

Decision **PROPOSED DECISION OF ALJ BARNETT (Mailed 3/16/2012)**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Southern California Edison Company (U338E) to Recover O&M Costs Associated with the San Onofre Nuclear Generating Station Units Nos. 2 and 3 Ongoing Seismic Program, and New Seismic Research Projects and Analyses.

Application 11-04-006
(Filed April 15, 2011)

Application of San Diego Gas & Electric Company (U902E) to Recover Certain Costs of Seismic And Tsunami Studies for the San Onofre Nuclear Generating Station Unit Nos. 2 and 3.

Application 11-05-011
(Filed May 9, 2011)

DECISION GRANTING RELIEF

1. Summary

Southern California Edison Company (SCE) requests authority to recover \$64 million Operation and Maintenance costs associated with the San Onofre Nuclear Generating Station Unit Nos. 2 and 3 (SONGS 2 & 3) ongoing seismic program, and new seismic research projects and analyses (collectively referred to as SONGS 2 & 3 seismic activities). SCE also supports San Diego Gas & Electric

Company's (SDG&E) Application 11-05-011, which requests SDG&E's 20% share of these costs.¹ We grant the applications.

2. Background

In 2006, the California legislature enacted Assembly Bill (AB) 1632 (Blakeslee, Chapter 722, Statutes of 2006), which was codified as Public Resources Code Section 25303. AB 1632 directed the California Energy Commission (CEC) to: assess the potential vulnerability of California's largest baseload power plants, Diablo Canyon Power Plant (Diablo Canyon) and San Onofre Nuclear Generating Station (SONGS), to a major disruption due to a major seismic event or plant aging; assess the impacts of such a major disruption on system reliability, public safety, and the economy; assess the costs and impacts from nuclear waste accumulating at these plants; evaluate other major issues related to the future role of these plants in the state's energy portfolio; and include the assessment in the CEC's "2008 Integrated Energy Policy Report Update" (2008 Integrated Energy Policy Report (IEPR) Update). In response to AB 1632, as part of its 2008 IEPR update released in November 2008, the CEC issued the AB 1632 Report.

In response to that report Southern California Edison Company (SCE), in this application, seeks \$64 million to continue its seismic research projects in conformity with the recommendations of the CEC. SCE requests authority to establish balancing accounts and memorandum accounts to record and recover its seismic research costs.

¹ SCE owns 78.21% of SONGS 2 & 3; SDG&E owns 20%; and the City of Riverside owns 1.79%.

San Diego Gas & Electric Company (SDG&E), as a minority owner of 20% of San Onofre Nuclear Generating Station Unit Nos. 2 and 3 (SONGS 2 & 3), expects a 20% share of the costs of these activities will be allocated and billed to SDG&E by SCE pursuant to an agreement between SCE and SDG&E. The agreement permits SCE to allocate and bill to SDG&E 20% of SONGS 2 & 3 operations and maintenance expenses incurred by SCE as the majority owner and operating agent for those units. SDG&E is responsible for reimbursing SCE for SDG&E's allocable share of SONGS 2 & 3 operations and maintenance expenses.

SDG&E filed Application (A.) 11-05-011 to permit the recovery of its share of any expenditures approved by the Commission in SCE's A.11-04-006. SDG&E requests the Commission to approve the proposed study design and ongoing seismic program as presented by SCE, the \$64 million cost estimate for the programs, and SDG&E's ratemaking proposals addressing the recovery of its share of the approved costs. The ratemaking proposals relevant to SDG&E include the authorization of (1) a new balancing account in which SDG&E would record and recover the program and study costs allocated to SDG&E by SCE, and (2) a new memorandum account in which SDG&E would record costs reasonably related to the proposed study and program activities but that are above and/or beyond those included in the cost estimates proposed by SCE in its application. SDG&E supports SCE's application.

Division of Ratepayer Advocates (DRA) accepts SCE's cost estimate of \$64 million. However, because of cost unknowns, DRA recommends a 90% ratepayer/10% shareholder cost sharing.

The Alliance for Nuclear Responsibility (A4NR) recommends that an Independent Peer Review Panel (IPRP), similar to the one created for PG&E's

seismic studies, be created for SCE; that the funding mechanism for the IPRP be included in the initial decision; that the scope of work for the IPRP in the SCE studies should include all the areas of study recommended by the CEC in its AB 1632 Report; and that a representative at the county level – in this case, Orange County – should be included on the IPRP for SCE. A4NR recommends that in the matter of evaluating the scope and cost of the studies, the California Public Utilities Commission (CPUC) must retain expert seismic consultants before assigning these costs to ratepayers.

