



# The Padilla Report to the Legislature

Reporting 2013 Renewable Procurement Costs in Compliance with Senate Bill 836 (Padilla, 2011)



### I. ABOUT THIS REPORT

Senate Bill 836 (Public Utilities Code § 911) requires the California Public Utilities Commission ("CPUC" or "Commission") to report to the Legislature "the costs of all electricity procurement contracts for eligible renewable energy resources, including unbundled renewable energy credits, and all costs for utility-owned generation approved by the Commission. On March 15, 2013, the Energy Division released the second report on investor-owned utility (IOU) cost information for reporting year 2012. This report contains the IOU renewable procurement cost information for 2013 and revises the cost information for 2012 contained in the previous report.

### II. EXECUTIVE SUMMARY

#### 2013 PADILLA REPORT INFORMATION

- This report presents historical data on cost trends for calendar year 2013. See Section III.
- The weighted average <u>time-of-delivery (TOD)</u> adjusted¹ contract <u>price</u> was approximately 7.5 cents/kilowatt hour (kWh) for all contracts approved in 2013 (including renewable energy credit only, or REC only, transactions), and approximately 8.4 cents/kWh for bundled energy product (excluding REC only transactions).² The 2013 average RPS contract price is lower than the RPS contracts approved in 2012, which were 9.7 cents/kWh on average, because of price declines in the renewable market being reflected in lower priced contracts executed through the 2012 RPS solicitations and bilateral transactions.
- The weighted average <u>TOD</u> adjusted <u>RPS</u> procurement expenditures for 2013 was approximately 8.9 cents/kWh (including REC only transactions), and approximately 9.2 cents /kWh for bundled energy product (excluding REC only transactions). As forecasted in prior reports the RPS procurement expenditures for 2013 are higher than the RPS procurement expenditures in 2012, which cost 7.8 cents/kWh on average for bundled energy product (excluding REC only transactions). 2013 procurement expenditures are higher than procurement expenditures in prior years as a result of high priced contracts from 2008 and 2009 achieving operation.
- Contract prices for 2013 show a steady decline from the prices in prior years (2003-2012). The
  downward trending prices prove that the renewable market in California is robust and
  competitive, and has matured since the start of the RPS program.

<sup>1</sup> Actual renewable energy payments are based on the contract price multiplied by the IOU Time-of-Delivery (TOD) factors according to when the RPS facility actually generates electricity. TOD-adjustments effectively allocate higher costs to power supplied during on-peak hours and lower costs to power supplied during the off-peak hours.

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<sup>&</sup>lt;sup>2</sup> Bundled refers to contracts where the utility procures electricity from an RPS-eligible resource and the REC associated with the renewable electricity.

## REVISITING RESULTS OF THE 2012 PADILLA REPORT

- Due to the early report deadline for the Padilla Report, the utility self-reported data used in the 2012 Padilla Report contained some forecasted cost information for September December 2012. Energy Division staff have revised the information from the 2012 Padilla Report to reflect the actual procurement expenditures for 2012.
- The weighted average TOD-adjusted <u>RPS procurement expenditures from 2012</u> increased from approximately 7.6 cents/kWh in the 2012 Padilla Report to approximately 7.8 cents/kWh.

## III. 2013 PADILLA REPORT INFORMATION

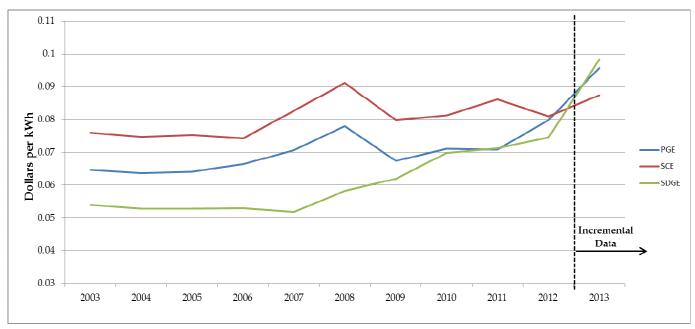
Tables A-1 and A-2 in Attachment A present the 2013 weighted average TOD-adjusted RPS procurement expenditures in 2013. Specifically Table A-1 includes all procurement expenditure information for all RPS eligible projects, including contracts for the procurement of only renewable energy credits, or REC only, transactions for 2013. In contrast, Table A-2 presents the same procurement expenditure information as Table A-1, but for bundled energy projects only (contracts that only provide RECs are not included). Pursuant to confidentiality rules in Public Utilities (Pub. Util.) Code § 911 and D.06-06-066, some of the costs in Attachment A have been redacted.

