



## California's 33% RPS: Procurement Progress and Deliverability Rules

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On April 12, Governor Brown signed SBX1 2 into law, codifying California's 33%-by-2020 Renewables Portfolio Standard (RPS). Though the 33% target has been state policy for years -- and some California utilities have been signing power contracts that could put them well beyond 20% renewables -- approval of the standard in legislation provides regulatory certainty that will pave the way for further clean energy growth in the West.

In this memo, Vote Solar interprets recent public data on California renewables procurement as well as a portion of the new statute, seeking to provide renewable energy developers, regulators and other stakeholders with new understanding regarding

- 1) how much California renewables demand is available through 2020, and
- 2) the new law's requirements for how renewable energy from projects located in other states can help to meet California's RPS.

**Key conclusions** include:

- Despite aggressive contracting beyond 20%, California's large IOUs should still have a significant appetite for renewables procurement in coming years.
- Munis, ESPs and CCAs in California are collectively far behind the large IOUs in their required progress toward 33% renewables. The newly RPS-obligated munis, which serve about one quarter of the state's load, will represent an important source of renewables demand.
- Renewable projects outside the state that are able to interconnect to a California balancing area, or schedule or dynamically transfer energy directly into a California balancing area, will be better situated to meet future California renewables demand than those that cannot.
- Projects outside the state will be better able to compete for California renewables demand if adequate transmission is available to allow renewable energy to be delivered directly into a California balancing area.

## 1) Though IOUs Have Been Procuring Aggressively, Substantial California Renewables Demand Remains

According to public compliance reports filed with the California Public Utilities Commission (CPUC) and analysis by CPUC staff,<sup>1</sup> California's three large IOUs (SCE, PG&E and SDG&E) have been procuring renewables aggressively and have already signed enough PPAs to make significant progress towards the 33% by 2020 target. The following graph, taken from the CPUC's Q4 2010 RPS Progress Report to the Legislature,<sup>2</sup> provides a recent snapshot of the three large IOUs' combined procurement progress, in gigawatt-hours (GWh). The graph also indicates what level of contract failure risk the IOUs assigned to projects not yet delivering,<sup>3</sup> highlighting in red the more than one third of the planned future generation deemed only 50-70% likely to deliver.<sup>4</sup>

The below graph provides only a partial picture regarding California renewables procurement, for several reasons. First, the graph does not include California municipal utilities (or 'munis'), who were not obligated under the 20% legislation but now are obligated to meet 33% per the new legislation. As a group, the munis are well behind the large California IOUs on renewables procurement.<sup>5</sup> Second, the graph does not provide information on procurement from energy service providers (ESPs), community choice aggregators (CCAs) or small IOUs – all of whom have been RPS-obligated since the beginning of the program, and many of whom have not made significant progress beyond 20% renewables. (The ESPs, CCAs and small IOUs collectively serve less than 10% of the state's load, while the three large IOUs together serve about 68%). Third, the graph was developed using information from the large IOUs' August 2010 compliance filings, and the IOUs have executed additional contracts since that time.<sup>6</sup>

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<sup>1</sup> A wide range of useful information is available at <http://www.cpuc.ca.gov/PUC/energy/Renewables/index.htm>. See "March 2011 Compliance Reports" at that page for the latest data on renewable deliveries and expected future deliveries for each RPS-obligated entity.

<sup>2</sup> The CPUC Q4 2010 Progress Report, published in January 2011, is at <http://www.cpuc.ca.gov/NR/rdonlyres/CFD76016-3E28-44B0-84273FAB1AA27FF4/0/FourthQuarter2010RPSReporttotheLegislature.pdf>. Energy Division's Q1 2011 RPS Progress Report (available at <http://www.cpuc.ca.gov/NR/rdonlyres/62B4B596-1CE1-47C9-AB53-2DEF1BF52770/0/Q12011RPSReporttotheLegislatureFINAL.pdf>) does not provide an update to the graph.

<sup>3</sup> The IOUs use the Project Viability Calculator as a screening tool to estimate risk associated with renewable energy contracts, and report confidentially to the CPUC on the results for each proposed contract. The Calculator is available at <http://www.cpuc.ca.gov/PUC/Templates/RPS.aspx?NRMODE=Published&NRNODEGUID=%7b722CB59B-003C-476F-BE7B-D6EABE6DC003%7d&NRORIGINALURL=%2fPUC%2fenergy%2fRenewables%2fprocurement%2ehtm&NRCACHEHINT=Guest#ProjectViability>.

