the DC cost estimate. PG&E's witness Loren Sharp testified that PG&E's cost estimate did not include, but should have included, labor termination costs, and explained how he developed the \$135 million estimate.<sup>12</sup> He also stated the 25% contingency factor did not cover non-engineering risks and that PG&E was "at risk" for additional costs.<sup>13</sup> According to the Settling Parties, if the DC trusts are updated and the cost estimate reflects 35% contingency and the labor termination costs, it would result in a \$29 million annual contribution.<sup>14</sup>

The Settling Parties state that there is evidence in the record to show TURN also considered the likelihood of success of its proposals to assume higher rates of return on trust fund investments that would have lowered PG&E's

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<sup>12</sup> Reporter's Transcript at 867.

<sup>13</sup> Reporter's Transcript at 868-69.

<sup>14</sup> Exhibit PG&E-20.

funding requirements. When PG&E's persuasive arguments to raise its DC cost estimates are balanced with TURN's counter arguments, the Settling Parties believe the provision for the \$9 million annual funding is a reasonable outcome, supported by the record, and is in the public interest.

Additionally, the Settling Parties state none of the issues raised in connection with this matter are new. They were raised during the proceedings and the evidence supports PG&E's arguments for a higher contingency factor and labor costs for DC. The Settling Parties believe DRA errs when it asserts that past Commission decisions prevent a utility from adjusting projections and assumptions after hearing because the Commission must balance its obligation to keep rates low with the objectives of assuring adequate funding and that the customers who use the generated nuclear power are the ones who pay the decommissioning expenses.

The Settling Parties maintain the proposed reasonableness review procedures fully comport with the Commission's responsibility to set just and reasonable rates. According to the Settling Parties, Fielder's opposition is predicated on the fallacious argument that extending the existing procedure violates Article XII § 2<sup>15</sup> of the California Constitution. Despite Fielder's mischaracterization of the in-place SONGS Unit 1 reasonableness review standard as a "departure from the traditional standard of review," the process is not novel. The SONGS Unit 1 process was adopted by the Commission in D.99-06-007 and has been reapproved in each triennial since then without objection.

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<sup>15</sup> Article XII § 2 provides that the Commission, subject to statute and due process, may establish its own procedures.

The Settling Parties point out that DRA joined in the original settlement that established the SONGS Unit 1 review procedure and at the time found it a suitable alternative. Further, there are sound public policy reasons to adopt it. Foremost, the utilities will retain the burden of proof to show their rates are just and reasonable, and only reasonable and prudent costs are recovered. Opposing parties have ignored the details of the process in place for SONGS Unit 1 to arrive at their criticisms. Instead, the demonstration of reasonableness is made in two parts: 1) utilities must prove that the cost estimates provided in NDCTPs are reasonable, and 2) the utilities must submit an accounting of the recorded expenditures in the next NDCTP supported by testimony that compares expenditures to cost estimates. Where the expenditures materially vary, the utilities have the burden to demonstrate through additional evidence the expenditures are reasonable.

The Settling Parties believe that if the settlement is adopted, the Commission would continue to make the determination as to whether the decommissioning expenditures were prudently incurred and the utilities would not in any way evade their duty to justify, through competent evidence, that their cost estimates are reasonable and their expenditures are reasonable and prudently incurred. If any party made a credible case that a utility's expenditures were unreasonable or imprudently incurred, the utilities could not rely on the rebuttable presumption to overcome that party's showing.

Furthermore, according to the Settling Parties, the NFDA does not specify a particular process or standard for the Commission to apply in reviewing decommissioning expenditures for reasonableness. In fact, the NFDA only

provides for reviewing actual costs for reasonableness if the trust funds are insufficient for payment.<sup>16</sup> Thus, the Legislature considered the initial review of the cost estimates the best opportunity for cost controls and required it to occur “periodically.”<sup>17</sup> Contrary to the claims of Fielder and DRA, the Settling Parties state that the Settlement Agreement would not change the triennial filings of the utilities.

In addition, according to the Settling Parties, the proposed independent panel, which is intended to perform a one-time analysis of the cost estimates, procedures, and assumptions used in the NDCTPs, will enable the parties and the Commission to better evaluate the cost estimates. The composition of the panel is appropriate because these are decommissioning cost experts who will not be an advocate for any party in their roles on the panel.

The Settling Parties also state that to the extent that DRA was concerned about a lack of procedural detail about how the panel would function, the Settlement Agreement provides a reasonable framework for the parties to understand the purpose, responsibilities, and goals of the panel.

Additionally, the Opening Post-hearing Brief filed by the Settling Parties provides more information about the parties’ agreed upon process and funding for the panel. Specifically, in the course of performing its review and preparing a report, the panel would provide opportunities for all parties and Commission staff to be apprised of progress, have access to documents used, and to comment

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<sup>16</sup> § 8328.

<sup>17</sup> § 8327.

on the direction and scope of work. The panel would produce a report on the specific issues by November 1, 2010.

## **7. Discussion of Contested Issues**

There were a large number of contested issues in these proceedings. During the course of these proceedings, the parties have moved from their initial positions on numerous issues. A summary of their pre-Settlement positions is attached hereto as Appendix C.

The Settlement Agreement is sponsored by parties representing a range of interests but is not supported by all parties. Certain provisions are opposed by DRA and Fielder who represent ratepayer interests. We appreciate the fact that the Settlement reflects a range of divergent interests, including those of the utilities and of residential customers. In addition, we have also reviewed and considered the objections of those parties that did not join in the Settlement. As discussed below in detail, we find merit in some of the objections raised by these parties, and we reject the proposed adoption of a rebuttable presumption of reasonableness for decommissioning costs for activities, other than Phase 1 of SONGS Unit 1, as not in the public interest nor reasonable in light of the whole record. (See Section 7.7 below.) Therefore, we reject the Settlement as a whole and now consider whether there is a reasonable basis for approving the proposed cost estimates, past expenditures, proposed trust fund contributions, and other policy matters based on the final positions of the parties after five days of full evidentiary hearings, settlement negotiations, an evidentiary hearing on the proposed Settlement, and post-hearing briefs filed by the parties.

### **7.1. Compliance With D.07-01-003**

During the 2005 NDCTP, which was resolved by adoption of a settlement, the Commission ordered the utilities to serve testimony in the 2009 NDCTP in

three areas: 1) the use of qualified and experienced personnel, 2) a conservative forecast of costs for LLRW storage, and 3) a conservative and appropriate contingency factor for inclusion in each utility's decommissioning revenue requirements.

Each utility provided information about its own process for assuring that only qualified and experienced personnel are used for decommissioning activities planned or occurring at SONGS Unit 1 and HB3.<sup>18</sup> The utilities also jointly retained a consultant to perform an analysis of representative LLRW disposal rates available throughout the industry and used the identified base rates to develop a projected rate for use in the 2009 NDCTP. The utilities used the results and the evidence supported that the forecasts were conservative.

Lastly, PG&E developed and submitted a "Technical Position Paper for Establishing an Appropriate Contingency Factor for Inclusion in the Decommissioning Revenue Requirements" which included a review of available literature and reports, use of a contingency factor by other related industries, and recommended cost engineering practices from established professional organizations. The paper concluded that a 25% contingency factor for all nuclear decommissioning costs should be applied. SCE agreed based on its own independent research that the 25% contingency factor was conservative and appropriate. Both the original applications and the settlement proposal in these proceedings apply a 25% contingency factor to the cost estimates for all nuclear units.<sup>19</sup> Fielder objected to 25% factor as inadequate because it excluded financial

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<sup>18</sup> Exhibit SCE-1 at 11; PG&E Supplemental Testimony at 3-1 through 3-3.

<sup>19</sup> As discussed in more detail below, there is inconsistency between the utilities as to whether this factor covers only engineering contingencies or other unknown risks.

and regulatory risk and changes in scope. However, there was evidence that to the extent such risks were not included in a utility's contingency, they were otherwise accounted for in the cost estimates.

We find that SCE, SDG&E, and PG&E are in compliance with prior decisions applicable to decommissioning, including the Ordering Paragraphs 6, 7, and 8 of D.07-01-003 described above. We confirm that SDG&E may reasonably rely upon SCE, the majority owner of and exclusive operating and decommissioning agent for SONGS Units 1, 2, and 3 to make reasonable efforts to comply with the Commission's directives in D.07-01-003.

## **7.2. Approval of Decommissioning Cost Estimates**

The utility cost estimates contain a degree of speculation by nature, partly due to persistent uncertainties about the key component of future storage and disposal costs for radioactive waste, and partly because detailed engineering studies are not completed until decommissioning is imminent. Over time, the Commission has seen substantial increases to the cost estimates brought forward by the utilities for review and approval. That trend continued in these proceedings and led to a high level of scrutiny by parties and the ALJ during the evidentiary hearings.

