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# 3rd and 4th Quarter 2012

# 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 – 399.31<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) to procure 33% of their retail sales per year from eligible renewable sources by 2020. The RPS also requires retail sellers to achieve intermediate RPS targets of 20% from 2011-2013 and of 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 customerside 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 that RPS eligibility requirements established by the CEC are met. <sup>3</sup> Also, generation from these facilities indirectly contributes to the RPS by reducing electricity 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.

<u>Please note that the Commission is issuing a combined Q3 and Q4 2012 Report to the</u> <u>Legislature at this time and will resume issuing Quarterly RPS Status Reports in 2013.</u>

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

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

<sup>&</sup>lt;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 the RPS targets.

## II. EXECUTIVE SUMMARY

### Status of RPS Procurement

- On December 28, 2012, the large IOUs reported in their 2012 RPS Procurement Progress Reports that they served 19.8% of their electricity with RPS-eligible generation in 2012. PG&E served 19% of its 2012 retail sales with RPS-eligible renewable energy, SCE with 20.6%, and SDG&E with 20.3%. Pursuant to the procurement requirements in SB 2 (1X), the IOUs must average 20% renewable energy during the first RPS compliance period (2011-13).
- Since 2003, 4,498 MW of new renewable capacity achieved commercial operation under the RPS program. During 2012, 1,957 MW of new renewable capacity came online and over 3,000 MW is scheduled to come online before the end of 2013.
- In 2012, the IOUs filed 63 new contracts for 1,311 MW of renewable capacity.
- In 2012, the CPUC approved 64 contracts representing 3,725 MW of renewable capacity.

## Highlights of Recent and Upcoming Events

- In October 2012, the Commission executed three multi-year contracts with consultants to provide RPS support services in the following areas: RPS Program Evaluation Services, Distributed Generation (DG) Technical Analysis, and RPS Cost Containment.
- On October 5, 2012, Commissioner Ferron issued a ruling recommending changes to the standards of review (SOR) for renewable power purchase agreements (PPAs) as part of an effort to streamline the RPS contract review process and increase transparency in RPS procurement.
- In the fourth quarter of 2012, the Commission approved 17 contracts for 255 MW of renewable capacity resulting from the second Renewable Auction Mechanism (RAM) solicitation, which closed May 31, 2012. The third RAM solicitation closed on December 21, 2012 and the IOUs are currently evaluating the bids.
- On January 22, 2013, Energy Division staff conducted a stakeholder workshop to discuss party comments on the Assigned Commissioner's Ruling related to the RPS procurement reform process.
- On January 31, 2013, Energy Division Staff conducted a workshop where stakeholders were asked to comment on the methodologies and assumptions developed for the "Local Distributed PV Technical Potential" study, with a particular emphasis on the quantification of the locational benefits of DG.

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

#### **Progress towards a 33% RPS**

California is aggressively procuring renewable generation to reach the requirement that 33% of total procurement come from renewable energy resources by 2020. The figure below shows progress toward meeting that mandate, on a risk adjusted basis.<sup>4</sup> At the close of 2012, California is on track to meet its interim requirement of 25% renewables by 2016, and is well-positioned to meet 33% by 2020.

While the figure below forecasts a surplus of renewable generation for compliance period (CP) 2 and a deficit for CP 3, it should be noted that the investor owned utilities (IOUs) have the option to bank surplus CP 2 procurement and apply it toward meeting RPS obligations in CP 3 or beyond.<sup>5</sup> That said, IOUs are also planning for additional procurement in CP 2, CP 3, and post-2020 in order to meet and maintain the 33% renewables obligation.



Figure 1: IOU Progress Towards 33% Renewables, Actual and Forecasted by Year<sup>6</sup>

<sup>&</sup>lt;sup>4</sup> Values are risk adjusted to account for a certain degree of project failure.

<sup>&</sup>lt;sup>5</sup> Compliance Period (CP) 1 is from 2011 – 2013, CP 2 is from 2014 – 2016, and CP 3 is from 2017 – 2020.

