



# RENEWABLES PORTFOLIO STANDARD Quarterly Report



3rd Quarter 2014



# I. ABOUT THE RPS AND THIS REPORT

**California is aggressively bringing renewable generation online to meet its Renewables Portfolio Standard (RPS), one of the most ambitious renewable standards in the country.**

California's RPS, codified in Public Utilities Code §§ 399.11 – 399.32<sup>1</sup>, requires retail sellers, investor-owned utilities (IOUs), electric service providers (ESPs) and community choice aggregators (CCAs) regulated by the California Public Utilities Commission (CPUC or the Commission) to procure 33% of their annual retail sales from eligible renewable sources by 2020. The RPS also requires retail sellers to achieve intermediate RPS targets of 20% from 2011-2013 and 25% from 2014-2016. The CPUC and the California Energy Commission (CEC) are jointly responsible for implementing California's 33% RPS program.

While the RPS program is the primary vehicle for new utility-scale renewable energy development in California, there are other programs that stimulate development of customer-side renewable generation. The California Solar Initiative (CSI) and Self-Generation Incentive Program (SGIP) provide incentives for customers to install renewable distributed generation technologies that directly serve their on-site load.<sup>2</sup> The electricity generated from power systems installed through CSI and SGIP may contribute to the RPS provided they meet RPS eligibility requirements established by the CEC.<sup>3</sup> In addition, electricity generated by these facilities indirectly contributes to the RPS by reducing demand when serving customer load.

The Commission issues this report on the RPS program every quarter pursuant to the 2006 Budget Act Supplemental Report Item 8660-001-0462. This report focuses on California's three large IOUs: Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E). These IOUs currently provide approximately 68% of the state's electric retail sales, and analyzing this data provides significant insight into the state's RPS progress.

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<sup>1</sup> California's 20% RPS by 2020 was established in 2002 under Senate Bill (SB) 1078 (Sher) and modified in 2006 under SB 107 (Simitian). SB 2 of the First Extraordinary Session (SB 2 (1x)) (Simitian) (Stats. 2011, ch.1) expanded the mandate to a 33% RPS by 2020.

<sup>2</sup> More information on the CSI and SGIP can be found on the CPUC's website: <http://www.cpuc.ca.gov/PUC/energy/DistGen/>.

<sup>3</sup> In the case of renewable customer generation, the system-owner owns the renewable energy credits (RECs), but could sell the RECs to retail sellers to contribute to their RPS targets.

## II. EXECUTIVE SUMMARY

### Status of RPS Procurement

- On August 1, 2014, the large IOUs reported in their 33% RPS Compliance Reports that they collectively served 20.9% of their retail electric load with RPS-eligible generation during the first compliance period (CP 1) from 2011-13. PG&E served 20.6% of its CP 1 retail sales with RPS-eligible renewable energy, SCE with 20.7% and SDG&E with 21.6%. Pursuant to the procurement requirements in SB 2 (1X), the IOUs must average 20% renewable energy during CP 1.
- Since 2003, 8,248 MW of renewable capacity achieved commercial operation under the RPS program. In 2014, more than 1,608 MW of renewable capacity has come online and another 1,921 MW of capacity is forecasted to reach commercial operation by the end of the year.

