STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

PUBLIC UTILITIES COMMISSION
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Agenda ID #11658
and
Alternate to Agenda ID #11647
Ratesetting

TO PARTIES OF RECORD IN APPLICATION 09-04-007 ET AL.

Enclosed are the proposed decision of Administrative Law Judge (ALJ) Melanie M. Darling previously designated as the presiding officer in this proceeding and the alternate proposed decision of Commissioner Simon. The proposed decision and the alternate proposed decision will not appear on the Commission's agenda sooner than 30 days from the date they are mailed.

Pub. Util. Code § 311(e) requires that the alternate item be accompanied by a digest that clearly explains the substantive revisions to the proposed decision. The digest of the alternate proposed decision is attached.

This matter was categorized as ratesetting and is subject to Pub. Util. Code § 1701.3(c). Upon the request of any Commissioner, a Ratesetting Deliberative Meeting (RDM) may be held. If that occurs, the Commission will prepare and publish an agenda for the RDM 10 days beforehand. When an RDM is held, there is a related ex parte communications prohibition period. (See Rule 8.3(c)(4).)

When the Commission acts on these agenda items, it may adopt all or part of the decision as written, amend or modify them, or set them aside and prepare its own decision. Only when the Commission acts does the decision become binding on the parties.

Parties to the proceeding may file comments on the proposed decision and alternate proposed decision as provided in Pub. Util. Code §§ 311(d) and 311(e) and in Article 14 of the Commission's Rules of Practice and Procedure (Rules), accessible on the Commission's website at www.cpuc.ca.gov. Pursuant to Rule 14.3, opening comments shall not exceed 15 pages.

Comments must be filed pursuant to Rule 1.13 either electronically or in hard copy. Comments should be served on parties to this proceeding in accordance with Rules 1.9 and 1.10. Electronic and hard copies of comments should be sent to ALJ Darling at md2@cpuc.ca.gov and Commissioner Simon's advisor Rahmon Momoh at rmm@cpuc.ca.gov. The current service list for this proceeding is available on the Commission's website at www.cpuc.ca.gov.

/s/ KAREN V. CLOPTON
Karen V. Clopton, Chief
Administrative Law Judge

KVC:rs6

Attachment

DIGEST OF DIFFERENCES BETWEEN ADMINISTRATIVE LAW JUDGE MELANIE M. DARLING'S PROPOSED DECISION AND THE ALTERNATE PROPOSED DECISION OF COMMISSIONER TIMOTHY ALAN SIMON

ATTACHMENT

Pursuant to Public Utilities Code Section 311(e), this is the digest of the substantive differences between the proposed decision of Administrative Law Judge Melanie M. Darling and the proposed alternate decision of Commissioner Timothy Alan Simon.

The proposed decision does not authorize investment of Nuclear Decommissioning Trust Funds in alternate asset classes (i.e., commodities, real estate funds, hedge funds, and private equity funds). The proposed decision permits a utility to file an application in the future, upon license extension, for authority to invest in alternate asset classes, provided it submits a utility-specific asset allocation study in support of the request and demonstrates that its Trust Fund Committee members have both experience with institutional investing and sufficient staff support. The proposed decision does not set any management fee limits for investments in alternate asset classes. The proposed decision affirms that the prudent investor standard applies to Trust Fund Committee members, and authorizes the limited, non-speculative use of derivatives for hedging and other prudent risk management purposes.

The alternate proposed decision (APD) authorizes the utilities to invest in alternate asset classes upon license extension, by submitting a Tier 2 Advice Letter to Energy Division with the same supporting information required in the proposed decision. The APD authorizes management fee caps for alternate asset classes of 125 basis points, plus a maximum of 20% of a specified net return. The APD authorizes wider use of derivatives to take advantage of other investment strategies consistent with the prudent practices of institutional investors.

In allowing these types of alternate investments, the APD finds that the current Trust Fund investment objectives place undue reliance on ratepayer obligations to supplement low ultra-conservative yields. As to alternate asset classes, the APD decision defines the applicable prudent investor standard as based on each Trust Fund's specific decommissioning liquidity needs as set forth in each utility's asset allocation study. The APD also caps investment in alternate investment classes at 10% of the total Trust Funds for Southern California Edison Company and Pacific Gas and Electric Company, and 20% for San Diego Gas & Electric Company.

(END OF ATTACHMENT)

Decision **ALTERNATE PROPOSED DECISION OF COMMISSIONER SIMON**
(Mailed 10/12/2012)

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

ALTERNATE FINAL DECISION ON PHASE 2 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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ALTERNATE FINAL DECISION ON PHASE 2 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

1. Summary

This decision marks the Commission's first comprehensive review of the management and administration of the nuclear decommissioning trust funds externally managed for each of the three major investor-owned electric utilities. The results are two-fold: (1) an expansion of authorized investments to potentially improve returns and, (2) more uniformity and transparency regarding the administration of the trust funds. These changes will benefit ratepayers by creating the potential for reducing the ratepayers' contributions to decommissioning costs, as well as provide better information to the Commission for oversight of trust fund activities.

The decision addresses issues in Phase 2 of the 2009 nuclear decommissioning cost triennial proceedings (NDCTP). The primary purpose of the Phase 1 decision was to set the annual revenue requirements for the decommissioning trust funds (Trust Funds) for the nuclear power plants owned by Southern California Edison Company, San Diego Gas & Electric Company (SDG&E), and Pacific Gas and Electric Company (PG&E).[1] The two NDCTP proceedings were consolidated and later divided into two phases by an August 3, 2009 ruling which provided that issues relating to Trust Fund administration would be considered in Phase 2. Each utility's Trust Funds are

[1] Decision 10-07-047.

administered by a Trust Fund Committee (TFC) comprised of utility and non-utility members.

By a January 27, 2011 ruling, the scope of Phase 2 was expanded to include consideration of whether new asset classes and higher fees should be authorized for investment of Trust Funds. The Commission currently restricts authorized investments in several ways, primarily by restricting investments to 60% publicly traded equity and 40% investment grade fixed income securities.

To broaden the flexibility of the TFCs to reduce risks and enhance potential returns to the Trust Funds, this decision makes several changes to the current investment restrictions, as follows:

- Raises the 60% cap on total equity to 80%;
- Raises the cap on international equity from 20% to 30% of total equity;
- Authorizes investment in below investment grade fixed income securities provided that the weighted average combined fixed income portfolio credit quality remains at "A" or above ("A-" for SDG&E);
- Reduces from 50% to 25% the portion of equity required to be passively managed;
- Except for alternate asset classes, raises the 30 basis point management fee cap at a reasonable portfolio value to a maximum of 65 basis points (bps) of any portion;
- Authorizes management fee caps for alternate asset classes of 125 bps and a maximum of 20% of a specified net return;
- Authorizes the use of derivatives for hedging and other prudent investment management purposes;
- Defines the applicable prudent investor standard to be based on each Trust Fund's specific decommissioning liquidity needs;

- Finds that the Commission's risk tolerance for alternate asset classes (i.e., private equity, hedge funds, commodities, real estate) may be tempered by the uncertain decommissioning time horizon;
- Authorizes alternate asset classes in this decision through a Tier 2 Advice Letter filing upon license extension, provided the utility submits a utility-specific asset allocation study in support of the request and demonstrates that its TFC members have both experience with institutional investing and sufficient staff support; and
- Defines the prudent investor standard to limit Trust Fund investment in alternate asset classes to no more than 10% of total funds for PG&E and SCE and 20% for SDG&E.

To advance the Commission's interest in oversight and transparency of the Trust Funds, the decision also makes findings and changes to some practices related to the administration of the Trust Funds, including:

- Establishes a notice and revised Advice Letter process to seek Commission approval of Investment Manager Agreements and TFC members;
- Requires each utility to submit with future NDCTP applications, a brief summary of actual Trust Fund performance covering the previous three years that includes comparisons with the prior NDCTP forecasts of performance;
- Makes minor administrative changes to the process of withdrawal from the Trust Funds for decommissioning purposes;
- Finds most current practices for management and administration of the Trust Funds lack meaningful input of independent board members; and
- To establish a reasonable level of investment oversight requires future appointed non-utility members of the TFC to have experience with large institutional investing.

2. Procedural History

On April 3, 2009, Pacific Gas and Electric Company (PG&E) filed its 2009 Nuclear Decommissioning Cost Triennial Proceeding (NDCTP), Application (A.) 09-04-007. The same day, Southern California Edison Company (SCE) and San Diego Gas & Electric Company (SDG&E) jointly filed their 2009 NDCTP (A.09-04-009). PG&E, SCE, and SDG&E are jointly referred to as "Utilities."

The proceedings were consolidated in the Assigned Commissioner and Administrative Law Judge's (ALJ) Scoping Memo and Ruling issued June 15, 2009, and expanded to include an examination of the management of the decommissioning trust funds (Trust Funds) maintained by each utility. The Utilities were also ordered to serve Supplemental Testimony to, *inter alia*, provide information about investment fund managers hired by the Trust Funds, performance of the invested funds, management costs, and efforts to identify women, minorities, and disabled veterans (WMDVBE)/ emerging investment fund managers.

A subsequent ruling by the ALJ divided the expanded scope of the proceedings into two phases.[2] Phase 1 considered the revenue requirement for decommissioning nuclear facilities and resulted in Decision (D.) 10-07-047. Issues regarding trust fund administration, and efforts by the Utilities to utilize emerging investment fund managers, including an emphasis on WMDVBE managers were assigned to Phase 2.

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[2] ALJ Ruling Requesting Additional Briefing and Separating Trust Fund Review Issues into Phase 2, August 3, 2009.

