PREPARED DIRECT TESTIMONY OF DAVID ASHUCKIAN

ON BEHALF OF THE CALIFORNIA ENERGY COMMISSION

REGARDING RANGE OF NEED IN THE LONG-TERM PROCUREMENT

PLAN OF SOUTHERN CALIFORNIA EDISON (SCE)

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Q1: Please state your name and business address.

A1: My name is David Ashuckian. My business address is California Energy Commission, 1516 9th Street, Sacramento, California 95814.

Q2: Please briefly describe your responsibilities at the California Energy Commission.

A2: I am employed as manager of the Electricity Analysis Office of the Systems Assessment & Facilities Siting Division of the California Energy Commission (Energy Commission). In this capacity, my responsibilities include managing the work of professional staff engaged in conducting independent, objective analyses of California's electricity and natural gas systems, market, and operations. .

Q3: Please summarize your educational and professional background.

A3: I am a Professional Engineer registered in the State of California. I obtained my Bachelor of Science degree in Mechanical Engineering in 1992 from California State University Sacramento, in addition to my Bachelors degree in Criminal Justice which was obtained in 1981 from California State University Sacramento. My employment at the California Energy Commission began in 1998. My professional experience at the Energy Commission includes managing the activities of the Electricity Analysis Office (EAO) for the last 4 years. The function of the Electricity Analysis Office is to provide independent, objective analysis of the electricity market and electrical system

operation.. As manager of the Electricity Analysis Office, I supervise 35 professionals who have expertise in the following subject matter areas: Electric Generation Systems Electrical Engineering Mechanical. In my capacity as Manager of the EAO, I am responsible for managing the development of the Summer Outlook Report, and a number of the electricity and natural gas reports that Energy Commission staff have been developed for the 2003, 2004, and 2005 Integrated Energy Policy Report. I have also served as policy advisor to Commissioner Boyd, supervised the Commission's Transportation Technology Program and have served as the Energy Commission's spokesperson on electricity system need before the Governor's Office, Legislature and the Joint Agency Energy Action Plan.

Q3: Please summarize your educational and professional background.

A3: I am a Professional Engineer registered in the State of California. I obtained my Bachelor of Science degree in Mechanical Engineering in 1992 from California State University Sacramento, in addition to my Bachelors degree in Criminal Justice which was obtained in 1981 from California State University Sacramento. My employment at the Energy Commission began in 1998. My professional experience at the Energy Commission includes managing the activities of the Electricity Analysis Office (EAO) for the last 4 years. The function of the Electricity Analysis Office is (See Previous). As manager of the Electricity Analysis Office, I supervise __[#]__ professionals who have expertise in the following subject matter areas: _____. As my capacity as Manager of the EAO, I am responsible for managing the development of the Summer Outlook Report, and a number of the electricity and natural gas reports that Energy Commission staff have been developed for the 2003, 2004, and 2005 Integrated Energy Policy Report. I have also served as policy advisor to Commissioner Boyd, supervised the Commission's Transportation Technology Program and have served as

the Energy Commission's spokesperson on electricity system need before the Legislature [**this needs to be verified**] and the Energy Action Plan.

Q4: Please state the purpose of your testimony.

A4: The purpose of my testimony is to sponsor the position of the Energy Commission by providing the California Public Utilities Commission ("CPUC") with a written evaluation of Southern California Edison's (SCE's) Long Term Procurement Plan ("LTPP") on the issue of the determination of the range of need. Specifically, the purpose of my testimony it to provide the following:

1. Identification of the requirements of the Assigned Commissioner's Ruling and Scoping Memo on the Long-term Procurement Phase of R.06-02-013, dated September 25, 2006 ("Scoping Memo") that are applicable to SCE with respect to range of need;
2. Identification of the pertinent recommendations set forth in the Energy Commission's 2005 Integrated Energy Policy Report ("IEPR") and associated report entitled "*Transmittal of 2005 Energy Report Range of Need and Policy Recommendations to the California Public Utilities Commission* ("*Transmittal Report* ") that are applicable to the issue of range of need;
3. A description of the substance of SCE's Long Term Procurement Plan (LTPP) with respect to range of need;
4. An analysis of whether SCE's LTPP complies with the requirements of the September 25, 2006 Assigned Commissioner's Ruling and Scoping Memo on the Long-Term Procurement Phase of R.06-02-013 (Scoping Memo) with respect to the range of need issues identified in item 1 above;

5. An analysis of whether SCE's LTPP complies with the requirements of the IEPR with respect to the range of need issues in item 2 above;
6. On behalf of the Energy Commission, provide a recommended course of action for CPUC to take in this proceeding with respect to SCE's LTPP as it relates to range of need.

I am authorized to present this written testimony on behalf of the Energy Commission.

Q5: What direction did the *Transmittal Report* give regarding its findings regarding the range of need:

A5 The *Transmittal Report* characterized its findings as preliminary:.:"The report presents a preliminary picture of the amount of resources the IOUs will need to procure to meet expected demand for the years 2009 through 2016, along with a roadmap for how to update the planning numbers during the 2006 procurement proceeding.[1] It further specified that new contracts should be added and, if a preferred resource, should be subtracted from the need allocation for that resource.[2] It went on to specify that unless targets have been changed by a CPUC proceeding the energy efficiency and demand response targets should not be changed."[3]

Q6. How does SCE's Best Estimate Resource Plan need determination compare to the range of need set forth in the Energy Commission's 2005 Transmittal Report?

