

**Appendix C1: Renewable Net Short Calculation**  
**Net Short Calculation Using PG&E Bundled Retail Sales Forecast In Near Term (2012 - 2016) and LTPP Methodology (2017 - 2030)\*\***

Line #	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	(Redacted)																			
2	<b>Voluntary Margin of Over-Procurement (GWh)</b>																			
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	14,473	14,576	18,548	21,930	24,435	24,752	25,075	23,444	22,715	22,088	21,640	19,313	18,987	18,722	18,596	17,981	17,635	17,531	16,948	16,887
5	19.3%					32.0%	32.7%	30.6%	29.6%	28.7%	28.1%	25.0%	24.5%	24.1%	23.9%	23.1%	22.6%	22.4%	21.6%	21.5%
6	<b>Gross Surplus/(Deficit) compared to Annual Targets* (GWh)</b>																			
7	(500)					5,413	4,373	1,229	(1,059)	(3,309)	(3,807)	(6,185)	(6,562)	(6,877)	(7,055)	(7,721)	(8,119)	(8,274)	(8,909)	(9,022)
8	<b>Volumes (Banked) or Withdrawn from Bank</b>																			
9	0					(5,413)	(4,373)	(1,229)	1,059	3,309	3,807	6,185	6,562	4,527	0	0	0	0	0	0
10	<b>Net Surplus/(Deficit) (GWh)</b>																			
11	(500)					0	0	0	0	0	0	0	0	(2,351)	(7,055)	(7,721)	(8,119)	(8,274)	(8,909)	(9,022)
12	<b>Net Annual RPS Positions (%) with Use of Bank</b>																			
13	19.3%					25.0%	27.0%	29.0%	31.0%	33.0%	33.0%	33.0%	33.0%	30.0%	23.9%	23.1%	22.6%	22.4%	21.6%	21.5%
14	<b>Cumulative Banked Volumes (GWh)</b>																			
15	0					14,434	19,847	24,220	25,448	24,389	21,080	17,273	11,088	4,527	0	0	0	0	0	0
16	Forecast Failure Rate (%) for New Projects not yet online																			
17	0.0%	0.0%	0.0%	1.0%	4.0%	13.2%	20.4%	20.0%	20.1%	19.8%	19.9%	19.9%	20.0%	20.1%	20.1%	20.2%	20.2%	20.4%	20.4%	20.4%
18	Forecast Failure Rate (%) for Existing Generation																			
19	0.0%	1.8%	2.3%	1.6%	0.7%	0.6%	0.6%	0.5%	0.4%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	

**Current Expected Need Scenario (Compliance Period)**

Line #	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
12	(Redacted)																			
13	<b>Voluntary Margin of Over-Procurement (GWh)</b>																			
14	0	0				0				0	0	0	0	0	0	0	0	0	0	0
15	<b>Aggregate Volumes (GWh)</b>																			
16	47,596		71,117			93,321				21,640	19,313	18,987	18,722	18,596	17,981	17,635	17,531	16,948	16,887	
17	<b>RPS Position (%)</b>																			
18	(Redacted)		(Redacted)			30.4%				28.1%	25.0%	24.5%	24.1%	23.9%	23.1%	22.6%	22.4%	21.6%	21.5%	
19	<b>Gross Surplus/(Deficit) (GWh)</b>																			
20	(Redacted)		(Redacted)			1,234				(3,807)	(6,185)	(6,562)	(6,877)	(7,055)	(7,721)	(8,119)	(8,274)	(8,909)	(9,022)	
21	<b>Volumes (Banked) or Withdrawn from Bank (GWh)</b>																			
22	(Redacted)		(Redacted)			(1,234)				3,807	6,185	6,562	4,527	0	0	0	0	0	0	
23	<b>Net Surplus/(Deficit) (GWh)</b>																			
24	(Redacted)		(Redacted)			0				0	0	0	(2,351)	(7,055)	(7,721)	(8,119)	(8,274)	(8,909)	(9,022)	
25	<b>Net RPS Positions (%)</b>																			
26	(Redacted)		(Redacted)			30.0%				33.0%	33.0%	33.0%	30.0%	23.9%	23.1%	22.6%	22.4%	21.6%	21.5%	
27	<b>Cumulative Banked Volumes (GWh)</b>																			
28	(Redacted)		19,847			21,080				17,273	11,088	4,527	0	0	0	0	0	0	0	
29	Forecast Failure Rate (%) for New Projects not yet online																			
30	0.0%		6.1%			20.1%				19.9%	19.9%	20.0%	20.1%	20.1%	20.2%	20.2%	20.4%	20.4%	20.4%	
31	Forecast Failure Rate (%) for Existing Generation																			
32	1.4%		1.0%			0.4%				0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%		
33	<b>Total RPS Risk Adjusted Net Short (2011-2030) (GWh)</b>																			
34	(51,452)																			

\* Assumed annual targets are: 2011-2013 (20% annually), 2014 (21.7%), 2015 (23.3%), 2016 (25%), 2017 (27%), 2018 (29%), 2019 (31%), and 2020 (33%). These targets are illustrative only and not enforceable.

\*\* The 2010 LTPP sales forecast extends only from 2017 through 2020. For purposes of extending this forecast past 2020, PG&E applied a 0.2% annual growth rate to the LTPP's "Adjusted Energy Demand/Consumption" forecast in years after 2020. (This 0.2% growth rate is equal to the average growth rate seen in the LTPP forecast over the 2018-2020 period.) The "Energy Demand/Consumption" amount was then adjusted for line losses to determine bundled retail sales.