On August 31, 2010, the assigned Commissioner and ALJ issued a Phase 2 Scoping Memo and Ruling that directed each utility to provide testimony from a utility and a non-utility member of its Trust Fund Committee (TFC) to respond to specific questions about the Trust Fund administration and investment practices. The Scoping memo also required each utility to prepare and submit exhibits, including the performance of individual investment funds to benchmark, and a 10-year comparison of estimated total utility Trust Fund growth to actual growth.

Each utility submitted such testimony and exhibits on October 15, 2010, and SCE submitted additional testimony on November 9, 2010. Non-utility parties, including Division of Ratepayer Advocates and The Utility Reform Network, were permitted to submit testimony and briefs but did not do so.

On January 27, 2011, the scope of Phase 2 was expanded to require the Utilities to provide testimony about (1) whether new asset classes should be approved for investment of Trust Funds and (2) internal practices for withdrawal of Trust Funds for decommissioning activities. The Utilities submitted the additional testimony on February 11, 2011. Pursuant to a request from the ALJ, the Utilities provided additional exhibits at the evidentiary hearing held on March 14, 2011.

At the evidentiary hearing, the Utilities each agreed to direct their TFC to undertake an asset allocation study to consider various impacts on the Trust Funds by inclusion of additional asset classes. Attachment A to the June 13, 2011 Ruling identifies the scope of the asset allocation studies.

During a July 12, 2011 status conference call, the Utilities affirmed a written recommendation that they instead jointly sponsor a single consultant to analyze the feasibility of Trust Funds investing in specific asset classes, and provided a proposed scope of work. The Utilities proposed that if the Commission were to

authorize additional asset classes, the TFCs could each conduct a utility-specific asset allocation study to consider the best allocation for each nuclear plant's specific liability. On August 9, 2011, the ALJ issued a revised ruling directing the Utilities to jointly develop an asset class feasibility study for the Trust Funds. Pursuant to an agreement among the Utilities, the ruling capped the cost of the Study at $120,000.00 to be paid in equal shares by the three Utilities.

On October 28, 2011 PG&E filed the required asset class feasibility analysis prepared by Callan Associates, Inc. (Callan) and it was entered into evidence at a workshop held on November 21, 2011. At the workshop, Mr. Greg Allen from Callan presented the Callan Feasibility Analysis and responded to questions from the assigned Commissioner and ALJ. Representatives from each utility and their TFCs were also present and responded to questions.

Although all parties were invited to file Final Opening Briefs on December 12, 2011, only the Utilities did so. PG&E, SCE, and SDG&E filed a joint brief (Utilities Brief), primarily seeking broader investment authority for the Trust Funds but also making recommendations about trust administration. SDG&E filed a separate brief (SDG&E Brief) which seeks even more relaxed investment rules as applied to SDG&E Trust Funds.

On August 13, 2012, an Assigned Commissioner's Ruling (ACR) was issued seeking updated input from the utilities due to new facts and circumstances that may impact the future operation and decommissioning timeline of the nuclear facilities located in California. On August 24, 2012, SCE, PG&E and SDG&E filed responses to the ACR wherein the utilities expressed their support for authority to invest in alternate asset classes, even if no re-licensing occurs. SCE, PG&E, and SDG&E stated they would particularly consider high yield bonds, commodities and hedge funds.

The record consists of all testimony and exhibits submitted into the record by the Utilities related to Phase 2, related briefs, and responses to the ACR. No party other than the Utilities participated in Phase 2. Any outstanding motions not otherwise ruled upon are considered denied. This decision closes the proceeding.

3. Standard of Proof

The burden of proof is on the applicants in rate cases. The Commission has held that the standard of proof the applicant must meet is the preponderance of evidence. We have analyzed the record in this proceeding within these parameters.

4. Historic Investment Authority of Nuclear Decommissioning Trust Funds

Decommissioning funds are separate from other plant assets and are protected by law for cleanup activities only – a plant operator cannot "walk away" from its responsibilities to return a site to an acceptable state. The Nuclear Regulatory Commission has required owners of nuclear facilities to provide for the ultimate costs of decommissioning nuclear power plants in the future. Congress enacted Internal Revenue Code Section 468A to facilitate formation of segregated trust funds by permitting Utilities, under certain conditions, to deduct contributions when made to a tax qualified fund. In order to ensure the trust funds were invested conservatively, Congress initially limited investment options for a tax qualified fund to governmental securities, municipal bonds and certificates of deposit.[3]

[3] Utilities Brief at 7 (So-called "Black Lung" restrictions designed to protect principal).

The California Nuclear Facility Decommissioning Act of 1985[4] was enacted to establish a comprehensive framework for the timely payment of the costs of decommissioning nuclear facilities in California. Each utility with an ownership interest in a nuclear facility was required to establish an externally managed, segregated fund and allowed to request sufficient revenues in rates to make the maximum contributions to the fund to recover the revenue requirements associated with reasonable and prudent decommissioning costs.[5]

The Commission opened Order Instituting Investigation No. 86, and adopted externally managed trust funds as the vehicle for accruing decommissioning funds and established guidelines for the trust agreements in D.87-05-062. Utilities established both tax-qualified and non-qualified trust funds because of delays in obtaining the requisite IRS ruling for qualified funds. The Commission permitted some low-risk investments for non-qualified trust funds.[6]

In 1987, all three Utilities established Trust Funds pursuant to Master Trust Agreements (MTA) adopted by the Commission.[7] The MTAs establish a TFC to manage each utility's qualified and non-qualified trusts. The TFC consists of five members nominated by the utility, at least three of whom may not be affiliated with the utility company. The TFC is authorized to appoint one or more

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[4] California Public Utilities Code (Pub. Util. Code) Sections 8321 et seq. Unless otherwise indicated, all future references to Section refer to the Pub. Util. Code.

[5] Section 8325.

[6] D.87-05-062, 24 CPUC 2d 302, 312, Conclusion of Law 6.

[7] *E.g.*, PG&E's MTA was approved by Resolution (Res) E-3048 (November 25, 1987); SCE's MTA was approved by Res. E-3047 (November 25, 1987).

Investment Managers (IM), subject to Commission approval of the Investment Manager Agreement (IMA).

In 1992, Congress eliminated the so-called "Black Lung" investment restrictions applicable to Qualified Trust Funds (QTFs). The next year, the Utilities petitioned to modify D.87-05-062 to allow their QTFs to invest up to 80% of the portfolio value in equities. In D.95-07-055, the Commission modified its prior decision and authorized up to 50% of the fair market value of a QTF to be invested in publicly traded equities, 40% of which could be invested in non-U.S. securities (20% of the total portfolio).[8] Non-qualified Trust Funds (NQTF) could invest up to 60% in equities. In addition, no less than 50% of the equity portion, of both QTF and NQTF, was to be invested passively to keep fees low. The Commission rejected the Utilities' request to permit higher management fees.

In that decision, the Commission also established requirements for performing decommissioning cost studies, reporting requirements for those costs, and permitted up to 100% of the funds to be invested in a broad range of investment grade fixed-income securities, excluding derivatives.[9] The Commission further required annual Trust Fund reports, affirmed that IM contracts need not be put out to bid, and required IMAs to be filed with the Commission through the Advice Letter process.[10].

In 1996, the Commission adopted the NDCTP to establish the annual revenue requirement over a three-year period.[11]

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[8] 60 CPUC 2d 658, 674.

[9] 60 CPUC 2d at 673-675 (derivatives are prohibited except to settle foreign transactions).

[10] *Ibid*.

[11] D.96-12-088, 70 CPUC 2d 497.

In the 2006 NDCTP, the Commission approved a settlement in which it raised the maximum equity allocation for the QTF from 50% to 60%, and raised the IM fee cap from 10 basis points (bps) to 30 bps. The Utilities have interpreted this 30 bps cap to mean that the fee is 30 bps at a reasonable portfolio value as part of a declining block fee schedule.[12] In other words, if the investment allocation reaches a certain threshold, the fee drops to 30 bps.

5. The Callan Feasibility Analysis

The feasibility analysis (Study) by Callan was designed to assess the feasibility and potential impact on funding assurance of employing new asset classes and/or relaxing current investment restrictions on the Trust Funds. Callan is an investment consulting firm that works with large institutional investors, including nuclear decommissioning trusts such as those of PG&E and SDG&E. The Study utilized the Trust Funds for Diablo Canyon Units 1 and 2 and San Onofre Units 2 and 3 for its modeling. These units are not currently in decommissioning, the Utilities are the operators of the facilities, they account for the vast majority of trust funds available for investment, and the Utilities have stated their intention to seek license extensions for these units.[13]

5.1. Methodology

As of June 30, 2011, the decommissioning assets associated with Diablo Canyon Units and San Onofre Units had a combined market value of

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[12] This is the standard set forth in D.87-05-062, 24 CPUC 2d at 316.

[13] Trust funds established for SCE's minority interest in the Palo Verde nuclear units were excluded from the model due to size and the fact that SCE does not operate the facility. PG&E's Humboldt Bay trust funds were excluded because they are largely liquid for ongoing decommissioning expenses at this time.

approximately $5.2 billion and a cost basis of approximately $3.5 billion.[14] Given that the non-qualified assets are less than 1% of total assets for these Trust Funds, all assets are assumed to be QTF for purposes of the Study. Using a blended escalation rate of 3.70%, the final projected decommissioning liability for the four nuclear units is approximately $8 billion.[15] At current liquidation value, the combined Trust Funds are about 90% funded.[16]

Callan undertook both a qualitative and a quantitative analysis to assess the feasibility and appropriateness of five new asset classes and three different public equity allocations for the QTFs:

- New Asset classes: Commodities, Hedge Funds, High Yield fixed income, Private Equity, and Real Estate; and
- Public Equity allocations: 70% public equity with up to 30% of total equity allocation in non-U.S. equity; 70% public equity with up to 20% non-U.S. equity; and 80% public equity with up to 20% non-U.S. equity.