### Highlights of Recent Events

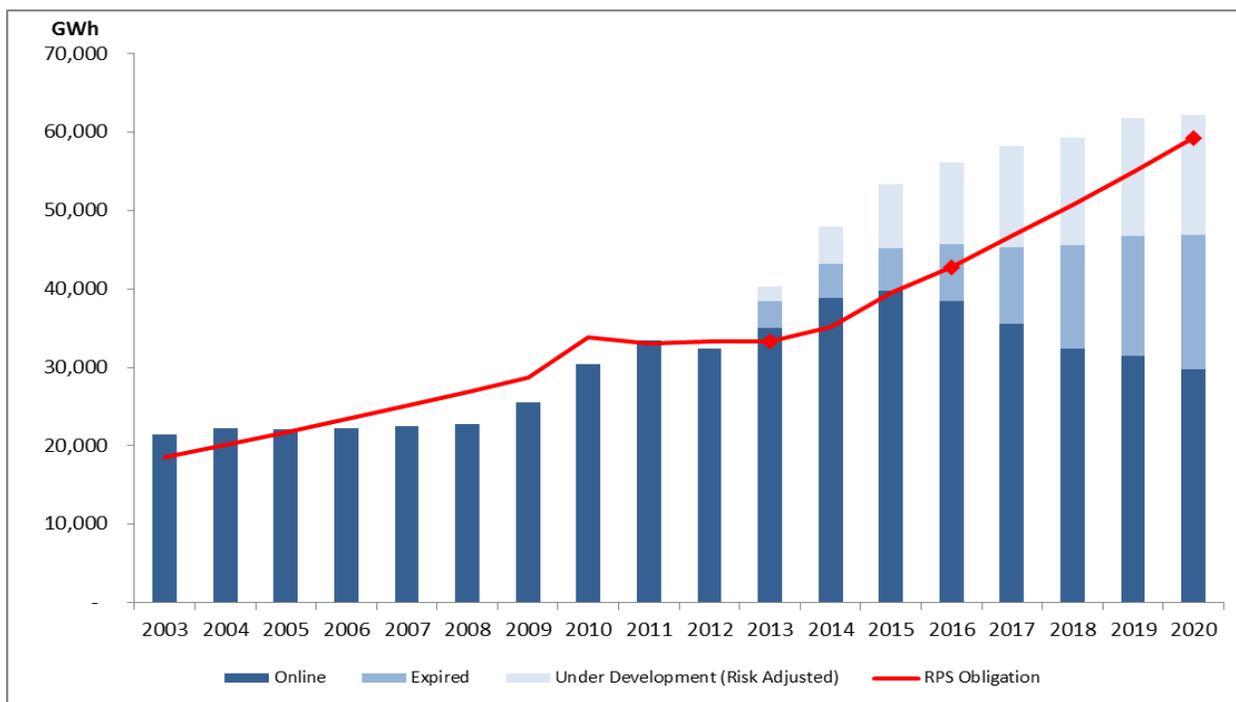
- On August 1, 2014, all California retail sellers submitted a 33% RPS Compliance Report to Energy Division staff. The 33% RPS Compliance Reports provide an updated look at RPS procurement progress towards the 33% mandate, as well as compliance results for the first compliance period (2011-2013).
- On October 10, 2014, the Commission issued a Ruling inviting comments from stakeholders for revisions to components of the RPS Calculator for the purposes of developing policy based portfolios to potentially inform the Commission's Long-Term Procurement Plan (LTPP) proceeding and the California Independent System Operator's Transmission Planning Process. A workshop will be held in February to discuss and explore revisions to the RPS calculator.
- In the third quarter of 2014, the Commission approved 2 RPS power purchase agreements (PPAs), representing 50 MW of renewable capacity.

### III. PROGRESS TOWARDS A 33% RPS BY 2020

California is aggressively procuring renewable generation to ensure that 33% of retail sales is met with renewable energy resources by 2020. The figure below shows progress toward meeting that mandate, on a risk adjusted basis.<sup>4</sup> The IOUs reported meeting the 20% requirement for CP 1 in their April 1, 2014 RPS Procurement Progress Reports.<sup>5</sup> These reports also show that the IOUs are on track to meet the RPS requirement of 25% renewables by 2016 and are well-positioned to meet the 33% requirement by 2020.

While the figure below forecasts a surplus of renewable generation for CP 2 and a deficit for CP 3, it should be noted that the IOUs have the option to bank surplus CP 1 and CP 2 RPS procurement and apply it toward meeting RPS obligations in CP 3 or beyond. In order to achieve 33% in 2020 and every year thereafter, IOUs are also planning for additional procurement in CP 2, CP 3, and post-2020. The following charts (Figures 1, 2 and 3) have not changed from the Q2, 2014 RPS Status Report.