<sup>4</sup> IOU representatives have also made recent public statements estimating high contract failure rates. For example, at an all-party meeting on March 25, 2011 at the CPUC, SCE and SDG&E made statements indicating past renewable contract failure rates of 35 to 40%.

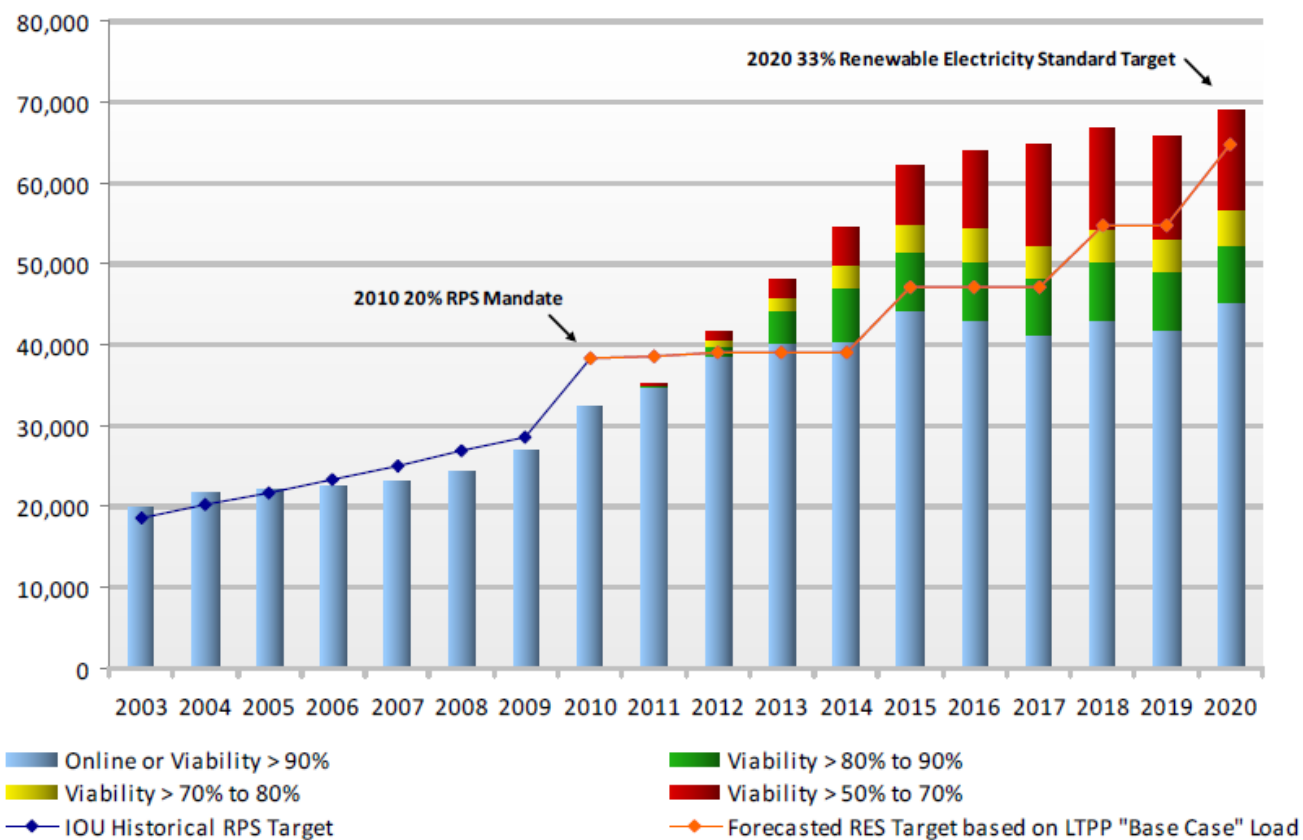
<sup>5</sup> The California Energy Commission provides public information on munis' retail sales, renewable energy targets, renewables deliveries through 2009, and contracts, on its website at <http://www.energy.ca.gov/2008publications/CEC-300-2008-005/index.html>. In addition, a recent audit by the LA City Controller's office found that the state's largest muni, LADWP, achieved 20% renewables in 2010 but is not currently making good progress towards 33% (audit available at [http://controller.lacity.org/stellent/groups/electedofficials/@ctr\\_contributor/documents/contributor\\_web\\_content/lacityp\\_014034.pdf](http://controller.lacity.org/stellent/groups/electedofficials/@ctr_contributor/documents/contributor_web_content/lacityp_014034.pdf)).