The model did not take into account headline risk[17] or other soft risks[18] which could impact the Commission's decision. Moreover, Callan's finding that most institutional investors who had access to alternative asset classes over the last twenty years got a higher return than a model Trust Fund based on current investments limits, is checked by the fact that those results are pre-tax and, unlike

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[14] Study at 12.

[15] *Id*. at 11.

[16] *Id.* at 3.

[17] "Headline risk" refers to the possibility that a negative news story, even if false, will spread and cause a significant change in the value of an investment.

[18] "Soft risks" are vague, incalculable costs that are not necessarily directly related to the underlying value of an investment, e.g., fund manager's skill.

most institutional investors, nuclear decommissioning trust funds are not tax-exempt. This would work against strategies that generate a large volume of trading or taxable transactions. However, this is not limited to alternative asset classes. Alternative asset classes will nullify headline risk due to effort to reduce ratepayer funding obligations.

The current Trust Funds investment objectives place undue reliance on ratepayer obligations to supplement low ultra conservative yields. Such policies are expressly out of step with current institutional risk/reward framework.

5.1.1. Qualitative Analysis – Is it Feasible?

The qualitative review of each proposed additional asset class considered factors including product availability (and the presence of WMDVBEs), return and risk expectations, fees and expenses, level of staffing and oversight required, and implementation time frame. An appendix to the Study provides a detailed analysis of these factors for each alternative asset class, and for addition of high yield bonds to fixed income investments. The qualitative results, which ranked the asset classes in terms of suitability for a decommissioning trust fund, with 1 being the most suitable, are (1) real estate, (2) high yield fixed income, (3) hedge funds, (4) commodities, and (5) private equity.

The table below provides a summary of Callan's findings:[19]

Qualitative Factor	Commodities	Hedge Funds	High Yield	Private Equity	Real Estate
Product Availability	Few	Below Median	Above Median	Few	Few
Emerging Manager (WMDVBE) Availability	Very Few	Very Few	Very Few	Very Few	Very Few
Return	Low	Median	Median	High	Above Median
Risk	High	Median	Median	High	Above Median
Correlation with Inflation	High	Median	Below Median	Low	Above Median
Liquidity	High	Low	High	Very Low	Very Low
Tax Impact on Product Availability	Very High	Low	Low	Low	Median
Tax Impact on Reporting Requirements	Low	High	Low	High	Low/High
Fees and Expenses	Median	Very High	Median	Very High	High
Staffing and Oversight Required	Low	Very High	Low	Very High	High
Implementation Timeline	Short	Above Median	Short	Very Long	Long
Overall Suitability	Below Median	Median	Above Median	Low	High
Conflicts with Investment Guidelines	Fees; Derivatives	Fees; Derivatives	Fees; Quality Rating	Fees	Fees

5.1.2. Quantitative Analysis – Does it Preserve Funding Assurance?

The quantitative review employed the most recent engineering studies to build a baseline liability model for the four plants, assuming no cash outflows prior to decommissioning. Contributions were assumed to be reset every three

[19] Study at 10.

years under a simulated rate hearing that targets full-funding.[20] The analysis was conducted under the current decommissioning schedule, as well as under the assumption of a 20-year license extension.

In developing market performance expectations for each asset category, Callan examined the historical behavior of representative passive indices over time.[21] The table below summarizes the median pre-tax return and standard deviation (volatility) assumptions used in the simulation process:[22]

Asset Class	Return	Standard Deviation
Inflation	2.50%	1.40%
Cash Equivalents	3.00%	0.90%
US Bonds	3.75%	4.50%
High Yield Bonds	5.60%	11.55%
US Stocks	8.00%	18.10%
Non-US Stocks	8.20%	20.90%
Real Estate	6.75%	16.35%
Private Equity	9.00%	30.00%
Hedge Funds	5.90%	10.00%
Commodities	3.75%	24.00%

Because the Trust Funds are subject to state and federal taxes on the realized capital gains and income they generate, it was necessary to develop expectations

[20] *Id.* at 11.

[21] *Id.* at 18.

[22] *Ibid.*

for portfolio turnover and the tax implications for each asset class. The expected annual turnover is below:[23]

Annual Turnover

Cash	Bonds	High Yld	US Stocks	NUS Stocks	Real Est	Pvt Equity	Hedge Fds	Commod
400%	20%	65%	10%	20%	20%	20%	50%	120%

In addition, a move away from the current asset allocation will generate additional turnover and capital gains tax in the short run. The Study assumes the impact on taxes arising from the transition.

To gauge the impact of each new asset class or expanded equity allocation, the Study assumes an immediate 10% allocation taken from fixed income assets, although in reality the asset classes would likely be funded by different amounts. Callan used "Ultimate Real Cost" as the primary decision variable to evaluate the potential asset classes in the quantitative analysis. Ultimate Real Cost is defined as the sum of all contributions made to the Trust Funds up to the decommissioning date, plus any unfunded liability or surplus on the decommissioning date, adjusted for inflation. It measures the total real cost to ratepayers of fully funding the trust funds by the decommissioning date.[24]

To the extent that an allocation to a particular asset class helps to reduce the Ultimate Real Cost (Decreased Cost) in both the expected-case (50th percentile) and worst-case (95th percentile) outcomes relative to the current target allocation, it is viewed as a superior investment policy by Callan.[25] The table below illustrates

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[23] *Ibid.*

[24] *Id.* at 20.

[25] *Ibid.*

the impact on Ultimate Real Cost of transitioning from the current target allocation to each of the proposed investment policies, along with the relative ranking between asset classes, assuming the currently projected 2023 decommissioning date:[26]

Move 10% from Fixed Income to Each Asset Class & Assess Impact on Ultimate Real Cost (URC)
(Relative Ranking: 1=Best Outcome; 8=Worst Outcome)

2023 Decommissioning	Commodities	Hedge Funds	High Yield	Private Equity	Real Estate	Non-US Equity	US Equity	US Equity (20%)
Expected Outcome (50th Percentile)	Decreased Cost (6)	Decreased Cost (7)	Decreased Cost (8)	Decreased Cost (2)	Decreased Cost (5)	Decreased Cost (3)	Decreased Cost (4)	Decreased Cost (1)
Worst-Case Outcome (95th Percentile)	Decreased Cost (2)	Decreased Cost (4)	Decreased Cost (3)	Decreased Cost (5)	Decreased Cost (1)	Increased Cost (6)	Increased Cost (7)	Increased Cost (8)

The table below assumes license extension and a 2043 decommissioning date:[27]

Move 10% from Fixed Income to Each Asset Class & Assess Impact on Ultimate Real Cost (URC)
(Relative Ranking: 1=Best Outcome; 8=Worst Outcome)

2043 Decommissioning	Commodities	Hedge Funds	High Yield	Private Equity	Real Estate	Non-US Equity	US Equity	US Equity (20%)
Expected Outcome (50th Percentile)	Decreased Cost (6)	Decreased Cost (7)	Decreased Cost (8)	Decreased Cost (2)	Decreased Cost (5)	Decreased Cost (3)	Decreased Cost (4)	Decreased Cost (1)
Worst-Case Outcome (95th Percentile)	Decreased Cost (6)	Decreased Cost (7)	Decreased Cost (8)	Decreased Cost (2)	Decreased Cost (5)	Decreased Cost (3)	Decreased Cost (4)	Decreased Cost (1)

The Study found that changing the time horizon does not change the relative ranking of the asset classes in the expected outcome and, in the worst-case

[26] *Ibid.*

[27] *Id.* at 21.

outcome, all asset classes decrease costs to ratepayers over the longer time period.[28]

5.2. Conclusions and Recommendations

Callan concluded that all of the alternative investment policies evaluated in the Study would "generate a better distribution of potential cost outcomes" (based on the quantitative analysis) than the current investment policies authorized for the Trust Funds.[29] In other words, under most market scenarios using additional asset classes, the model indicates ratepayers could wind up paying less than if the current restrictions remain in place. The qualitative analysis indicates it would be feasible, and may be reasonable "under appropriate circumstances," to implement any of the investment policies under consideration, although without license extensions "the case for private equity is substantially weakened."[30]

The Study identified a wide range of alternatives that could be achieved by modifying some or all of the existing restrictions. Callan's preferred recommendation is to eliminate the current investment restrictions and to adopt an investment regulatory framework modeled on the Uniform Prudent Investor Act (UPIA). The UPIA framework would delegate "full investment decision-making authority" to the TFC which Callan states would "better align" with the "best practices of the country's largest institutional investors."[31] Callan concludes that moving to the UPIA framework would allow the Utilities, with the oversight of the TFC, "to be more agile" in managing the Trusts, and if prudent, "to take

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[28] *Ibid.*

[29] *Id.* at 22.

[30] *Ibid.*

[31] *Id.* at 3.

advantage of changes in the capital markets" to allow higher returns or reduce risk.[32]

However, Callan also stated that some of the current restrictions may be reasonable after taking into account "real-world implementation challenges" such as fees, expenses, taxes, administration costs, illiquidity, and other risks.[33] Given those considerations, Callan states that private equity and hedge funds, for example, "become less attractive than the quantitative analysis might initially lead one to conclude."

Rather than making specific recommendations as to which combination of the current restrictions represents the optimal regulatory structure from the standpoint of the Commission, Callan rank ordered them based on the strength of Callan's opinion as to whether or not they should be relaxed (1 = strongest). The rankings considered the potential theoretical impact on risk and return and implementation challenges.[34]

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[32] *Ibid*.

[33] Study Summary at 3.

[34] Study Summary Findings at 3-4.