<sup>&</sup>lt;sup>6</sup> Forecast does not assume re-contracting of contracts whose terms expire during the RPS compliance periods.

#### **RPS Renewable Resource Mix**

As California continues to generate more renewable energy, the relative contribution provided by different renewable technologies is forecast to shift dramatically by 2020. Specifically, this shift is attributed to a change in the mix of technologies bidding into and receiving contracts through the RPS solicitations.

In 2011, wind and geothermal generating facilities supplied the majority of California's renewable generation (contributing 38% and 34%, respectively). By 2020, that generation mix 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 34% and 13%, 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 2: Renewable Resource Mix, Actual and Forecasted by Year<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> Forecast does not assume re-contracting of contracts whose terms expire during the RPS compliance periods.

#### New Renewable Capacity Added in 2012

Since 2003, 4,498 MW of new renewable capacity achieved commercial operation under the RPS program. Over 1,957 MW of new renewable capacity came online during 2012, and another 3,221 MW of capacity is forecasted to reach commercial operation by the end of 2013. 2012 showed the greatest year-to-year increase in the capacity of renewable generation achieving commercial operation since the beginning of the program, and 2013 is forecasted to far surpass 2012.





<sup>&</sup>lt;sup>8</sup> Figure 3 only includes new capacity under contract for 10 years or more. It does not reflect capacity that was re-contracted from existing resources.

#### **RPS Contracting Activities in 2012**

Since 2002, the CPUC has approved more than 225 contracts for over 19,000 MW of renewable capacity. As Table 1 below shows, the CPUC approved 64 additional contracts in 2012 for 3,725 MW of capacity. Note that 30 of the 64 contracts, totaling 400 MW, were for renewable distributed generation (DG) projects executed from the first and second RAM auctions.

		PG&E		SCE		SDG&E		Large IOU Total	
		Number		Number		Number		Number	
		of	MW	of	MW	of	MW	of	MW
		Contracts		Contracts		Contracts		Contracts	
Q1	Approved	4	397	4	961	6	630	14	1,988
QI	Submitted	4	63	7	67	2	15	13	145
Q2	Approved	5	163	12	436	3	215	20	814
Q2	Submitted	2	65	1	100	3	203	6	368
Q3	Approved	0	0	0	0	4	205	4	205
Q3	Submitted	20	438	4	0	1	102	25	540
01	Approved	14	183	8	497	4	38	26	718
Q4	Submitted	0	0	13	181	6	77	19	258
Total	Approved	23	743	24	1,894	17	1,088	64	3,725
Iotal	Submitted	26	566	25	348	12	397	63	1,311

 Table 1. IOU RPS-Eligible Contracts Submitted and/or Approved in 2012

## IV. PROGRAM UPDATE

This section of the RPS Status Report provides an update on several critical program advancements that have occurred during the third and fourth quarters of 2012. These include updates on:

- Amended Scoping Memo for RPS Proceeding
- RPS Procurement Reform
- RPS Compliance Rules
- System-Side Renewable Distributed Generation Procurement
- RPS Technical Analysis Consulting Contracts

#### AMENDED SCOPING MEMO FOR RPS PROCEEDING

On September 12, 2012, as part of the Commission's continuing administration and oversight of the RPS program, Commissioner Ferron issued an Amended Scoping Memo, setting a schedule for implementation of changes to the RPS program resulting from the enactment of Senate Bill (SB) 2 (1X). Among the changes to be implemented are Least-Cost Best-Fit (LCBF) reform, the renewable net short (RNS) calculation, and cost containment. On January 9, 2013, Commissioner Ferron revised the Amended Scoping Memo<sup>9</sup> to incorporate more recently-enacted legislation on bioenergy into the schedule of activities for the RPS proceeding (R.11-05-005).