**Figure 1: IOU progress toward s 33% renewables, actual and forecasted by year** <sup>6 and 7</sup>



<sup>4</sup> Values are risk adjusted to account for a certain degree of project failure. The failure rate assumptions used for each IOU are those provided by the IOUs in their 2014 RPS Plans. On average, PG&E assumes a 10% failure rate for new projects not yet online, SCE assumes a 25% failure rate and SDG&E assumes a 14% failure rate for new projects not yet online.

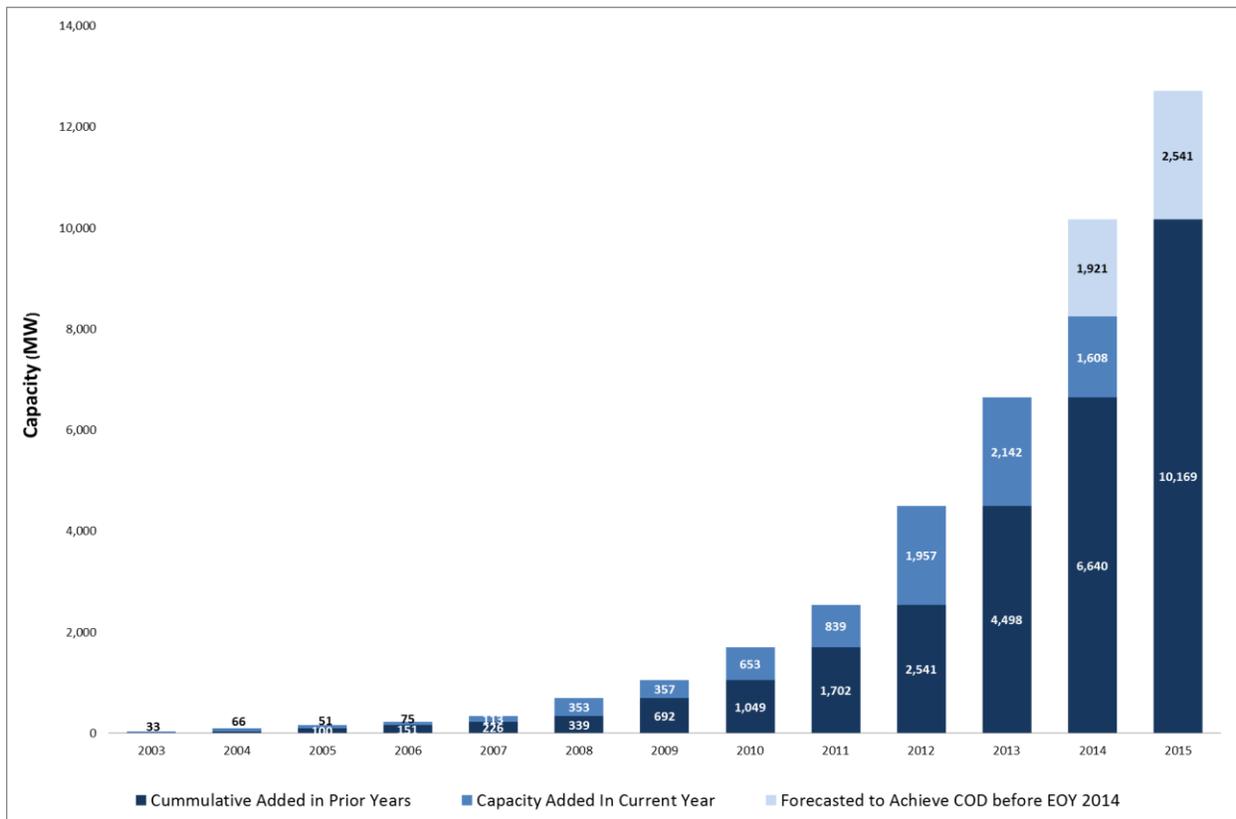
<sup>5</sup> A final compliance determination is made by the CPUC on “Verified” RPS compliance reports, which are submitted after the CEC completes its RPS Verification analysis, which is not expected until Q4 2015.