In November 2008, the CEC issued its AB 1632 Report in response to AB 1632, which directed the CEC to “assess the potential vulnerability of California’s largest baseload power plants, [including San Onofre Nuclear Generating Station (SONGS) 2 & 3], to a major disruption following a seismic event ...”² The AB 1632 Report provides a number of recommendations directed to SCE, including the following:³

- SCE should develop an active seismic hazards research program for SONGS similar to PG&E’s LTSP to assess whether there are sufficient design margins at the nuclear plant to avoid major power disruptions.
- The Energy Commission recommends that SCE should use a three-dimensional seismic reflection mapping, other techniques, and a permanent GPS array for resolving seismic uncertainties for SONGS.

Two days of hearing were held on November 8 and 9, 2011.

² AB 1632 Report at 1; Cal. Pub. Resources Code Section 25303.

³ Exhibit ANR-10 (excerpts from CEC’s AB 1632 Report) at 9.

3. SONGS 2 & 3 Seismic History

Prior to the issuance of the operating licenses for SONGS 2 & 3, the seismic environment for the plant was studied, as required by Nuclear Regulatory Commission (NRC) licensing regulations. The geotechnical studies completed for SONGS 2 & 3 included conducting two-dimensional (2D) seismic reflection surveys, geologic borings, gravity and magnetic surveys, and the evaluations of past earthquakes in the southern California region. These studies provided the basis for the seismic design of SONGS 2 & 3. Throughout the operating history of SONGS 2 & 3, SCE has periodically evaluated new seismic information and updated the seismic analysis for SONGS 2 & 3 as required by the NRC, including completing probabilistic seismic hazard analysis (PSHA) and probabilistic risk assessment (PRA) modeling in 1995 and subsequent PSHA review in 2001. These types of SONGS specific seismic hazard analyses and risk assessments are part of the NRC's ongoing jurisdiction over seismic issues.

4. Description of SONGS 2 & 3 Seismic Activities

SCE requests funding for the following SONGS 2 & 3 seismic activities:

1. New seismic research projects
2. SONGS specific analyses
3. SONGS 2 & 3 ongoing seismic program

4.1. SONGS 2 & 3 New Seismic Research Projects

The source characterization projects will include the following:

1. United States Geological Survey (USGS) source fault studies
2. Geophysical data re-analysis
3. Global Positioning System (GPS) array
4. Shallow marine surveys

5. Deep two- and three-dimensional (2D/3D) marine seismic reflection mapping
6. Onshore studies
7. Seismic monitoring
8. USGS monitoring
9. An update source model

These project components attempt to respond to the CEC's recommendations in its AB 1632 Report.

In particular, the GPS array will be configured to target areas near SONGS 2 & 3. These arrays will improve understanding of slip-rate and activity of the faults that represent the most significant source of seismic hazard to SONGS 2 & 3. SCE will also perform both 2D/3D shallow and deep seismic reflection surveys. The 2D/3D shallow geophysical seismic reflection surveys will produce a picture of the layering and structure of the soil and rock below the sea floor. The result of these surveys will be used to develop interpretations of the underlying geologic structure (i.e., layers, folds, and faults).

Due to the large energy requirements for the deep penetrating seismic sources, the 2D/3D deep reflection surveys will require rigorous Environmental Impact Report (EIR) supported federal and state environmental permits that may be extremely difficult to obtain and will likely involve a two-year process to determine if permitting is feasible. Accordingly, SCE's plans for 2D/3D deep reflection surveys involve two phases of work. First, SCE will seek to obtain state and federal permits prior to the start of the deep reflection surveys. Second, once SCE has the necessary permits, 2D/3D deep reflection surveys will be performed, processed, and interpreted. If feasible, the permitting time and the 2D/3D deep reflection surveys will take a total of about four years to perform.

4.1.1. Tsunami Studies

SCE will perform additional tsunami studies as appropriate to update the tsunami hazard analysis for the SONGS site. The seismic data from the source characterization projects may be used in the tsunami studies.