Callan's Ranked Order of Recommended Changes to Current Investment Restrictions

Investment Restriction	Reasons for recommended change
1. Remove or raise 60% cap on equity	Allow trusts to achieve higher expected long-term return with no implementation challenges; Potential to significantly reduce costs to ratepayers improves with license extension
2. Remove or raise 20% cap on non-US equity	Allow for further diversification within equity portfolios allowing trusts to achieve higher expected return; recognizes non-US equity markets are becoming larger percentage of global capital markets
3. Remove or relax investment manager fee caps	Improve the flexibility of trusts in terms of the number and types of strategies available (including more WMDVBEs); precludes investments in new asset classes
4. Remove or relax restrictions on derivatives	The restriction eliminates an increasing number of commonly used investment strategies and techniques that could be used to reduce risk or costs; large institutional investors routinely use derivatives to hedge market risk, to efficiently rebalance portfolios, or to maintain market exposure during portfolio restructuring
5. Allow use of high yield bonds (below BBB-)	An effective way to increase long-term return while potentially reducing its exposure to interest rate risk; no implementation challenges
6. Remove requirement that 50% of equity be passively managed	While arguably appropriate in certain asset classes, most new asset classes cannot be implemented passively; also limits the number and types of available strategies (including WMDVBEs)

Based on its quantitative analysis of the potential impact on funding assurance, tempered by the implementation challenges, Callan also rank ordered the asset classes based on its opinion of suitability for the Trust Funds:[35]

[35] Study Summary Findings at 4-5, Appendix A.

Callan Ranked Order of Asset Classes for Funding Assurance

New Asset Class	Reasons for suitability	Risks	Fees
1. Real Estate Funds (public or private, equity or debt) Strategy: private equity through pooled investments	Diversification, produces relatively high level of income over time with little interest rate sensitivity, can be hedge against inflation, easy to implement, no use of derivatives, widely available	Illiquidity, long investment horizons (10-17 years), implementation risk, use of leverage, high fees, subject to market stresses, tax consequences; requires more oversight than traditional portfolio; most emerging managers in smaller non-core funds	Management fee of 80-125 bps, some funds have modest incentive fee Non-core funds charge management fee of 1-2%, plus 20% net profits over specified return
2. Hedge Funds (unregulated partnerships or LLCs built around investment strategies) Strategy: fund-of-funds	Diversification through exposure to risk premiums not available in traditional portfolio, can increase expected long-run return or reduce risk	Limited liquidity, high fee structures, requires extensive use of derivatives, tax inefficient because most return is ordinary income or short-term capital gains, high implementation risk; problematic from tax and audit standpoint (lack of transparency); requires high level of oversight and staff sophistication; few emerging fund managers	Management fee of 1-2%, plus 20% of profits fund-of-funds add management fees of 75-125 bps, plus 5-20 bps for operating expenses
3. Commodities (agricultural, metal, and energy products) Strategy: Commodities futures through mutual funds, collective trust funds, hedge funds	Diversification, hedge against inflation, potentially useful tool to better align assets and liabilities; implementation is straightforward; fairly low staffing and oversight required	In contrast to real estate: significantly greater volatility, produces little income, substantially lower expected return; funds require extensive use of derivatives, tax inefficient given high level of annual turnover; no emerging managers except for direct commodities hedge funds	Actively managed funds are typically 50-100 bps; passive funds range from 15-25 bps

4. Private Equity (private, unregistered investments in operating companies made through limited partnerships) Strategy: fund-of-funds	Diversification, potentially increase long-run expected return, no use of derivatives, can be relatively tax efficient;	Private—no market regulation; illiquidity, losses in early years, high implementation risk including capital call downs, requires very long time-horizon (e.g., 10+ years); high fee structures; requires high level of oversight and staff sophistication; tax and audit reporting challenges (lack of transparency); some emerging fund managers, none for funds-of-funds	Management fee of 2%, plus 20% of net profits Funds-of-funds add management fees of 65-95 bps
[not ranked] **High Yield Fixed Income** (below investment grade BBB) Strategy: Strategic allocations	Diversification, higher yields than investment grade, widely available, no derivatives, no significant change to staffing & oversight required	Increased default risk, lower liquidity and greater volatility than investment grade; higher correlation to equities; some emerging managers	Management fees of 50-75 bps

6. Positions of the Parties

In the Utilities Brief, the Utilities claim the record supports the removal of the Commission's current limits on Trust Fund investments by class, including the replacement of the 30bps cap on fees with a reasonableness standard. Specifically, the Utilities jointly make the following recommendations:

- Remove the current investment limit of 60% total equity and 20% non-U.S. equity;
- For PG&E and SCE, permit investment in below investment grade securities (high yield bonds), so long as the weighted average combined fixed income portfolio credit quality remains at "A" or above;
- For PG&E and SCE, permit investment of up to 15% of trust Fund assets in additional asset classes—commodities,

hedge funds, private equity, and direct real estate—with a 5% maximum allocation to any one class;

- Remove the current requirement that 50% of equity be passively managed;
- Replace the 30 bps management fee cap and permit fees reasonable in light of the asset class; and
- Allow the use of derivatives "for purposes considered customary and standard for large institutional investors."[36]

The Utilities also recommended that the Commission affirm that TFCs have full discretion on the sources of funds to be reallocated, the timing of the reallocation, and the implementation.

Due to its much smaller Trust Funds, SDG&E filed a separate brief asking for authority to (1) make investments in below investment grade securities, so long as the average combined fixed income portfolio credit quality remains at "A-" or above; and (2) make investments of up to 20% of Trust Fund assets in additional asset classes with no cap on investment in any one asset class.

7. Discussion

The Legislature has stated the principal considerations in establishing the state's policy regarding the economic aspects of decommissioning are: (1) assuring adequate funding at the time of decommissioning; (2) minimizing the cost to electric customers; and (3) structuring payments for decommissioning so that electric customers and investors are treated equitably over time.[37]

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[36] SDG&E Brief at 2 (Allow the use of derivatives for the following purposes: hedging underlying exposures to certain risks; enhancing risk management; as substitutes for physical securities; providing incremental exposure to foreign currencies; and taking advantage of arbitrage opportunities consistent with practices considered customary and standard for large institutional investors).

[37] Section 8322 (f).

In the past, the commitment to funding assurance and low costs has moved the Commission to act cautiously in expanding authorized investments. More than once, the Commission has rejected use of alternative asset classes, derivatives, and increased management fees, and expressed its preference for passive management of equity funds to keep fees low.

However, the capital markets and range of available investment products have changed substantially over the last twenty years. With the expectation that more investment flexibility could lead to higher returns and lower costs to ratepayers, the Utilities have recommended that the Commission make substantial changes to allow a variety of investment activities.

The Commission is cognizant that greater investment flexibility is a mechanism to potentially reduce portfolio risk and increase Trust Fund returns, but we also have the important oversight role of determining what level of risk tolerance is acceptable for ratepayers. Not all investments are alike and we find some asset classes are not suitable at this time.

The Utilities and Callan argue that removing investment restrictions is in conformity with "large institutional investors." However, there may be reasonable policy differences when taxable, publicly-funded decommissioning trust funds are at issue. The record indicates that some states allow their decommissioning trust funds to invest in alternate asset classes and others have various restrictions on investments.[38]

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[38] Reporter's Transcript (RT.) at 180:1-28 (a survey of other states' Trust Fund investment policies provided by Callan was later admitted to be incomplete and perhaps "biased").

7.1. Remove the Current Investment Restrictions

Relaxation of many of the current investment restrictions could likely lead to higher returns in the Trust Funds. By increasing the equity cap to 80%, allowing more active management, allowing investments in alternative asset classes, and permitting some investment in high yield bonds and derivative strategies, we find that the goals of maximizing return and limiting costs could be achieved without undue risks. These significant changes also offer the largest number of additional investment funds to choose from, including those managed by women, minorities, or disabled veterans.

7.2. Limit of 60% Total Equity and 20% Non-U.S. Equity

Increasing the 60%-equity/20%-non-U.S.-equity restrictions is supported by the Study and we find it reasonable.[39] As Mr. Allen stated, "[Y]ou probably get the biggest bang for your buck there."[40] If done along with the international equity cap, and the high yield bond restriction, "you are going to get 90% of [funding assurance]."[41]

The Utilities agreed that just this change would significantly enhance the TFCs' abilities to allocate assets in manner most consistent with Trust Fund objectives and liabilities over the current time horizons.[42] In fact, an asset allocation study previously done for PG&E that assumed license extension for Diablo Canyon units, found that an increase to 80% equity investment would

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[39] Utilities Brief at 9.

[40] RT at 175:12.

[41] *Id.* at 175:16.

[42] Utilities Brief at 9.

likely result in the lowest demand on ratepayers.[43] This is in large part due to the fact that equity investments and decommissioning costs both tend to grow by a factor of inflation.[44] In addition, the expansion of equities is easy to implement and manage, thus adding no significant burden of time, oversight, or staffing to the TFCs.

The purpose of non-U.S equity investment is to improve diversification, although the fundamentals of underlying equity portfolios are becoming more similar because the world is shrinking. We agree that TFCs should have the ability to manage the equity portfolios, specific to their own circumstances, within broad caps of 80% of total portfolio value in equities, of which no more than 30% of total equity value may be invested in international equities. Although the Utilities recommended no cap for non-U.S. equities, an increase of 20% to a 30% cap provides increased flexibility to TFCs, while expressing the Commission's commitment to ensure some direct investments in the U.S. economy.

In addition, Callan reported that there are a large number of investment funds available that serve non-tax-exempt institutional investors, including 350-400 funds managed by WMDVBEs. This provides the TFCs with a larger pool of investment manager candidates to choose from and additional opportunities to contract with WMDVBEs.

