California Public Utilities Commission

Progress of

The California Renewable Portfolio Standard

As Required by the Supplemental Report of the 2006 Budget Act

Report to the Legislature

October 2006

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Summary

The Supplemental Report of the 2006 Budget Act (Report) Item 8660-001-0462 requires the California Public Utilities Commission (CPUC) to report to the Legislature by October 1, 2006 on the progress of the Renewables Portfolio Standard (RPS) [1]. The Report states:

> "In order to evaluate the progress of the state's investor-owned electric utilities in complying with the Renewables Portfolio Standard (RPS) pursuant to Public Utilities Code section 387, PUC shall report to the Legislature on or before October 1, 2006, and quarterly thereafter, on the following:
>
> a. Progress by California's investor-owned utilities (IOUs) in meeting RPS goals, as defined in Section 387 or as modified by subsequent Commission rulings that accelerate the statutory goals;
> b. For each investor-owned electric utility, an implementation schedule to achieve the RPS goals, including all substantive actions that have been taken or will be taken to achieve the program goals;
> c. A work plan, schedule, and status report for all substantive procurement, transmission development, and other activities that the Commission has undertaken or plans to undertake to ensure that the state's investor-owned electric utilities achieve the goals and requirements of the RPS."

As detailed in the report that follows, the CPUC is aggressively implementing the Renewables Portfolio Standard (RPS), and the state's investor-owned utilities (IOUs) are making substantial progress in their efforts to comply with the program.

- 57 contracts for renewable power have been approved by the CPUC since 2002, and 6 more are pending.
- In 2005, renewable sources accounted for 17.7%, 13.5%, and 5.5% of total retail electricity sales for Southern California Edison (SCE), Pacific Gas and Electric (PG&E), and San Diego Gas and Electric (SDG&E), respectively[2].

[1] Statutory authority for the RPS and renewable procurement is contained in Public Utilities Code Sections 387, 390.1, 454.5 (b), and Article 16 commencing with Section 399.11.

[2] This doesn't reflect contracts signed but not yet online.

- Reporting and compliance details, determination of transmission needs, and other crucial program elements continue to be addressed through the CPUC's investigation and rule-making processes.

RPS Legislation and Implementation

The CPUC began laying the groundwork for RPS implementation in 2001, in compliance with Public Utilities Code Section 701.3, and in advance of Assembly Bill 57 and Senate Bill 1078 becoming law The Commission opened a formal proceeding in October 2001 to establish policies and cost recovery mechanisms for generation procurement and renewable resource development. Among other things, the Commission directed the IOUs to submit procurement proposals on how the Commission should comply with existing renewables mandates. Public Utilities Code Section 701.3 required the Commission to ensure that renewable resources would be included in the mix of new generation facilities serving the state. The IOUs filed their first post-energy crisis procurement proposals at the end of November 2001.

Concurrently, the Legislature was developing two bills to guide utility procurement. Assembly Bill 57 returned the IOUs to the electricity procurement business. The bill required the IOUs to resume procurement for their customers by no later than January 1, 2003, and required the IOUs to increase renewables procurement by one percent each year until renewable resources account for 20 percent of each IOU's retail sales.

Senate Bill 1078 requires all load-serving entities (LSEs) – IOUs, Community Choice Aggregators (CCAs), and Electric Service Providers (ESPs), with certain exceptions – to meet essentially the same renewable procurement goals as AB 57, but sets a deadline of 2017 for achieving a 20 percent renewable portfolio and establishes a detailed process and standards for renewable procurement. [3] SB 1078 requires the

[3] The Joint Agency Energy Action Plan and later SB 107 accelerated the RPS target year from 2017 to 2010.

Commission to develop and adopt several key RPS program components, many by June 30, 2003.

The Commission began provisional implementation of the RPS in 2002. In three consecutive decisions issued in August, October, and December 2002, the Commission established an interim renewable procurement process, directed each IOU to file a short-term procurement plan (to meet the 1% goal through 2003) and a status report of interim renewables procurement, adopted a schedule to develop the key RPS components, and approved the IOUs short-term procurement plans. By the end of 2002, the IOUs were financially stable, creditworthy, and ready to make resource commitments. The utilities resumed procurement on January 1, 2003 under their CPUC-approved short-term plans.

The Commission issued individual rulings and/or decisions which addressed the most critical procurement RPS-related issues.

2002

- **Authorized PG&E, SCE and SDG&E to begin transitional procurement** (D.02-08-071)

- **Adopted a regulatory framework** under which the utilities resumed full procurement responsibilities on Jan 1, 2003 (D.02-10-062)

- **Approved the utilities' 2003 procurement plans** (D.02-12-074)

2003

- **Established Inter-Agency Collaboration and Workplan** (February 3, 2003 Ruling): describes how the tasks assigned to the Commission and the CEC intersect, and how the two agencies will collaborate to achieve the RPS goal.