Tables B-1 and B-2 in Attachment B present the 2013 weighted average TOD-adjusted contract price of RPS contracts approved by the CPUC in 2013. Specifically Table B-1 includes all contract price information for all RPS eligible projects, including contracts for the procurement of only renewable energy credits, or REC only, transactions for 2013. In contrast, Table B-2 presents the same contract price information as Table B-1, but for bundled energy contracts only (contracts that only provide RECs are not included). Pursuant to confidentiality rules in Public Utilities (Pub. Util.) Code § 911 and D.06-06-066, some of the costs in Attachment B have been redacted.

Figure 1 on the next page illustrates the annual weighted average TOD-adjusted RPS procurement expenditure for bundled renewable energy in dollars per kilowatt hours (\$/kWh) for each of the investor-owned utilities (IOUs): Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E).

The key factor driving the cost differences between the utilities is the resource mix of RPS-eligible resources within an IOU's portfolio. It is important to note that these the resource mix will change over time as renewable prices and IOUs' RPS portfolios change over time. The increase in procurement expenditures for 2013 is attributed to 44 additional projects, with an average price of 13.8 cents per kWh, achieving commercial operation. These 44 projects accounted for approximately 3.5% of the total bundled RPS generation in 2013. The contracts for the projects that came online in 2013 where largely executed between 2008 and 2010; as noted above, prices for contracts approved in 2013 are declining.

Figure 1. Weighted Average TOD-Adjusted RPS Procurement Expenditures of Bundled Renewable Energy by Year (2003 – 2013)



From 2003 to 2013, the average TOD-adjusted price of contracts approved by the CPUC has increased from 5.4 cents to 8.4 cents/kWh in nominal dollars, or 8.0 cents to 8.4 cents/kWh in real dollars.<sup>3</sup> One reason for this increase is that the IOUs contracted with existing renewable facilities at the beginning of the RPS program and with mostly new facilities in more recent years in order to meet the 20% and 33% RPS targets. These new facilities typically result in higher contract costs in order to recover the capital needed to develop new facilities.

RPS contract prices approved by the CPUC in 2013 are lower than the contracts approved in 2012 (8.1 in 2013 versus 9.9 cents in 2012). The lower contract prices are a result of projects selected from RPS solicitations in years 2010 – 2012, which reflect declining contract prices for renewable resources, on average.

### IV. REVISITING 2012 PADILLA REPORT INFORMATION

On March 15, 2013, the Energy Division released IOU cost information for the 2012 reporting year, however, due to the reporting deadlines under PU Code § 911 the utilities had not finalized meter settlement data for 2012. Thus, they were not able to provide procurement expenditures.

As part of the 2013 Padilla reporting process, Energy Division staff requested the final procurement expenditures and contract pricing information for reporting year 2012, and have re-calculated weighted average \$/kWh prices and expenditures from the prior report.

<sup>&</sup>lt;sup>3</sup> The CUPC used the Handy- Whitman Index of Public Utility Construction Costs – Transmission Production Plant - Pacific region –bulletin #176 - to calculate the real dollar amounts for year 2013.

After using final meter settlement data, the 2012 weighted average TOD-adjusted RPS procurement expenditures increased from approximately 7.6 cents/kWh in the original report to approximately 7.8 cents/kWh.

Tables C-1 and C-2 in Attachment C illustrate the changes from the 2012 report.

## **ATTACHMENT A**

# REPORTING YEAR 2013 INVESTOR-OWNED UTILITY RPS PROCUREMENT EXPENDITURES PER SENATE BILL 836 (PUBLIC UTILITIES CODE § 911)

Tables A-1 and A-2 attached to this document show for each investor-owned utility (IOU) the weighted average TOD-adjusted RPS procurement expenditures for 2013. Per the confidentiality requirements in Public Utilities Code § 911, some of the data within this report is redacted. In addition:

- All procurement expenditure figures have been adjusted by time-of-delivery (TOD) factors since generators are paid based on the time that the facility delivers electricity, according to each IOU's TOD factors. For example, IOU TOD-factors place a premium on generation that occurs during peak demand hours. Therefore, generators that provide electricity during peak hours when electricity is more valuable receive a higher payment for electricity during that time period based on the TOD adjustment.
- The "Average RPS Procurement Expenditures" represent the total weighted average payments made to renewable generators for that year.
- Tables A-1 and A-2 were created using data provided by the IOUs. Given that 2013 data was provided prior to the finalization of meter settlement data, Tables A-1 through A-2 include some forecasted costs. 2013 data will be revised in the next Padilla Report (2015) to reflect actual costs based on meter settlement data.

