



*Pacific Gas and
Electric Company™*

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June 25, 2004

BY HAND DELIVERY

Docket Clerk
Docket Office
California Public Utilities Commission
505 Van Ness Avenue, Room 2001
San Francisco, CA 94102

Re: **AB 970 OII: Investigation No. 00-11-001**

Dear Docket Clerk:

Enclosed for filing are an original and five (5) copies of the "Errata to 2004 Transmission Ranking Cost Report Of Pacific Gas And Electric Company In Compliance With Decision 04-06-013."

Please file the original document, date-stamp a copy, and return the endorsed copy in the stamped self-addressed envelope provided for this purpose.

Very truly yours,

/s/
Evelyn C. Lee

ECL:gmj

Enclosures

cc: ALJ Charlotte F. TerKeurst
Commissioner Loretta M. Lynch
All Parties of Record in I.00-11-001

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

Order Instituting Investigation into
Implementation of Assembly Bill 970
Regarding the Identification of Electric
Transmission and Distribution Constraints,
Actions to Resolve those Constraints, and
Related Matters affecting the Reliability of
Electric Supply.

(U 39 E)

Investigation No. 00-11-001
(Filed November 2, 2000)

ERRATA TO

**2004 TRANSMISSION RANKING COST REPORT OF
PACIFIC GAS AND ELECTRIC COMPANY
IN COMPLIANCE WITH DECISION 04-06-013**

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Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

Dated: June 25, 2004

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ERRATO TO

**2004 TRANSMISSION RANKING COST REPORT OF
PACIFIC GAS AND ELECTRIC COMPANY
IN COMPLIANCE WITH DECISION 04-06-013**

Tables 1, 2, 3, and 4 of the Transmission Ranking Cost Report filed in this docket on June 23, 2004 were not properly labeled, and Table 4 contained a clerical error. Corrected versions of Tables 1, 2, 3, and 4 are attached to this notice; the amended text is shown in bold italics. We regret any inconvenience that may have been caused.

Respectfully submitted,

LINDA L. AGERTER
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By _____/s/
EVELYN C. LEE

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Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

Dated: June 25, 2004

CERTIFICATE OF SERVICE: ELECTRONIC AND U.S. MAIL

I, the undersigned, state that I am a citizen of the United States and am employed in the City and County of San Francisco; that I am over the age of eighteen (18) years and not a party to the within cause; and that my business address is Pacific Gas and Electric Company, Law Department B30A, 77 Beale Street, San Francisco, California 94105.

I hereby certify that I have this day served a copy of the pleading(s) designated below by electronic mail on all parties on the **Official Service List for I.00-11-001** who have posted e-mail addresses.

I am also readily familiar with the business practice of Pacific Gas and Electric Company for collection and processing of correspondence for mailing with the United States Postal Service. In the ordinary course of business, correspondence is deposited with the United States Postal Service the same day it is submitted for mailing.

On the 25th day of June, 2004, I served a true copy of:

ERRATA TO

**2004 TRANSMISSION RANKING COST REPORT OF
PACIFIC GAS AND ELECTRIC COMPANY
AS REQUIRED BY DECISION 04-06-013**

by placing it for collection and mailing, in the course of ordinary business practice, with other correspondence of Pacific Gas and Electric Company, enclosed in a sealed envelope, with postage fully prepaid, addressed to any party designated as "Appearance" or "State Service" on the **Official Service List for I.00-11-001** who did not post or does not have a valid electronic mail address on file with the CPUC..

I certify and declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on the 25th day of June, 2004.

/s/

GERIANNE M. JOHNSON

A. Application of the Transmission Cost Ranking Study to RPS Bid Selection.

1. Use of Clusters.

Consistent with D.04-06-013 Attachment A, PG&E has developed Transmission Ranking Costs based on potential transmission congestion, the associated proxy transmission network upgrades and the associated capital costs that may be needed to accommodate each cluster of renewable resources. For each cluster, PG&E has identified various levels of possible additional transmission capacity and the related costs.^{3/} Accordingly, Level 1 would reflect the available transmission capacity taking into account all approved reliability and economic transmission projects, as well as upgrades planned for generation projects in the ISO interconnection queue based on their completed System Impact Studies and Facilities Studies. The next Level and subsequent Levels would reflect the next most cost-effective proxy network upgrade(s). The number of Levels would depend on the number of proxy network upgrades to reasonably accommodate the anticipated total amount of renewable resources in each cluster.