#### **RPS PROCUREMENT REFORM**

On October 5, 2012 Commissioner Ferron issued a ruling<sup>10</sup> that recommended a number of changes to the standards of review (SOR) for renewable power purchase agreements (PPA) that are submitted to the Commission for approval. The proposals in the Assigned Commissioner's Ruling (ACR) are part of an effort to streamline the RPS contract review process, increase the transparency of the Commission's review of RPS procurement, and establish clearer standards for this review process. The proposals in the ACR address the following:

- Modified rules for expedited review of certain short-term RPS power purchase and sale agreements;
- New rules for expedited review of certain long-term RPS PPAs;
- Standards of review for investor-owned utilities' (IOU) shortlists from competitive RPS solicitations;
- A date certain for the filing of IOU executed PPAs that result from IOU solicitations and bilateral negotiations;
- Standards of review for proposed contract amendments to RPS PPAs;
- Independent Evaluator report template;

<sup>9</sup> See http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M042/K155/42155692.PDF

<sup>&</sup>lt;sup>10</sup> See http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M029/K970/29970716.PDF

- Reform of least-cost best-fit (LCBF) bid evaluation methodology; and
- Revisions to the Green Attributes standard term and condition.

Energy Division staff held a workshop on January 21, 2013 to discuss with stakeholders the party comments on the procurement reform proposals in the ACR. A proposed decision will be issued for further comments in Q2 2013.

#### NEW RPS COMPLIANCE RULES ESTABLISHED

In D.12-06-038,<sup>11</sup> the Commission implemented changes to the rules for retail sellers' compliance with the RPS program established in Senate Bill (SB) 2 (1X) (Simitian) (Stats. 2011, ch. 1). In addition, the decision adopted a reporting methodology to transition retail sellers' compliance with the RPS obligations prior to 2011 into the new 33% RPS program framework. Pursuant to D.12-06-038, retail sellers will submit annual RPS compliance reports on August 1<sup>st</sup> of every year, consistent with current practice.<sup>12</sup> Finally, RPS enforcement rules are scheduled to be determined in a Q3 2013 decision.

Implementing the RPS compliance rules established in SB 2 (1X), with limited statutory guidance for making the transition from compliance obligations prior to 2011, was a complex process. Ultimately, the Commission decided how to close out the 20% by 2010 RPS program and ordered a "Closing Report" to implement these final compliance rules, and established the compliance rules for the 33% RPS program. The key results of the Commission decision are highlighted below.

- Retail sellers will submit a "Closing Report" that:
  - Calculates any net deficit or surplus in meeting annual RPS procurement targets for all years prior to 2011; and
  - Calculates whether or not the retail seller procured 14% of its retail sales from RPS-eligible resources in 2010.
- With regards to the Closing Reports, the following rules apply:
  - Renewable energy credits (RECs)<sup>13</sup> procured from contracts or acquired from ownership agreements executed prior to June 1, 2010 in amounts that exceed the quantity required to meet annual procurement targets for all years prior to 2011 may be carried forward and used for any compliance obligation after 2010, without limitation;

<sup>&</sup>lt;sup>11</sup> See http://docs.cpuc.ca.gov/PublishedDocs/WORD\_PDF/FINAL\_DECISION/169704.PDF

<sup>&</sup>lt;sup>12</sup> The first Annual RPS Compliance Reports were submitted on December 28, 2012. These reports document retail sellers' procurement activities for 2011 and progress towards the first compliance period procurement quantity requirements. Public versions of the 2011 Annual RPS Compliance Reports are available on the CPUC's website: <u>http://www.cpuc.ca.gov/PUC/energy/Renewables/compliance.htm</u>

<sup>&</sup>lt;sup>13</sup> RECs represent the renewable and environmental attributes of one megawatt-hour of RPS-eligible generation. RECs can be procured in a variety of different types of transactions, including with or without the underlying energy associated with the RPS-eligible facility.