Table A-1.Weighted Average TOD-Adjusted RPS Procurement Expenditures (All Projects – Including REC only transactions) for 2013 (\$/MWh)

	PG&E	SCE	SDG&E	Total		
Biogas				. • • • · ·		
0-3 MW	0.0761	0.0872	0.0972	0.0893		
+3-20 MW	Only 2 Contracts	0.0841	0.0652	0.0659		
+20-50 MW	Omy 2 contracts	Only 1 Contract	0.0032	Only 1 Contract		
Biogas Total	0.0594	0.0682	0.0793	0.0698		
Biomass						
0-3 MW	Only 2 Contracts			Only 2 Contracts		
+3-20 MW	0.0922		Only 1 Contract	0.0930		
+20-50 MW	0.1032		Only 1 Contract	0.1013		
+50-200 MW	Only 1 Contract		,	Only 1 Contract		
Biomass Total	0.0973		Only 2 Contracts	0.0967		
Geothermal						
0-3 MW	0.0498			0.0498		
+3-20 MW	Only 2 Contracts	0.0781		0.0811		
+20-50 MW	Only 1 Contract	0.0701	Only 2 Contracts	0.0760		
+50-200 MW	Only 1 Contract	0.0715		0.0676		
+200 MW	Only 1 Contract	Only 1 Contract		Only 2 Contracts		
Geothermal Total	0.0719	0.0675	Only 2 Contracts	0.0703		
Small Hydro						
0-3 MW	0.0714	0.0831	Only 1 Contract	0.0752		
+3-20 MW	0.0694	0.0888	Only 1 Contract	0.0719		
+20-50 MW	0.1002	Only 1 Contract		0.1005		
Small Hydro Total	0.0872	0.0891	Only 2 Contracts	0.0866		
Solar PV						
0-3 MW	0.1362	0.1654	Only 2 Contracts	0.1603		
+3-20 MW	0.1754	0.1237	0.0624	0.1637		
+20-50 MW	0.1345	Only 1 Contract	Only 2 Contracts	0.1015		
+50-200 MW	0.1344		0.1193	0.1270		
+200 MW	0.1587	0.0747		0.1561		
Solar PV Total	0.1518	0.1190	0.1039	0.1396		
Solar Thermal						
+3-20 MW		Only 1 Contract		Only 1 Contract		
+20-50 MW		0.1301		0.1301		
+50-200 MW	Only 2 Contracts	Only 2 Contracts		0.1395		
+200 MW	Only 1 Contract			Only 1 Contract		
Solar Thermal Total	0.1423	0.1348		0.1352		
Wind	0.0074	0.4.22		0.0550		
0-3 MW	0.0674	Only 2 Contracts	0.1.20	0.0558		
+3-20 MW	0.0570	0.0589	Only 2 Contracts	0.0593		
+20-50 MW	0.0753	0.0715	0.0396	0.0678		
+50-200 MW	0.0863	0.1078	0.0562	0.0892		
+200 MW	0.0040	0.1009	Only 1 Contract	0.1010		
Wind Total UOG Small Hydro	0.0840	0.0977	0.0610	0.0868		
0-3 MW		0.1238		0.1238		
+3-20 MW	0.0455	0.1238		0.0527		
+20-30 MW	0.0585	0.1238		0.0898		
UOG Small Hydro Total	<b>0.0460</b>	0.1238 <b>0.1238</b>		0.0571		
UOG Solar PV	0.0.00	0.1200		0.00, 1		
0-3 MW	0.3066	0.4700		0.4517		
+3-20 MW	0.1595	0.4700		0.1801		
UOG Solar PV Total	0.1621	0.4700		<b>0.2165</b>		
Total	0.0942	0.0874	0.0771	0.0892		

Table A-2.Weighted Average TOD-Adjusted RPS Procurement Expenditures (Bundled Energy Only) for 2013 (\$/MWh)