2. Overview of Tables.

The Transmission Ranking Costs are summarized in Tables 1-4. Tables 1 and 2 assume that PG&E is the purchaser of the renewable power. Tables 3 and 4 assume that SCE or SDG&E (or other entities south of PG&E's service territory) is the purchaser.

The Transmission Ranking Costs have been separated into tables that would broadly correspond to system conditions in peak and off-peak periods so they can be used in least cost-best fit bid evaluation. Tables 1 and 3 are for use for bid evaluation for ***Superpeak and Shoulder*** periods from June 1 through September 30. Tables 2 and 4 are for use for bid evaluation for ***Night periods from June to September and All Periods*** from October 1 through

^{3/} Costs are equal to the total capital cost of the proxy transmission network upgrade project and are stated in \$2003 constant dollars. Net present value (NPV) amounts of each alternative would differ.

May 31. This separation of transmission costs into ~~peak and off-peak~~ *these* periods may allow a potential bidder to take into account potential transmission congestion and accordingly structure the optimal generation profile for its bid.

In addition, the Transmission Ranking Costs are further separated into time periods of between 2005 – 2009; and 2010 and beyond. Transmission Ranking Costs associated with these time periods can be used to further evaluate the renewable resource based on their expected commercial operating dates.

As expected, a number of network facilities requiring upgrades are common to several clusters depending on the levels of generation added. These common proxy Network Upgrades provide some opportunity for refining the bid ranking once the bids have been received and analyzed. Some of the common network facilities that would require upgrades are:

- Vaca-Dixon – Contra Costa 230 kV line
- Cottonwood – Vaca-Dixon 230 kV line

Table 1: Transmission Ranking Cost for Potential Generation

Assuming PG&E is the Purchaser

Superpeak and Shoulder Periods June 1 through September 30

Substation Associated With Cluster Of Potential Generation	Level	January 2005 –December 2009			January 2010 and beyond		
		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation (\$ millions in 2003 dollars)		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation (\$ millions in 2003 dollars)	
			Proxy Voltage Support Devices*	Other Proxy Transmission upgrades		Proxy Voltage Support Devices*	Other Proxy Transmission upgrades
Round Mountain 230 kV	1	300	15	0	300	15	0
	2	200	10	232	200	10	232
	3	200	10	101	200	10	101
Cottonwood 230 kV	1	300	15	0	300	15	0
	2	200	10	232	200	10	232
	3	200	10	101	200	10	101
Cortina 115 kV	1	150	8	0	100	5	0
	2	50	3	78	100	5	78
	3	40	2	12	40	2	12
	4	210	11	66	210	11	66
Fulton 230 kV	1	100	5	0	100	5	0
	2	100	5	6	100	5	6
	3	380	19	107	400	20	107
	4	120	6	65	100	5	65
Vaca-Dixon 230 kV	1	300	15	0	300	15	0
	2	100	5	57	100	5	62
	3	200	10	117	200	10	107
Tesla 230 kV	1	1000	50	0	1000	50	0
Panoche 230 kV	1	1000	50	0	1000	50	0
Midway 230 kV	1	1000	50	0	1000	50	0

* Static VAR Compensator (SVC) is used as a proxy for voltage support devices required. The size of the SVC at each Level assumes the capacity in each level will be fully utilized. However, since addition of voltage support devices is less “lumpy” than other transmission facilities, it is separately listed so that the size, and hence, cost can be prorated based on the size of the resource bid.

Table 2: Transmission Ranking Cost for Potential Generation

Assuming PG&E is the Purchaser

Night Periods June 1 through September 30, and All Periods October 1 through May 31

Substation Associated With Cluster Of Potential Generation	Level	January 2005 –December 2009			January 2010 and beyond		
		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation (\$ millions in 2003 dollars)		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation (\$ millions in 2003 dollars)	
			Proxy Voltage Support Devices*	Other Proxy Transmission upgrades		Proxy Voltage Support Devices*	Other Proxy Transmission upgrades
Round Mountain 230 kV	1	200	10	0	200	10	0
Cottonwood 230 kV	1	200	10	0	200	10	0
Cortina 115 kV	1	120	6	0	120	6	0
Fulton 230 kV	1	250	13	0	250	13	0
	2	250	13	65	250	13	65
Vaca-Dixon 230 kV	1	150	8	0	150	8	0
Tesla 230 kV	1	700	35	0	700	35	0
Panoche 230 kV	1	1000	50	0	1000	50	0
Midway 230 kV	1	0	0	0	0	0	0
	2	400	20	227	400	20	219 227
	3	300	15	66	300	15	64 66
	4	800	40	140 160	800	40	155 160