<sup>6</sup> Other reasons the graph may not present the full picture on future renewable demand include: the actual post-2010 yearly RPS targets may differ somewhat from those estimated in the graph following the CPUC's

## Key Conclusions:

- The three large IOUs have collectively contracted for much more than 20% renewables, but by the IOUs' own estimates, over one third of the planned new generation -- representing more than 10,000 GWh per year starting around 2017 -- is at high risk of failure. Thus, California's large IOUs should still have a significant appetite for renewable procurement in coming years.
- Munis, ESPs and CCAs in California are collectively well behind the large IOUs in their required progress toward 33% renewables. The California munis in particular will represent an important source of renewables demand, since the 33% legislation obligates them for the first time to meet the RPS, and since they serve approximately one quarter of the state's load.

**CPUC Graph: Risk Profile of Large CA IOU Executed RPS Contracts (GWh)**



Source: California Public Utilities Commission, 4th Quarter 2010

implementation of the targets listed in SBX1 2 (20% of retail sales by the end of 2013, 25% by the end of 2016, and 33% by the end of 2020), and based on actual retail sales in future years. The risk profiles assigned by the IOUs via the Project Viability Calculator and reflected in the graph, like all predictions of the future, will not prove 100% accurate. And finally, the large IOUs may choose to procure beyond their RPS requirements.

## 2) Out-of-State Projects Can Best Compete if They Deliver Energy Directly into a California Balancing Area

California policymakers have debated for years over how much of California's renewable energy demand can be met via projects located beyond the state's borders. SBX1 2 settles the debate by specifying how much of future RPS procurement must be met with various types of procurement, summarized below. (The bill specifies that procurement from CPUC-approved contracts executed before June 1, 2010 are not subject to the below requirements, as long as any modifications to the contract don't increase the nameplate capacity or energy deliveries.)

SBX1 2 specifies that the energy portfolio used for RPS compliance from contracts executed on or after June 1, 2010 must meet the following procurement content requirements:

- i) For the compliance period ending Dec 31, 2013:
  - At least **50%** of the RPS obligation must come from projects with a first point of interconnection within a California balancing area (BA, for example CAISO, LADWP or Imperial Irrigation District), or are scheduled from the eligible renewable energy resource into a California BA without substituting electricity from another source, or have an agreement to dynamically transfer energy to a California BA.
  - No more than **25%** of the RPS obligation can be met with unbundled renewable energy credits (RECs) or other transactions where the energy is not scheduled into a California BA.
  - The remaining procurement used to meet the obligation may come from 'firmed and shaped' eligible renewables providing incremental electricity and scheduled into a California BA. (The bill does not define 'firmed and shaped', but presumably this includes transactions where renewable energy has been exchanged with non-renewable procurement, and hence some or all of the energy coming into California is actually delivered from a non-renewable plant. The CPUC will be responsible for developing implementation rules including definitions of 'firmed and shaped' and 'unbundled REC' transactions.)
- ii) For the compliance period ending Dec 31, 2016:
  - At least **65%** of the RPS obligation must come from projects with a first point of interconnection within a California BA, or are scheduled from the eligible renewable energy resource into a California BA without substituting electricity from another source, or have an agreement to dynamically transfer energy to a California BA.
  - No more than **15%** of the RPS obligation can be met with unbundled RECs or other transactions where the energy is not scheduled into a California BA.
  - The remaining procurement used to meet the obligation may come from 'firmed and shaped' eligible renewables providing incremental electricity and scheduled into a California BA.

- iii) For all compliance periods after Dec 31, 2016:
- At least **75%** of the RPS obligation must come from projects with a first point of interconnection within a California BA, or are scheduled from the eligible renewable energy resource into a California BA without substituting electricity from another source, or have an agreement to dynamically transfer energy to a California BA.
  - No more than **10%** of the RPS obligation can be met with unbundled RECs or other transactions where the energy is not scheduled into a California BA.
  - The remaining procurement used to meet the obligation may come from ‘firmed and shaped’ eligible renewables providing incremental electricity and scheduled into a California BA.

SBX1 2 specifies that an RPS-obligated entity can apply to the CPUC for a reduction of a procurement content requirement listed above, which may be granted if the retail seller demonstrates that it cannot comply due to conditions beyond its control. However, the CPUC may not reduce the requirement for energy interconnected, scheduled to or dynamically transferred to a California balancing area below 65% for any compliance obligation after December 31, 2016.

