

2011

2012

2013

2014

2015

2016

2017

{Redacted}

Estimated annual RPS-related integration costs, as described in the Integration Cost tab, associated with annual deliveries in Row 3

\$13,689,150

\$34,003,148

\$57,455,979

\$118,891,167

\$151,902,810

\$187,327,852

\$221,277,626

{Redacted}

Total RPS Contract Costs (as defined) and Integration Costs (as defined) from 2011 through 2020

\$25,647,405,536

2018

2019

2020

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\$241,558,455 \$258,243,319 \$275,141,399

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Forecasted Energy Deliveries from Executed Post-2002 RPS PPAs (as defined in the Contract Costs tab) for Intermittent Generation (in MWh)

Intermittant Gen MWh	2011	2012	2013	2014	2015	2016	2017	2018
Solar PV	395,995	1,439,491	2,910,626	4,573,072	5,395,059	6,466,170	7,146,906	7,114,006
Solar Thermal	0	0	254,000	3,759,522	4,750,022	5,376,145	6,182,522	6,469,022
Wind	1,429,225	2,534,903	2,813,453	2,813,453	2,813,453	2,818,126	2,666,545	2,641,047
TOTAL	1,825,220	3,974,394	5,978,079	11,146,047	12,958,534	14,660,441	15,995,973	16,224,075

Estimated Annual RPS Integration Costs

Integration Cost \$/MWh	7.50	8.56	9.61	10.67	11.72	12.78	13.83	14.89
Integration Cost \$	13,689,150	34,003,148	57,455,979	118,891,167	151,902,810	187,327,852	221,277,626	241,558,455

2019	2020
7,086,376	7,058,532
6,469,022	6,480,675
2,641,047	2,645,581
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16,196,445	16,184,788

15.94	17.00
258,243,319	275,141,399

Name	Technology	Total Cost \$					
		2011	2012	2013	2014	2015	2016
Agua Caliente	Solar PV	{Redacted}					
North Star PPA	Solar PV	{Redacted}					
Alpaugh North PPA	Solar PV	{Redacted}					
Alpaugh Solar	Solar PV	{Redacted}					
Alpine Solar Replacement April 2010	Solar PV	{Redacted}					
Anderson Biomass	Biomass and Waste	{Redacted}					
Antelope Valley	Solar PV	{Redacted}					
Arlington Wind PPA	Wind (OOS)	{Redacted}					
Atwell Island PPA	Solar PV	{Redacted}					
Avenal Park PPA	Solar PV	{Redacted}					
Baxter 1	Solar PV	{Redacted}					
Baxter 2	Solar PV	{Redacted}					
Baxter 3	Solar PV	{Redacted}					
Bena Landfill Gas Power Plant	Biomass and Waste	{Redacted}					
Big Creek Waterworks	Small Hydroelectric	{Redacted}					
Big Horn I (Shell 2)	Wind (OOS)	{Redacted}					
Big Horn II (Shell 5)	Wind (OOS)	{Redacted}					
Big Valley Lumber - RPS PPA	Biomass and Waste	{Redacted}					
Bottle Rock (Old Contract)	Geothermal	{Redacted}					
Bottle Rock Replacement	Geothermal	{Redacted}					
BrightSource I - SolarPartners II (Amended)	Solar Thermal	{Redacted}					
BrightSource II - SolarPartners VIII (amended)	Solar Thermal	{Redacted}					
Buckeye Hydroelectric Project	Small Hydroelectric	{Redacted}					
Buena Vista	Wind	6,142,767	6,150,676	6,142,770	6,142,770	6,142,770	6,150,676
CalRenew 1	Solar PV	{Redacted}					
Castelanelli Bros. Biogas	Biomass and Waste	{Redacted}					
Chowchilla	Biomass and Waste	{Redacted}					
Combie North FIT	Small Hydroelectric	{Redacted}					
Combie South FIT	Small Hydroelectric	{Redacted}					
Combine Hills II (Shell 6)	Wind (OOS)	{Redacted}					
Community Renewable Energy Services	Biomass and Waste	3,573,152	3,672,533	3,754,061	3,847,913	0	0
Copper Mountain	Solar PV	{Redacted}					
Coram Brodie	Wind	{Redacted}					
Corcoran PPA	Solar PV	{Redacted}					
Coyote Canyon	Geothermal	{Redacted}					
Desert Sunlight	Solar PV	{Redacted}					
Diablo Winds	Wind	2,909,662	2,982,405	3,056,964	3,133,388	3,211,723	3,292,017
Drayer	Solar PV	{Redacted}					
Eck 1	Solar PV	{Redacted}					
Eck 2	Solar PV	{Redacted}					
Eck 3	Solar PV	{Redacted}					
El Dorado	Solar PV	{Redacted}					
El Dorado Irrigation District	Small Hydroelectric	{Redacted}					
El Nido	Biomass and Waste	{Redacted}					
Green Volts Byron Original	Solar PV	{Redacted}					
Harvest Wind I (Shell 8)	Wind (OOS)	{Redacted}					
Harvest Wind II (Shell 9)	Wind (OOS)	{Redacted}					
Hatchet Ridge	Wind	{Redacted}					
Hay Canyon (Barclays 1)	Wind (OOS)	{Redacted}					
High Plains Ranch II	Solar PV	{Redacted}					
High Plains Ranch III	Solar PV	{Redacted}					
Klondike III	Wind (OOS)	18,937,776	18,973,818	18,937,774	18,937,774	18,937,774	18,973,818
Klondike IIIA	Wind (OOS)	{Redacted}					
Liberty Biofuels Original	Biomass and Waste	{Redacted}					
Madera Original Contract	Biomass and Waste	7,111,714	7,309,460	7,471,726	7,658,520	0	0
Manzana PSA	Wind	{Redacted}					
Mesquite	Solar PV	{Redacted}					