A6: The Energy Commission has compared the range of need found in SCE's LTPP filing with the 2005 Transmittal Report, updated with the Energy Commission's revised

[1] *Transmittal Report* at page 2.
[2] *Transmittal Report* at page 67.
[3] *Transmittal Report* at page 67.

2006 demand forecast . The Transmittal Report and the Scoping Order anticipated that SCE would make several updated adjustments to account for new contracts it had signed since the Transmittal Report. For example, SCE added the five new SCE peakers to be operational by August 2007 as ordered by the Commission and the Long Beach repowering contract that SCE signed and submitted for the Commission's approval (SCE, VI-A, 79, footnote 54) These updates are in keeping with the Transmittal Report's update instructions.

Given the number of changes and the redacted material, staff was not able to make a one-for-one comparison with the changes SCE made. Table 1 describes the differences between's SCE's plan and the Energy Commission's range of need, adjusted for the revised demand forecast. But, we identified four changes that are problematic: load forecast, energy efficiency, demand response, and renewable resources. The impact of these specific changes are discussed in the following sections.

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Table 1

	Best Estimate Plan with CEC 2006 Updated and SCE Load Forecasts Capacity (MW)					
	2010			2016		
	CEC*	LTPP**	Diff.	CEC*	LTPP**	Diff.
Bundled Customers	20619	22405	1786	22334	24598	2264
Utility-Controlled Physical Resources	5003	redacted	-	4995	redacted	-
DWR Contracts	3217	4308	1091	0	0	0
QF Capacity	3211	redacted	-	3211	redacted	-
Capacity from RE Contracts	356	86	(270)	373	167	(206)
Other Bilateral Contracts	962	redacted	-	1083	redacted	-
Existing and Planned Capacity	12750	redacted	-	9662	redacted	-
Uncommitted Energy Efficiency (-) TR w/o 15%	393	342	(51)	1893	1276	(707)
Dispatchable Demand Response	1243	1467	224	1341	1322	(19)
Uncommited PDR	-	202	202	-	827	827
Generic Renewable Resources	1183	782	(401)	2048	1509	(539)
Distributed Generation/CHP	NA	-	-	NA	-	-
CSI	-	103	103	-	602	602
Total Additional Preferred Resources	2878	1087	(1791)	5565	2938	(2627)
Additional non-designated need	6701	7636	935	9511	15404	5893

* Appendix A, Table 1. Comparison of Annual Peak Demand Forecasts (MW Bundled)

* California Energy Commission, Committee Final Transmittal of 2005 Energy Report Range of Need and Policy Recommendations to the California Public Utilities Commission, Nov. 2005., adjusted by the 2006 revised demand forecast. Reserve margin adjustment for uncommitted Energy Efficiency.

** Exhibit IV-3

Uncommitted Energy Efficiency and PDR entries are TR capacity Table (Base) entries for "uncommitted Energy Efficiency" and "Uncommitted DDR" with each divided by 1.15 to remove the 15% reserve margin incorporated in the TR entries.

Q7: Does the Energy Commission have a recommendation concerning what action, if any, CPUC should take with regard to SCE's use of its own forecast in deriving an estimated range of need in its 2006 procurement plan?

A7: Yes.

Q8: What is that recommendation?

A8. In Sylvia Bender's testimony regarding Section IV. B. Load Forecast, we identified that SCE had not used the Energy Commission's approved load forecast to establish its need determination. The Energy Commission recommends that the CPUC should base procurement limits established in this cycle for SCE for non-designated resources upon the 2006 Energy Commission revised forecast.

SCE's forecast of its bundled customer capacity requirements is 1,785 MW greater in 2010 and 2,264 MW greater in 2016 than the Energy Commission's revised forecast.[4]. Changing the growth rate for capacity to be much higher than that for energy also changes the shape of the new load which must be met through incremental resources, shifting the perceived need to less energy-intensive needs.

[4] See, Testimony of Sylvia Bender on Behalf of the California Energy Commission Regarding Load Forecasts in the Long-Term Procurement Plan of Southern California Edison.

This higher capacity forecast translates directly into an implied increase of the net open position which SCE requests that it be allowed to use as a basis for procurement. It is the position of the Energy Commission that using SCE's forecast in this planning cycle to establish procurement volume limits will result in over-procurement on behalf of SCE bundled customers and lead to unnecessary costs for ratepayers. If SCE is allowed to procure this excess generation now, when the future load does not materialize, SCE will have excess resources and excess costs.

Q9: Does SCE's preferred resource plan take into account the requirements of the CPUC Scoping Memo and recommendations in the *Transmittal Report* with respect to determination of need?