On balance we find that the cost estimates proposed in the applications for each nuclear generating unit, although developed somewhat differently by the retained experts, are supported by the evidence. We adopt these cost estimates subject to a few changes in assumptions as discussed below reflecting agreed terms in the proposed Settlement, and which are bound by the evidentiary record.

### **7.2.1. SONGS Units 1, 2, and 3**

The remaining work scope for SONGS Unit 1 consists of Phase 2 which will end when all Spent Nuclear Fuel (SNF) is removed from the site and Phase 3 which is mostly dismantling and disposing of the ISFSI. Phase 3 is scheduled to occur concurrently with Phase 3 for SONGS Units 2 and 3 and projected to be completed in 2053. The estimated costs to complete decommissioning of SONGS Units 1, 2, and 3 were developed by ABZ, Inc. (ABZ), a recognized expert in nuclear decommissioning costs, using data provided by SCE based on its experience with SONGS Unit 1 and tested against ABZ's database of decommissioning costs at other nuclear sites.<sup>20</sup> SDG&E conducted its own independent review of the ABZ cost study.

The SONGS Units 2 and 3 cost estimates increased from the 2005 NDCTP by \$124.5 million (100% share, 2008\$) due to assumed higher energy costs and staff and separation costs arising from NRC-mandated security actions, additional five-year delay to 2020 before SNF is removed, localized labor rates, related staff separation costs, and the application of a 25% contingency factor to the staffing costs.<sup>21</sup>

TURN initially viewed the estimates as excessive, but modified its position during the evidentiary hearings.<sup>22</sup> We also find reasonable the use of the LLRW

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<sup>20</sup> The cost studies intended to account for recent changes in technology, regulation, and economics and also account for the unique features of each facility.

<sup>21</sup> The SONGS units sit on land owned by the United States Department of the Navy and there are significant uncertainties about the required standards for final site restoration and site lease termination. Therefore, SCE and SDG&E have made very conservative assumptions about the amount of contamination they must remove.

<sup>22</sup> Reporter's Transcript at 565.

burial rates from the joint utility study and application of a 6.93% burial escalation rate based on historical rates.<sup>23</sup>

Based on the foregoing, we find that the cost estimates for SONGS Units 1, 2, and 3 are reasonable.

### **7.2.2. Palo Verde Units 1, 2, and 3**

Arizona Power Service (APS), the operating agent for the Palo Verde units, retained TLG Services, Inc. (TLG) to prepare a decommissioning cost study.

TLG, also a recognized expert in the field of decommissioning costs, used drawings and inventory documents to estimate waste volumes and make other assumptions in the cost study. SCE concluded that some assumptions made by TLG were inconsistent with SCE's experience and risk tolerance and, therefore, SCE made substantial adjustments to the TLG estimate and then applied a 25% contingency factor to all costs.<sup>24</sup>

The resulting estimate of \$708.7 million (2007\$) for SCE's share of all three units is about 7% below the estimate adopted in the 2005 NDCTP primarily due to significantly reduced LLRW burial costs, even though additional waste volume was projected.

Based on the foregoing, we find that the cost estimates for SCE's share of decommissioning the Palo Verde units are reasonable.

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<sup>23</sup> After a new LLRW burial site becomes available to California nuclear generation facilities, we expect the utilities to review the escalation rates using then current data.

<sup>24</sup> For example, APS assumed that it would incur no costs for disposal of non-contaminated materials or final clean-up following United States Department of Energy disposal of SNF.

### **7.2.3. Humboldt Bay Powerplant 3**

PG&E has begun preparatory decommissioning activities at HB3 and intends to commence decommissioning of the plant in 2010 and act as its own general contractor. PG&E retained TLG to prepare a detailed cost estimate which assumed a delay in beginning SNF disposal until 2020 and applied the LLRW burial costs from the LLRW cost study, a 7.5% burial escalation rate, an employee labor escalation rate of 3.75% based on its union contracts, and a 25% contingency rate<sup>25</sup> to all costs. The estimate of \$499.8 million (2008\$) excludes \$385,520 that has been disallowed by the Commission, but includes \$82.3 million in costs incurred or projected to be incurred in 2009. The primary reasons for increases to the estimate from 2005 are increased staffing levels, revised or added unit cost factors for some activities, and increased waste volumes driven in part by site-specific challenges.

DRA generally accepted the cost estimate, but thought SCE's lower burial escalation rate of 6.93% should be used. PG&E used the higher figure based on its use in prior NDCTPs, the unreliability of having few data points in the LLRW study, and uncertainties about future disposal rates. PG&E's explanation of its differences on these items was reasonable for purposes of these proceedings. In the Settlement, the parties agreed to a modified labor rate which reflected PG&E's union contracts through expiration in 2011. This is also reasonable.

Fielder argued that a composite figure be used for LLRW disposal rates. However, there is no evidence that this approach is superior to the graded rates developed in the LLRW study and may be contrary to the Commission's

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<sup>25</sup> D.07-01-003 adopted a 25% contingency rate for HB3 in the 2005 NDCTP.

direction in D.07-01-003. Additionally, Fielder's requested 35% contingency factor seems excessive and lacks evidentiary support. PG&E's witness Sharp explained that the 25% contingency factor was not intended to include changes in scope or other conditions which should be factored into the underlying cost estimate prior to application of the contingency rate.<sup>26</sup>

Based on the foregoing, we find that the cost estimate for HB3 is reasonable. In addition, we find that PG&E's uncontested forecast for 2010 O&M expenses associated with maintaining HB3 in SAFSTOR, including attrition through 2012, is reasonable.

#### **7.2.4. Diablo Canyon Units 1 and 2**

PG&E retained TLG to prepare cost estimates for the DC units under two decommissioning scenarios which included the same labor and LLRW burial rate assumptions and 25% contingency factor described above for the HB3 cost study. Under the more likely "DECON" method, which provides for prompt removal and dismantling of the facility, the total estimated cost for both units is \$1,828.35 million (2008\$). Consistent with the current operating license, the 2009 cost study also reflects shutdown dates for Units 1 and 2 of November 2024 and August 2025, respectively.

No significant objections were made to the cost estimates except that DRA continues to argue that PG&E should use SCE's LLRW burial escalation rate. The difference in cost would be about \$1.8 million<sup>27</sup> but we find that PG&E reasonably justified its use of the 7.5% rate. However, we adopt the proposed

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<sup>26</sup> Reporter's Transcript at 201-203.

<sup>27</sup> Reporter's Transcript at 849.

modification of PG&E's labor escalation rates contained in the Settlement, which fall within the bounds of the evidentiary record: 3.75% for 2009-2010, 4.0% in 2011, and use of SCE's 3.14% after 2011.

Based on the foregoing, we find that the cost estimates for DC Units 1 and 2 are reasonable, as adjusted.

### **7.3. Approval of Decommissioning Expenses**

In the first NDCTP, the Commission adopted a settlement that authorized the commencement of decommissioning at SONGS Unit 1 and created a presumption of reasonableness for its decommissioning expenditures if kept within prior estimates. D.99-06-007 provides:

If the scope of SONGS 1 (Phase 1) Decommissioning Work completed and costs incurred to date are bounded by the most recently approved SONGS 1 Decommissioning Cost Estimate, the Utilities' conduct will be presumed reasonable. Any entity claiming the Utilities acted unreasonably would, therefore, bear the burden of proving the Utilities acted unreasonably. The utilities will be responsible for proving that material variances from the most recently approved SONGS 1 Decommissioning Cost estimate are reasonable.<sup>28</sup>

To be entitled to a presumption of reasonableness here, SCE is required to provide a comparison of the 2004 estimated Phase 1 costs at SONGS Unit 1 to the actual costs for the work completed between July 1, 2005 and December 31, 2008. SCE incurred a net cost of \$207.2 million (2008\$) for the completed work compared to the \$221.3 million (2008\$) estimated cost approved in the 2005

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<sup>28</sup> 86 CPUC2d 604, 620 (Attachment A Settlement Agreement § 4.2.2.2(c)).

NDCTP.<sup>29</sup> Actual costs were lower in nearly all categories. No party has contended the expenditures were not reasonable or prudent and SCE provided uncontested evidence the work was performed by qualified and experienced personnel. As a result, based on the settlement agreement adopted in D.99-06-007, SCE's actions are presumed reasonable and we find no evidence to suggest they were either unreasonable or imprudent.

PG&E is subject to the general reasonableness review rather than the presumption. The company provided a comparison of approved cost estimates and actual expenditures in connection with preparatory decommissioning activities at HB3. PG&E incurred a net cost of \$63.4 million (2008\$) for the work scope that was completed compared to an estimated cost identified in the 2005 NDCTP of \$58.6 million (2008\$). The biggest excess occurred in the primary category of "Licensing, Design, Fabrication, and Construction of ISFSI" due to new NRC requirements and both design and contamination issues related to the confined space. This expense was partially offset by lower than expected costs for shipment and burial of certain waste. PG&E provided uncontested evidence the work was performed by qualified and experienced personnel.

