

**PACIFIC GAS AND ELECTRIC COMPANY
Renewable Portfolio Standards OIR-IV
Rulemaking 11-05-005
Data Response**

PG&E Data Request No.:	ED_002-01-02		
PG&E File Name:	RenewablePortfolioStdsOIR-IV_DR_ED_002-Q01-02		
Request Date:	August 21, 2012	Requester DR No.:	002
Date Sent:	August 31, 2012	Requesting Party:	Energy Division
PG&E Witness:	Redacted	Requester:	Michele Kito

QUESTION 1

With respect to Joint IOU Cost Quantification Table 1, please provide the kWh associated with each of the project categories for the years 2003 through 2011.

ANSWER 1

PG&E has provided the data requested by Energy Division on page 2 of this response.

QUESTION 2

With respect to Joint IOU Cost Quantification Table 2, please provide the kWh associated with each of the project categories for the years 2018 – 2020 for both the executed but not approved and the approved contracts.

ANSWER 2

PG&E has provided the data requested by Energy Division on page 3 of this response. While not specifically requested, PG&E's table on page 3 of this response also includes forecast years 2012 – 2017, which were previously provided to Energy Division on July 31, 2012.

Table Description: The table displays PG&E's kWh data associated with its actual cost data filed on August 15, 2012 in PG&E's update to its 2012 RPS Plan. (Joint IOU Cost Quantification Table 1 of Appendix 2)

		Actual RPS-Eligible Procurement and Generation (kWh)								
1	Technology Type	2003	2004	2005	2006	2007	2008	2009	2010	2011
2	Biogas	364,744,955	333,897,287	366,514,300	300,942,614	293,147,043	280,042,266	290,106,003	275,304,132	263,683,969
3	Biomass	2,839,795,202	2,961,632,515	2,858,642,919	2,770,398,469	2,751,813,309	2,813,819,174	3,122,047,849	2,990,614,600	3,048,222,308
4	Geothermal	1,674,701,928	1,753,042,857	1,687,360,286	1,790,869,580	2,701,969,859	3,350,231,696	3,411,797,790	3,766,700,041	3,780,680,743
5	Small Hydro	687,507,968	617,165,151	1,074,820,085	1,245,082,718	676,086,873	654,284,445	576,597,674	733,979,892	1,112,671,500
6	Solar PV	6,063	4,200	3,931	2,756	669	603	21,705,719	58,593,256	178,807,762
7	Solar Thermal	0	0	0	0	0	0	0	0	0
8	Wind	940,239,295	1,078,578,721	1,060,926,340	1,019,450,771	1,374,336,894	1,439,796,356	2,557,988,129	2,981,659,686	4,253,963,254
9	UOG Small Hydro	1,382,934,000	1,267,084,000	1,403,129,674	1,437,196,485	984,606,887	993,266,246	1,103,017,000	1,157,077,000	1,254,637,602
10	UOG Solar	0	0	0	0	225,384	445,453	504,000	4,642,000	28,028,052
11	Unbundled RECs	0	0	0	0	0	0	0	0	0
12	Total CPUC-Approved RPS-Eligible Procurement and Generation [Sum of Rows 2 through 11]	7,889,929,411	8,011,404,731	8,451,397,535	8,563,943,393	8,782,186,917	9,531,886,240	11,083,764,164	11,968,570,607	13,920,695,189

Table Notes

- Energy volumes reported in Rows 2 – 8 of this table represent the kWh associated with payments for RPS -eligible deliveries, which can differ from the energy volumes PG&E claims for the purposes of complying with California's RPS program. For example, some RPS contracts require PG&E to only pay for RPS-eligible deliveries based on scheduled energy, but entitle PG&E to all green attributes generated and metered by the facility. Since compliance with California's RPS program is based on metered generation, scheduled/paid volumes may not always match the metered/compliance volumes.
- Energy volumes reported in the UOG Small Hydro category (Row 9) were not used to calculate the forecasted cost of UOG Small Hydro. As described on page 83 of PG&E's 2012 Renewable Energy Procurement Plan filed on August 15, 2012, the costs of UOG Small Hydro are a function of annualized capacity costs and historical O&M costs, not an energy forecast.
- Energy volumes reported in Row 5 of this table do not include the kWh associated with payments for RPS-eligible deliveries from Irrigation Districts and Water Agencies other than Solano Irrigation District. The reason for this exclusion is described on pages 82 and 83 of PG&E's 2012 Renewable Energy Procurement Plan filed on August 15, 2012.

