

**PREPARED DIRECT TESTIMONY OF DAVID ASHUCKIAN ON BEHALF OF THE
CALIFORNIA ENERGY COMMISSION REGARDING THE ISSUE OF RETIREMENT
OF AGING POWER PLANTS AS ADDRESSED IN THE LONG-TERM
PROCUREMENT PLANS OF PACIFIC GAS & ELECTRIC COMPANY**

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1 **PREPARED DIRECT TESTIMONY OF DAVID ASHUCKIAN ON BEHALF OF THE**
2 **CALIFORNIA ENERGY COMMISSION REGARDING THE ISSUE OF RETIREMENT**
3 **OF AGING POWER PLANTS AS ADDRESSED IN THE LONG-TERM**
4 **PROCUREMENT PLANS OF PACIFIC GAS & ELECTRIC COMPANY**
5

6 **Q1: Please state your name and business address.**

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

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

12 **A2:** I am employed as manager of the Electricity Analysis Office of the Systems
13 Assessment & Facilities Siting Division of the California Energy Commission (Energy
14 Commission). In this capacity, my responsibilities include managing the work of
15 professional staff engaged in conducting independent, objective analyses of California's
16 electricity and natural gas systems, market, and operations.
17

18 **Q3: Please summarize your educational and professional background.**

19 **A3:** I am a Professional Engineer registered in the State of California. I obtained my
20 Bachelor of Science degree in Mechanical Engineering in 1992 from California State
21 University, Sacramento, in addition to my Bachelors degree in Criminal Justice which
22 was obtained in 1981 from California State University, Sacramento. My employment at
23 the Energy Commission began in 1998. My professional experience at the Energy
24 Commission includes managing the activities of the Electricity Analysis Office (EAO) for
25 the last 4 years. The function of the Electricity Analysis Office is to provide

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

12
13 **Q4: Please state the purpose of your testimony.**

14 **A4:** The purpose of my testimony is to sponsor the position of the Energy Commission
15 in this proceeding on the issue of the retirement of aging power plants by providing the
16 California Public Utilities Commission (CPUC) with an evaluation of Pacific Gas &
17 Electric Company's (PG&E's) Long Term Procurement Plan (LTPP) on that issue. The
18 issue of aging power plant retirement is addressed by PG&E in Section IV, C. *Supply*
19 *Forecasts*, and Section IV, H., *Candidate Resource Plans* of its LTPP. This testimony is
20 intended to provide CPUC with the Energy Commission's assessment of how PG&E is
21 planning to reduce its reliance on aging gas-fired plants through planning for long-term
22 contracts with new, fuel efficient units, in order to reduce long-term financial risk to its
23 ratepayers.

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1 Specifically, the purpose of this testimony is to provide:

- 2
3 1. Identification of the requirements of the Assigned Commissioner's Ruling and
4 Scoping Memo on the Long-term Procurement Phase of R.06-02-013, dated
5 September 25, 2006 (Scoping Memo) that are applicable to IOUs with respect to
6 aging power plants (APP);
7
- 8 2. Identification of the pertinent recommendations set forth in the Energy
9 Commission's 2005
10 Integrated Energy Policy Report (IEPR) and associated report entitled
11 "*Transmittal of 2005 Energy Report Range of Need and Policy*
12 *Recommendations to the California Public Utilities Commission* (Transmittal
13 Report) that are applicable to the aging power plant requirements set forth in the
14 Scoping Memo (item 1 above);
15
- 16 3. A description of the substance of the IOU's Long Term Procurement Plan (LTPP)
17 with respect to aging power plant issues;
18
- 19 4. An analysis of whether the IOU's LTPPs comply with the requirements of the
20 Assigned Commissioner's Ruling and Scoping Memo on the Long-Term
21 Procurement Phase of R.06-02-103 (Scoping Memo) with respect to the APP
22 issues identified in item 1 above;

23 ///

24 ///

1 5. An analysis of whether the IOUs' LTPPs comply with the requirements of the
2 IEPR with respect to the aging power plant issues in item 2 above;

3
4 6. On behalf of the Energy Commission, present the Energy Commission's written
5 recommendations concerning the course of action that CPUC should take in this
6 proceeding with respect to each IOU's LTPP as it relates to the issue of aging
7 power plants.

8
9 I am authorized to present this written testimony on behalf of the Energy Commission.
10

11 **Q5: What direction does the Scoping Memo give to IOUs regarding planning for**
12 **the replacement of aging plants in IOU portfolios?**

13 **A5:** The Scoping Memo states in relevant part:

14 "The Commission will establish a new resource need determination that includes
15 at a minimum: the range of need (e.g., 500-700 MW of new resources), the time
16 frame of the need (e.g., 2010-2012), the location of the need (e.g., x% should be
17 targeted within local areas), the type of resource needed (blackstart, quickstart,
18 VAR support capacity, wind integration, baseload/shaping/peaking), and the
19 timeframe of the IOU long-term RFO for new resources." ¹
20

21 The Scoping Memo further states that "[i]t is not sufficient for the 2006 LTPPs to
22 assume that the resource will "show up . . .".²
23
24

25

¹ Scoping Order, at p. 22.