	PG&E	SCE	SDG&E	Total
Biogas				
0-3 MW	0.0761	0.0872	0.0972	0.0893
+3-20 MW	Only 2 Contracts	0.0841	0.0652	0.0659
+20-50 MW		Only 1 Contract		Only 1 Contract
Biogas Total	0.0594	0.0682	0.0793	0.0698
Biomass				
0-3 MW	Only 1 Contract			Only 1 Contract
+3-20 MW	0.0922		0.1000	0.0930
+20-50 MW	0.1032		0.0910	0.1013
+50-200 MW	Only 1 Contract			Only 1 Contract
Biomass Total	0.0993		0.0925	0.0985
Geothermal				
0-3 MW	0.0498			0.0498
+3-20 MW	Only 2 Contracts	0.0781		0.0811
+20-50 MW	Only 1 Contract	0.0701	Only 2 Contracts	0.0760
+50-200 MW	Only 1 Contract	0.0715		0.0676
+200 MW	Only 1 Contract	Only 1 Contract	Out 2 Contracts	Only 2 Contracts
Geothermal Total	0.0719	0.0675	Only 2 Contracts	0.0703
Small Hydro 0-3 MW	0.0714	0.0831	0.1124	0.0752
+3-20 MW	0.0714	0.0888	0.1124	0.0752
+20-50 MW	0.1002	Only 1 Contract	0.0320	0.1005
Small Hydro Total	0.0872	0.0891	0.0530	<b>0.0866</b>
Solar PV	0.0672	0.0031	0.0330	0.0000
0-3 MW	0.1362	0.1654	Only 2 Contracts	0.1603
+3-20 MW	0.1754	0.1237	0.0624	0.1637
+20-50 MW	0.1345	Only 1 Contract	Only 1 Contract	0.1338
+50-200 MW	0.1344	J, 2 Jointage	0.1193	0.1270
+200 MW	0.1587	0.0747	3.2.33	0.1561
Solar PV Total	0.1518	0.1190	0.1212	0.1441
Solar Thermal				
+3-20 MW		Only 1 Contract		Only 1 Contract
+20-50 MW		0.1301		0.1301
+50-200 MW	Only 2 Contracts	Only 2 Contracts		0.1395
+200 MW	Only 1 Contract			Only 1 Contract
Solar Thermal Total	0.1423	0.1348		0.1352
Wind				
0-3 MW	0.0674	Only 2 Contracts		0.0558
+3-20 MW	0.0570	0.0589	Only 2 Contracts	0.0593
+20-50 MW	0.0753	0.0715	Only 2 Contracts	0.0715
+50-200 MW	0.0908	0.1078	0.0899	0.0987
+200 MW		0.1009	Only 1 Contract	0.1010
Wind Total	0.0877	0.0977	0.0897	0.0935
UOG Small Hydro		0.4220		0.4220
0-3 MW	0.0455	0.1238		0.1238
+3-20 MW	0.0455	0.1238		0.0527
+20-30 MW	0.0585 <b>0.0460</b>	0.1238		0.0898
UOG Small Hydro Total UOG Solar PV	U.U40U	0.1238		0.0571
0-3 MW	0.3066	0.4700		0.4517
+3-20 MW	0.1595	0.4700		0.4517
UOG Solar PV Total	<b>0.1595 0.1621</b>	0.4700 <b>0.4700</b>		<b>0.1601</b> <b>0.2165</b>
			0.0002	
Total	0.0958	0.0874	0.0983	0.0923

## **ATTACHMENT B**

# REPORTING YEAR 2013 CONTRACT PRICE DATA PER SENATE BILL 836 (PUBLIC UTILITIES CODE § 911)

Tables B-1 and B-2 attached to this document show for each investor-owned utility (IOU) the weighted average TOD-adjusted contract price of all RPS contracts approved by the CPUC during 2013. Per the confidentiality requirements in Public Utilities Code § 911, some of the data within this report is redacted. In addition:

- Contract prices were redacted if a) the power purchase agreement (PPA) is not already public on the CPUC's website per the CPUC's confidentiality rules, and b) there were less than three facilities in each category. If there was only one facility in a category and its PPA is publicly available on the CPUC's website, then the price information for that facility is reported. In addition, all qualifying facility (QF) contracts that do not require CPUC approval, feed-in tariff contracts, contracts with municipal governments, and utility-owned generation (UOG) costs are public and reported.
- Contract prices and procurement expenditures represent weighted averages on a per kilowatt hours basis. All figures are in nominal dollars.
- All contract price figures have been adjusted by time-of-delivery (TOD) factors since generators are
  paid based on the time that the facility delivers electricity, according to each IOU's TOD factors.
  For example, IOU TOD-factors place a premium on generation that occurs during peak demand
  hours. Therefore, generators that provide electricity during peak hours when electricity is more
  valuable receive a higher payment for electricity during that time period based on the TOD
  adjustment.
- The "Average Price of Contracts Approved" include all CPUC approved contracts except contracts
  that were subsequently terminated. Specifically, it includes facilities that are operating or in
  development; it does not include executed contracts that are pending approval and it does not
  include RPS contracts approved prior to 2003.

Table B-1.Weighted Average TOD-Adjusted Price of All Renewable Energy Contracts Approved (All Projects – Including REC only transactions) for 2013 (\$/MWh)

	PG&E	SCE	SDG&E	Total
Biogas				
0-3 MW	Only 1 Contract			Only 1 Contract
Biogas Total	Only 1 Contract			Only 1 Contract
Biomass				
0-3 MW	Only 1 Contract			Only 1 Contract
Biomass Total	Only 1 Contract			Only 1 Contract
Small Hydro				
+3-20 MW			Only 1 Contract	Only 1 Contract
+20-50 MW	Only 2 Contracts			Only 2 Contracts
Small Hydro Total	Only 2 Contracts		Only 1 Contract	0.0559
Solar PV				
0-3 MW		0.1271	0.1188	0.1267
+3-20 MW	0.0844	0.0805	0.0693	0.0798
+20-50 MW			Only 1 Contract	Only 1 Contract
Solar PV Total	0.0844	0.0923	0.0372	0.0823
Wind				
+3-20 MW	Only 1 Contract	0.0673	0.0706	0.0697
+50-200 MW		Only 1 Contract		Only 1 Contract
Wind Total	Only 1 Contract	0.0782	0.0706	0.0773
<b>Grand Total</b>	0.0552	0.0885	0.0449	0.0758