4.2. SONGS Specific Analysis

In addition to the new seismic research projects described above, SCE will conduct SONGS specific analyses, including ground motion work focused on developing ground attenuation information with data specific to the SONGS setting. This work will involve developing seismic hazard curves, characterizing the SONGS site, and performing site specific response analyses. The SONGS specific analyses also will include an update of the PRA model for SONGS. The PRA model, which includes seismic risk analysis, is a comprehensive computerized model of the plant systems and components as well as operator actions that are required to mitigate accidents caused by internal and external initiating events, such as a seismic event. In addition, the SONGS specific analyses will include probabilistic seismic response analysis, seismic fragility analysis, and review of Fukushima Daiichi lessons learned to determine the lessons that are applicable to SONGS.

4.3. SONGS 2 & 3 Ongoing Seismic Program

To establish an active seismic hazards research program, SCE established a SONGS 2 & 3 ongoing seismic program.⁴ The program establishes (i) set frequencies for the ongoing SONGS seismic hazard review and possible seismic setting hazard analysis updates, and (ii) a panel of seismic experts to review

SONGS's seismic information and recommend the use of new seismic information or additional research into the SONGS seismic setting. The SONGS 2 & 3 ongoing seismic program will review new credible seismic information that could affect the seismic risk to the plant site. The reviews will be conducted internally by SCE's seismic engineers and by external groups, such as the SONGS Seismic Technical Advisory Board (STAB) or through other activities such as seismic source characterization workshops. The STAB, which includes industry experts and academic professionals from the California state universities, will meet at least annually to identify new credible seismic information, evaluate the conclusions of SONGS's seismic updates and, as necessary, may recommend areas for further seismic investigation. To facilitate discussion among experts, SCE will hold seismic source characterization workshops.

4.4. Project Management

SCE will have a seismic project team that will manage the seismic activities including (1) planning and coordinating interactions with SCE staff, management, and consultants, (2) controlling expenditures for labor, materials, and contract costs, and (3) ensuring consultants comply with contract requirements.

4.5. Cost Estimate

SCE's cost estimate for the SONGS 2 & 3 seismic activities is \$64.0 million (nominal \$, 100% level):

⁴ This program is sometimes referred to as the Seismic Hazard Analysis Program. Exhibit SCE-1 at 8, n. 11.

Activity	Cost Estimate
Seismic Research Projects	\$53.6 million
SONGS Specific Analysis	\$2.3 million
Ongoing Seismic Program	\$4.4 million
Project Management	\$3.7 million
Total	\$64.0 million

SCE's share of these costs is \$50.1 million.⁵

4.6. 90% Ratepayer / 10% Shareholder Sharing Mechanism

While DRA supports the study plans and the cost forecast, DRA believes that SCE's and SDG&E's ratepayers should not bear 100% of the cost responsibility. DRA points out that the study program should yield valuable information to benefit persons throughout California. This is beneficial to SCE's and SDG&E's ratepayers and shareholders. The utilities earn a rate of return on their investments in these nuclear facilities. DRA recommends that the Commission recognize that the study program will provide significant benefits to the utilities' shareholders, both short-term and long-term. DRA recommends a 90/10 percent cost sharing split between ratepayers/shareholders.

SCE urges the Commission to reject DRA's cost sharing proposal, which, SCE believes, is inconsistent with established ratemaking policy for SONGS 2 & 3. SCE argues that established cost-of-service ratemaking principles provide that investor-owned utilities (IOUs), such as SCE and SDG&E, invest in projects beneficial to ratepayers and earn an authorized rate of return on that investment. Ratepayers provide funding required to operate and maintain the IOUs' assets

⁵ Exhibit SCE-1 at 2.

consistent with federal and state regulations and recommendations. The reasonableness of the funding is assessed in periodic general rate cases and special applications such as this one. SONGS 2 & 3 are operated under cost-of-service ratemaking.⁶ SONGS 2 & 3 seismic activities appear, as planned, to be consistent with the recommendations made by the CEC in its AB 1632 Report. This report specifically recommends these seismic activities to determine the vulnerability and reliability of SONGS 2 & 3 operations following a seismic event. SDG&E supports SCE.

We agree with SCE and SDG&E. The legal standard for ratemaking is one of reasonableness. In meeting this standard, the Commission must afford a utility a reasonable opportunity to earn a fair rate of return on its investments. This standard fails when reasonable and foreseeable expenses of utility operations are excluded from rates. DRA's recommendation would require a substantial departure from these fundamental principles of ratemaking. No party contends the costs for which the utilities are seeking rate recovery are anything other than prudent expenses that will be incurred in the ordinary conduct of the utilities' business. While the Commission certainly has the authority to exclude from rate recovery any costs it deems to be unreasonable or imprudent, that decision will be made at the reasonableness hearing, at which time 100% of the costs found unreasonable will be disallowed. Reasonable costs are entitled to full reimbursement.