- Any retail seller that procured greater than or equal to 14% of its retail sales from RPS-eligible resources in 2010 is not required to make up any net deficit in meeting annual procurement targets in years prior to 2011; and
- Any retail seller that did not procure greater than or equal to 14% of its retail sales from RPS-eligible resources in 2010 must make up a net deficit by December 31, 2013 (the end of the first compliance period).
- The following compliance rules were established for procurement after June 1, 2010:
  - Retail sellers in each compliance period must execute long-term contract(s) of at least 10 years duration for procurement from short-term contracts to count for compliance purposes;
  - Retail sellers must meet the statutorily defined "portfolio balance requirements"<sup>14</sup> for all RECs retired for compliance purposes from contracts executed after June 1, 2010 (see § 399.16(c));<sup>15</sup>
  - RECs must be retired within 36 months of the initial date of the associated generation;
  - Only certain types of procurement may qualify as "excess procurement" that can be used for future RPS compliance obligations. Specifically:
    - RECs from contracts executed after June 1, 2010;
    - RECs from long-term contracts that meet the conditions of portfolio content category 1 or 2, as defined in D.11-12-052;
    - RECs from long-term contracts that meet the conditions of portfolio content category 3, as defined in D.11-12-052, within the limitations set for each compliance period in § 399.16(c)(2).
  - Only at the end of a compliance period may a retail seller request from the CPUC a reduction of the portfolio balance requirements or request a waiver of the procurement quantity requirements set by D.11-12-020.

<sup>&</sup>lt;sup>14</sup> SB 2 (1X) (Simitian, 2011) requires retail sellers to balance their portfolios by complying with minimum and maximum quantities of procurement meeting the criteria of particular portfolio content categories in each compliance period. Public Utilities Code Section 399.16(c) provides that retail sellers must procure portfolio content category 1 RECs at amounts "not less than 50 percent for the compliance period ending December 31, 2013, 65 percent for the compliance period ending December 31, 2016, and 75 percent thereafter..."; and portfolio content category 3 RECs at amounts "not more than 25 percent for the compliance period ending December 31, 2013, 15 percent for the compliance period ending December 31, 2016, and 10 percent thereafter...."

<sup>&</sup>lt;sup>15</sup> Assembly Bill 2187 (2012, Bradford), which modifies the date that determines what electric service provider (ESP) contracts are subject to the portfolio content categories, will be implemented in the RPS proceeding in 2013.

#### Summary of Provisional Closing Reports for the 20% RPS Program

Pursuant to D.12-06-038, on August 20, 2012, retail sellers submitted "Provisional Closing Reports of the 20% RPS Program."<sup>16</sup> As described above, the closing report serves to determine a retail seller's net surplus or deficit in meeting the annual procurement targets for years prior to 2011 and the extent to which that net procurement amount carries forward into the first compliance period (2011-2013) of the RPS program.

Key highlights of the provisional closing reports are:

- PG&E and SCE reported RPS-eligible procurement in excess of 14% of 2010 retail sales; thus their net deficits for years prior to 2011 are expected to be waived;
- SDG&E and Bear Valley Electric Service reported RPS-eligible procurement less than 14% of 2010 retail sales; as such, these utilities are expected to carry forward a deficit into the first compliance period;
- The majority (7 out of 12) of registered electric service providers (ESPs) reported net surplus procurement that may carry forward into the first compliance period; and
- Four out of the five ESPs that reported a net deficit or renewable procurement prior to 2011procured less than 14% of 2010 retail sales from RPS-eligible resource; thus these ESPs are expected to carry forward a deficit into the first compliance period.

#### SYSTEM-SIDE RENEWABLE DISTRIBUTED GENERATION<sup>17</sup>

#### Results of the 2nd Renewable Auction Mechanism (RAM) solicitation

In December 2010, the Commission (in D.10-12-048) adopted the Renewable Auction Mechanism (RAM), a competitive solicitation mechanism for system-side renewable DG projects up to 20 MW in size. RAM was created by the Commission to stimulate the development of wholesale renewable DG projects up to 20 MW by lowering transaction costs and procuring cost-effective, viable renewable capacity.