Based on the foregoing, we find the decommissioning expenses claimed by SCE and PG&E are reasonable and prudently incurred.

#### **7.4. Rates of Return and Trust Fund Contributions**

The Commission's adopted rates of return should capture a reasonably conservative growth trend over the life of the trust funds to match the estimated decommissioning costs. The recent economic downturn resulted in lower than

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<sup>29</sup> Exhibit SCE-1 at 14.

expected returns in the trust funds during 2007 and 2008, initially prompting requests for significant contributions to some funds. Each utility developed its own forecast for rates of return on the equities and fixed income portions of its trust funds for the qualified and non-qualified trusts. The parties had different views about what benchmarks to use and how to interpret them. Inconsistent assumptions about the trust fund portfolios and management contributed to disparate results. As the proceedings progressed, the trust funds recovered some of their lost value and trust fund balances as of December 31, 2009 will be applied to calculate approved contributions.

#### **7.4.1. Equity Rates of Return**

SCE initially applied an 8.06% pre-tax return on equity, SDG&E applied 8.13%, PG&E used 8.5%, and TURN proposed 10.05% for all three utilities, each estimate based on nationally recognized indices.<sup>30</sup> TURN's recommendation was significantly different because it limited the forecast of equity returns to the 14-year period in which SCE and SDG&E funds were anticipated to hold equities, i.e., pre-decommissioning of SONGS Units 2 and 3. Thus, the 10.05% reflects the shorter-term forecast of higher returns for market recovery between 2009 to 2022, while the longer-term forecast out to 2038 is preferred by the utilities to smooth out a reasonable "average" return.

The utilities argued it was neither reasonable nor conservative to focus on shorter-term projections. They also proposed lower equity turnover rates than adopted in 2005 which seems reasonable given current market volatility.

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<sup>30</sup> The forecasted rates of return are adjusted for management fees, taxes, and equity turnover rates.

Although TURN proposed a uniform rate of return, the utilities opposed it on the grounds that their own forecasts were appropriate because each trust fund was differently composed and managed. For purposes of these proceedings, we agree that overemphasis on short-term market recovery is not a conservative approach to the forecasted return and uniformity is less of an imperative than consideration of the actual composition of the trust fund portfolios.

The Settlement proposed different rates for PG&E than for SCE and SDG&E. The proposed pre-tax equity return of 8.75% for SCE and SDG&E is an increase over the rates they proposed, but not outside the evidence presented for a reasonable rate of return. Similarly, the 8.5% PG&E proposed would remain applicable to the HB3 trust funds which will eliminate equities by 2013 in order to finance the concurrent decommissioning. This is the same assumption adopted in the 2005 NDCTP and not unreasonable. For the DC trust funds, the Settlement states that after-tax returns will be adjusted on a pro-rata basis in order to yield the proposed \$9 million annual contribution. (See below, Section 7.4.3.1.) PG&E's somewhat artificial calculation is that an assumed equity return of 8.13% return<sup>31</sup> would yield the proposed contribution. This is somewhat low but it matches rate of return evidence originally presented by SDG&E.

Based on the foregoing, we find that the equity rates of return proposed in the Settlement are reasonable and within the range of reasonable outcomes based on the evidence in the record.

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<sup>31</sup> Reporter's Transcript at 853.

#### **7.4.2. Fixed Income Rates of Return**

For the fixed income portions of the trust fund portfolios, SCE originally assumed a 4.69% pre-tax return, SDG&E assumed 5.34%, PG&E applied 4.11%, and TURN agreed with SCE. The disparity is the result of different indices and assumptions, primarily whether to assume a municipal bond yield in the portfolios. DRA concluded the fixed income returns forecasted by the utilities were reasonable.

TURN's recommended debt return was based on 10-year municipal bonds and works out to the 4.2% post-tax return applicable to SCE and SDG&E in the Settlement. PG&E retained its original forecast for the HB3 trust funds. As noted above, the Settlement presumes a \$9 million annual contribution to the DC trust funds without reliance on specific debt and equity returns.

We agree that despite some variations between the utilities, the forecasted returns are reasonable and the small modifications provided in the Settlement are within the range of reasonable outcomes based on the evidence in the record.

#### **7.4.3. Contributions and Revenue Requirements**

The Commission requires the utilities to update the trust fund balances to December 31, 2009 when calculating their contributions. Each utility has submitted an exhibit which describes the contributions and revenue requirements using the updated balances and the settlement terms which we have adopted herein.<sup>32</sup>

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<sup>32</sup> Exhibit PG&E-20, Exhibit SCE-15, and Exhibit SDG&E-20.

#### 7.4.3.1. PG&E

PG&E originally sought approval for \$33 million in total trust fund contributions resulting in the grossed-up revenue requirements for 2010 set forth below:<sup>33</sup>

Diablo Canyon	\$23.329
Humboldt	\$16.982
Humboldt SAFSTOR	<u>\$ 9.218</u> (O&M)
Total	\$49.528 million

This represents a \$25.7 million increase from the currently authorized revenue requirement. When the trust fund balances are updated to December 31, 2009, without any other changes to the assumptions in the application, the required total contributions would decrease to \$18.69 million.

One controversial issue in the proceedings was the proposed annual contribution for the DC units where parties advocated for amounts ranging from \$23 million to zero. The Settlement was no less controversial in its proposal that PG&E's annual contribution be \$9 million in what PG&E called a "black box" settlement derived from negotiation rather than specific evidence. PG&E contends this is a reasonable and informed compromise based on the litigation risks arising from various assumptions and arguments, including inadvertently omitted costs. We have previously said we disfavor such settlements where underlying assumptions are not disclosed because of the lack of transparency by

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<sup>33</sup> Exhibit PG&E-1 at 8-2, Table 8-1.

which to verify them.<sup>34</sup> In contrast, this provision has some evidence to support it.

PG&E argued that it has good reasons for an increase to the DC cost estimate: \$135 million in omitted labor termination expenses and use of a higher (35%) contingency factor. DRA disputed that there was evidence to support either argument and pointed out that using the updated trust fund balances and original application assumptions, PG&E would only need to make about \$5 million<sup>35</sup> in contributions to the DC trust funds. PG&E replied that if the revised costs are incorporated with updated balances, the required annual contribution would rise to \$29 million.

DRA's suggested contribution level was \$1.8 million based on the updated fund balance and Settlement assumptions, except for substitution of the SCE LLRW burial escalation rate.<sup>36</sup> We agree with DRA that the evidence in support of a 35% contingency for the DC cost estimates is limited<sup>37</sup> and the omission of the claimed (and untested) labor termination costs is PG&E's error. However, this does not end the analysis. The goal of these proceedings is to adequately fund the trust funds based on reasonably accurate cost estimates. PG&E presented uncontested evidence that its updated annual DC contributions would

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<sup>34</sup> D.88-02-030, 1988 Cal PUC 100 at 32-33.

<sup>35</sup> Exhibit PG&E-20.

<sup>36</sup> Exhibit DRA-10.

<sup>37</sup> When asked, PG&E's expert said he would not object to 35%. Reporter's Transcript at 203.

be \$16.76 million<sup>38</sup> if it included the omitted labor termination costs and accepted the adjustments to its labor escalation rate and a five-year ramp down of equities after decommissioning begins, as set forth in the Settlement and adopted herein.

The record shows that SCE included labor termination costs without dispute and PG&E could argue that it should also have included them as a relevant cost (subject to protest for late submission). Moreover, the Commission is charged with assuring that the trusts are adequately funded by the ratepayers who receive the benefits of the generated power. There have been zero or nominal contributions approved for the DC trusts during the last two NDCTPs at a time when no detailed engineering studies have been done to assess contamination and certain costs have been omitted. Based on our review of the cost estimates and experience with rising costs as decommissioning becomes imminent, we find that these trusts are now underfunded.

Given these various considerations, a contribution of \$9 million is within the range of likely outcomes had the Commission arrived at its own figure from a range of \$5 - \$16 million. Therefore, we find that the \$9 million annual contribution is reasonable and justified and within likely litigation outcomes.

The HB3 trust funds have declined in value,<sup>39</sup> only non-qualified funds are at issue, and the overall contribution has increased by more than \$3.5 million<sup>40</sup> assuming no other changes. Since this decision adopts the proposed changes to labor escalation and equity ramp down proposed in the Settlement, the HB3

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<sup>38</sup> *Id.*

<sup>39</sup> The HB3 non-qualified trust funds are predominately in fixed income investments.