Table B-2.Weighted Average TOD-Adjusted Price of All Renewable Energy Contracts Approved (Bundled Energy Only) for 2013

	PG&E	SCE	SDG&E	Total
Biogas				
0-3 MW	Only 1 Contract			Only 1 Contract
Biogas Total	Only 1 Contract			Only 1 Contract
Small Hydro				
+3-20 MW			Only 1 Contract	Only 1 Contract
+20-50 MW	Only 2 Contracts			Only 2 Contracts
Small Hydro Total	Only 2 Contracts		Only 1 Contract	0.0559
Solar PV				
0-3 MW		0.1271	0.1188	0.1267
+3-20 MW	0.0844	0.0805	0.0693	0.0798
Solar PV Total	0.0844	0.0923	0.0751	0.0900
Wind				
+3-20 MW	Only 1 Contract	0.0673	0.0706	0.0697
+50-200 MW		Only 1 Contract		Only 1 Contract
Wind Total	Only 1 Contract	0.0782	0.0706	0.0773
Grand Total	0.0672	0.0885	0.0745	0.0835

## **ATTACHMENT C**

## REVISED 2012 INVESTOR-OWNED UTILITY RPS PROCUREMENT EXPENDITURES PER SENATE BILL 836 (PUBLIC UTILITIES CODE § 911)

Tables C-1 through C-2 attached to this document show for each investor-owned utility (IOU) the weighted average TOD-adjusted RPS procurement expenditures for 2012. Per the confidentiality requirements in Public Utilities Code § 911, some of the data within this report is redacted. In addition:

- All procurement expenditure figures have been adjusted by time-of-delivery (TOD) factors since generators are paid based on the time that the facility delivers electricity, according to each IOU's TOD factors. For example, IOU TOD-factors place a premium on generation that occurs during peak demand hours. Therefore, generators that provide electricity during peak hours when electricity is more valuable receive a higher payment for electricity during that time period based on the TOD adjustment.
- The "Average RPS Procurement Expenditures" represent the total weighted average payments made to renewable generators for that year.
- Tables C-1 and C-2 compare RPS procurement expenditures calculated the 2013 Padilla Report with information calculated using the final meter settlement data. A column titled "Differential" subtracts the results from the final meter data from the results presented in last year's report. A positive number indicates that the final meter data is higher than the original information, while a negative number indicates that the final meter data is lower than the forecasted information in the 2013 report.
- Tables C-1 and C-2 were created using data provided by the IOUs. Given that 2013 data was provided prior to the finalization of meter settlement data, Tables A-1 through A-4 include some forecasted costs. 2013 data will be revised in the next Padilla Report (2015) to reflect actual costs based on meter settlement data.

Table A-5. 2012 Weighted Average TOD-Adjusted RPS Procurement Expenditures (All Projects – Including REC only transactions)<sup>4</sup>