Table Description: The table displays PG&E's (kWh) future contract quantities associated with its cost forecast filed on August 15, 2012 in PG&E's update to its 2012 RPS Plan. (Joint IOU Cost Quantification Table 2 of Appendix 2)

		Future Contract Quantities from Signed RPS Contracts (kWh)								
1	Executed But Not CPUC-Approved RPS-Eligible Contracts	2012	2013	2014	2015	2016	2017	2018	2019	2020
2	Biogas	0	0	0	0	0	0	0	0	0
3	Biomass	179,031,474	178,436,407	159,627,518	139,444,168	139,895,719	139,554,506	139,547,008	139,436,405	54,159,424
4	Geothermal	65,125,479	91,712,548	100,232,548	108,752,548	117,576,000	125,792,548	127,800,000	127,800,000	128,150,137
5	Small Hydro	0	0	0	0	0	0	0	0	0
6	Solar PV	0	0	0	0	0	0	0	0	0
7	Solar Thermal	0	0	0	29,408,995	448,934,257	447,999,284	447,999,284	447,999,284	448,934,257
8	Wind	0	0	0	0	0	0	0	0	0
9	UOG Small Hydro	0	0	0	0	0	0	0	0	0
10	UOG Solar	0	0	0	0	0	0	0	0	0
11	Unbundled RECs	275,000,011	274,999,998	274,999,998	99,999,997	0	0	0	0	0
12	Total Executed But Not CPUC-Approved RPS-Eligible Deliveries [Sum of Rows 2 through 11]	519,156,964	545,148,953	534,860,064	377,605,708	706,405,976	713,346,338	715,346,292	715,235,689	631,243,818
15	CPUC-Approved RPS-Eligible Contracts (Incl. RAM/FIT/PV Contracts)	2012	2013	2014	2015	2016	2017	2018	2019	2020
16	Biogas	169,583,146	154,216,804	132,460,655	276,267,066	296,406,878	294,933,990	294,893,194	294,169,516	294,359,374
17	Biomass	3,169,334,628	3,366,466,398	3,393,963,326	3,139,806,224	3,027,487,249	2,477,657,322	2,087,982,076	1,704,361,306	1,052,302,378
18	Geothermal	3,625,721,759	3,689,292,226	3,688,670,676	3,687,704,235	3,694,311,523	3,683,557,469	2,149,948,681	2,149,343,547	2,154,675,845
19	Small Hydro	774,793,850	898,406,329	850,749,837	813,530,270	708,166,903	545,669,758	538,400,206	483,704,728	384,054,474
20	Solar PV	1,106,676,671	3,813,434,513	5,245,958,908	5,696,170,712	5,748,628,975	5,696,161,864	5,657,266,543	5,618,649,262	5,593,217,033
21	Solar Thermal	0	155,318,140	1,217,938,794	2,916,321,910	3,539,124,998	4,354,148,544	4,645,981,583	4,645,981,583	4,654,857,570
22	Wind	4,848,600,183	5,499,852,610	6,056,704,791	5,931,930,679	5,597,914,766	5,429,825,421	5,352,442,109	5,060,492,663	5,056,637,020
23	UOG Small Hydro	1,395,285,860	1,476,262,425	1,448,438,404	1,438,125,572	1,451,211,271	1,447,126,220	1,450,031,725	1,452,158,663	1,456,048,126
24	UOG Solar	190,698,049	235,902,039	344,499,966	452,555,902	540,352,881	536,436,867	533,754,870	531,086,877	529,624,882
25	Unbundled RECs	0	0	0	0	0	0	0	0	0
26	Total CPUC-Approved RPS-Eligible Deliveries [Sum of Rows 16 through 25]	15,280,694,145	19,289,151,483	22,379,385,356	24,352,412,572	24,603,605,444	24,465,517,454	22,710,700,988	21,939,948,145	21,175,776,700

* Energy reported in the UOG Small Hydro category (Row 23) was not used to calculate the forecasted cost of UOG Small Hydro. As described on page 84 of PG&E's 2012 Renewable Energy Procurement Plan filed on August 15, 2012, the costs of UOG Small Hydro are a function of annualized capacity costs and an escalated annual O&M expense, not an energy forecast.