The decision initially authorized the procurement of 1,000 MW (later increased to 1,299 MW<sup>18</sup>) of renewable DG over four auctions. Through Resolution E-4414 the Commission implemented RAM in August 2011, and the first RAM auction closed on November 15, 2011. In April 2012,

<sup>&</sup>lt;sup>16</sup> These reports are provisional until the California Energy Commission completes its 2008-2010 RPS procurement verification work. Once this process is complete retail sellers will submit final closing reports. Copies of the Provisional Closing Reports of the 20% RPS Program are available on the CPUC's website: <u>http://www.cpuc.ca.gov/PUC/energy/Renewables/compliance.htm</u>

<sup>&</sup>lt;sup>17</sup> The CPUC regulates DG policies and programs on both the customer- and system- (or wholesale) side of the electric meter. Customer-side DG incentive programs include the California Solar Initiative and the Self-Generation Incentive Program. On the system-side of the meter, utilities procure DG resources through a variety of RPS procurement programs, including the annual RPS competitive solicitation, the renewable feed-in tariff, utility solar programs, and the Renewable Auction Mechanism (RAM).

<sup>&</sup>lt;sup>18</sup> See, D.12-02-002 (moving 74 MW of capacity from SDG&E's PV Program into RAM) and D.12-02-035 (moving 225 MW of capacity from SCE's PV Program into RAM).

the Commission approved 13 contracts for 145 MW of renewable DG capacity from the first RAM auction. Of the 13 contracts, 11 were for solar PV projects (122 MW of a total 140 MW). The weighted average price of all of these contracts (post-time-of-delivery adjusted) was less than \$90/MWh.

The second RAM auction closed on May 31, 2012. In Q3 2012, the CPUC approved 17 projects, representing 255 MW of capacity from the second RAM auction. Of these 17 contracts, 12 were for solar PV projects (208 MW of a total 255 MW). The weighted average price of all of these contracts (post–time-of-delivery adjusted) was again less than \$90/MWh.

Summary data from the second RAM auction is provided below in Tables 2, 3, and 4.

# Table 2. Summary of Cumulative Capacity\* of Procurement Targets, Bids Received, andExecuted PPAs Across All IOUs from Second RAM Auction

	RAM2 Capacity Target (MW)	Bids Received (MW)	Executed PPAs (MW)
Baseload	29	209	17
Peaking As-Available	320	4,718	208
Non-Peaking As-Available	29	203	30

\* <u>Note:</u> Some bids were submitted to multiple IOUs and may be double-counted in these cumulative totals.

#### Table 3. Number of Bids and Executed PPAs from Second RAM Auction by Technology Type Across All IOUs

	# of Bids	# of Executed PPAs
Solar PV	337	12
Wind	21	2
Geothermal	8	1
Bioenergy	9	1
Small Hydro	4	1

# Table 4. Number of Bids andExecuted PPAs from Second RAMAuction by Capacity (MW) AcrossAll IOUs

Capacity (MW)	# of Bids	# of Executed PPAs
1-3	33	0
>3-5	31	2
>5-10	50	4
>10-15	44	1
>15-20	221	10

The third RAM auction closed on December 21, 2012 and the IOUs are expected to file their executed contracts from that auction with the CPUC in Q1 2013. The fourth RAM auction is scheduled to take place mid-2013.

#### Results of the 2012 Utility Solar Photovoltaic (PV) Program RFOs

In 2009 and 2010, the Commission issued three decisions authorizing solar photovoltaic (PV) procurement programs for PG&E, SCE and SDG&E. These decisions authorized the IOUs to own and operate utility-owned solar generation (UOG), as well as to execute solar PV contracts with independent power producers (IPPs) through a competitive solicitation. These programs were originally designed to yield, in total, up to 1,100 MW of new solar PV capacity over five years.

PG&E and SCE<sup>19</sup> recently executed PPAs from their 2012 IPP PV RFOs. Summary data of the results from the solicitation are included in Table 5 below.

# Table 5. Summary of Cumulative Capacity of Procurement Targets, Bids Received, and Executed PPAs from 2012 PV (IPP) RFOs.