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[43] RT at 971-972.

[44] RT at 972-973.

7.3. Investment in Below Investment Grade Securities

Currently, Trust Funds may not invest in high yield bonds, i.e., rated below investment grade (below BBB or comparable).[45] The Study concluded that inclusion of high yield bonds could make a positive contribution to the efficiency of a trust portfolio because it could potentially reduce portfolio volatility and increase yield. This is one of the easiest changes to implement because most institutional investors are allowed to invest in below investment grade income, and most fixed income managers can just start adding high yield to the portfolio.[46]

PG&E and SCE recommended that the Commission apply the existing investment grade credit restriction on a combined fixed income portfolio level to achieve a credit quality limit of "A." Because its Trust Fund assets are much smaller, SDG&E requests that its Trust Funds be authorized to utilize high yield bonds and apply the investment grade credit restriction to a combined fixed income portfolio level credit quality of "A-."

The record supports the Utilities' view that modifying the fixed income requirements to relate to the portfolio's overall quality, rather than applying it on a security-by-security basis, would help alleviate the need to possibly sell securities, and create tax consequences, if a security is downgraded. Current constraints can make a fund more difficult to manage.[47] Another advantage of the change is high product availability in terms of existing bond managers that can invest in high

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[45] Fixed income market traded securities are rated by credit agencies, such as Standard & Poor's (S&P); the S&P ratings are used by the Utilities and Callan, and in this decision.

[46] RT at 169-170.

[47] Utilities Brief at 10.

yield, including more WMDVBEs than available in other asset classes.[48] In addition, the change is easy to implement and manage, thus adding no significant burden of time, oversight or staffing to the TFCs.

Therefore, we find it reasonable to authorize investment of Trust Funds in below investment grade fixed income securities (below BBB), as long as the credit quality of the overall combined fixed income portfolio remains at a credit quality of "A" for PG&E and SCE, and "A-" for SDG&E.

7.4. Requirement that 50% of Equity be Passively Managed

Passive management is investment in a fund that is managed according to a pre-determined strategy that usually follows another index fund. The benefits of requiring 50% of equity investments to be passively managed are that a low level of turnover can provide the expected return with a smaller tax consequence and lower fees than active management. In fact, PG&E reported that because of the tax effects, the equity portfolios in its pension funds are "heavily oriented" towards passive management.[49]

Active management is more expensive, and the manager must overcome the incremental hurdle of earning back the higher fees, plus add value over and above the tax cost of the associated trading. Even so, Callan and the Utilities recommend elimination of the 50% requirement based on the view that a skilled manager can outperform passive management on an after-tax basis. An additional plus, according to the Study, is that the proposed change would provide more

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[48] RT at 170-171.

[49] RT at 935:19-21.

opportunities for WMDVBEs who tend to focus on active, rather than passive, management.[50]

We agree that active management may possibly outperform passive management but due to the benefits of lower fees and taxes we reduce the requirement to 25%, rather than eliminate it. Before moving assets to active management, TFCs must undertake a substantial review of potential managers to establish that they have demonstrated an ability to effectively manage in a taxable environment and can add net value.

7.5. Replace the 30 basis points (bps) Management Fee Cap

The Utilities and Callan recommended that the Commission raise or eliminate the 30 bps management fee cap for Trust Fund investments. The primary argument to change or drop the fee caps is that asset allocation should not be influenced by fee structures that limit exposure to managers and asset classes that could be used to diversify portfolio return. Instead, Callan and the Utilities recommend that TFCs be able to determine appropriate and reasonable fees consistent with general market trends. If the Commission declines to eliminate the caps, then SDG&E suggests specific increases to 75 bps for equity and 65 bps for non-U.S. equity.

It has long been a statutory and policy priority for the Commission to keep management fees low to benefit ratepayers. Furthermore, the TFCs have been successful in attracting IMs willing to manage equity and fixed income investment funds within the permitted cap. However, in association with the expansion of

[50] Utilities Brief at 12.

authorized investments, it may be reasonable to raise the cap on authorized management fees.

This decision will permit additional equity investments within existing classes. Fees for non-U.S. equity are closer to 65 bps, according to SDG&E.[51] In addition, Callan estimated that investment in high yield bonds could result in higher fees of 50-75 bps due to more active management. It was also established that the Utilities interpret the current 30 bps cap as applicable to "a reasonable" fund value rather than an actual hard cap on fees. The effect of that interpretation is that the Commission may be unaware of the actual fee structure on a fund basis and ratepayers are, in fact, paying more than 30 bps for some investments.

In order to bring some certainty to the maximum authorized management fees, and to provide for additional non-U.S. equity and high yield bonds in the portfolios, we authorize the TFCs to negotiate fee structures which do not exceed 65 bps in any portion of the equity and fixed income funds invested. A declining block fee schedule is reasonable as long as the top fee for any portion does not exceed 65 bps. We find that this increase is sufficient to accomplish the expansion of authorized investments accomplished by this decision.

For the alternate asset classes, we authorize the NDT to negotiate management fees in line with actively managed commodities funds' management fees no more than 125 bps, and up to 20% of a specified net return.[52]

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[51] SDG&E Brief at 5-6.

[52] Study at 25.

7.6. Permit Investment in Additional Asset Classes

All of the identified alternate asset classes—commodities, real estate, hedge funds, and private equity—have substantial challenges, including illiquidity, volatility, high fees, and lack of transparency which make them currently unappealing, particularly under the current time horizons for decommissioning. Despite bringing diversification, and the potential to reduce risk or improve returns, we find that these investment classes would require additional review and staffing by the TFCs.

The Utilities assert that the Study concluded all of the asset classes could generate a better distribution of potential cost outcomes than current restrictions. We discuss the alternate asset classes below with our reasons for authorizing them in this decision via a Tier Two Advice Letter (AL).

Callan ranked private real estate funds as the most suitable of the asset classes considered in the Study. The primary benefits are diversification, income, and a hedge against inflation. Real estate funds are somewhat easy to implement and are widely available, although many are closed to taxable funds. Callan recommended investing in a core co-mingled fund managed outside due to the staffing requirements for direct investment. WMDVBE managers are not currently available. The fees can be as high as 2%, plus 20% of profits. The investment is driven by subjective valuation, not susceptible to benchmark, and the entire capital investment is at risk. Liquidity can be a problem. PG&E specifically stated it had no current expertise in this investment class.

The primary benefit of hedge funds is diversification. Although hedge funds do not require a long time horizon, they have some problematic attributes. Hedge funds were analyzed primarily as funds of funds because the time and expertise required to exercise due diligence over a direct hedge fund exceeds

current TFC resources. However, even funds of funds present significant challenges. They have very high fees, about 2% - 3%, plus 20% of profits, and make extensive use of derivatives, which are currently prohibited and in "regulatory limbo" due to the pending Dodd-Frank regulations.[53] There is also a lack of transparency about the underlying funds and complete reliance on a particular manager's unique trading strategy. No significant increase in the pool of WMDVBE investment managers would result because there are few at either the fund-of-fund or direct level.

The Study also reviewed investment in commodities futures which are derivatives. The primary benefits are that commodities are an inflation hedge and liquid. These investments have implementation challenges, significant volatility, a small return, and are tax-inefficient due to the high volume of turnover in the fund. There are not very many available commodity funds, and the only identified WMDVBEs in this area are two commodity hedge funds.

The Utilities agreed with Callan that private equity was "off the table" without a license extension because of its very long time horizon that begins with several years of capital calls, losses, extended illiquidity and can take up to 17 years to result in return on investment.[54]

Based upon the foregoing, we find that some of these alternate investment classes could improve the projected outcomes of Trust Fund returns, under the current decommissioning timeline, significantly more than raising the equity caps and including high yield fixed income investments, as set forth above.

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[53] RT at 152-153.

[54] TR at 172:16-19; TR at 974-975.

Therefore, a utility, upon receipt of license extension, may file a Tier 2 AL for authority to invest in one or more of these alternative asset classes. A utility must, (1) submit a Fund-specific asset allocation study in support of any such request, as was contemplated by the Study and the ALJ Ruling of August 9, 2011, and (2) demonstrate its TFC members have both experience with institutional investing and sufficient staff support for appropriate due diligence.

7.7. Allow the Use of Derivatives

Derivatives are a financial contract where the value is derived from some benchmark, e.g. interest rates, currencies, commodities, or debt instruments."[55] Among their uses are speculation and risk management. The Utilities and Callan assert that derivative use has become "an acceptable, prudent business practice" and, therefore, recommended their use for more purposes than merely facilitating settlement of foreign currency trades.[56]

The Utilities contend the Commission prohibited their use because derivatives were new and unknown at the time of the original 1995 decision. Since that time, some derivatives have come to be commonly used by institutional investors and offer an array of strategies and techniques to reduce risk and improve performance. There was evidence that prohibiting the use of derivatives may restrict the ability of the Trust to produce the best results.

This policy question is largely driven by what investment classes are authorized. Hedge funds and commodities make extensive use of derivatives and are authorized by this decision. Derivatives may also be used in connection with

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[55] 60 CPUC 2d at 668.

[56] RT at 216-217.

high yield bonds and equities positions. We find there may be some appropriate uses of derivatives in connection with authorized investments of the Trust Funds.

Therefore, we find it reasonable to allow the TFCs to make cautious and appropriate use of derivatives to hedge underlying exposures and to take advantage of risk management and investment strategies consistent with the prudent practices of institutional investors.

7.8. Commission Investment Policy

The Utilities and Callan recommend that the Commission delegate all investment authority to the TFCs rather than impose specific investment restrictions. The goal is to allow the TFCs to "be more agile in the management of the Trusts, and, where prudent, take advantage of changes in the capital markets that might allow them to achieve higher returns per unit of risk, or lower risk per unit of return."[57] We decline to adopt a full delegation of investment authority to the TFC based on the importance of retaining our vital oversight role in ensuring adequate funding, appropriate investment, and the lowest costs to ratepayers.