<sup>40</sup> Exhibit PG&E-20.

contribution would increase by another \$23,000. There is no dispute as to either proposed contribution and, therefore, we find PG&E's revised contribution to the HB3 trust funds to be just and reasonable.

#### **7.4.3.2. SCE**

The SONGS Unit 1 and PV trust funds are adequately funded so that no contributions are required in this triennial period. SCE originally sought approval for \$64.537 million in total annual contributions for SONGS Units 2 and 3, which results in a total revenue requirement of \$66.430 million.<sup>41</sup> This would have been a 43% increase over the requirements authorized in the 2005 NDCTP. However, the updated trust fund balances alone would cut that to about \$47 million.<sup>42</sup> For the reasons discussed below, we adopt an even lower contribution amount.

TURN originally said no contributions were necessary for the SONGS Units 2 and 3 trust funds if SCE adopted TURN's proposed changes to the cost estimates. By our adoption of TURN's revised equity rate of return for SCE, as well as the updated trust fund balances, SCE's necessary contributions are reduced by half to about \$23 million.<sup>43</sup>

DRA did not dispute the proposed contributions but argued that surplus funds were available in the SONGS Unit 1 trust funds that should be considered available for SONGS Units 2 and 3 decommissioning. However, we believe this

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<sup>41</sup> Exhibit Utilities-3 at 24, Table III-12.

<sup>42</sup> Reporter's Transcript at 851.

<sup>43</sup> Exhibit SCE-15.

view is premature given the uncertainties about radioactive waste disposal which could increase SONGS Unit 1 costs in the later phases.<sup>44</sup>

Based on the approved cost estimates for SONGS Units 2 and 3, inclusive of the revised equity rate of return we have adopted, SCE's revised contribution amounts and revenue requirements that result are just and reasonable.

#### **7.4.3.3. SDG&E**

SDG&E originally sought approval of an annual \$15.284 million contribution to the SONGS Units 2 and 3 trust funds for its proportional share of the decommissioning expenses, plus continued recovery of \$0.959 million related to SNF storage costs. Rather than seek a rate increase, SDG&E proposed to instead use overcollections in its NDAM and other balancing accounts or regulatory accounts to offset the revenue requirement. As discussed in Section 7.4.1 above, we are adopting a higher rate of return for SDG&E's equity investments which results in a lower contribution amount needed from ratepayers. Based on the updated trust fund balances, the company's annual contribution request has dropped to about \$8 million.<sup>45</sup>

Based on the foregoing, we find SDG&E's revised contribution amount and proposal to fund the resulting revenue requirements out of existing balances to be just and reasonable.

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<sup>44</sup> There are also unresolved tax implications arising from fund transfers because California has not adopted certain changes in federal tax law relative to Internal Revenue Code § 468-A.

<sup>45</sup> Exhibit SDG&E-20.

### **7.5. Other Policy Issues**

There was no objection to SCE's request to terminate its Decommissioning Tax Memorandum Account because it is unnecessary, and SCE has agreed to explore the feasibility of a separate NRC license to operate the ISFSI at SONGS Unit 1. As part of the proposed Settlement, the parties proposed solutions to other policy questions, which we adopt here. For example, in the next NDCTP, the utilities will provide, for information only, estimates of changes to funding for decommissioning associated with prospective license renewals for the SONGS Units 2 and 3 and DC Units 1 and 2. Also for the next NDCTP, the utilities will report the amount of pro rata share of funds held to meet NRC standards for License Termination, including copies of their most recent funding assurance letters to the NRC. For this NDCTP, we also accept the parties' agreement to allow the utilities to use different treatment of unrealized capital gains and losses when calculating the liquidation value of the trust funds.

The question of whether utilities should consider or assume in future NDCTPs that the trust funds will contain cash or some limited amount of equity investment for a period after shutdown or commencement of decommissioning is referred to Phase 2 of these proceedings.

### **7.6. Independent Panel**

The level of decommissioning funds accumulated by the utility trust funds in California is high when compared with other states. It is unclear whether this is a result of appropriately conservative estimates, excessive caution, or mistaken assumptions. Therefore we agree with the parties that it is time to explore in detail the technical aspects of how decommissioning cost data is developed and presented so that the public, ratepayer advocates, and the Commission can better understand, analyze, and compare factors within the cost studies.

We adopt, with some modifications, the proposal in the Settlement to create an independent panel for the discrete task of improving the external review of cost estimates presented in NDCTPs. The panel will be comprised of individual decommissioning cost experts that worked with the utilities and TURN in these proceedings and, therefore, are also familiar with California's specific nuclear facilities: Nick Capik of ABZ, Geoffrey Griffiths of TLG, and Bruce Lacy of Lacy Consulting.<sup>46</sup> Lacy would sit as a representative of consumer interests. DRA is concerned that these experts will not be "independent" of the utilities, and seeks a role for Commission staff and non-Settling parties. However, DRA was more interested in being kept in the loop than in sitting on the panel. Fielder also argues that the panel would leave out important parties, although he admits he declined to participate.<sup>47</sup>

We disagree because these arguments miss the point and purpose of the panel's work. The Commission has an interest in having the data presented in a form that is useful and comparable. Here, it makes sense to identify the experts needed for a rarefied technical task who have also agreed to work together for the benefit of California ratepayers.<sup>48</sup> The panel will review volumes of technical data and their own proprietary models to develop recommendations to the Commission about how to improve transparency in decommissioning cost estimates for the benefit of the Commission and public, including Fielder and the

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<sup>46</sup> Reporter's Transcript at 779.

<sup>47</sup> Reporter's Transcript at 808.

<sup>48</sup> Reporter's Transcript at 805.

DRA. The result is advisory, relates to the presentation of cost data, and does not in any way substitute for the NDCTPs or limit future participation.

TLG and ABZ are among the few nationally recognized experts in the field of decommissioning costs. They have prepared the cost estimates for the utilities in prior NDCTPs and, consequently, are among the best informed persons about past practices and current trends. Lacy was TURN's expert witness on decommissioning costs on behalf of ratepayers and is familiar with the ABZ and TLG studies used in these proceedings. We agree with TURN and the utilities that this is a vitally important task best tackled by experts familiar with nuclear decommissioning costs and experiences nationwide, as well as the unique characteristics of California's individual sites. Notably, neither DRA nor Fielder offered similar witnesses at the evidentiary hearings.

Moreover, we adopt several steps to assure the panel's work is useful and comprehensible. Similar to what the Settlement proposed,<sup>49</sup> we require the panel to discuss the status of its work, listen to comments, and answer questions to be sure the resulting recommendations improve public review of cost estimates. Documents used in the development of the report would be available for review. The following opportunities for Commission staff and the parties to be included should occur:

- Within 30 days after adoption of this decision, the panel shall conduct a briefing about the panel's initial work plan.
- The panel shall conduct a briefing when it has completed the bulk of its work and considers its findings to be ready for presentation in draft.

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<sup>49</sup> Opening Brief of SCE, SDG&E, PG&E and TURN at 2-3.

- The utilities shall provide reasonable notice of the briefings to the parties in these proceedings.
- Upon notice to the ALJ, a workshop will be scheduled within these proceedings where the panel will present the Report for review and comment by all parties and Commission staff, including response to questions and feedback.
- The panel will issue a final report with recommendations which shall be filed in the consolidated proceedings by March 1, 2010, unless the ALJ extends the date.

Although Fielder rather rhetorically describes the panel as a “star chamber” which would “hijack” the NDCTPs,<sup>50</sup> we think he misunderstands the limited nature of the assigned tasks. All of the identified technical issues were raised during the proceedings, in part due to frustration of the parties and the ALJ when trying to test, analyze, and compare bits and pieces of the cost estimates.<sup>51</sup> The differing cost formats, assumptions, and definitions made it quite difficult and sometimes impossible. We are concerned that going forward, as more decommissioning costs and expenses are submitted for approval, we will lack clear benchmarks and comparables by which to make fully informed judgments of reasonableness.

We find the scope of activities set forth in Section 2.2 of the Settlement Agreement to be appropriate. This is a unique opportunity to get information about decommissioning activities in other states, determine what cost and financial assumptions can be applied on a common basis, identify state-of-the-art ideas about how to reduce costs, and, importantly, to find a common format for

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<sup>50</sup> Fielder’s Post-hearing Reply Brief at 3.

<sup>51</sup> Reporter’s Transcript at 780.

cost estimates to improve the quality of future scrutiny, analysis, and public participation.

The panel will limit its focus to PV, DC and SONGS Units 2 and 3 because these units are of similar size and design, still operating, and nowhere near commencement of decommissioning.<sup>52</sup> Fielder objected to the exclusion of HB3, but HB3 is a unique facility in many respects and is already into the decommissioning process.<sup>53</sup> Therefore, its exclusion does not diminish the usefulness of the panel's recommendations.