A9: No. There are two areas in which the LTPP is deficient. First, SCE assumes levels of uncommitted energy efficiency for 2009 – 2016 that are below those set as targets by the CPUC in D.04-09-060.[5] Second, SCE assumes the procurement of renewable energy at levels below both the levels recommended in the *Transmittal Report* and the Scoping Memo.[6]

Q10. What actions should the CPUC take based on SCE's assumptions regarding energy efficiency in their 2006 LTPP?

A10: SCE assumed uncommitted energy efficiency at levels below those set forth in D.04-06-090 in their Best Estimate Plan.[7] The capacity shortfalls range from 72 MW - 77 MW in 2009 (depending on whether the Energy Commission or SCE load forecast is used) to 667 MW – 705 MW in 2016).

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[5] D.04-09-060, Table 1B; *Transmittal Report,* at page 109.
[6] Scoping Memo, at pages 18 and 20; *Transmittal Report*, at page 113.
[7] See, Testimony of Sylvia Bender on Behalf of the California Energy Commission Regarding the issue of Energy Efficiency (EE) and Demand Response (DR) in the Long-Term Procurement Plan of Southern California Edison (SCE), filed concurrently herewith, at page answer 8.

Until such time that the CPUC revises the targets for energy efficiency, the Commission should limit the procurement of non-designated capacity by SCE to amounts consistent with the levels of uncommitted energy efficiency set forth in D.04-06-090 and use of the Energy Commission load forecast. At such time that new targets are established, the procurement limits for non-designated capacity should be adjusted accordingly.

Q11: What level of renewable energy procurement is recommended for SCE in the *Transmittal Report*?

A11: The *Transmittal Report* establishes a preferred level of renewables for SCE in 2016 of 31 percent[8] of its bundled customer load:

> "The Energy Commission has decided to use the generic renewable energy and capacity values developed by SCE for the accelerated renewables case as the preferred renewables identified in the range of need tables."[9]

EAP II and the 2006 IEPR update recommend 33% renewables as a target for IOU procurement. A path to achieving this goal indicates a 28% procurement level by 2016.

Q12: Does SCE's Best Estimate plan include levels of renewable energy consistent with the recommendations of the Scoping Order or the *Transmittal Report*?

A12: No. The Base Case submitted by SCE assumes renewable energy procurement to be 26.1 percent of bundled customer need in 2016 when the Energy Commission revised 2005 IEPR load forecast is used.[10] Based on an assumed capacity factor of 50 percent for renewable resources in aggregate, an additional 310 MW of capacity from

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[8] The percentage of renewable energy as a share of bundled customer need in SCE's accelerated renewables case as filed in the 2005 IEPR, see *Transmittal Report*, at page 112.
[9] *Transmittal Report*, at page 113.

renewable resources would be needed to be on the trajectory needed to reach 33 percent by 2020 (27.8 percent in 2016), and 885 MW of capacity would be needed to reach 31 percent.

Q13: Does the Energy Commission have a recommendation concerning what action, if any, the CPUC should take in response to SCE's assumption regarding the procurement of renewable energy in its 2006 LTPP?

A13: Yes.

Q14: What is that recommendation?

A14: The Energy Commission recommends that the CPUC direct SCE to file a LTPP that compiles with the recommendations of the Transmittal Report. Doing so will allow for the renewable resources needed to meet the goals set forth jointly and individually by the CPUC and Energy Commission.

Q15: What reserve margin has SCE requested authority to procure to in its 2006 LTPP?

A15: SCE has requested authority to procure to a 117% reserve margin plus 1,950 MW; 850 MW to deal with the possible outage of a major generation unit, and 1,100 MW to protect against an error in the near-term peak load forecast.

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[10] See, Testimony of Heather Raitt on Behalf of the California Energy Commission Regarding the issue of Renewable Energy Procurement Strategy as addressed in the Long-Term Procurement Plan of Southern California Edison Company (SCE), filed concurrently herewith, at page Answer 12.

Q16: Is this reserve margin consistent with the instructions of the Scoping Memo?

A16: No. The IOUs were asked to assume that they would meet a 15 % - 17% planning reserve margin[11]

Q17: Should the CPUC approve SCE's request to be allowed to procure beyond a 17% reserve margin?

A17: No. The 17% planning reserve margin was chosen because it provides previously agreed upon levels of reliability given the potential for both forced outages and higher loads than forecasted. SCE has not provided sufficient information to demonstrate that the risks of prolonged outages at SONGS and higher loads than anticipated are unacceptable. Moreover, SCE has not demonstrated that incurring the costs of further mitigating these risks is in the interests of their customers.

Q13: Does this conclude your testimony?

A13: Yes, it does.

[11] Scoping Memo, Attachment A, at p. 13.

Docket Optical System - Fwd: Re: Can you docket the staff testimony in the CPUC's LTPP here at the Commission under 06-IEP-

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From: David Vidaver
To: Docket Optical System
Date: 6/19/2007 4:26 PM
Subject: Fwd: Re: Can you docket the staff testimony in the CPUC's LTPP here at the Commission under 06-IEP-
CC: Michael Doughton
Attachments: Michael Doughton

DOS,

Can you Please docket the attached electronic files in 06-IEP-1J?

thanks.