

Renewables Committee Workshop

RPS Verification Report

03-RPS-1078
DOCKET
02-REN-1038
DATE DEC - 8 2005
REC DEC - 8 2005

December 7, 2005

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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 ¹ | 2004 Eligible Incremental Geothermal Capacity ² | 2004 Percent of Capacity Certified as Incremental Geothermal ³ | 2004 Total Generation (MWh) ⁴ | 2004 Estimated Incremental Geothermal Procured (MWh) ⁵ | 2004 Total Procurement (MWh) ⁶ |
|-----------------------------|-------------------------------------|--|---|--|---|---|
| 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 |

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

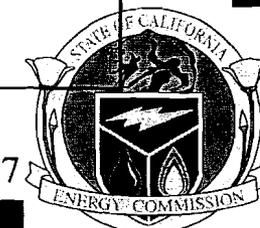
² Amount of capacity that the Energy Commission certified as "incremental geothermal" capacity.

³ Eligible incremental geothermal capacity divided by the generating capacity.

⁴ Reported by the generator to the Energy Commission.

⁵ 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.

⁶ 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) ¹ | 2004 Eligible Incremental Geothermal Capacity (MW) ² | 2004 Percent of Capacity Certified as Incremental Geothermal ³ | 2004 Total Generation (MWh) ⁴ | 2004 Estimated Incremental Geothermal Procured ⁵ (MWh) | 2004 Total Procurement (MWh) ⁶ |
|-----------------------------|--|---|---|--|---|---|
| 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 ⁷ | 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 |
| Total | 652 | 74 | NA | 3,262,649 | 352,517 | 1,783,008 |

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

² Amount of capacity that the Energy Commission certified as "incremental geothermal" capacity.

³ Eligible incremental geothermal capacity divided by the generating capacity.

⁴ Reported by the generator to the Energy Commission.

⁵ 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.

⁶ Reported by SCE to the Energy Commission on the RPS-Track form.

⁷ 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)^a

| Utility | Annual Procurement Target (APT) ^b | Procurement Towards Meeting APT Claimed on CEC-RPS-Track | Total Procured in Excess of APT | Incremental Procurement Target (IPT) ^b | 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 ^c | (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) |

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

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

^c 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 |
| Totals | 285 | 21,676,651 | 150 | 839,497 |



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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