		PG&E			SCE			SDG&E			Totals	
	Original Report	Final Meter Data	Differential	Original Report	Final Meter Data	Differential	Original Report	Final Meter Data	Differential	Original Report	Final Meter Data	Differential
Biogas												
0-3 MW	0.0595	0.0595	0.0001	0.0863	0.0855	(0.0008)	0.0787	0.0787	0.0000	0.0752	0.0754	0.0001
+3-20 MW	0.0383	0.0383	0.0000	0.0871	0.0849	(0.0022)	0.0558	0.0558	0.0000	0.0581	0.0581	0.0000
+20-50 MW				0.0682	Only 1 Contract	NA				Only 1 Contract	Only 1 Contract	NA
Biogas Total	0.0477	0.0476	(0.0000)	0.0721	0.0704	(0.0017)	0.0648	0.0648	0.0000	0.0666	0.0658	(0.0008)
Biomass												
0-3 MW	Only 1 Contract	Only 2 Contracts	NA							Only 1 Contract	Only 2 Contracts	NA
+3-20 MW	0.0869	0.0882	0.0013				Only 2 Contracts	Only 2 Contracts	0.0000	0.0787	0.0798	0.0011
+20-50 MW	0.0986	0.0987	0.0001	0.0717	0.0717	0.0000	Only 1 Contract	Only 1 Contract	0.0000	0.0935	0.0936	0.0001
+50-200 MW	0.1017	0.1015	(0.0002)							Only 1 Contract	Only 1 Contract	NA
Biomass Total	0.0960	0.0934	(0.0026)	0.0717	0.0717	0.0000	0.0625	0.0625	0.0000	0.0906	0.0886	(0.0020)
Geothermal												
0-3 MW	Only 2 Contracts	Only 2 Contracts	NA							Only 2 Contracts	Only 2 Contracts	NA
+3-20 MW				0.0748	0.0732	(0.0016)				0.0748	0.0732	(0.0016)
+20-50 MW	Only 1 Contract	Only 1 Contract	NA	0.0744	0.0727	(0.0017)	0.0889	0.0866	(0.0023)	0.0785	0.0766	(0.0019)
+50-200 MW	0.0526	0.0497	(0.0029)	0.0750	0.0739	(0.0011)	Only 1 Contract	Only 1 Contract	NA	0.0671	0.0658	(0.0013)
+200 MW	Only 1 Contract	Only 1 Contract	NA	0.0454	Only 1 Contract	NA		,		Only 2 Contracts		NA
Geothermal Total	0.0569	0.0551	(0.0018)	0.0667	0.0658	(0.0009)	0.0856	0.0840	(0.0016)	0.0650	0.0638	(0.0012)
Small Hydro			(0.000)			(5.5555)			(0.0020)	0.0000		(0.0000)
0-3 MW	0.0620	0.0619	(0.0001)	0.0786	0.0784	(0.0002)				0.0669	0.0669	0.0000
+3-20 MW	0.0513	0.0662	0.0149	0.1031	0.1015	NA	0.0507	0.0507	NA	0.0574	0.0731	0.0156
Small Hydro Total	0.0527	0.0652	0.0125	0.0953	0.0942	(0.0012)	0.0507	0.0507	NA	0.0589	0.0716	0.0126
Solar PV	0.0327	0.0002	0.0223	0.0333	0.03.12	(0.0022)	0.000	0.0307		0.0000	0.07.20	0.0120
0-3 MW	Only 2 Contracts	0.1028	NA	0.1934	0.1883	(0.0051)				0.1934	0.1878	(0.0057)
+3-20 MW	0.2324	0.2315	(0.0009)		Only 1 Contract	NA				0.2320	0.2309	(0.0012)
+20-50 MW	Only 1 Contract	0.1611	NA	0.1150	Only 1 Contract	NA	Only 1 Contract	Only 1 Contract	NA	0.1478	0.1463	(0.0012)
+50-200 MW	Only 2 Contracts	0.1530	NA	0.1150	Only 1 contract	1474	•	Only 1 Contract	NA NA	0.1533	0.1529	(0.0013)
+200 MW	Only 2 Contracts	0.1777	NA				Omy 1 contract	Omy 1 contract	IVA	Only 2 Contracts	0.1777	NA
Solar PV Total	0.1747	0.1753	0.0006	0.1416	0.1388	(0.0029)	Only 2 Contracts	Only 2 Contracts	NA	0.1726	0.1728	0.0002
Solar Thermal	0.1747	0.1755	0.0000	0.1410	0.1300	(0.0025)	Omy 2 contracts	Omy 2 contracts	IVA	0.1720	0.1720	0.0002
+3-20 MW				Only 2 Contracts	Only 2 Contracts	NA				Only 2 Contracts	Only 2 Contracts	NA
+20-50 MW				0.1132	0.1134	0.0002				0.1132	0.1134	0.0002
+50-200 MW					Only 2 Contracts	NA				Only 2 Contracts		0.0002 NA
Solar Thermal Total				0.1173	0.1169	(0.0003)				0.1173	0.1169	(0.0003)
Wind				0.1173	0.1103	(0.0003)				0.1173	0.1103	(0.0003)
0-3 MW	0.0661	0.0661	0.0000	0.0404	Only 2 Contracts	NA				0.0481	0.0477	(0.0005)
+3-20 MW	0.0468	0.0468	(0.0000)	0.0515	0.0499	(0.0016)	Only 2 Contracts	Only 2 Contracts	NA	0.0517	0.0506	(0.0003)
+20-50 MW	0.0730	0.0730	(0.0000)	0.0645	0.0641	(0.0010)	0.0424	0.0424	0.0000	0.0634	0.0632	(0.0010)
+50-200 MW	0.0750	0.0730	(0.0000)	0.0645	0.1002	(0.0004)	0.0424	0.0424	0.0000	0.0838	0.0832	(0.0003)
+30-200 NVV	Only 1 Contract	Only 1 Contract	(0.0016) NA	0.1019	0.1002	0.0000		Only 1 Contract	0.0000 NA	0.0982	0.0832	(0.0006)
+200 IVIVV Wind Total	0.0829	0.0807	(0.0022)	0.1005	0.1006	(0.0000)	0.0401	0.0401	0.0000	0.0982	0.0957 <b>0.0795</b>	(0.0025) (0.0005)
UOG Small Hydro	0.0623	0.0007	(0.0022)	0.0665	0.0004	(0.0000)	0.0401	0.0401	0.0000	0.0800	0.0793	(0.0003)
0-3 MW					0.1238	0.1238					0.1238	0.1238
+3-20 MW	0.0415	0.0424	0.0009	0.0390	0.1238	0.1238				0.0407	0.1236	0.1238
+3-20 MW	0.0415	0.0424	0.0009	0.0590	Only 1 Contract	0.0848 NA				0.0407	0.0526	0.0118
	0.0272 <b>0.0393</b>	0.0425	0.0153	0.0390	0.1238	0.0848				0.0272 <b>0.0392</b>	0.0808 <b>0.0594</b>	0.0537 <b>0.0202</b>
UOG Small Hydro Total	0.0393	0.0424	0.0031	0.0390	U.1238	0.0848				0.0392	0.0594	0.0202
UOG Solar PV	0.3511	0.2220	0.0010	0.3531	0.8001	0.5380				0.2207	0.9144	0.4747
0-3 MW	0.2511	0.3330	0.0818	0.3521	0.8901	0.5380				0.3397	0.8144	
+3-20 MW	0.1633 <b>0.1655</b>	0.1631	(0.0001)	0.2675	0.8901	0.6227				0.1699	0.1737	0.0038
	11 1655	0.1675	0.0020	0.3295	0.8901	0.5606				0.1980	0.2763	0.0782
UOG Solar PV Total Total	0.0789	0.0792	0.0003	0.0786	0.0817	0.0031	0.0586	0.0582	(0.0005)	0.0768	0.0783	0.0016