	Capacity Target (MW)	Bids Received (MW)	Executed PPAs (MW)
SCE	35.3	75	10.7
PG&E	50	1061	48

#### STATUS OF THE RENEWABLE FEED-IN TARIFF (FIT) PROGRAM

Assembly Bill (AB) 1969 (Yee, 2006) added Section 399.20 to the Public Utilities Code's Renewables Portfolio Standard (RPS), which created the existing renewable feed-in tariff (FiT) program for projects up to 1.5 MW. The purpose of the FiT program is to stimulate the development of small-scale renewable DG by streamlining the process for generators to sell power wholesale to the IOUs through a standard contract without having to engage in timely contract negotiations.

Since 2007, the Legislature has adopted several amendments to Section 399.20, including SB 380, SB 32, and SB 2 (1X). The CPUC is currently implementing these amendments in the RPS proceeding. Most recently, on May 24, 2012, the CPUC adopted D.12-05-035 adopting new program rules and establishing a market-based FiT pricing mechanism called the Renewable Market Adjusting Tariff, or Re-MAT. Pursuant to the Amended Scoping Memo, the Commission expects to adopt a standard contract and updated tariff for the revised FiT program in Q1 or Q2 of 2013. The revised FiT program is expected to become effective, and utilities should begin accepting Re-MAT applications, in Q2 2013.

It should be noted that since SB 32, as implemented by D.12-05-035, expands upon the existing FiT program, the capacity allocated to each IOU when the modified program becomes effective will be reduced by the capacity subscribed under the existing program. The table below

<sup>&</sup>lt;sup>19</sup> Note that SDG&E no longer holds an annual PV RFO. In February 2012, D.12-02-002 authorized SDG&E to move its remaining 74 MW from the IPP portion of its PV Program into RAM, effectively ending its PV Program.

displays expected MW availability for the modified FiT program based on FiT subscription levels for each utility through January 2013. It is important to note that the MW available for the modified FiT program will be subject to change based on the rate of subscription for the existing FiT program between now and when the modified FiT program becomes operational.

	Existing FiT: MW Allocation	Existing FiT: MW Subscribed	Revised FiT: MW Allocation	Revised FiT: Expected Availability of MW
	(a)	(b)	(c)	(d) = (c) - (b)
PG&E	209	109	219	110
SCE	248	215	226	11
SDG&E	40	24	49	25
Total	497	348	494	146

Table 6: Summary of FiT program MW Allocations and Subscription to-date.

#### **RPS TECHNICAL ANALYSIS CONSULTING CONTRACTS**

In early 2012, the Commission issued three requests for proposals (RFP) to hire consultants to provide technical and support services related to the implementation of California's renewable energy policies. The Commission sought proposals for multi-year contracts in the following areas:

- (1) **<u>RPS Program Evaluation Services:</u>** For tasks including, but not limited to:
  - Evaluating cost-effectiveness of existing renewable procurement programs relative to other renewable and greenhouse gas reducing programs;
  - Developing recommendations for better coordination of long-term procurement planning with other supply- and demand-side planning processes that impact renewable development;
  - Modeling renewables integration;
  - Developing the interface for a web-based, searchable public database to display user-friendly data outputs on RPS contracts and projects;
  - Updating inputs and assumptions for the RPS Calculator, including:
    - Renewable technology costs;
    - Transmission and planning assumptions; and
    - Environmental screens
  - Reforming the Least-cost Best-fit (LCBF) methodology, including adequately quantifying the implied energy and capacity values for long-term renewable contracts based on:

- Formulating different portfolio assumptions;
- Quantifying the unique costs and benefits of different renewable technologies based on long-term system requirements;
- Incorporating environmental constraints into the project evaluation and selection process;
- Quantifying the need for and costs of renewable integration for various renewable technologies; and
- Quantifying the renewable net short based on RPS compliance requirements.