² Scoping Order, page 21

1 **Q6: What is the significance of the above guidance to the issue of how aging**
2 **power plants are treated in the LTPP?**

3 **A6:** The need for new resources is influenced by assumptions regarding the retirement
4 of aging plants, many of which are more than 40 years old. This is acknowledged, for
5 example, in SCE's LTPP which states that:

6
7 " [The] need for new resources before 2013 in the SP-26 geographical area...is
8 influenced by the amount of retirements of existing generation that actually
9 occurs."³
10

11 Just as the CPUC has established that it is not sufficient to assume that needed new
12 resources will simply show up, it is equally insufficient to assume that aging resources will
13 simply continue indefinitely. It is therefore the recommendation of the Energy
14 Commission that the CPUC should not deem it sufficient for an IOU's LTPP to assume
15 that aging power plants will not be retired.
16

17 It is the recommendation of the Energy Commission that the IOUs should directly
18 address the issue of retirement of aging power plants in their LTPPs by identifying
19 therein and using specific assumptions concerning the retirement of aging plants that
20 reflect the policy directives set forth in the Energy Commission's IEPR and Transmittal
21 Report.

22 \\\

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24 \\\

25 _____

³ SCE 2007 – 2016 Long-term Procurement Plan, Vol. 1B, p. 33.

1 **Q7: What does the 2005 IEPR and Transmittal Report recommend that the CPUC**
2 **should direct IOUs to do in their 2006 procurement plans?**

3 **A7:** The Energy Commission's *Transmittal of 2005 Energy Report: Range of Need and*
4 *Policy Recommendations to the California Public Utilities Commission* (the "Transmittal
5 Report") called for "an orderly transition to the retirement of [aging] plants by 2012," as
6 "continued reliance on these plants is not in the economic interest of IOU customers[;]...
7 it would be imprudent for the IOUs to contract with the aging units beyond that time."⁴

8
9 The reason this policy is important is that virtually all of the state's aging power plants
10 operate at high heat rate capacities that would typically not be sufficiently dispatched in
11 the open market to cover their fixed costs and justify their continued operation. While it
12 is likely true that operation of some of these aging plants is necessary to meet local
13 reliability, it is the position of the Energy Commission that the state is best served by
14 repowering the plants that are in locations critical to the state's electricity system.
15 Maintaining many older plants on life support at low capacity factors has the negative
16 effect of deterring or preventing construction of more efficient plants.

17
18 *The Transmittal Report states:*

19
20 "As noted in the 2004 Energy Report Update, aging power plants currently play
21 an important role in the state's electricity system, including 'provid[ing] local
22 reliability services...; contribut[ing] to regional and statewide reliability...; and
23 help[ing] alleviate transmission system congestion. . . .' While these [aging]
24 plants have provided needed resources during the last several years and will
25

1 unavavoidably play a role in the near term, the state cannot afford to rely
2 indefinitely on power plants that are 30 years old or older. Instead, the state
3 must begin an orderly process to retire them.”⁵
4

5 “The Energy Commission is reporting the aging plant replacement energy and
6 capacity amounts in this manner to emphasize the need for IOU planning and
7 procurement activities in the 2006 procurement cycle to accommodate the
8 recommended replacement of all of these aging plants. Because continued
9 reliance on these plants is not in the economic interest of IOU customers, it
10 would be imprudent for the IOUs to contract with the aging units beyond that
11 time.”⁶
12

13 The *Transmittal Report* asserts that to the extent that these plants can be replaced by
14 demand response programs, efficiency programs, renewable resources, combined heat
15 and power (CHP), and an appropriate level of conventional power plants, the state will
16 see significant benefits in terms of reliability, reduced reliance on natural gas, reduced
17 greenhouse gas emissions, and other environmental benefits.⁷
18

19 To facilitate an orderly transition to the retirement of these plants by 2012, the
20 *Transmittal Report* included a four-year ramp-up of this increment, starting with 25
21 percent of the utilities' share of energy or capacity in 2009, and increasing to 50 percent,
22 75 percent and the full share in 2010, 2011, and 2012, respectively.⁸
23

24 ⁴ *Transmittal Report*, p. 57

25 ⁵ *Transmittal Report* at page 14.

⁶ *Transmittal Report* at page 58.

⁷ *Transmittal Report*, at p. 56

⁸ *Transmittal Report*, at p. 57.

1 The *Transmittal Report* contains the following recommendation to ensure long-term
2 contracts are signed that provide adequate electricity supplies for IOUs:

3
4 "The CPUC should require that IOUs procure enough capacity from long-term
5 contracts to both meet their net short positions and allow for the orderly
6 retirement or repowering of aging plants, by 2012."⁹
7

8 **Q8: Does PG&E's LTPP set forth a plan to cease reliance on aging gas-fired**
9 **plants by 2012?**

10 **A8:** Yes. According to the information set forth in Volume 1,¹⁰ PG&E's plan contains
11 sufficient new generation and transmission investments so that it will no longer need to
12 rely on aging plants after 2012.
13

14 **Q9: Does this conclude your testimony?**

15 **A9:** Yes.
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⁹ *Transmittal Report*, at p. 69.

¹⁰ See Table, Vol. 1, IVA-12, Vol. 1, p. IV-54.

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

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.