<sup>&</sup>lt;sup>4</sup> The average price of SCE's UOG Solar PV is inflated because there were 13 UOG projects in 2012 that had expenditures but did not produce any electricity. Energy Division staff expect this number to decrease in future reports.

Table A-6. Weighted Average TOD-Adjusted RPS Procurement Expenditures (Bundled Energy Only) for 2012 (\$/MWh)<sup>5</sup>

		PG&E			SCE			SDG&E			Totals	
	Original Report	Final Meter Data	Differential	Original Report	Final Meter Data	Differential	Original Report	Final Meter Data	Differential	Original	Refresh	Differential
Biogas												
0-3 MW	0.0595	0.0595	0.0001	0.0863	0.0855	(0.0008)	0.0787	0.0787	0.0000	0.0752	0.0754	0.0001
+3-20 MW	0.0383	0.0383	0.0000	0.0871	0.0849	(0.0022)	0.0558	0.0558	0.0000	0.0581	0.0581	0.0000
+20-50 MW				0.0682	Only 1 Contract	NA				Only 1 Contract	Only 1 Contract	NA
Biogas Total	0.0477	0.0476	0.0000	0.0721	0.0704	(0.0017)	0.0648	0.0648	0.0000	0.0666	0.0658	(0.0008)
Biomass						•						
0-3 MW	Only 1 Contract	Only 1 Contract	NA							Only 1 Contract	Only 1 Contract	NA
+3-20 MW	0.0869	0.0882	0.0013				Only 1 Contract	Only 1 Contract	NA	0.0877	0.0889	0.0012
+20-50 MW	0.0986	0.0987	0.0001	0.0717	0.0717	0.0000	-	Only 1 Contract	NA	0.0935	0.0936	0.0001
+50-200 MW	0.1017	0.1015	-0.0002	0.0717	0.0717	0.0000	Omy 1 contract	omy 2 contract		Only 1 Contract		NA
Biomass Total	0.0960	0.0964	0.0004	0.0717	0.0717	0.0000	Only 2 Contracts	Only 2 Contracts	NA	0.0930	0.0934	0.0003
Geothermal	0.0300	0.050.	0.0001	0.0727	0.07.27	0.0000	J, 2 contracts	0, 2 00		0.0550	0.030	0.0000
0-3 MW	Only 2 Contracts	Only 2 Contracts	NA							Only 2 Contracts	Only 2 Contracts	NA
+3-20 MW	Offity 2 Contracts	Offity 2 Contracts	NA	0.0748	0.0732	(0.0016)				0.0748	0.0732	(0.0016)
+20-50 MW	Only 1 Contract	Only 1 Contract	NA NA	0.0748	0.0732	(0.0010)	0.0889	0.0866	(0.0023)	0.0748	0.0766	(0.0010)
+50-200 MW	0.0526	0.0497	(0.0029)	0.0750	0.0727	(0.0017)		Only 1 Contract	(0.0023) NA	0.0671	0.0658	(0.0013)
+30-200 MW				0.0454		(0.0011) NA	Only 1 Contract	Only 1 Contract	INA			(0.0013) NA
	Only 1 Contract	Only 1 Contract	NA		Only 1 Contract		0.0056	0.0040	(0.0045)	Only 2 Contracts		
Geothermal Total	0.0569	0.0551	-0.0018	0.0667	0.0658	(0.0009)	0.0856	0.0840	(0.0016)	0.0650	0.0638	(0.0012)
Small Hydro	0.0000	0.0540	0.0004	0.0705	0.0704	(0.0000)				0.0550	0.0550	0.0000
0-3 MW	0.0620	0.0619	-0.0001	0.0786	0.0784	(0.0002)				0.0669	0.0669	0.0000
+3-20 MW	0.0513	0.0662	0.0149	0.1031	0.1015	(0.0017)	0.0507	0.0507	0.0000	0.0574	0.0731	0.0156
Small Hydro Total	0.0527	0.0652	0.0125	0.0953	0.0942	(0.0012)	0.0507	0.0507	0.0000	0.0589	0.0716	0.0126
Solar PV												