⁶ Decision (D.) 04-07-022 (Commission's 2003 General Rate Case decision re-establishing cost-of-service ratemaking for SONGS 2 & 3).

4.7. The Independent Peer Review Panel (IPRP) and Costs

A4NR proposes the Commission establish an IPRP for the SONGS 2 & 3 seismic studies, similar to the panel established to oversee and review the similar studies being performed by Pacific Gas and Electric Company (PG&E) for that utility's Diablo Canyon Power Plant (DCPP). A4NR proposes that Orange County be represented on the panel. as was the County of San Luis Obispos for the DCPP IPRP. Orange County would be added to the members representing the Commission's Energy Division, the CEC, the California Geological Survey, the California Coastal Commission, the California Emergency Management Agency, and the California Seismic Safety Commission to form the IPRP for the SONGS 2 & 3 studies.

The IPRP for Diablo Canyon was established in D.10-08-003 in A.10-01-014. In that decision we said:

In addition to PG&E's proposal to employ outside consultants and subject its seismic studies to peer review, this Commission will convene its own Independent Peer Review Panel (IPRP). The Commission will invite the CEC, the California Geologic Survey, the California Coastal Commission, and the California Seismic Safety Commission to participate on the panel. Under the auspices of the California Public Utilities Commission (CPUC), the panel will conduct a peer review of the seismic studies including independently reviewing and commenting on the study plan and completed study findings. Our order in this application will require PG&E to submit its study plans and completed study findings to the IPRP for review prior to implementation. Should a dispute arise it should be resolved informally but if that is not attainable the Commission has authority to halt the associated rate recovery.

* * *

Costs incurred by PG&E to comply with directions issued by the IPRP shall be recovered in the DCSSBA.⁷ The IPRP may employ consultants and experts. Costs incurred by the IPRP shall be reimbursed by PG&E and recovered in the DCSSBA.

The working environment in which the IPRP for Diablo Canyon conducts its business has proved to be cumbersome for prompt and efficient action. It was envisioned by the Commission that the IPRP would be a body of technical expert scientists who would in a collegial interaction be able to talk and discuss amongst themselves, develop ideas, comments and suggestions, and make recommendations to the utility.

A modification to the way the review panel operates and conducts its business is needed. In addition to SCE's proposal to employ outside consultants and subject its seismic studies to peer review, the Commission's Energy Division Director will seek input from the CEC, the California Geologic Survey, the California Coastal Commission, the California Emergency Management Agency, and the California Seismic Safety Commission, as well as outside experts, to participate in review of the seismic studies. The purpose of this directive is to leverage existing expertise within the public sector ("interagency experts"). The Energy Division Director will coordinate review of the seismic studies, including seeking comments on the study plan and completed study findings with the outside and interagency experts. Our order in this application will require SCE to submit its study plans and completed study findings to the Energy Division Director prior to implementation. To provide for public participation and allow

⁷ Diablo Canyon Seismic Study Balancing Account.

for greater transparency, the peer review group shall periodically hold publicly noticed meetings, and post relevant materials on the Commission's website.

4.8. Tier 3 Advice Letter

Because one cannot reasonably predict all the necessary and prudent cost increases that could arise, SCE and SDG&E need to have the ability to request funding to perform additional work if necessary. They request authority to file Tier 3 advice letters to request additional funding. They argue the advice letter process will ensure timely Commission review so that the SONGS 2 & 3 seismic activities can continue without delay in the event additional funding is needed. The Tier 3 advice letter process does not guarantee recovery of additional costs, which would still be subject to Commission review and approval. DRA recommends a separate application process for the recovery of additional costs.

A Tier 3 advice letter process provides a process fundamentally similar to the application process recommended by DRA for recovery of additional costs. SCE and SDG&E would be required to file the Tier 3 advice letter, serve it upon all interested parties (including the intervenors to this proceeding), and describe the extent of and reasons for the increased costs. A Tier 3 advice letter process provides many of the due process protections provided by an application process. Similar to an application process, the Tier 3 advice letter process is subject to protest from intervenors and disputed issues could go to hearing if the Commission desired. The principal advantage to the Tier 3 advice letter process is that in the event there are no protests, the time to process the advice letter will be faster, allowing the SONGS 2 & 3 seismic activities to continue without delay.