<sup>6</sup> Forecast does not assume re-contracting of contracts with a term that expires between 2014 and 2020.  
<sup>7</sup> Data Source: 2003-2010 data sourced from the Final 20% RPS Closing Report (January 2014); 2011-2020 data sourced from the Annual 33% Compliance Reports (August 2014).

## CPUC APPROVED RENEWABLE CAPACITY ADDED IN 2014

Since 2003, 8,248 MW of renewable capacity achieved commercial operation under the RPS program. In 2014, more than 1,608 MW of renewable capacity has come online and another 1,921 MW of capacity is forecasted to reach commercial operation by the end of the year. The 3,529 MW of renewable generation capacity forecasted to come online in 2014 would represent the largest year-to-year increase in capacity since the beginning of the RPS program. An additional 2,541 MW of renewable capacity is forecasted to come online in 2015.

**Figure 2: RPS capacity installed since 2003 by year** <sup>8 and 9</sup>



<sup>8</sup> Data Source: IOU submissions to the RPS Contract Database (November 17, 2014)

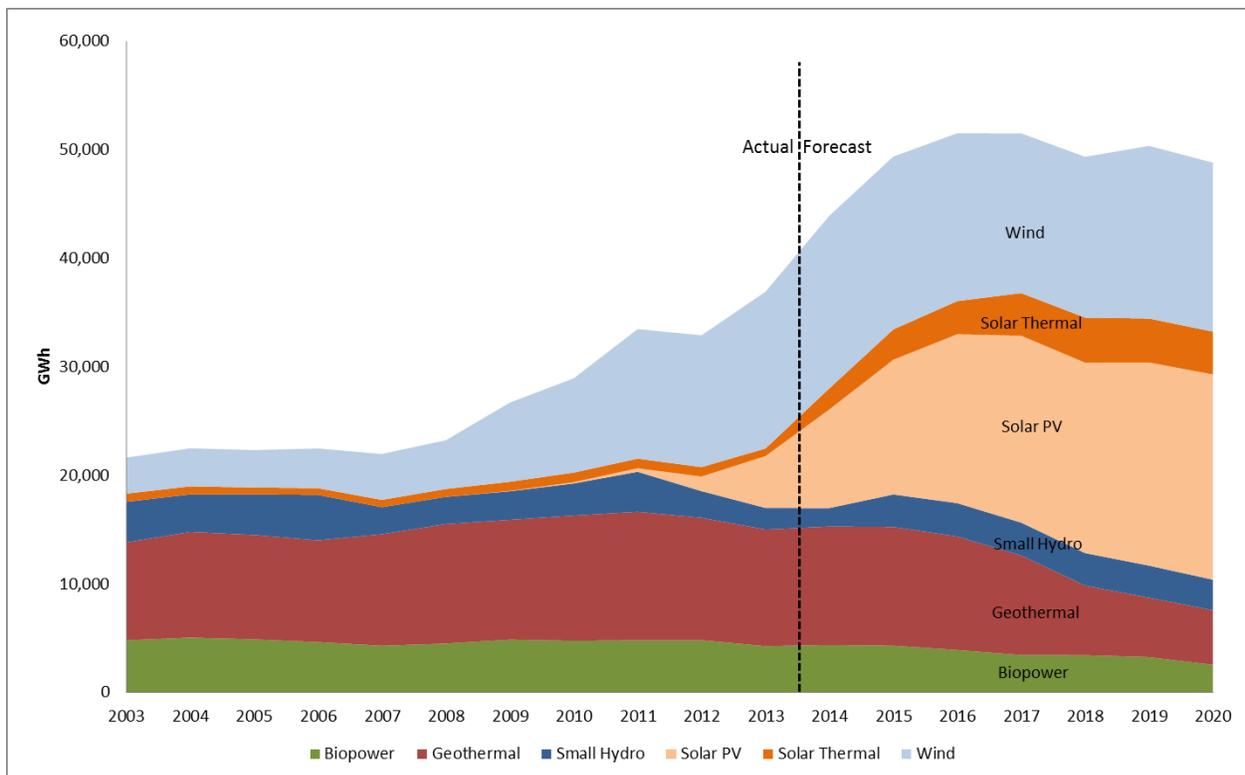
<sup>9</sup> The actual capacity data for 2014 in this report (3,529 MW) differs from the forecast capacity data in the Q1 2014 RPS quarterly report (3,828) because: 1) some of the forecast MWs expected to be developed in 2013 are now expected in 2014, and 2) some PPAs associated with MWs forecasted for 2014 were terminated because the associated projects did not meet their contractual obligations.