Finally, we adopt a \$275,000 budget cap, instead of the proposed \$250,000 budget cap, to funding of the panel's work, because of additional assigned tasks. The Settling Parties proposed that the costs be paid by the three utilities through the NDAM accounts and we agree that this nominal cost is an appropriate decommissioning expense. The actual allocation is based on the nuclear generating capacity of the DC Units 1 and 2, SONGS Units 2 and 3, and PV Units 1, 2, and 3.<sup>54</sup> It is our expectation that the panel's recommendations will enhance the Commission's ability to exercise its statutory review obligation, likely lead to decommissioning cost savings, and assist the public in its analysis of future decommissioning cost estimates. The nominal impact on rates should be readily recovered in the value of these probable results.

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<sup>52</sup> Reporter's Transcript at 800.

<sup>53</sup> Reporter's Transcript at 800-801.

<sup>54</sup> PG&E's allocation would be 44.78%, SCE's allocation would be 46.62%, and SDG&E's allocation would be 8.60%. See Attachment A to the Settling Parties' Post-hearing Opening Brief.

### **7.7. Reasonableness Review**

We reject the proposal to extend the form of reasonableness review applied to Phase 1 of SONGS Unit 1 decommissioning expenditures to Phases 2 and 3 and to all phases of HB3. It is neither in the public interest nor reasonable in light of the whole record. The rebuttable presumption method was accepted as part of an unopposed settlement in the first NDCTP prior to any actual decommissioning activities. It employed a model drawn from another purpose (i.e., Energy Cost Adjustment Clause reviews)<sup>55</sup> that was not subject to close examination. Based on the knowledge and experience since gained by the Commission, it is clear that this is an important review process, influenced by speculative cost estimates and safety concerns, not suitable for an abbreviated method of oversight. At this time, we find that a full after-the-fact review of both costs and conduct best serves the interests of ratepayers and the public.

Pub. Util. Code § 8325(c) allows the utilities rate recovery for “reasonable and prudent decommissioning costs.” In D.99-06-007, the Commission authorized the commencement of SONGS Unit 1 decommissioning and a form of expenditure review that applied a rebuttable presumption of reasonableness to decommissioning activities based solely on completing work within an approved cost estimate. SCE was required to submit cost estimates and expenditures, along with its explanation of “material” differences in future NDCTPs. Absent “material” cost variations, the burden to show unreasonableness was shifted to other parties.

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<sup>55</sup> 86 CPUC2d 604, 615.

Unlike that presumption, the Commission described in the 2005 NDCTP its standard of reasonableness review for other decommissioning expenditures:

[W]e define reasonableness for decommissioning expenditures consistent with prior Commission findings; i.e., that the reasonableness of a particular management action depends on what the utility knew or should have known at the time that the managerial decision was made.<sup>56</sup>

Going forward, we affirm this is the appropriate review to apply to actual decommissioning expenditures.

PG&E argued that it wanted “a process in place” by which it could evaluate how it would conduct decommissioning. It said that making advice letter estimates “and then having the completed projects reviewed, really isn’t appropriate for this phase of the proceeding.”<sup>57</sup> Essentially, PG&E contended that it was far better for the company to move review into the estimate phase instead of questions being raised after the fact. No actual review would be lost, said PG&E, because the presumption is rebuttable. We disagree.

The crux of PG&E’s concern seems to be that the Commission would retroactively micromanage the decommissioning process. Its concern is somewhat misplaced because the Commission is not in the business of managing the decommissioning of a nuclear facility. Yet, the Commission is charged with assuring that ratepayers are not liable for unreasonable costs and that decommissioning activities are prudently undertaken. The utility wants to assure the Commission solely through its cost estimates that they will hire

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<sup>56</sup> D.07-01-003 at 7-8.

<sup>57</sup> Reporter’s Transcript at 504-505.

appropriate people and spend appropriate amounts doing the right things safely. This is a leap of faith we are not prepared to take. We now know that cost estimates keep growing, unexpected things occur, the extent of contamination is unknown until it is removed, and that not all those expected to be hired have been hired at the time of the cost estimate.

SCE's arguments in support of the proposal centered on the claim that the presumption "worked well" for the Commission's review of its Phase 1 expenditures for SONGS Unit 1 and has been approved in each successive NDCTP.<sup>58</sup> The utility emphasized that the cost estimates were highly detailed and accurate and any party could challenge the costs even if within the estimate. Whether it "worked well" for SCE is not the same question as to whether it "works well" for the public. Cost estimates for remaining phases at the SONGS sites grew dramatically since the last NDCTP. SCE admitted learning a lot in Phase 1 as costs rose and it continued to grow the estimates for SONGS Units 2 and 3. Neither past use of the presumption, nor assurances of the reliability of a cost estimate, are persuasive reasons to alter the more complete, after-the-fact review set forth in D.07-01-003 for the benefit of ratepayers and the public.

SCE disputes Fielder's view that the presumption creates a "lighter burden of proof" and contends the utility has made the same evidentiary showing of expenses necessary to sustain a finding of reasonableness, notwithstanding the applicability of the presumption. SCE further notes that no one has disputed their costs, nor did Fielder even ask a question about them. This may be so, but it does not change the fact that the prudence review has been subsumed by the

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<sup>58</sup> Reporter's Transcript at 478, 480.

cost analysis, nor does it address whether the presentation of the data is functionally penetrable by the parties and Commission staff in the time available during the NDCTP.

We have related policy concerns with application of a presumption, albeit rebuttable, to the most important part of our review of the decommissioning of California's nuclear facilities. For example, cost estimates are not as reliable as the utilities claim, nor are they the final word as to what activities are conducted and by whom. The fact there is wide agreement that cost estimates are opaque, inconsistent between utilities, and rely on disputed assumptions, underscores the limited reliability of an estimate even as decommissioning approaches. That is why the work of the independent panel is so important for improving future review of cost estimates. It also illustrates why the Commission and other parties may have difficulty reviewing the expenditures within the time available and matching them to work scope in order to test the presumption.

Another concern is that SCE and PG&E are acting as their own general contractors for the decommissioning. This is uncharted territory which may yield cost benefits to ratepayers but includes risk of myopia from exclusion of third-party perspectives about operational practices affecting costs. Fielder called it a "conflict of interest" and said, "[O]nly the utilities will know what they did and when they did it..."<sup>59</sup> Similarly, at the evidentiary hearings, TURN's counsel said:

Essentially, they're asking the Commission to decide that that money belongs to the utility, not to the ratepayers, and they want an upfront guarantee that they can spend these funds irrespective of

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<sup>59</sup> Intervenor Scott Fielder's Reply Brief at 5.

what facts may come to light in the future or how the utilities actually behave, and perhaps most importantly, whether actions that the utility has taken are contributing to the increase of those costs.<sup>60</sup>

TURN dropped its opposition to this proposal as part of the Settlement, presumably because it gained agreement on the independent panel and other changes in utility assumptions. However, that does not eliminate the importance of these concerns for the Commission.

The policy problem is amplified by the fact that neither PG&E nor SCE officially submitted their decommissioning plans to the NRC for substantive review because such submission is not required unless in connection with a license termination. Absent NRC oversight, the NDCTP seems to be the only regulatory review of their actual decommissioning plans. Therefore, the Commission is the front-line agency in position to examine whether the decommissioning is done prudently. Adoption of the reasonableness presumption would inappropriately submerge the character of the activities within a cost test that fixes the burden of proof.

We are not comforted by the utilities assurances that the data is submitted for review regardless of whether there are material cost differences, and parties have the ability to challenge costs and prudence even if the presumption applies. If the presumption does not alter the evidentiary showing, then it seems of little benefit to the utility. More importantly, we find that the Commission's duty to review decommissioning activities to assure the costs were prudently incurred, in addition to being reasonable, is too significant to lump into a presumption

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<sup>60</sup> Reporter's Transcript at 499.

solely based on cost. Furthermore, the inclination to overestimate costs could arise.

Based on the foregoing, we conclude that it is not in the public interest nor reasonable in light of the whole record to provide, going forward, a presumption of reasonableness for decommissioning activities which are completed within cost estimates. This finding is sufficient to reject the Settlement as a whole.

## **8. Conclusion**

Based on the foregoing discussion, we decline to adopt the proposed Settlement primarily because the provision relating to expansion of the reasonableness presumption for decommissioning activities completed within cost estimates is not in the public interest and not reasonable in light of the whole record. However, based on the evidentiary record, we adopt almost all of the other terms of the proposed Settlement which generally accepted the initial cost estimates and decommissioning expenditures submitted by the utilities, with a minor adjustment to PG&E's labor costs.