The MTA provides some guidance to the TFC. Section 3.04 provides that the TFC "shall direct and manage the Master Trust and perform all duties attendant thereto, including the appointment of trustees and investment managers and the execution of whatever contracts, agreements, or other documents it deems necessary to manage and invest such assets." The Trusts' investment objectives are to fund nuclear plant decommissioning taking time horizon, risk and return, and trust administrative costs into consideration in a

[57] Study at 5.

prudent manner.[58] TFCs should also take into account the special circumstances of each fund, including the remaining period of contributions.[59]

The MTA does not identify the TFC or its members as a fiduciary, it does not identify any beneficiaries, and only indirectly asserts that the TFC must make its decision following a "prudent" standard. Mr. Allen stated his belief that the TFCs are already held to a "prudent investor" standard, within the investment constraints imposed by the Commission.[60] Notably, three non-utility TFC members asserted their belief that they owed some sort of standard of care, a reasonable or prudent man or prudent investor standard of care, but owed no fiduciary duty to anyone under the terms of the MTA.[61]

Callan recommends the Commission adopt a framework similar to the Uniform Prudent Investor Act (UPIA),[62] a model statute that sets forth a prudent investor standard for investing trust funds. The Utilities suggest the Commission convene a workshop to develop an overall policy on Trust Fund investments and oversight roles and responsibilities of the Commission and the TFCs.[63]

The record is insufficient to evaluate whether the UPIA is an appropriate standard for the TFCs, in part because it assumes the investor (TFC) is a trustee with a fiduciary relationship to identified beneficiaries, and the UPIA is "centrally

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[58] SCE-16 at 4.

[59] 60 CPUC 2d at 658.

[60] TR at 184:25-28.

[61] TR at 192-193, 195, 198.

[62] UPIA was drafted and adopted by the National Conference of Commissioners of Uniform State Laws on or about August 5, 1994, and approved by the American Bar Association on February 14, 1995.

[63] Utilities Brief at 20.

concerned" with wealth transfer responsibilities under private family trusts.[64] Moreover, it was modified by the California Legislature when adopted.[65]

Instead, we find that pursuant to the MTA, members of the TFC have a duty to act according to a prudent investor standard of care when executing their TFC responsibilities. That standard of care is set forth in Probate Code Section 16047. For purposes of investment in alternate investment classes authorized herein, we define the applicable prudent investor standard to be based on each Trust Fund's specific decommissioning liquidity needs as set forth in each utility's asset allocation study. Furthermore, we find that it meets the prudent investor standard to limit Trust Fund investment in alternate asset classes to no more than 10% of the total funds for PG&E and SCE and 20% of the total fund for SDG&E.

Thus, it is not necessary at this time to convene a workshop to determine this standard, nor to identify our policy on investments which is set forth in this decision.

8. Other Trust Administration Issues

During Phase 2 , the Commission also examined a number of aspects of Trust Fund administration, including a review of the selection process for TFC members and IM, individual fund performance, IM retention criteria, management and administrative costs, availability of additional IMs (e.g., WMDVBEs), and utility withdrawals of Trust Funds for payment of decommissioning expenses. The Utilities asked the Commission to improve the timeliness of approvals of TFC members and contracts with IMs, and to generally leave in place current TFC practices for management and administration of the Trust Funds.

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[64] UPIA at 3, Appendix B to Study.

[65] Probate Code Sections 16040 et seq.

8.1. Trust Fund Committee

8.1.1. Members Qualifications

The TFC is best able to accomplish its duties if the members have the requisite knowledge and analytical tools to maintain a continuing review of invested funds, and have the opportunity to make changes when indicated. In 1994, the Commission set forth basic criteria for members of the TFC.[66] These are:

- Independence and freedom from conflicts of interest, advocating only in the interests of the ratepayers and public;
- Demonstrated record of achievement and integrity;
- Diversity of professional background;
- Representation of the community at large; and
- Willingness and availability to serve.

As discussed above, the Utilities have expressed interest in investing Trust Funds into certain asset classes which have implementation and risk management challenges. Based on the record, we find that any Trust Fund investments into the identified asset classes of real estate funds, hedge funds, private equity funds, and commodity funds, will require additional oversight and management by the TFC.[67] Therefore, a TFC seeking future authority to invest in such assets shall demonstrate that all of its TFC members have experience in institutional investment, as well as meeting the generally applicable qualifications and guidelines for members.

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[66] PG&E-1 at 1-11, Appendix K [Letter to Utilities from J. McVicar, Commission Advisory and Compliance Division (CACD) April 12, 1994].

[67] *E.g.,* RT at 983 (PG&E does not have experience with real estate or private equity funds).

8.1.2. Notice of Member Vacancies

A full and active TFC best serves the public interest in professional administration of these externally managed Trust Funds. Currently, there is no required written notice to the Commission of vacancies on the TFC other than general knowledge of member's approved terms. Instead, the Commission generally learns of a vacancy when a vetted candidate is submitted for approval. The Commission has long expressed its interest in the opportunity to interview TFC candidates before considering approval, and to ensure some public notice of a pending vacancy.[68]

In response to these concerns, the Utilities propose filing with the Commission an annual "information-only" AL that identifies the upcoming expiration of a non-utility member's term during that year and the utility's search and evaluation processes for replacement.[69] For unanticipated vacancies, the utilities would file an information-only AL within thirty days of the date the utility has knowledge the vacancy will occur.

We find the Utilities' proposal to be reasonable. Going forward, each utility shall submit an "information-only," or Tier 1, advice letter to the Commission to advise of an anticipated or unanticipated vacancy on the TFC, as described above. The utility shall also provide the AL to each Commissioner. In addition, members of the public may submit a written request to a utility for service of such ALs and the Utilities shall include such requests in the service of the AL.

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[68] PG&E-1 at Appendix J [Memorandum to Utilities from D. Long, CACD, December 4, 1987]; also TR at 1067-1068.

[69] *See,* General Order (GO) 96-B, General Rule 3.9, providing for the filing of advice letters pursuant to Commission order.

8.1.3. Approval of Trust Fund Committee Members

The Utilities presented evidence that the search process and vetting of TFC member candidates is done by the utility's investment staff and presented to the TFC for review before submission to the Commission for approval. However, sometimes there have been delays in submission of a candidate or in approval by the Commission, leaving the TFC operating with less than full membership. The process each utility follows to seek Commission approval of appointment of TFC members has not been uniform in the past.

We encourage the Utilities to continue their procedures for identifying potential candidates for TFC membership, particularly for ensuring diversity on the TFCs. The Utilities propose submission of a Tier 2 AL which is deemed approved if, after the 30-day initial review period has ended, there is no timely protest and the Energy Division has not notified the utility that the advice letter is being suspended.[70] The use of a Tier 2 AL is consistent with the requirements of GO 96-B, and would provide the information required so that staff can make its determinations and timely render approvals, if warranted.

A Tier 2 AL is also subject to various notice requirements and members of the public are entitled to seek additional information and/or file protests to either the AL or the Energy Division's disposition. This process will provide parties with uniform due process with respect to the approval of TFC members.

This decision requires the Utilities to make conforming amendments to the MTAs to implement the changes adopted herein. PG&E asked the Commission to approve a Tier 1 AL process for minor amendments to the Master Trust

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[70] Utilities Brief at 17.

Agreements.[71] However, we find that the Commission has an interest in both review of the amendment language by its staff and uniformity between the MTAs. Therefore, we retain the Tier 2 AL process for review of amendments to the MTA. We find this process will provide the Commission with better oversight of the structural basis for managing and administering the Trust Funds.

8.2. Oversight of Investment Managers

To assure appropriate Commission oversight of the management of the Trust Funds, the Utilities are required to file with the Commission annual reports which describe and evaluate the performance of the trustee and investment fund managers, enumerate the management costs, and reach conclusions about whether to retain the trustee and investment managers. Some of this information also is provided in connection with Phase 1 of the NDCTPs, which estimates ratepayer contributions as a function of estimated decommissioning costs, less the estimated growth value of the Trust Funds.

8.2.1. Selection and Approval of Investment Fund Managers

There are no formal procedures that TFCs follow when conducting a search for a new IM. Instead, the testimony of the Utilities and TFC members was that there is substantial reliance on the utility staff to identify and vet potential IM candidates. For example, SDG&E states its staff looks at the IM's track record of risk-adjusted returns, investment strategies, and management teams prior to making a recommendation.[72] Each utility affirmed an open door policy for any IM to reach out to the utility for consideration in a search process. The Utilities also

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[71] RT at 918-19.

[72] SDG&E-22 at 7-8; See also, SCE-17 at Appendix B, sample Request for Proposal.

indicated some heightened awareness of diverse businesses in this sector for inclusion in the vetting process.[73]

The Utilities recommend that they continue with their current practices regarding the selection process for new IMs. We find the process generally reasonable at this time. However, we direct the Utilities to ensure that more than one IM is presented to the TFC for consideration and that the search process includes appropriate emerging and diverse fund managers in order to ensure the widest possible pool of candidates.

The Utilities provided evidence that a failure to promptly approve IMs can delay market entrance and may impact returns on investments. Thus, there is a public interest in the timely disposition of requests for approval of IMAs. Currently, the Utilities do not all use the same method, nor provide the same basic information to the Commission when seeking approval of a candidate. Each of the utilities states it would be helpful to have a specified set of information required with each approval request.[74]

In response to these concerns, the Utilities propose submission of a Tier 2 AL for approval of Investment Manager Agreements which is deemed approved if, after the 30-day initial review period has ended, there is no timely protest or concerns by the Energy Division. We agree this is reasonable but also require the advice letter to be served on all individual Commissioners. In order to provide the Commission staff with adequate information to evaluate the IMA, the AL should include, at a minimum, the following information: a description of the

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[73] *E.g.*, PG&E-25 at 1-4 to 1-5.

