

# Renewables Committee Workshop

## RPS Verification Report

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# RPS Verification Report

- SB 1078 Requires the Energy Commission required to implement a tracking system to verify RPS procurement.
- The RPS Verification Report meets that statutory requirement.
- Does not determine compliance with RPS targets.
- This report will be prepared and transmitted to the CPUC annually.



# Purpose of the RPS Verification Report

- Verify eligibility and procurement of renewable resources.
- Verify if out-of-state facilities met deliverability requirements.
- Identify procurement as baseline or incremental.
- Quantify the amount of incremental geothermal.
- Compare procurement with targets set by the CPUC.



# Methodology

- An “interim tracking system” was utilized.
- This system will be replaced by WREGIS (Western Renewable Energy Generation Information System) beginning in 2007.
- Compares procurement with generation.
- Compares procurement from the same facility with that of other retail sellers.
- Procurement verified against double-counting for RPS when possible.



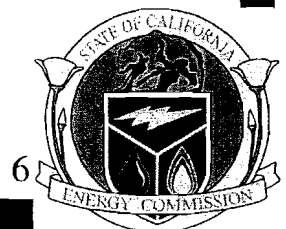
# Sources of Data

- Procurement data reported by PG&E, SCE, and SDG&E on CEC-RPS-Track forms.
- Procurement data also reported to the Power Source Disclosure Program. 26 retail providers including PG&E and SCE submitted Annual Reports.
- Generation data from:
  - Energy Commission (Renewables and PIER Programs along with CEC-1304)
  - Energy Information Administration
  - Western States Tracking System



# Incremental Geothermal

- Incremental geothermal capacity is certified at nine Calpine Geysers facilities.
- 113 MW of 119 MW requested by Calpine were certified as incremental geothermal in 2004.
- Of Calpine's total capacity, 770 MW is baseline.
- Staff estimated incremental geothermal generation by dividing incremental geothermal capacity by total nameplate capacity.



## PG&E 2004 Incremental Geothermal Procurement (Estimated)

Calpine Geothermal Facility	2004 Facility Capacity <sup>1</sup>	2004 Eligible Incremental Geothermal Capacity <sup>2</sup>	2004 Percent of Capacity Certified as Incremental Geothermal <sup>3</sup>	2004 Total Generation (MWh) <sup>4</sup>	2004 Estimated Incremental Geothermal Procured (MWh) <sup>5</sup>	2004 Total Procurement (MWh) <sup>6</sup>
Unit 13	102	11	10.80%	512,599	55,280	374,152
Unit 20	84	21	25%	392,727	98,182	292,883
Total	186	32	NA	905,326	153,462	667,035

<sup>1</sup> Data from Calpine's application to the Energy Commission for certification as RPS-eligible.

<sup>2</sup> Amount of capacity that the Energy Commission certified as "incremental geothermal" capacity.

<sup>3</sup> Eligible incremental geothermal capacity divided by the generating capacity.

<sup>4</sup> Reported by the generator to the Energy Commission.

<sup>5</sup> Estimated amount of incremental generation available for procurement in 2004 (total generation x percent of capacity certified as incremental geothermal). Staff assumed that all of the incremental geothermal generation produced from this facility was sold to PG&E by Calpine.

<sup>6</sup> Reported by PG&E to the Energy Commission on the RPS-Track form.



## SCE's 2004 Incremental Geothermal (Estimated)

Calpine Geothermal Facility	2004 Facility Capacity (MW) <sup>1</sup>	2004 Eligible Incremental Geothermal Capacity (MW) <sup>2</sup>	2004 Percent of Capacity Certified as Incremental Geothermal <sup>3</sup>	2004 Total Generation (MWh) <sup>4</sup>	2004 Estimated Incremental Geothermal Procured <sup>5</sup> (MWh)	2004 Total Procurement (MWh) <sup>6</sup>
Unit 3	78	7.6	9.7%	307,717	29,983	219,897
Unit 5/6	110	6.5	5.9%	626,352	37,012	445,897
Unit 7/8	110	15.6	14.2%	548,289	77,757	392,044
Unit 11 <sup>7</sup>	74.40	0	0.0%	508,453	0	28,679
Unit 12	77	8.6	11.2%	443,259	49,507	316,407
Unit 17	84	21.7	25.8%	432,014	111,604	311,178
Unit 18	119	14	11.8%	396,565	46,655	68,906
<b>Total</b>	<b>652</b>	<b>74</b>	<b>NA</b>	<b>3,262,649</b>	<b>352,517</b>	<b>1,783,008</b>

<sup>1</sup> Date from Calpine's application to the Energy Commission for certification as RPS-eligible.