The contributions were adjusted, as proposed in the Settlement, based on trust fund balances updated to December 31, 2009, and for SCE and SDG&E also adjusted for forecasted higher rates of return on equity. We also adopt the settled upon annual contribution by PG&E of \$9 million for the DC trust funds based on evidence supporting that it was within the range of likely outcomes absent the Settlement. We also adopted a plan from the Settlement to initiate an independent panel of decommissioning experts to help the Commission guide the utilities into a more accurate, transparent, and comparable presentation of cost data. The panel will deliver a report to the Commission and parties in March 2010, which makes recommendations that will, hopefully, improve Commission and public review of nuclear decommissioning in California.

## **9. Comments on the Proposed Decision**

The proposed decision of the ALJ in this matter was mailed to the parties in accordance with Pub. Util. Code § 311 and comments were allowed under Rule 14.3. Comments were filed on June 28, 2010, and reply comments were filed on July 1, 2010 by Fielder. Based on the comments and reply comments, certain technical corrections have been made.

## **10. Assignment of the Proceedings**

Timothy Alan Simon is the assigned Commissioner and Melanie M. Darling is the assigned ALJ in these proceedings.

### **Findings of Fact**

1. PG&E filed A.09-04-007, its 2009 NDCTP on April 3, 2009. SCE and SDG&E jointly filed A.09-04-009 for the 2009 NDCTP.
2. SCE, SDG&E, PG&E, and TURN proposed a Settlement Agreement on December 18, 2009 that resolved all disputed issues in these consolidated proceedings.
3. The two parties that opposed the Settlement, DRA and Fielder, raised important questions about some provisions of the Settlement, particularly related to the reasonableness review of decommissioning expenditures, as well as the structure and process of the independent panel.
4. The active parties in the proceedings are representative of the stakeholders, and each has ably and vigorously pursued the interests of its constituency.
5. SCE, SDG&E, and PG&E each submitted uncontested evidence that they had complied with orders from the Commission in D.07-01-003, the 2005 NDCTP.
6. SCE, SDG&E, and PG&E each provided reasonable estimates forecasting future decommissioning costs which were prepared by recognized experts who

used utility information and generally accepted methods for developing the submitted cost analyses.

7. SCE and SDG&E may overestimate waste removal costs when making estimates of future costs for the SONGS units due to the ownership of the underlying land by the United States Department of the Navy which has not yet defined the standard to which the land must be returned at the time of license termination.

8. SCE, SDG&E, and PG&E each documented that they had undertaken various, previously approved decommissioning activities and incurred the identified expenditures for them at the SONGS Unit 1 and HB3, respectively. The documentation explained differences from prior cost estimates.

9. The proposed trust fund contributions, based on the original cost estimates in the applications, have declined during the proceedings because the trust funds have increased in value since the applications were filed.

10. The parties offered different forecasted rates of return for trust fund equity investments, partly due to what length of time was used to average projected returns. Overemphasis on short-term market recovery is not a conservative approach to forecasting rates of return.

11. The parties offered different forecasted rates of return for trust fund fixed income investments, partly due to whether a municipal bond yield was assumed for the portfolios.

12. Conservative forecasted yields for the trust funds serve the public interest and these yields should bear some relation to actual investments within a portfolio.

13. The DC trusts are underfunded. Based on updated trust fund balances, the evidence supports an annual contribution for the DC trust funds between \$5 million and \$16 million.

14. The Commission, interested parties, and the public would benefit from the utilities employing common forms of presenting cost estimate data, including identification of common assumptions, cost factors, and other shared cost elements among different California nuclear units. Public benefits would likely include more detailed reviews of proposed estimates and a reduction of future decommissioning costs.

15. An independent panel of decommissioning experts who have worked on the cost estimates in these proceedings would be best suited to the technical task of sorting through proprietary methodologies, national decommissioning data, and site specific challenges to advise the Commission about a model form for future cost estimates.

16. An independent panel should provide opportunities for the Commission, its staff, and other parties to be briefed, ask questions, and offer comment on the panel's work to assure it is sufficiently transparent and useful. A written report is the best way to acquire the panel's final recommendations.

17. We expect the panel's recommendations will enhance the Commission's ability to exercise its statutory review obligation, likely lead to decommissioning cost savings, and assist the public in its analysis of future decommissioning cost estimates. Funding is capped at \$250,000, is an appropriate administrative decommissioning expense, and will be paid by the utilities through the NDAM accounts pro rata based on nuclear generating capacity at DC, SONGS, and PV.

18. Pub. Util. Code § 8325(c) directs the Commission to examine the decommissioning costs for which the utilities seek rate recovery to be sure that ratepayers only pay for reasonable and prudent decommissioning costs.

19. In the first NDCTP, the Commission accepted a settlement whereby SCE and SDG&E were authorized to commence Phase 1 of the decommissioning of SONGS Unit 1 and were permitted to assert a rebuttable presumption of reasonableness, which included the prudence of the activities, if the work completed came within the previously approved cost estimate.

20. Past use of a presumption of reasonableness, as adopted in a settlement more than a decade ago for the very first decommissioning activities, is insufficient basis to continue the practice without further scrutiny. The lack of transparency and incomparability of cost estimates, combined with a short-time frame for discovery within the NDCTP, limit the effectiveness of our review of the decommissioning activities and expenditures.

21. SCE will act as general contractor for the Phases 2 and 3 of SONGS Unit 1 decommissioning. SCE did not formally submit its decommissioning plan to the NRC because it is not required when there is no immediate linkage to a license termination.

22. PG&E will act as general contractor for all phases of the HB3 decommissioning. PG&E has not formally submitted its decommissioning plan to the NRC because it is not required when there is no immediate linkage to a license termination.

23. The public interest is best served when the Commission separately examines both the decommissioning costs incurred for reasonableness and the utility's decommissioning activities for prudence, after the activities have taken place and the expenses have been incurred.

24. SCE's Decommissioning Tax Memorandum Account has resulted in only *de minimis* adjustments.

25. The transfer of funds from non-qualified trust funds for the decommissioning of SONGS Unit 1 to the qualified trust funds for the decommissioning of SONGS Units 2 and 3 should not be required at the present time because of several uncertainties about actual and final reasonable costs, actual rates of return for trust fund investments, and actual tax consequences of such transfers.

26. Issues related to what investment strategies should be followed by trust funds when decommissioning of a nuclear generation unit has commenced, are deferred to Phase 2 of these proceedings.

### **Conclusions of Law**

1. The proposed contested Settlement is rejected as a whole because it is not in the public interest nor reasonable in light of the whole record.

2. The overall applicable standard of review for the numerous requests in the utilities' applications is one of reasonableness, specifically whether the decommissioning cost assumptions are reasonable, decommissioning activities are reasonable and prudent, and if the proposed revenue requirements would result in just and reasonable rates.

3. SCE, SDG&E, and PG&E are in compliance with prior decisions applicable to decommissioning, including the Ordering Paragraphs 6, 7, and 8 of D.07-01-003.

4. As shown in their joint application, supporting testimony (including attachments to testimony), and filings, SCE's and SDG&E's (a) updated \$184.4 million (100% share, 2008\$) SONGS Unit 1 decommissioning cost estimate for the remaining work and (b) updated \$3,658.8 million (100% share, 2008\$)

SONGS Units 2 and 3 decommissioning cost estimates, are reasonable and should be adopted.

5. SCE and SDG&E's \$207.2 (100% share, 2008\$) cost of decommissioning work at SONGS Unit 1 between July 1, 2005 and December 31, 2008 is reasonable and prudent and is approved. The presumption of reasonableness provided to decommissioning costs for Phase 1 of SONGS Unit 1 in D.99-06-007 is unaffected by rejection of the method in these proceedings for other phases of SONGS Unit 1 and other nuclear generation units.

6. As shown in its application, supporting testimony (including attachments to testimony), and filings, SCE's updated \$708.7 million (SCE's share, 2007\$) PV decommissioning cost estimate is reasonable and should be adopted.

7. As shown in its application, supporting testimony (including attachments to testimony), and filings, SDG&E's updated ratable share of the decommissioning costs for SONGS Units 2 and 3 of \$731.8 million is reasonable and should be adopted.

8. SDG&E may reasonably rely upon SCE, as the majority owner of and exclusive operating and decommissioning agent for SONGS Units 1, 2, and 3, to make reasonable efforts (a) to retain and utilize sufficient qualified and experienced personnel to pursue any decommissioning-related activities for these units under their control effectively, safely, and efficiently, (b) to forecast the costs of low-level radioactive waste storage conservatively, and (c) to establish an appropriate contingency factor for inclusion in the decommissioning revenue requirements, as required by the Commission in D.07-01-003, subject to the proviso that SDG&E shall review and provide such advice and consent as may be necessary and appropriate to the interests of SDG&E as a minority owner and/or on behalf of the interests of SDG&E's retail electric customers.