[74] RT at 922.

selection process, the IM's experience with taxable trust funds, the total assets it manages, its track record against benchmarks, the type of investments to be managed, the investment strategy to be followed (including the agreed benchmark), the amount of funds to be allocated to the IM, the source of funds to be transferred to the IM, the fees charged by the IM, and an explanation of why the Trust Fund is making the change.

The Commission is similarly interested in advance notice when a TFC will undertake a search for new IMs. Therefore, for potential new IM contracts, we find it reasonable to adopt the same "information-only" advice letter process set forth for notice of TFC vacancies. Within thirty days of becoming aware that the utility will undertake a search for a new IM, it must file a Tier 1 AL with the Commission, and provide copies to each Commissioner. In addition, members of the public may submit a written request to a utility for service of such ALs and the Utilities shall include such requests in the service of the AL.

8.2.2. Review and Retention of Investment Fund Managers

In the annual Trust Fund report (Annual Reports) filed by each TFC, there is a description of the annual performance review of each IM. During the proceeding, the Utilities described the primary reasons an IM might be replaced: consistent underperformance as compared to the benchmark and fund management changes.[75] These are reasonable management policies and should be continued.

In addressing some contemporary large investment fund scandals, the TFC members state they are unaware of any payments from IMs or their intermediaries

[75] TR at 963.

in order to gain access to the utility's search process or the TFCs. Furthermore, the Utilities agreed that if a parent or affiliate of a fund is found to have defrauded the State or CA residents, it would "become a factor" in TFC consideration of whether to continue use of that fund.[76] We think it is more than a "factor" and should be a basis for termination of a fund manager. With that modification, we find these management policies are reasonable and should be continued.

8.3. Utility & Trust Fund Administration

8.3.1. Commission Oversight

The Commission currently requires Annual Reports from each TFC, which detail the total Trust Fund performance, and the performance of individual funds against the individual benchmarks. It also includes a discussion of any changes in investment strategy and IMs. During the NDCTP, the Utilities present estimated rates of return for Trust Fund investments in comparison to proposed cost estimates for decommissioning, in order to calculate a revenue requirement. However, the NDCTP has not generally been a forum for review of long-term actual Trust Fund performance, particularly in comparison to prior adopted estimates.

In order to provide the Commission with more information to assess the accuracy of estimated rates of return, the Utilities should extract performance results from the intervening Annual Reports and submit them with the NDCTP application. Specifically, we find it reasonable for the Commission to consider proposed rates of return in light of past performance when considering the adopted revenue requirement. Therefore, with subsequent NDCTP applications, each utility shall submit a brief summary of actual Trust Fund performance

[76] RT at 953-954.

covering the previous three years that includes comparisons with the prior NDCTP forecast performance by asset class and investment fund in comparison to benchmark.

8.3.2. Utility Support of Trust Fund

The evidence established that the TFC members, who meet quarterly, rely heavily on the utility's investment staff for a variety of support. In general, we find that this makes economic sense. However, the record is incomplete on whether and when TFCs are provided with certain relevant information:

- Audited financial statements for the Trust Funds;
- Initiation of IM searches;
- Decommissioning cost schedules, including acceleration or any other significant changes;
- Approval of nuclear facility license extension; and
- Withdrawals of Trust Funds for decommissioning expenses.

We find it is important for this information to be timely delivered to the TFC members and, therefore, direct the Utilities to promptly provide this information to the members when it becomes available.

8.3.3. Withdrawal of Trust Funds

Each utility submitted evidence about the process it follows to obtain disbursement of Trust Funds for actual decommissioning expenses. For decommissioning SONGS unit 1, SCE submitted a separate application[77] and followed an "Interim Distribution" process set forth in § 2.01(7) of its MTA. The process permits advance distributions subject to quarterly reconciliations. As a minority owner, SDG&E releases its Trust Funds upon receipt of an invoice from

[77] A.98-12-025.

SCE for a pro rata share. For Humboldt Bay Power Plant (HBPP), where PG&E is acting as the general contractor, PG&E advances costs then seeks Commission authorization to withdraw funds by periodic AL. Although it has Advance Withdrawal authority, PG&E has not exercised it.

Based on a provision of the MTA, in 2009, PG&E sought pre-approval for interim disbursement of up to 90% of approved forecasted decommissioning costs. The evidence in the proceeding is vague about the purpose of this pre-approval and whether it is sufficient to obtain the actual release of Trust Funds. PG&E subsequently began to submit advice letters seeking approval for pieces of the cost of decommissioning activities, often with little explanation. PG&E also accelerated the decommissioning schedule. The net effect was that it was very difficult for the Commission staff to evaluate the requested approvals.

Subsequently, the Utilities and the Energy Division reached an agreement about how PG&E would present certain required information in Trust Fund Disbursement Tier 2 Advice Letter filings related to HBPP. Earlier in this proceeding, we found the process reasonable and adopted it in D.11-07-003. The purpose of the requisite information is to facilitate Commission staff's evaluation of whether the decommissioning activity generally conforms with previously approved estimates as to timing and cost.[78] The Commission will evaluate the process after PG&E completes major decommissioning to assess whether it should be applied to the other utilities for future decommissioning activities.

In addition, we found no evidence to support the view that the pre-approval for a utility to withdraw up to 90% of all Trust Funds is necessary or sufficient to

[78] The reasonableness review of these costs occurs in the next NDCTP.

support actual withdrawal of Trust Funds. However, the process can be useful notice to the Commission and the public, if the utility also submits, with the Tier 2 AL, the most recently NDCTP-approved cost estimate for the decommissioning activities and the schedule for decommissioning expenses. Otherwise we make no changes to the current process used by each utility to obtain Trust Funds.

8.3.4. General Order 156

General Order (GO) 156 was adopted by the Commission in 1986 to promote greater competition among utility suppliers by expanding the available supplier base and to encourage greater economic opportunity for women, minorities, and disabled veterans historically left out of utility procurement. In this decision, we strongly reaffirm our support of the policy goals of GO 156 as they relate to the administration and management of the nuclear decommissioning trust funds.

By relaxing most of the investment restrictions previously in place, the decision opens the door for more IMs to come forward with proposals to manage trust funds. The record shows that there are a large number of WMDVBE investment fund managers who are qualified to actively manage equity funds and below investment grade fixed income securities. The Utilities are strongly encouraged to expand their search process for IMs, particularly those owned by women, minorities and disabled veterans, and to present the TFCs with a choice of IMs when an allocation becomes available.

Furthermore, the TFCs also issue administrative contracts from time to time. The TFCs are urged to be mindful of the Commission's policy goals of encouraging use of WMDVBEs to spur competition and achieve economic efficiencies for the benefit of ratepayers. The use of WMDVBEs in any capacity by the TFCs should be incorporated into the utility's GO 156 annual report to the Commission.

9. Comments on Proposed Decision

The proposed decision of the assigned ALJ 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 on_____. Reply comments were filed on _____ by _____.

10. Assignment of Proceeding

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

Findings of Fact

1. The principal economic policy considerations for nuclear decommissioning are (1) funding assurance, (2) minimizing cost to ratepayers, and (3) structuring payment so investors and customers are treated equitably over time.

2. Based on these policy considerations, the Commission has acted cautiously in the past when asked to expand authorized investments for the Trust Funds.

3. Capital markets and available investments have changed substantially over the last 20 years so that more investment options are available to the Trust Funds.

4. Investment flexibility is a mechanism to potentially reduce portfolio risk and increase Trust Fund returns.

5. Relaxation of some current investment restrictions could likely lead to higher returns in the Trust Funds.

6. Increasing the equity cap to 80%, allowing some investment in high yield bonds, and use of derivative strategies could achieve the same results as expansion of authorized asset classes.

7. Expansion of equity and fixed income investments will provide the Trust Funds with a larger pool of potential investment fund managers to choose from.

8. Inclusion of below investment grade (below BBB) fixed income securities, and application of investment grade credit quality to the overall fixed income portfolio, should alleviate the need to liquidate securities and create tax consequences for the Trust Funds.

9. Active management may outperform passive management, but that should be balanced with the cost benefit of retaining a requirement for passive management of equities.

10. Current management fee caps may limit Trust Fund access to some investment fund managers and asset classes that could be used to diversify the portfolio. Such caps help keep management costs low for ratepayers.

11. The Trust Funds apply the current 30 bps cap at a reasonable portfolio level rather than as a firm cap on fees.

12. The alternate asset classes of real estate funds, hedge funds, private equity funds, and commodities funds all have significant implementation challenges and opportunities.

13. The current Trust Fund investment objectives place undue reliance on ratepayer obligations to supplement low ultra-conservative yields. Such policies are out of step with the current institutional risk/reward framework.

14. Future circumstances, including license extension, Trust Fund Committee expertise, and a fund-specific asset allocation study, could support a utility's request through a Tier 2 AL for authority to invest in alternate asset classes.

15. Management fees and costs for alternate asset classes should be established by the Commission.

16. There are some appropriate uses of derivatives in connection with the authorized investments of the Trust Funds.

17. A full delegation of investment authority to the TFCs would substantially reduce the Commission's oversight authority to ensure adequate funding, appropriate investments, and lowest costs to ratepayers.

18. The record is insufficient to evaluate whether the Uniform Prudent Investor Act is an appropriate standard for the TFCs.

19. The Commission has an interest in notice of vacancies on the TFC and in having an opportunity to interview candidates.