## RPS RENEWABLE RESOURCE MIX

The mix of technologies bidding into and receiving PPAs through RPS solicitations has shifted over the life of the RPS program. This shift is forecasted to dramatically alter the relative contribution to the RPS goals provided by different renewable technologies in 2020.

In 2014, wind and geothermal generating facilities supplied the majority of California's renewable generation (contributing 36% and 25%, respectively). The generation mix in 2020 is expected to reflect a considerable increase in generation coming online from new solar PV and solar thermal generating facilities. These technologies are forecasted to contribute 32% and 10%, respectively, of the state's total renewable generation by 2020. The figure below displays California's actual and forecasted mix of renewable generation by technology type through 2020. Figure 3 has not changed from the Q2, 2014 RPS Status Report.

**Figure 3: Renewable resource mix, actual and forecasted by year**<sup>10</sup>



<sup>10</sup> Data Source: IOUs' Annual 33% Compliance Reports (August 1, 2014). Figure 3 only depicts existing IOU renewable contracts. It does not account for facilities that may be online and may receive new contracts after their current contracts expire.

## RPS CONTRACTING ACTIVITIES IN 2014

Since 2002, the Commission has approved more than 410 RPS PPAs for over 20,275 MW of renewable capacity. As Table 1 below shows, the Commission approved 2 additional contracts in the third quarter of 2014, representing 50 MW of RPS capacity.

**Table 1: IOU RPS-eligible contracts submitted and/or approved in 2014** <sup>11</sup>

		PGE		SCE		SDGE		Total	
		Number of Contracts	MW	Number of Contracts	MW	Number of Contracts	MW	Number of Contracts	MW
Q1	Submitted	6	338	20	33	0	0	26	371
	Pending	6	338	20	33	0	0	26	371
	Approved	14	208	0	0	0	0	14	208
Q2	Submitted	1	0	0	0	0	0	1	0
	Pending	6	320	0	0	0	0	6	320
	Approved	1	18	20	33	0	0	21	51
Q3	Submitted	1	5	0	0	0	0	1	5
	Pending	5	275	0	0	0	0	5	275
	Approved	2	50	0	0	0	0	2	50

<sup>11</sup> Data Source: IOU submissions to the RPS Contract Database (November 17, 2014)

## IV. RECENT AND UPCOMING EVENTS

Timing	Deliverable	Notes
October 10, 2014	ALJ Ruling Seeking Comments: Revised RPS Calculator	An ALJ Ruling seeking comments on proposed revisions to the RPS calculator was issued.
November 18, 2014	Proposed Decision: SB 1122	The Commission issued a proposed decision for the implementation of SB 1122, which requires investor owned utilities to procure 250 MW of bioenergy.
November 20, 2014	Decision: 2014 RPS Procurement Plans, Future of Renewable Auction Mechanism Program and Procurement Reform	The Commission adopted a decision on Load Serving Entities' 2014 RPS Procurement Plans. The decision includes directives on the future direction of the Renewable Auction Mechanism Program and includes several provisions related to RPS procurement reforms.
December 4, 2014	Decision: RPS Compliance and Enforcement	The Commission adopted a decision regarding compliance rules and enforcement issues in the RPS program.
Fourth Quarter 2014	20% RPS Closing Report Notification Letters	Following the adoption of an Enforcement Decision, the Energy Division Director plans to issue a letter to retail sellers notifying them of their final 20% RPS compliance position.