9. For purposes of this NDCTP, SCE's and SDG&E's trust fund contributions shall be based on 8.75% pre-tax equity returns and 4.2% post-tax debt returns. Taxes on realized and unrealized capital gains and losses shall be treated as described in Section 3.6 of the Settlement Agreement.

10. The SONGS Unit 1 and PV trusts are adequately funded for this triennial period and no contributions are required.

11. SCE's updated contributions of \$22.73 million to SONGS Units 2 and 3 qualified and non-qualified trust funds, using the revised rates of return and updated trust fund balances, will result in just and reasonable rate increases.

12. SDG&E's updated contribution of \$8.07 million for SONGS Units 2 and 3 qualified and non-qualified trusts, using the revised rates of return and updated trust fund balances, plus continued recovery of \$0.959 million in SNF storage costs, is reasonable. SDG&E will use overcollections in NDAM to offset the revenue requirement.

13. As shown in its application, supporting testimony (including attachments to testimony), and filings, PG&E's updated cost estimates (e.g., \$1,828.35 million in 2008\$ for DECON option) for DC units decommissioning, with adjusted labor escalation rates as described in Section 7.2.4 of the decision, are reasonable and should be adopted.

14. PG&E's updated cost estimate of \$499.8 million (2008\$) for HB3 decommissioning costs, with adjustments as described in Section 7.2.3 of the decision, is reasonable and should be adopted.

15. PG&E's preparatory decommissioning activities and expenditures totaling \$63.4 million, largely for with respect to licensing, design, fabrication, and construction of the ISFSI, were reasonable and prudent.

16. The negotiated annual contribution of \$9 million to the DC qualified trusts is reasonable and should be adopted.

17. For purposes of this NDCTP, funding assumptions for PG&E include that liquidation values of the trust funds as of December 31, 2009 will be computed netting all realized and unrealized capital gains and losses and equities in DC trust funds will be ramped down over a five-year period after shutdown.

18. PG&E's requested annual contribution of \$13.633 million to the HB3 non-qualified trust, revised to reflect updated trust fund balances and other agreed upon assumptions as noted in the Decision, is reasonable and will result in just and reasonable rate increases.

19. PG&E's forecasted expenses and revenue requirement of \$9.218 million in 2010 to cover the costs of operating and maintaining the HB3 site in a safe condition (SAFSTOR), with attrition for 2011 and 2012 are reasonable and should be adopted. PG&E shall track its actual SAFSTOR expenses and make a "true-up" contribution to, or withdrawal from, the decommissioning trusts based on whether the amount collected in rates is greater than or less than the expenses actually incurred. To the extent that contributions differ from estimates, PG&E will report on the differences in the next NDCTP where the differences will be subject to reasonableness review.

20. It is in the public interest for the utilities and TURN to create an independent panel to review the decommissioning-related issues, as identified in Section 2.2 of the Settlement Agreement attached hereto as Appendix B, and follow the procedural steps for completing the work, including issuance of a final report with recommendations which shall be filed in these proceedings, as set forth in Section 7.6 of this decision. The report shall be filed in the consolidated proceedings by March 1, 2011, unless the ALJ extends the date.

21. The independent panel's work should be funded by an amount not to exceed \$275,000 paid by the utilities through the NDAM account allocated based on the nuclear generating capacity of the DC, SONGS and PV units. This is an appropriate decommissioning expense.

22. The Commission should be informed by the utilities, in the next NDCTP applications, of contribution estimates that assume successful completion of license renewal.

23. The Commission should be informed by the utilities, in the next NDCTP applications, of the pro rata share of funds accumulated for NRC License termination (radiological decommissioning to meet the NRC standard for license termination) and receive copies of their most recent funding assurance letters (pursuant to 10 C.F.R. 50.75) sent to the NRC.

24. Prior to the development of the SONGS cost estimates for the next NDCTP, the Commission (along with other state agencies and officials and with SCE and SDG&E) should formally ask the United States Department of the Navy to (1) clarify the applicable site restoration and remediation standards that will be required to terminate the SONGS site lease, and (2) execute a document with SCE and SDG&E that explicitly reflects such clarified standards.

## **O R D E R**

**IT IS ORDERED** that:

1. Within ten (10) days of the effective date of this Decision, Southern California Edison Company shall file a compliance advice letter with the Commission's Energy Division, which shall include the calculated revenue requirement as described and adjusted in the Decision. Any resulting rate change shall be incorporated with the next available consolidated rate change

following the effective date of this Decision, subject to Energy Division determining that the revised tariffs are in compliance with this Decision. The compliance advice letter shall be served on the service list for the consolidated proceedings and shall describe how Southern California Edison Company will implement the terms adopted in this Decision, including updating the revenue requirements to incorporate the December 31, 2009 nuclear decommissioning trust fund balances. The updated information shall serve as the basis for the Internal Revenue Service Schedule of Ruling Amounts for years 2010–2012. An adjustment to the Nuclear Decommissioning Adjustment Mechanism balancing account shall be made to address any difference in the revenue collected in rates and the annual revenue requirements, as described and updated in the compliance advice letter.

2. Within ten (10) days of the effective date of this Decision, San Diego Gas & Electric Company shall file a compliance advice letter with the Commission's Energy Division, which shall include the calculated revenue requirement as described and adjusted in the Decision. San Diego Gas & Electric Company will clearly identify the overcollections in its Nuclear Decommissioning Adjustment Mechanism which it will use to offset the revenue requirement, subject to Energy Division determining that the offsets are in compliance with this Decision. The compliance advice letter shall be served on the service list for the consolidated proceedings and shall describe how San Diego Gas & Electric Company will implement the terms adopted in this Decision, including updating the revenue requirements to incorporate the December 31, 2009 nuclear decommissioning trust fund balances. The updated information shall serve as the basis for the Internal Revenue Service Schedule of Ruling Amounts for years 2010–2012. An adjustment to the Nuclear Decommissioning Adjustment Mechanism balancing

account shall be made to address any difference in the revenue collected in rates and the annual revenue requirements, as described and updated in the compliance advice letter.

3. Within ten (10) days of the effective date of this Decision, Pacific Gas and Electric Company shall file a compliance advice letter with the Commission's Energy Division, which shall include the calculated revenue requirement as described and adjusted in the Decision. Any resulting rate change shall be incorporated with the next available consolidated rate change following the effective date of this Decision, subject to Energy Division determining that the revised tariffs are in compliance with this Decision. The compliance advice letter shall be served on the service list for the consolidated proceedings and shall describe how Pacific Gas and Electric Company will implement the terms adopted in this Decision, including updating the revenue requirements to incorporate the December 31, 2009 nuclear decommissioning trust fund balances. The updated information shall serve as the basis for the Internal Revenue Service Schedule of Ruling Amounts for years 2010–2012. An adjustment to the Nuclear Decommissioning Adjustment Mechanism balancing account shall be made to address any difference in the revenue collected in rates and the annual revenue requirements, as described and updated in the compliance advice letter.

4. Pacific Gas and Electric Company shall serve testimony in its next triennial review of nuclear decommissioning trusts and related decommissioning activities that demonstrates it has made all reasonable efforts to retain and utilize sufficient qualified and experienced personnel to effectively, safely, and efficiently pursue any physical decommissioning related activities for the nuclear generation facilities under its control.

5. Pacific Gas and Electric Company shall track its actual SAFSTOR expenses during the triennial period and report and explain any differences in Pacific Gas and Electric Company's next Nuclear Decommissioning Cost Triennial Proceeding application.

6. Immediately after the effective date of this Decision, Southern California Edison Company, San Diego Gas & Electric Company, and Pacific Gas and Electric Company shall work with The Utility Reform Network to create an independent panel to review the decommissioning-related issues, as identified in Section 2.2 of the Settlement Agreement attached hereto as Appendix B. Southern California Edison Company, San Diego Gas & Electric Company, and Pacific Gas and Electric Company shall assure that the panel follows the procedural steps for completing the work, including issuance of a final report with recommendations which shall be filed in these proceedings, as set forth in Section 7.6 of this Decision.

7. Southern California Edison Company, San Diego Gas & Electric Company, and Pacific Gas and Electric Company shall file a joint advice letter no later than November 30, 2010, and serve it on the service list for these proceedings, which identifies the total expenses incurred by the independent panel, the appropriate allocation between the utilities, and the proposed adjustments to each utility's Nuclear Decommissioning Adjustment Mechanism account.

8. In the next Nuclear Decommissioning Cost Triennial Proceeding applications, Southern California Edison Company, San Diego Gas & Electric Company, and Pacific Gas and Electric Company shall provide contribution estimates that assume successful completion of license renewal.