### **Key Conclusions:**

- Renewable projects outside the state that are able to interconnect to a California BA, or schedule or dynamically transfer energy directly into a California BA, will be well situated to meet future California renewables demand. For contracts signed after June 1, 2010, at least 50% (and increasing over time to 75%) of new RPS procurement serving California demand must come from these types of projects.
- By contrast, those projects that use non-renewable resources to firm and shape their deliveries, and those that are planning to sell RECs but no energy into California, will be less well situated. Procurement from projects that do not schedule energy directly into a California BA risk being treated as unbundled REC transactions, which are allowed to meet a maximum of 15% of the California RPS requirements starting in 2014, moving down to 10% after 2016.<sup>7</sup>
- Projects outside the state will be better able to compete for California renewables demand if adequate transmission is available to allow renewable energy to be delivered directly into a California balancing area.

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<sup>7</sup> The CPUC will determine what procurement counts as ‘unbundled RECs’ and ‘firmed and shaped,’ but both categories combined will be eligible for a relatively small portion of California RPS procurement in the coming years (50% of RPS energy delivered through 2013, 35% of RPS energy delivered in 2014-2016 and 25% of RPS energy delivered after 2016).

### 3) Appendix: Statutory Language on Deliverability Requirements from SBX1 2

399.16. (a) Various electricity products from eligible renewable energy resources located within the WECC transmission network service area shall be eligible to comply with the renewables portfolio standard procurement requirements in Section 399.15. These electricity products may be differentiated by their impacts on the operation of the grid in supplying electricity, as well as, meeting the requirements of this article.

(b) Consistent with the goals of procuring the least-cost and best-fit electricity products from eligible renewable energy resources that meet project viability principles adopted by the commission pursuant to paragraph (4) of subdivision (a) of Section 399.13 and that provide the benefits set forth in Section 399.11, a balanced portfolio of eligible renewable energy resources shall be procured consisting of the following portfolio content categories:

(1) Eligible renewable energy resource electricity products that meet either of the following criteria:

(A) Have a first point of interconnection with a California balancing authority, have a first point of interconnection with distribution facilities used to serve end users within a California balancing authority area, or are scheduled from the eligible renewable energy resource into a California balancing authority without substituting electricity from another source. The use of another source to provide real-time ancillary services required to maintain an hourly or subhourly import schedule into a California balancing authority shall be permitted, but only the fraction of the schedule actually generated by the eligible renewable energy resource shall count toward this portfolio content category.

(B) Have an agreement to dynamically transfer electricity to a California balancing authority.

(2) Firmed and shaped eligible renewable energy resource electricity products providing incremental electricity and scheduled into a California balancing authority.

(3) Eligible renewable energy resource electricity products, or any fraction of the electricity generated, including unbundled renewable energy credits, that do not qualify under the criteria of paragraph (1) or (2).

(c) In order to achieve a balanced portfolio, all retail sellers shall meet the following requirements for all procurement credited towards each compliance period:

(1) 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 of the eligible renewable energy resource electricity products associated with contracts executed after June 1, 2010, shall meet the product content requirements of paragraph (1) of subdivision (b).

(2) 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 of the eligible renewable energy resource electricity products associated with contracts executed after June 1, 2010, shall meet the product content requirements of paragraph (3) of subdivision (b).

(3) Any renewable energy resources contracts executed on or after June 1, 2010, not subject to the limitations of paragraph (1) or (2), shall meet the product content requirements of paragraph (2) of subdivision (b).

(d) Any contract or ownership agreement originally executed prior to June 1, 2010, shall count in full towards the procurement requirements established pursuant to this article, if all of the following conditions are met:

(1) The renewable energy resource was eligible under the rules in place as of the date when the contract was executed.

(2) For an electrical corporation, the contract has been approved by the commission, even if that approval occurs after June 1, 2010.

(3) Any contract amendments or modifications occurring after June 1, 2010, do not increase the nameplate capacity or expected quantities of annual generation, or substitute a different renewable energy resource. The duration of the contract may be extended if the original contract specified a procurement commitment of 15 or more years.

(e) A retail seller may apply to the commission for a reduction of a procurement content requirement of subdivision (c). The commission may reduce a procurement content requirement of subdivision (c) to the extent the retail seller demonstrates that it cannot comply with that subdivision because of conditions beyond the control of the retail seller as provided in paragraph (5) of subdivision (b) of Section 399.15. The commission shall not, under any circumstance, reduce the obligation specified in paragraph (1) of subdivision (c) below 65 percent for any compliance obligation after December 31, 2016.