4.9. Balancing Account

SCE proposed to record its 78.21% share of the incremental O&M expenses associated with performing the SONGS 2 & 3 seismic activities in the existing

generation sub-account of the Base Revenue Requirement Balancing Account (BRRBA) upon a final Commission decision in this proceeding. The BRRBA is the ratemaking account where SCE recovers Commission authorized base (i.e., general rate case-type) O&M and capital-related costs. One of the significant benefits of balancing account treatment is that if SCE does not spend the full amount authorized by the Commission, SCE would refund that unused amount to customers. SCE's ratemaking proposal is reasonable given this benefit. SDG&E seeks comparable authority. We agree.

5. Comments on Proposed Decision

The proposed decision of Administrative Law Judge (ALJ) Barnett in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed by SCE, DRA, and A4NR.

DRA, in its comments, continues to recommend a 90/10 cost sharing between ratepayers and shareholders. We are not persuaded to modify our conclusion that costs are 100% the responsibility of the ratepayers.

A4NR comments that the proposed decision is incorrect in its assumptions about the reasonableness of SCE's proposed study scope despite the absence of professional review by any independent seismic experts, and the adequacy of the proposed decision's cure for this deficiency (requiring SCE to submit its study plans to the Energy Division Director prior to implementation). To correct these perceived omissions A4NR proposes that the decision include the following:

It is reasonable to provide for independent peer review of the study plans and of the findings/results of the seismic studies funded through this decision. Therefore, the Commission will convene its own IPRP to conduct a review and provide written comments on the

study plans prior to implementation and to conduct a review and provide written comments on the findings and/or results of the studies. SCE should proceed with the SONGS 2 & 3 seismic activities described in A.11-04-006, as they are approved prior to implementation by the IPRP established by this decision.

These proposed changes would result in 1) having SCE wait for approval by the IPRP prior to implementation of seismic studies, and 2) removing the Energy Division Director from coordinating the IPRP. As a consequence the working environment in which the IPRP operates and conducts its business would be too cumbersome to be effective. Not only would some entities refuse to participate in the IPRP because of the formalities associated with reporting directly to the Commission, but also the requirement of SCE's having to wait for approval by the IPRP would substantially delay seismic studies. This could cause a conflict with the NRC's exclusive jurisdiction over nuclear plant safety and, possibly, delay plant safety.

SCE recommends that the proposed decision expressly provide that the peer review group should review and comment on the specific new seismic research projects included and described in A.11-04-006: (1) USGS source fault studies; (2) geophysical data re-analysis; (3) GPS array; (4) shallow marine surveys; (5) deep 2D/3D marine seismic reflection mapping; (6) onshore studies; (7) seismic monitoring; (8) USGS monitoring; and (9) an updated source model. The proposed decision should also provide that this list encompasses the project descriptions provided in SCE's testimony regarding the new seismic research projects. For example, the updated source model will involve preparing documentation that summarizes the results of all tasks (1 through 8). The proposed decision should provide that the findings/results subject to peer review consist of this source-characterization information.

Further, SCE recommends that throughout the proposed decision we shall replace undefined terms “study plan,” “seismic studies,” and “study findings” with the term “new seismic research projects.” Delete the phrase “prior to implementation” from the requirement for SCE to provide plans and findings to the Energy Division Director, in order to reflect that SCE has already commenced some of the projects and to make this text consistent with the ordering paragraphs.

We decline to follow SCE’s recommendations. We wish to avoid arguments regarding which studies are “new” and which studies have been ongoing. All seismic projects that are paid for out of this decision’s authorization are subject to review by the IPRP, whether or not they are “new.” We expect a cooperative collegial interaction between SCE and the IPRP, as if they were colleagues, not an adversarial relationship; just as we expect a collegial interaction between the members of the IPRP.

6. Assignment of Proceeding

Michel Peter Florio is the assigned Commissioner for this proceeding and Robert Barnett is the assigned ALJ.

Findings of Fact

1. SCE should proceed with the SONGS 2 & 3 seismic activities described in A.11-04-006, as recommended by the CEC in its AB 1632 Report and directed by the Commission.