* Static VAR Compensator (SVC) is used as a proxy for voltage support devices required. The size of the SVC at each Level assumes the capacity in each level will be fully utilized. However, since addition of voltage support devices is less “lumpy” than other transmission facilities, it is separately listed so that the size, and hence, cost can be prorated based on the size of the resource bid.

**Table 3: Transmission Ranking Cost for Potential Generation
Located North of or in PG&E Service Territory**

**Assuming Delivery to PG&E's Midway Substation
(SCE or SDG&E is the Purchaser)**

Superpeak and Shoulder Periods June 1 through September 30

Substation Associated With Cluster Of Potential Generation	Level	January 2005 –December 2009			January 2010 and beyond		
		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation (\$ millions in 2003 dollars)		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation (\$ millions in 2003 dollars)	
			Proxy Voltage Support Devices*	Other Proxy Transmission upgrades		Proxy Voltage Support Devices*	Other Proxy Transmission upgrades
Round Mountain 230 kV	1	300	15	0	300	15	0
	2	200	10	232	200	10	232
	3	200	10	101	200	10	101
Cottonwood 230 kV	1	300	15	0	300	15	0
	2	200	10	232	200	10	232
	3	200	10	101	200	10	101
Cortina 115 kV	1	150	8	0	100	5	0
	2	50	3	78	100	5	78
	3	40	2	12	40	2	12
	4	210	11	66	210	11	66
Fulton 230 kV	1	100	5	0	100	5	0
	2	100	5	6	100	5	6
	3	380	19	107	400	20	107
	4	120	6	65	100	5	65
Vaca-Dixon 230 kV	1	300	15	0	300	15	0
	2	100	5	57	100	5	62
	3	200	10	117	200	10	107
Tesla 230 kV	1	1000	50	0	1000	50	0
Panoche 230 kV	1	1000	50	0	1000	50	0
Midway 230 kV	1	1000	50	0	1000	50	0

* Static VAR Compensator (SVC) is used as a proxy for voltage support devices required. The size of the SVC at each Level assumes the capacity in each level will be fully utilized. However, since addition of voltage support devices is less “lumpy” than other transmission facilities, it is separately listed so that the size, and hence, cost can be prorated based on the size of the resource bid.

**Table 4: Transmission Ranking Cost for Potential Generation
Located North of or in PG&E Service Territory**

**Assuming Delivery to PG&E’s Midway Substation
(SCE or SDG&E is the Purchaser)**

Night Periods June 1 through September 30, and All Periods October 1 through May 31

Substation Associated With Cluster Of Potential Generation	Level	January 2005 –December 2009			January 2010 and beyond		
		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation (\$ millions in 2003 dollars)		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation (\$ millions in 2003 dollars)	
			Proxy Voltage Support Devices*	Other Proxy Transmission upgrades		Proxy Voltage Support Devices*	Other Proxy Transmission upgrades
Round Mountain 230 kV	1	200	10	0	200	10	0
Cottonwood 230 kV	1	200	10	0	200	10	0
Cortina 115 kV	1	120	6	0	120	6	0
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Midway 230 kV	1	1000	50	0	1000	50	0

* Static VAR Compensator (SVC) is used as a proxy for voltage support devices required. The size of the SVC at each Level assumes the capacity in each level will be fully utilized. However, since addition of voltage support devices is less “lumpy” than other transmission facilities, it is separately listed so that the size, and hence, cost can be prorated based on the size of the resource bid.

II. DEVELOPMENT OF THE TRANSMISSION RANKING COST REPORT

A. Procedural History.

SB 1078 established the California Renewables Portfolio Standard Program (RPS) and the objective that 20% of electricity sold to California customers will be procured from eligible renewable energy resources by 2017. SB 1038 requires the CEC to complete a renewable resource plan and requires the CPUC to complete a renewable resource transmission plan. Both reports must be submitted to the Legislature by December 1, 2003. Accordingly, the CPUC’s transmission plan is to be based on the CEC’s renewable resource plan.