<sup>2</sup> Amount of capacity that the Energy Commission certified as "incremental geothermal" capacity.

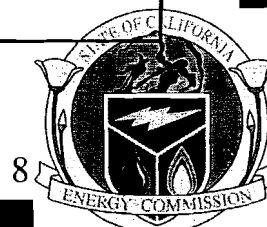
<sup>3</sup> Eligible incremental geothermal capacity divided by the generating capacity.

<sup>4</sup> Reported by the generator to the Energy Commission.

<sup>5</sup> Estimated amount of incremental generation available for procurement in 2004 (total generation x percent of capacity certified as incremental geothermal). Staff assumed that all of the incremental geothermal generation produced from this facility was sold to SCE by Calpine.

<sup>6</sup> Reported by SCE to the Energy Commission on the RPS-Track form.

<sup>7</sup> Calpine Geothermal Unit 11 is a repowered facility. Consequently, electricity procured from Unit 11 is not restricted to baseline or adjusting the baseline.





# IOU Renewable Procurement in 2004

Utility	Number of Purchases	RPS Procurement (MWh)
PG&E	230	8,590,682
SCE	185	13,247,500
SDG&E	20	677,966
Totals	435	22,516,148



## IOU Progress in Meeting the RPS for 2004 (MWh)<sup>a</sup>

Utility	Annual Procurement Target (APT) <sup>b</sup>	Procurement Towards Meeting APT Claimed on CEC-RPS-Track	Total Procured in Excess of APT	Incremental Procurement Target (IPT) <sup>b</sup>	Estimated Procurement that Meets IPT Criteria	Total Procured in Excess of IPT
PG&E	9,474,755	8,590,682	(884,073)	710,990	0 <sup>c</sup>	(710,990)
SCE	12,736,000	13,247,500	511,500	706,000	79,136	(626,864)
SDG&E	423,336	677,976	254,640	150,440	40,388	(110,052)

<sup>a</sup> The procurement claimed towards the APT and the IPT does not include any banking nor carryover from previous years.

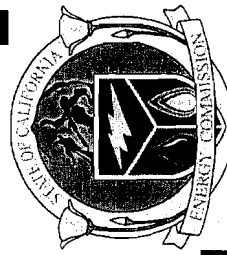
<sup>b</sup> The CPUC sets both the Annual Procurement Target (APT) and the Incremental Procurement Target (IPT) for PG&E, SCE, and SDG&E.

<sup>c</sup> Table 3 of the Renewables Portfolio Standard Procurement Verification Report indicated that PG&E procured 26,183 MWh towards their incremental procurement target in 2004. The Energy Commission staff did not identify procurement that qualified for the IPT for 2004 in its review of PG&Es RPS-Track submittals. PG&E procured from the same facilities in 2003 and 2004, except that some facilities that sold to PG&E in 2003 did not do so in 2004.



# Availability of Generation Data

Utility	Procurement Verified with Generation Data		Procurement for which Generation Data was not Available	
	Number of Specific Purchases	Energy Procured (MWh)	Number of Specific Purchases	Energy Procured (MWh)
PG&E	144	8,186,779	86	403,903
SCE	128	12,827,741	57	419,759
SDG&E	13	662,131	7	15,835
<b>Totals</b>	<b>285</b>	<b>21,676,651</b>	<b>150</b>	<b>839,497</b>



# Limitations of Interim Tracking System

- Procurement not checked in States other than CA, OR, and WA.
- No means to cross-check with unbundled Renewable Energy Credit (REC) sales.
- Availability of Generation Data
  - Generation Data is Self-Reported.
  - IPT and Baseline estimates are based on assumptions.
- Procurement Verification
  - Procurement should not exceed generation from given facility.



**For More Information:**

**<http://www.energy.ca.gov/renewables/>**

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