#### (2) Distributed Generation (DG) Technical Analysis:

- Analyzing cost/benefit of various renewable DG technologies;
- Assessing renewable DG implementation barriers and opportunities, including identifying and quantifying available sites for project locations;
- Establishing a revenue requirement for renewable DG procurement programs; and
- Quantifying the environmental and economic impacts of renewable DG projects.

#### (3) <u>**RPS Cost Containment:</u>**</u>

- Developing a methodology for setting an RPS procurement limitation for each California electrical corporation;
- Developing a mechanism for tracking RPS procurement expenditures against the CPUC adopted limitation; and
- Developing a methodology for reporting on costs and savings as required under SB 2 (1X).

In Q2 2012, the Commission evaluated proposals, selected consultants, and publicly posted notices of intent to award these multi-year contracts. Each of the three contracts received final approval from the Department of General Services in September 2012 and Commission staff commenced working with consultants on the tasks described above in Q4 2012.

The RPS Program Evaluation Services contract was awarded to Energy + Environmental Economics, Inc. (E3). The DG Technical Analysis contract was awarded to Black & Veatch. The RPS Cost Containment contract was awarded to Navigant Consulting, Inc.

# V. RECENT AND UPCOMING EVENTS

Timing	Deliverable	Notes
July 15, 2012	Draft Re-MAT PPA and Re-MAT Tariffs filed	At the direction of ALJ DeAngelis, the IOUs filed a draft standard Re-MAT PPA to be used statewide in addition to filing IOU-specific Re-MAT tariffs. The Commission is expected to consider adoption of the PPA and Tariffs in Q1/Q2 2013.
July 20, 2012	SCE's second Solar PV Program RFO closes	SCE procured 10.7 MW of capacity from solar PV projects sized 1-2 MW from this second auction.
August 20, 2012	Provisional 20% RPS Closing Report submitted	Pursuant to D.12-06-038, retail sellers submitted provisional closing reports concerning retail sellers' compliance status with pre-2011 RPS requirements. Final closing reports will be submitted upon completion of the CEC's RPS Verification work for 2008-2010.
October, 2012	CPUC commenced three multi-year consulting contracts to provide RPS support services	The RPS Team is managing three multi-year consultant contracts in the following areas: (1) Distributed Generation Technical Analysis, (2) RPS Program Evaluation, (3) RPS Cost Containment.
November 8, 2012	Decision accepting 2012 RPS Procurement Plans adopted	The Commission adopted D.12-11-016, which conditionally accepted 2012 RPS Procurement Plans and Integrated Resource Plan Off-Year Supplement.
December 21, 2012	Third RAM RFO Closes	Bids for the third Renewable Auction Mechanism (RAM) solicitation were submitted to the three large IOUs. The IOUs solicited 414 MW for the third RAM RFO.
Fourth Quarter, 2012	CPUC approved PPAs resulting from RAM 2	The CPUC approved PPAs the IOUs executed with projects selected from the RAM 2 auction that closed on May 31, 2012.
January 22, 2013	Workshop on RPS Procurement Reform conducted	A stakeholder workshop was conducted to discuss recommendations made by Commissioner Ferron in his Assigned Commissioner's Ruling related to streamlining the RPS procurement reform process.
January 31, 2013	Workshop on Methodology and Assumptions for Evaluating Renewable DG Technical Potential conducted	A stakeholder workshop was conducted to provide the opportunity to vet the methodologies and assumptions developed for the "Local Distributed PV Technical Potential" study, with a particular emphasis on the quantification of the locational benefits of DG.
First Quarter, 2013	ALJ Ruling on RPS procurement expenditure limitation to be issued	ALJ will issue a Ruling seeking further comment on RPS procurement expenditure limitation, pursuant to 399.15(c).

Timing	Deliverable	Notes
First/Second Quarter, 2013	Proposed Decision to adopt Revised Feed-in- Tariff PPA to be issued	Pursuant to the Amended Scoping Memo, the Commission expects to issue a proposed decision to adopt a standard Feed-in-Tariff PPA and individual tariffs for each of the three large IOUs.