20. The processes identified by the Utilities to identify and vet potential candidates for TFC membership are reasonable.

21. The process each utility follows to seek Commission approval of TFC member candidates is not uniform.

22. There are no formal procedures for the TFCs to follow when conducting a search for new investment fund managers.

23. The processes identified by the Utilities to identify and vet potential investment fund managers are generally reasonable, but should be modified to develop more choices for the Trust Funds.

24. The Commission has an interest in notice of an investment fund manager search by a utility, and in each utility providing similar information for each fund manager when seeking approval of a new fund manager agreement.

25. The management policies identified by the Utilities for review of investment fund managers are reasonable.

26. During the NDCTPs, the Commission would benefit from having a three year comparison of actual Trust Fund performance with the prior NDCTP forecast rates of return.

27. The record is incomplete on whether certain relevant information is timely provided by the Utilities to all TFC members.

28. The processes for Utilities to obtain withdrawal of decommissioning funds are neither uniform nor clear.

29. The evidence in the proceeding is vague as to the purpose of the utilities seeking "pre-approval" of up to 90% of decommissioning funds before decommissioning begins.

Conclusions of Law

1. It is part of the Commission's oversight role to determine the acceptable level of risk for ratepayers when setting investment parameters.

2. It is part of the Commission's oversight role to review utility requests to withdraw funds from the Trust Funds during the period between the NDCTP proceedings when actual decommissioning activities are taking place.

3. The Commission's pre-approval for a utility to withdraw up to 90% of the Trust Fund value when decommissioning is about to commence is not sufficient authority for a utility to obtain actual withdrawal of the Trust Funds.

4. This decision applies to the non-qualified trusts to the same extent it applies to the qualified trusts.

5. The determinations made in this decision are in conformance with the California Nuclear Decommissioning Act.

6. The Trust Fund Committees should be authorized to increase the 60% cap on the portion of the Trust Funds that may be invested in United States equities and the 20% cap on the portion of the equity total which may be invested in non-U.S. equities.

7. The TFCs should be authorized to manage the equity portfolios, specific to their own circumstances, within broad caps of 80% of total portfolio value in equities, of which no more than 30% of total equity value may be invested in

non-U.S. equities which expresses the Commission's commitment to ensure some direct investments in the U.S. economy.

8. The TFCs should be authorized to allocate investment of Trust Funds in below investment grade fixed income securities (below BBB), as long as the credit quality of the overall combined fixed income portfolio remains at credit quality of "A" for PG&E and SCE, and "A-" for SDG&E.

9. It is reasonable to conclude that active management of equities may outperform passive management and to reduce the requirement for passive management of equities from 50% to 25% of equity portfolio value. Before moving assets to active management, TFCs must undertake a substantial review of potential managers to establish that they have demonstrated an ability to effectively manage in a taxable environment and can add net value.

10. The TFCs should be authorized to negotiate fee structures which do not exceed 65 bps in any portion of the equity and fixed income funds invested. A declining block fee schedule is reasonable as long as the top fee portion does not exceed 65 bps.

11. It is reasonable to cap management fees and costs for alternate investment classes (i.e., real estate funds, hedge funds, commodities, and private equity funds) at 125 basis points, plus 20% of the net specified return.

12. The TFCs should be authorized to make cautious and appropriate use of derivatives to hedge underlying exposures and to take advantage of risk management and other investment strategies consistent with the prudent practices of institutional investors.

13. It is unreasonable to adopt a full delegation of investment authority to the TFCs due to the importance of retaining the Commission's vital oversight role in

ensuring adequate funding, appropriate investment, and the lowest costs to ratepayers.

14. The record is insufficient to evaluate whether the UPIA an appropriate standard for the TFC, in part because it assumes the investor (TFC) is a trustee with a fiduciary relationship to identified beneficiaries, and the UPIA is "centrally concerned" with wealth transfer responsibilities under private family trusts.

15. Pursuant to the provisions of the utilities' Master Trust Agreements, members of the TFCs have a duty to act according to a prudent investor standard of care, set forth in Probate Code Section 16047, when performing their trust duties.

16. It is prudent for TFCs to base investment in alternate investment classes authorized herein, on each Trust Fund's specific decommissioning liquidity needs as set forth in each utility's asset allocation study.

17. It is prudent for TFCs to limit Trust Fund investment in alternate asset classes to no more than 10% of the total fund for PG&E and SCE and 20% of the total fund for SDG&E.

18. It is reasonable for a TFC to request Commission authority to make investments in alternate asset classes by submission of a Tier 2 AL to the Energy Division which includes a fund specific asset allocation study and other information in conformity with this decision.

19. It is reasonable to retain the Tier 2 AL process for review of amendments to the Master Trust Agreements (MTA) due to the Commission's interest in both review of the amendment language by its staff and uniformity between the MTAs.

20. It is a reasonable management policy for a TFC to consider replacement of an Investment Manager where there is consistent underperformance as compared to the benchmark and fund management changes.

21. It is a reasonable management policy for a TFC to terminate an Investment Fund Manager if a parent or affiliate of the Fund is found to have defrauded the State or California or its residents.

22. The policy goals of GO 156 are applicable to the administration and management of the nuclear decommissioning Trust Funds.

23. Each utility should incorporate the use of WMDVBEs in any capacity by the TFCs into its annual GO 156 report to the Commission.

O R D E R

IT IS ORDERED that:

1. The decommissioning trust funds may make investments in equities up to 80% of the total portfolio value, of which 30% of total equity value may be invested in non-U.S. equities.

2. The decommissioning trust funds may invest in below investment grade fixed income securities, provided that the existing investment grade credit restriction be applied on a combined fixed income portfolio level. This means the equivalent of a Standard & Poor's investment credit rating of "A" overall for Southern California Edison Company and Pacific Gas and Electric Company, and "A-"for San Diego Gas & Electric Company.

3. The decommissioning trust funds shall invest a minimum of 25% of the equities allocation into passively managed funds. Before moving assets from passive to active management, Trust Fund Committees must undertake a

substantial review of potential investment fund managers to establish that they have demonstrated an ability to effectively manage in a taxable environment and can add net value.

4. The decommissioning trust funds may negotiate reasonable fee structures for any portion of the managed fund not in excess of fee caps established in this decision.

5. The Trust Fund Committees shall determine the application of the prudent investor standard as to alternate asset classes based on each Trust Fund's specific decommissioning liquidity needs as set forth in each utility's asset allocation study.

6. No more than 10% of the total Nuclear Decommissioning Trust Funds for Pacific Gas and Electric Company and for Southern California Edison Company, and 20% of the total funds for San Diego Gas & Electric Company, shall be invested in alternate investment classes.

7. The decommissioning trust funds may submit a Tier 2 Advice Letter to the Director of the Energy Division to request Commission authority to make investments in alternate asset classes. The Tier 2 Advice Letter shall include a fund specific asset allocation study and other information in conformity with this decision. In no case shall the Southern California Edison Company or Pacific Gas and Electric Company trust funds invest more than 10% of the total funds, or San Diego Gas & Electric Company invest more than 25% of total funds, in alternate asset classes.

8. The decommissioning trust funds may use derivatives to hedge underlying exposures and to take advantage of risk management and investment purposes consistent with the prudent practices of institutional investors.

9. Each utility shall file an information-only Advice Letter (AL) to inform the Commission of vacancies on the Trust Fund Committee before the search process is undertaken. The utility shall also serve a copy of the AL on each Commissioner and any member of the public who has made a written request to the utility for such notice.

10. Each utility shall use a Tier 2 Advice Letter process to seek Commission approval of a candidate for Trust Fund Committee membership.

11. Each utility shall use a Tier 2 Advice Letter process to make amendments to the Master Trust Agreements, including making changes to conform with this decision.

12. The Utilities should make a good faith effort to ensure that the search process for investment fund managers includes appropriate emerging and diverse fund managers and to present more than one candidate to Trust Fund Committees for consideration.

13. Each utility shall use an information-only Advice Letter (AL) to advise the Commission that it will undertake a search for a new investment fund manager. The Utilities shall also serve a copy of the AL on each Commissioner and any member of the public who has made a written request to the utility for such notice.

14. The Utilities shall use a Tier 2 Advice Letter (AL) process to seek approval of an investment manager (IM) agreement. The utility shall also serve a copy of the AL on each Commissioner and any member of the public who has made a written request to the utility for such notice. If the AL does not include the following information, it shall be rejected:

- Description of the selection process;
- The IM's experience with taxable trust funds and the total assets the IM manages;

- The IM's five-year track record against benchmarks;
- The type of investments to be managed and the investment strategy to be followed (including the selected benchmark);
- The amount of funds to be allocated to the IM and the source of funds to be transferred;
- The fees to be charged by the IM; and
- An explanation of why the decommissioning trust fund is making the change.

15. With subsequent 2009 nuclear decommissioning cost triennial proceedings (NDCTP) applications, each utility shall submit a summary of actual Trust Fund performance covering the previous three years and include a comparison with the prior NDCTP forecast performance. It may be in chart or table form.

16. Each utility shall ensure that Trust Fund Committee members timely receive the following information:

- Description of the selection process;
- Audited financial statements for the decommissioning trust funds;
- Initiation of Investment fund manager searches;
- Decommissioning cost schedules, including acceleration or any other significant changes;
- Approval of nuclear facility license extension; and
- Withdrawals of Trust Funds for decommissioning expenses.

17. When providing notice to the Commission that a utility will begin major decommissioning within one-year, the utility shall submit the most recently-approved Nuclear Decommissioning Cost Triennial Proceeding cost estimate for the decommissioning activities and the proposed schedule for decommissioning expenses.

18. Application 09-04-007 et al. is closed.

This order is effective today.

Dated _____, at San Francisco, California.