9. In the next Nuclear Decommissioning Cost Triennial Proceeding applications, Southern California Edison Company, San Diego Gas & Electric

Company, and Pacific Gas and Electric Company shall report the pro rata share of funds accumulated for Nuclear Regulatory Commission License termination (radiological decommissioning to meet the Nuclear Regulatory Commission standard for license termination) and provide copies of their most recent funding assurance letters (pursuant to 10 C.F.R. 50.75) sent to the Nuclear Regulatory Commission.

10. Within one year of the date of this decision, the Commission's Executive Director, on behalf of the entire California Public Utilities Commission, shall make a formal written request along with Southern California Edison Company and San Diego Gas & Electric Company, to the United States Department of the Navy to clarify the applicable site restoration and remediation standards that will be required to terminate the San Onofre Nuclear Generating Station site lease, and shall meet and confer with the United States Department of the Navy to attempt execution of an amended site lease contract that explicitly reflects such clarified standards, prior to the development of the San Onofre Nuclear Generating Station cost estimates for the next Nuclear Decommissioning Cost

Triennial Proceeding. Southern California Edison Company and San Diego Gas & Electric Company shall report to the Commission any responsive information received by either utility in their next Nuclear Decommissioning Cost Triennial Proceeding application.

11. Application (A.) 09-04-007 and A.09-04-009 remain open for Phase 2 and to receive additional filings ordered in Phase 1.

This order is effective today.

Dated July 29, 2010, at San Francisco, California.

MICHAEL R. PEEVEY  
President  
DIAN M. GRUENEICH  
JOHN A. BOHN  
TIMOTHY ALAN SIMON  
NANCY E. RYAN  
Commissioners

**APPENDIX A**

**List of All Exhibits**

**APPENDIX B**

**Settlement Agreement**

## APPENDIX C

### Pre-Settlement Issues

#### 1. Compliance with D.07-01-003

During the 2005 NDCTP, which was resolved by adoption of a settlement, the Commission ordered the utilities to serve testimony in the 2009 NDCTP in three areas: 1) the use of qualified and experienced personnel, 2) a conservative forecast of costs for low level radioactive waste storage, and 3) a conservative and appropriate contingency factor for inclusion in each utility's decommissioning revenue requirements. SCE and SDG&E were also directed to evaluate in their next application whether there were any excess funds in the SONGS 1 trust funds<sup>1</sup> and, if so, could they and should they be transferred to the SONGS 2 & 3 trust funds. The utilities argued they complied with all of these requirements in their applications and initial testimony, but TURN & DRA initially questioned this especially as to whether SONGS 1 trust funds could be transferred or refunded to ratepayers.

In D.07-01-003, the Commission concluded it was preferable for the utilities to demonstrate in future triennial reviews that it engaged employees, contractors, or consultants trained to plan and perform decommissioning of nuclear plants under their control and ordered the utilities to serve testimony in the 2009 NDCTP that establishes they have made all reasonable efforts to do so. The Commission also ordered the utilities to research costs for storage and

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<sup>1</sup> As a result of earlier tax laws, there are both Qualified and Non-Qualified trust Funds established for SONGS 1 and HB3.

disposal of low level radioactive waste (LLRW), develop a conservative forecast for LLRW costs, and to serve testimony in the 2009 NDCTP as to their efforts.

In the same decision, the Commission examined proposed contingency factors from the 2005 NDCTP ranging from 25% to 35, as well as historical factors as high as 50%. The Commission observed that a declining contingency factor, if properly determined, could reflect improved accuracy of decommissioning cost estimates in addition to protecting against errors and unforeseen costs. All parties were directed to conduct research and analysis to develop a conservative contingency factor and the utilities were ordered to serve testimony in the 2009 NDCTP as to their efforts.

## **2. DRA**

DRA generally found the decommissioning cost estimates provided by the utilities for each of the nuclear generation units were reasonable and specifically agreed with the escalation methodologies for labor and materials (if updated), the 25% contingency factor, the LLRW burial rates, and the utilities' rate of return results. Therefore, DRA recommended approval of the estimates for all nuclear generation units (NGU) as reasonable.

DRA's concerns were primarily related to the revenue requirements proposed by PG&E and SCE, but also included whether there are excess trust funds for SONGS 1 and if they should be returned to ratepayers. DRA agreed with the proposed zero contribution for SONGS 1 and also said any transfer of purported excess funds in the SONGS 1 trust funds to other SONGS trust funds was premature. Nonetheless, DRA argued that the "excess funds" could be viewed as an offset to the SCE/SDG&E revenue requirements for SONGS 2 & 3 without transferring any funds which might lead to unintended tax consequences.

In addition, DRA recommended the Commission do the following:

- Reduce \$23.3 million revenue requirement for DC Units 1 & 2 to \$0 based on DRA's escalation rates and rates of return
- Reduce the \$16.692 million revenue requirement for HB3 to \$0 based on DRA's escalation rates and rates of return
- Reduce the SAFSTOR O&M expenses from \$9.218 million in 2010 to \$8.884 million in 2010, with attrition, based on DRA's escalation rates
- Adopt SCE's 6.7%<sup>2</sup> LLRW burial escalation rate for all units and reject PG&E's use of 7.5%
- Require all authorized contributions be placed into the Qualified Trust Funds rather than into Non-Qualified Trust Funds

DRA supported PG&E's request for a presumption of reasonableness for decommissioning expenses for all phases of HB3 if the scope of work and actual cost for decommissioning projects are within the approved 2009 cost estimates.

### **3. TURN**

TURN had numerous objections and concerns about the utilities' applications in this proceeding. In its Protest, TURN initially argued that the SCE/SDG&E application should be rejected due to a bad faith failure to perform the previously described excess trust fund analysis required in the settlement agreement adopted in the 2005 NDCTP as set forth in D.07-01-003. TURN's experts also critiqued the cost estimates provided and recommended a higher return on equity and debt than all three of the utilities and a lower escalation rate for PG&E company labor.

TURN offered the following recommendations to the Commission:

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<sup>2</sup> In Exhibit SCE-14, SCE corrected its calculation for LLRW burial escalation rate to be 6.93%. This figure was used in the settlement agreement for SCE and SDG&E.

- Discontinue SCE/SDG&E decommissioning trust fund collections for all units, including:
  - Make reductions to the license termination, site restoration, and Spent Nuclear Fuel (SNF) management cost estimates for SONGS 2 & 3 based on similar estimates for DC units
  - Reject SCE's adjustments to the cost estimate for PV units completed by the majority owner, Arizona Public Service (APS)
- Require the utilities to identify the impact of license renewal for their respective units
- Require the utilities to de-comingle funds in the trust funds in order to clarify reports of trust fund adequacy to the Nuclear regulatory Commission (NRC)
- Require SCE to de-link its ISFSI license for SONGS 1, 2, and 3 from its Part 50 operating license from NRC
- Direct the utilities to improve strategic planning for radioactive waste disposal
- Adopt SCE's labor escalation rate of 3.13% for all utilities
- Apply forecast of 10.05% pre-tax equity rate of return through 2022 for all utilities
- Apply forecast of 4.69% pre-tax fixed income for all utilities
- Apply a uniform five-year step-down to eliminate equity from decommissioning trust funds after decommissioning commences
- Prohibit cash in the investment portfolio
- Clarify treatment of realized capital losses in trust fund liquidation values

Based on the foregoing assumptions, TURN estimated no contributions would be required by PG&E for any units.

#### **4. Scott Fielder**

Fielder identified three basic issues: the contingency factor, LLRW disposal rates, and the proposed modification of the Commission's reasonableness review process. Fielder offered the following recommendations to the Commission:

- Apply a 35% contingency factor to all utility decommissioning cost estimates
- Apply the \$509/cubic foot composite figure for LLRW disposal costs adopted by the Commission in 1999 GRC decision
- Direct that re-calculation of DC cost estimates should be done using a computerized cost analysis system such as the one used by ABZ, Inc.<sup>3</sup>
- Reject any change to the standard or process of reviewing expenses incurred for decommissioning activities to determine if the expenses were reasonable and prudent

#### **5. Merced and Modesto Irrigation Districts**

The Merced Irrigation District and Modesto Irrigation District (collectively "Districts") are customers of PG&E and filed a response to the PG&E application. The Districts expressed concern about PG&E's proposed doubling of its revenue requirement for decommissioning over the next three years and the fact that these costs will likely continue to grow into the foreseeable future. They did not protest the application, nor offer any substantive analysis for the Commission. Instead, the Districts asked the Commission to "carefully review PG&E's

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<sup>3</sup> ABZ, Inc. (ABZ) is one of two national decommissioning consultants most often used by owners of nuclear generation units to make periodic estimates of the cost to decommission the units. ABZ uses a proprietary software called "Decommissioning Cost Analysis System (DECAS)."

rationale, data, and justification for the proposed increases” to assure the proposed revenue requirements are warranted.

**(END OF APPENDIX C)**

## APPENDIX D List of Appearances

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