2. The SONGS 2 & 3 seismic activities attempt to respond to state regulatory objectives regarding assessing SONGS 2 & 3 seismic conditions, including the CEC’s AB 1632 Report recommendation and direction from the Commission. The new seismic research projects should be designed to also provide sufficient information for SCE to respond to the NRC’s requirements for seismic hazard

and risk analysis contained in the March 12, 2012 NRC Letter to All Power Reactor Licensees et al., Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident.

3. SCE's cost estimate of \$64.0 million (nominal \$, 100% level) for the SONGS 2 & 3 seismic activities described in A.11-04-006 is reasonable and should be adopted for ratemaking purposes.

4. The costs of the SONGS 2 & 3 seismic activities are O&M expenses incurred in the ordinary and prudent course of business for the owners of SONGS 2 & 3.

5. The ratemaking mechanisms, balancing accounts and memorandum accounts proposed by SCE and SDG&E address the uncertainties associated with the scope of work and costs of the SONGS 2 & 3 ongoing seismic program and proposed seismic and tsunami studies and risk assessment.

6. It is reasonably foreseeable that the costs for SONGS 2 & 3 seismic activities may exceed the current estimates of \$64 million. The Tier 3 advice letter process for seeking recovery of additional funding for the SONGS 2 & 3 seismic activities requires notice to the public and interested parties, and is reasonable.

7. The annual estimates of expense (100% level) for the SONGS 2 & 3 seismic activities are:

2011	\$3.1 million
2012	\$19.4 million
2013	\$21.2 million

2014	\$15.8 million
2015	\$4.5 million
Total	\$64.0 million

Conclusions of Law

1. The planned scope for the SONGS 2 & 3 seismic activities described in A.11-04-006 is in the public interest and is reasonable.

2. SCE should proceed with the SONGS 2 & 3 seismic activities described in A.11-04-006, as the SONGS 2 & 3 seismic activities are in the public interest and attempt to respond to state regulatory objectives regarding assessing SONGS 2 & 3 seismic conditions, including the CEC's AB 1632 Report recommendations and directions from the Commission.

3. SCE's cost estimate of \$64.0 million (nominal \$, 100% level) for the SONGS 2 & 3 seismic activities described in A.11-04-006 is reasonable and should be adopted for ratemaking purposes. The Energy Division should periodically review these expenditures and report to the Commission.

4. SCE should be authorized to recover in rates, its respective share of the actual reasonable costs associated with the SONGS 2 & 3 seismic activities, as described in A.11-04-006.

5. SDG&E should be authorized to recover in rates, its respective share of the actual reasonable costs associated with the SONGS 2 & 3 seismic activities as described in A.11-04-006.

6. SCE's ratemaking proposal for recovery in rates its share of the costs of the SONGS 2 & 3 seismic activities is reasonable.

7. SDG&E's ratemaking proposal for recovery in rates its share of the costs of the SONGS 2 & 3 seismic activities is reasonable.

8. It is reasonable to allow SCE and SDG&E to file a Tier 3 advice letter to seek the recovery of costs for SONGS 2 & 3 seismic activities which may exceed the current estimate of \$64.0 million.

9. It is reasonable to leverage the existing expertise of state agencies to provide for independent peer review of the study plans and of the findings/results of the seismic studies approved and funded through this decision. Therefore, the Energy Division Director will coordinate with the CEC, the California Geologic Survey, the California Coastal Commission, the California Emergency Management Agency, and the California Seismic Safety Commission, as well as outside experts, to conduct a review and provide written comments on the study plans prior to implementation and to conduct a review and provide written comments on the findings and/or results of the studies.

10. The scope and authority of the Energy Division Director's peer review group is to review and comment on the plans for the new seismic research projects approved and funded through this decision prior to implementation of those projects, and to review and comment on the findings and/or results of the new seismic research projects approved and funded through this decision.

11. The Commission by its orders in this proceeding does not intend to interfere with the NRC's requirements set forth in the NRC's March 12, 2012 50.54(f) letter.

O R D E R

IT IS ORDERED that:

1. Southern California Edison Company (SCE) is authorized to record and recover its actual costs of implementing the SONGS 2 & 3 seismic activities in the

existing generation sub-account of the Base Revenue Requirement Balancing Account up to \$50.1 million (nominal\$, SCE share).

2. Costs recorded to the Base Revenue Requirement Balancing Account shall include costs for the activities which reflect Southern California Edison Company's (SCE) implementation of the California Energy Commission's Assembly Bill 1632 Report recommendations that SCE perform additional seismic studies using offshore and onshore seismic imaging, and other advanced techniques.