0-3 MW	Only 2 Contracts	0.1028	NA	0.1934	0.1883	(0.0051)				0.1934	0.1878	(0.0057)
+3-20 MW	0.2324	0.2315	-0.0009		Only 1 Contract	NA				0.2320	0.2309	(0.0012)
+20-50 MW	Only 1 Contract	0.1611	NA	0.1150	Only 1 Contract	NA		Only 1 Contract	NA	0.1478	0.1463	(0.0015)
+50-200 MW	Only 2 Contracts	0.1530	NA				Only 1 Contract	Only 1 Contract	NA	0.1533	0.1529	(0.0004)
+200 MW	Only 2 Contracts	0.1777	NA							Only 2 Contracts	0.1777	NA
Solar PV Total	0.1747	0.1753	0.0006	0.1416	0.1388	(0.0029)	Only 2 Contracts	Only 2 Contracts	NA	0.1726	0.1728	0.0002
Solar Thermal												
+3-20 MW				Only 2 Contract	s Only 2 Contracts	NA				Only 2 Contracts	Only 2 Contracts	NA
+20-50 MW				0.1132	0.1134	0.0002				0.1132	0.1134	0.0002
+50-200 MW				Only 2 Contract	s Only 2 Contracts	NA				Only 2 Contracts	Only 2 Contracts	NA
Solar Thermal Total				0.1173	0.1169	(0.0003)				0.1173	0.1169	(0.0003)
Wind												
0-3 MW	0.0661	0.0661	0.0000	0.0404	Only 2 Contracts	NA				0.0481	0.0477	(0.0005)
+3-20 MW	0.0468	0.0468	0.0000	0.0515	0.0499	(0.0016)	Only 2 Contracts	Only 2 Contracts	NA	0.0517	0.0506	(0.0010)
+20-50 MW	0.0730	0.0730	0.0000	0.0645	0.0641	(0.0004)		Only 2 Contracts	NA	0.0658	0.0656	(0.0003)
+50-200 MW	0.0859	0.0848	-0.0011	0.1019	0.1002	(0.0017)	0.0605	0.0605	0.0000	0.0909	0.0902	(0.0007)
+200 MW	Only 1 Contract	Only 1 Contract	NA	0.1005	0.1002	(0.0017)		Only 1 Contract	NA NA	Only 2 Contracts	0.0957	NA
Wind Total	0.0829	0.0811	-0.0018	0.0885	0.0884	(0.0000)	0.0616	0.0616	0.0000	0.0829	0.0842	0.0013
UOG Small Hydro	UIUULJ	0.0011	0.0010	0.0003	0.0004	(0.0000)	0.0010	0.0010	0.0000	0.0025	0.0072	0.0013
0-3 MW					0.1238	0.1238					0.1238	0.1238
+3-20 MW	0.0415	0.0424	0.0009	0.0390	0.1238	0.1238				0.0407	0.1238	0.1238
+3-20 MW +20-30 MW	0.0415	0.0424	0.0009	0.0390		0.0848 NA				0.0407	0.0526	0.0118
				0.0300	Only 1 Contract							0.0537 <b>0.0202</b>
UOG Small Hydro Total	0.0393	0.0424	0.0031	0.0390	0.1238	0.0848				0.0392	0.0594	0.0202
UOG Solar PV	0.2544	0.2220	0.0040	0.3534	0.0004	0.5200				0.2207	0.0444	0.4747
0-3 MW	0.2511	0.3330	0.0818	0.3521	0.8901	0.5380				0.3397	0.8144	0.4747
+3-20 MW	0.1633	0.1631	(0.0001)	0.2675	0.8901	0.6227				0.1699	0.1737	0.0038
UOG Solar PV Total	0.1655	0.1675	0.0020	0.3295	0.8901	0.5606				0.1980	0.2763	0.0782
Total	0.0789	0.0799	0.0010	0.0786	0.0817	0.0031	0.0752	0.0745	(0.0007)	0.0777	0.0804	0.0027

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<sup>&</sup>lt;sup>5</sup> The average price of SCE's UOG Solar PV is inflated because there were 13 UOG projects in 2012 that had expenditures but did not produce any electricity. Energy Division staff expect this number to decrease in future reports.