Milpitas Landfill , American Canyon Landfill	Biomass and Waste
Monterey Regional Waste Management Dis	Biomass and Waste
Montezuma Winds Replacement	Wind
Mt. Poso 15-Year PPA	Biomass and Waste
Mt. Poso Bridging	Biomass and Waste
Newell Creek Dam	Small Hydroelectric
Nickel 1	Solar PV
Nickel 2	Solar PV
Nine Canyon (Barclays 2)	Wind (OOS)
Pacificorp 2010-2012 Short Term Agreeeme	Wind (OOS)
Parreira Almond Processing Co	Biomass and Waste
PG&E AT&T Park Solar Arrays, PG&E San	Solar PV
POSDEF - RPS Contract	Biomass and Waste
Potrero Hills Landfill	Biomass and Waste
PV Program - PPA	Solar PV
Sand Drag PPA	Solar PV
Santa Maria II	Biomass and Waste
SGE Site 1	Solar PV
Shiloh I	Wind
Shiloh II	Wind
Shiloh III	Wind
Short-Term Aggregation	Wind (OOS)
Sierra Power - Contract	Biomass and Waste
Snow Mountain Hydro (Lost Creek 1) - Con	Small Hydroelectric
Snow Mountain Hydro (Lost Creek 2) - Con	Small Hydroelectric
Sun City PPA	Solar PV
Sunshine Landfill	Biomass and Waste
Tank 7 In-Conduit Hydroelectric Project	Small Hydroelectric
Three Forks Water	Small Hydroelectric
Tunnel Hill Hydroelectric Project	Small Hydroelectric
Vaca-Dixon Solar	Solar PV
Vantage Wind PPA	Wind (OOS)
Wadham Extension	Biomass and Waste
Wheat Field (Shell 4)	Wind (OOS)
White Creek I (Shell 1)	Wind (OOS)
White Creek II (Shell 3)	Wind (OOS)
White Creek III (Shell 7)	Wind (OOS)
White River	Solar PV
Wildhorse & Hopkins Ridge	Wind (OOS)
Woodland Biomass	Biomass and Waste
Stockton Cogen Bridging	Biomass and Waste
Horizon Kittitas	Wind (OOS)
NID Scotts Flat	Small Hydroelectric
Lompoc PPA	Wind
Truckhaven	Geothermal
Solel	Solar Thermal
Eden Vale Dairy	Biomass and Waste
Topaz Solar Farm	Solar PV
Topaz Solar Farm Phase 2	Solar PV
BrightSource III - SolarPartners XII	Solar Thermal
BrightSource IV - SolarPartners XIV	Solar Thermal
BrightSource V - SolarPartners XV	Solar Thermal
BrightSource VI - SolarPartners XXII	Solar Thermal
BrightSource VII - SolarPartners XXIII	Solar Thermal
Mojave Solar PPA	Solar Thermal
Project Genesis	Solar Thermal
Halkirk	Wind (OOS)
Blackspring Ridge IA	Wind (OOS)
Blackspring Ridge IB	Wind (OOS)
Rice Solar Energy	Solar Thermal
Solaren	Solar PV
Geysers (2008, 2010)	Geothermal
South Feather	Small Hydroelectric
Microgy	Biomass and Waste
BioEnergy	Biomass and Waste
Transalta (RECs)	RECs
SPI (RECs)	RECs
Total	Total

	13,093,262	13,093,262	13,093,263	13,093,263	13,093,263	13,093,262
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{Redacted}						
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	1,888,491	1,941,024	1,984,114	2,033,717	0	0
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{Redacted}						
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2017	2018	2019	2020
1,450,262	0	0	0
0	0	0	0
0	0	0	0
18,937,774	18,937,774	18,937,774	18,973,818
0	0	0	0

13,093,263	13,093,263	13,093,263	13,093,262
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0	0	0	0
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