3. Southern California Edison Company (SCE) is authorized to file a Tier 3 advice letter to obtain Commission authorization to record in the Base Revenue Requirement Balancing Account any additional operation and maintenance costs that are in excess of \$64.0 million and to reopen this application when it believes the costs for the seismic activities authorized by this decision will exceed \$64 million. The Tier 3 advice letter should be served on the service list for this proceeding and SCE shall be required to provide notice of a potential rate increase to customers.

4. Costs recorded to the Base Revenue Requirement Balancing Account (BRRBA) shall be recovered in Southern California Edison Company's (SCE) annual Energy Resource Recovery Account Compliance proceedings, where SCE will provide support for the amounts actually incurred and recorded in the BRRBA and consistent with SCE's request in this application and any subsequent Tier 3 advice letters.

5. The Energy Division Director will coordinate with the California Energy Commission, the California Geologic Survey, the California Coastal Commission, the California Emergency Management Agency, and the California Seismic Safety Commission, as well as outside experts, to conduct a peer review and

provide written comments on the study plans prior to implementation and to conduct a review and provide written comments on the findings and/or results of the studies.

6. The scope and authority of the Energy Division Director's peer review group is to review and comment on the plans for the seismic research projects approved and funded through this decision prior to implementation of those projects, and to review and comment on the findings and/or results of the seismic research projects approved and funded through this decision. The peer review group shall periodically hold publicly noticed meetings, and post relevant materials on the Commission's website.

7. San Diego Gas & Electric Company (SDG&E) is authorized to establish a San Onofre Nuclear Generating Station Seismic Research Balancing Account and to record and recover the costs of the seismic and tsunami studies allocated and billed to SDG&E by Southern California Edison Company (SCE) pursuant to the Second Amended San Onofre Operating Agreement executed by SCE and SDG&E, including those certain overheads charged to SDG&E by SCE pursuant to that agreement and as previously authorized by the Commission, provided that SDG&E shall record and recover such costs in its existing SONGS Operations and Maintenance (O&M) Balancing Account until the earlier of the expiration date of the SONGS O&M Balancing Account or the completion of the studies, up to an amount equal to \$12.8 million plus any amounts related to the costs associated with the Energy Division Director's peer review group.

8. San Diego Gas & Electric Company (SDG&E) is authorized to establish a San Onofre Nuclear Generating Station (SONGS) Seismic Research Memorandum Account in which it may record any and all costs allocated and billed by Southern California Edison Company (SCE) to SDG&E related to (a) the

studies approved by this order, and (b) any additional studies and activities reasonably and directly related to these studies exceeding \$12.8 million, plus (c) any amounts related to the costs associated with the Energy Division Director's peer review group. SDG&E may seek authority from the Commission to recover the amounts recorded in the SONGS Seismic Research Memorandum Account at its discretion, but no later than six months following the completion of the studies being performed by SCE. In seeking such authority, SDG&E shall demonstrate that such costs recorded in the SONGS Seismic Research Memorandum Account are reasonable and prudent.

9. Southern California Edison Company (SCE) shall provide the Energy Division Director's peer review group with its plans for seismic research projects. The peer review group shall review and provide SCE written comments on the study plans within 30 days of receipt. The failure of the peer review group to provide its written comments within 30 days shall not delay SCE in implementing its plans.

10. Southern California Edison Company (SCE) shall provide the Energy Division Director's peer review group the findings and/or results associated with the seismic research projects upon finalizing those findings and/or results. The peer review group shall review and provide SCE written comments on those findings and/or results within 30 days of receipt. The failure of the peer review group to provide its written comments within 30 days shall not delay SCE in implementing its findings and/or results.

11. Southern California Edison Company (SCE) is authorized to establish an Energy Division Director's peer review group memorandum account to record its share of the costs of the peer review group that are billed to SCE.

12. Costs recorded to the Energy Division Director's peer review group memorandum account shall be recovered in Southern California Edison Company's (SCE) annual Energy Resource Recovery Account Compliance proceedings, where SCE will provide support for the amounts actually incurred and recorded in the peer review group memorandum account and consistent with SCE's request in this application and any subsequent Tier 3 advice letters.

13. Application 11-04-006 is closed.

14. Application 11-05-011 is closed.

This order is effective today.

Dated _____, at San Francisco, California.