- **Determined methodology for calculating penalties** (D.03-06-071): Failure to satisfy the annual procurement targets will result in an automatic penalty of 5 cents per kWh. Failure to meet the 20% renewable procurement obligation will result in additional automatic penalties.

- **Developed flexible compliance rules** (D.03-06-071)

2004

- **Opened proceeding to streamline transmission needs determination** (R.04-01-026)

- **Established a long-term procurement framework** (D.04-01-050): Endorsed a hybrid market structure for generation, consistent with the preferences stated in the Energy Action Plan (EAP).

- **Adopted Least Cost/Best Fit Bid Ranking** (D.04-07-029): This is the process whereby the LSE employs transparent, Commission-approved criteria to the analysis of bids, and balances the need for "portfolio fit" against cost minimization objectives.

- **Established a Market Price Referent** (MPR) (D.04-06-015): The (MPR) represents the levelized cost (cents/kWh) of a long-term contract with a combined cycle gas turbine generator, and serves as a pricing benchmark for RPS contracts. Contracts priced at or below the MPR are deemed per se reasonable and are recoverable in utility rates. If a portion of the contract price is above the MPR, that portion may be eligible for CEC supplemental energy payments (SEPs), subject to SEP availability. The CPUC calculates a new set of MPRs for every RPS solicitation.

- **Set Standard Contract Terms and Conditions** (D.04-06-014): Parties deliberated extensively in 2003 to develop standard terms and conditions for use in RPS procurement contracts.

- **Adopted a methodology to estimate transmission cost adders** (D.04-06-013): In order to enable the least cost/best fit selection of resources, the LSE must be able to approximate the final cost of upgrading the transmission system to bring renewable power to load.

- **Established a process for planning and building the first phase of Tehachapi transmission** (D. 04-06-010): Directed formation of Tehachapi Transmission Study Group; ordered SCE to file an application for first phase of transmission upgrades to access wind energy in the Tehachapi region.

2005

- **Approved RPS short-term procurement and RFOs** (requests for offers) (D.05-07-039)

- **Streamlined MPR process** and increased transparency of calculation (D.05-12-042)

- **Set scope of RPS jurisdiction over LSEs**: ESPs, CCAs, and SMJUs (small, multi-jurisdictional utilities). (D.05-11-025)

- **Open Investigation to facilitate development of transmission to access renewables** (05-09-005): To assess how current transmission planning, project development and cost recovery processes can be modified to accommodate the unique characteristics of renewable energy, refine the methodology used by IOUs to assess transmission impacts of renewable projects in the bid-ranking and selection process.

2006

- **Conditionally approved procurement plans for 2006 RPS solicitations** (D.06-05-039)

- **Opened new proceeding –continuation of R.04-04-026 – to address ongoing issues in RPS implementation** (06-05-027): Rules for participation of ESPs, CCAs, small utilities, and SMJUs; coordination with related programs (i.e. California Solar Initiative); use of unbundled and/or tradable renewable energy credits (RECs) for RPS compliance.

The IOUs Are Making Measurable Progress In Meeting The RPS Goals.

Each IOU must prepare a renewable energy procurement plan for CPUC review and approval. The Commission presumes that utilities are able to use their business judgment in running their solicitations, unless their plans threaten to impair the effectiveness of the RPS program. The plan must include the following:

- An assessment of demand and supply to determine the optimal mix of renewable resources.

- Use of compliance flexibility mechanisms established by the Commission.

- A bid solicitation.

The utilities' initial interim RPS solicitations occurred in 2003, followed by solicitations in 2004, 2005 and 2006. The Commission approved 57 contracts from the 2002 and 2003 interim solicitations and the 2004 and 2005 RPS solicitations, and 6 submitted contracts are under consideration by the Commission. Table 1 provides more detail for each utility, as follows:

Table 1: Approved Contracts, by Utility

Solicitation Year	PG&E	SCE	SDG&E
2002	4 contracts (119 MW)	6 contracts (273 MW)[4]	15 contracts (238 MW)[5]
2003	3 contracts (44 MW)	8 contracts (664 MW)	1 contract (40 MW)[6]
2004	5 contracts (236 MW)[7]	0 contracts	6 contracts (580 MW)
2005	5 contracts (71 MW)	4 contracts (37 MW)	0 contracts
Total	**17 contracts (470 MW)**	**18 contracts (974 MW)**	**22 contracts (858 MW)**

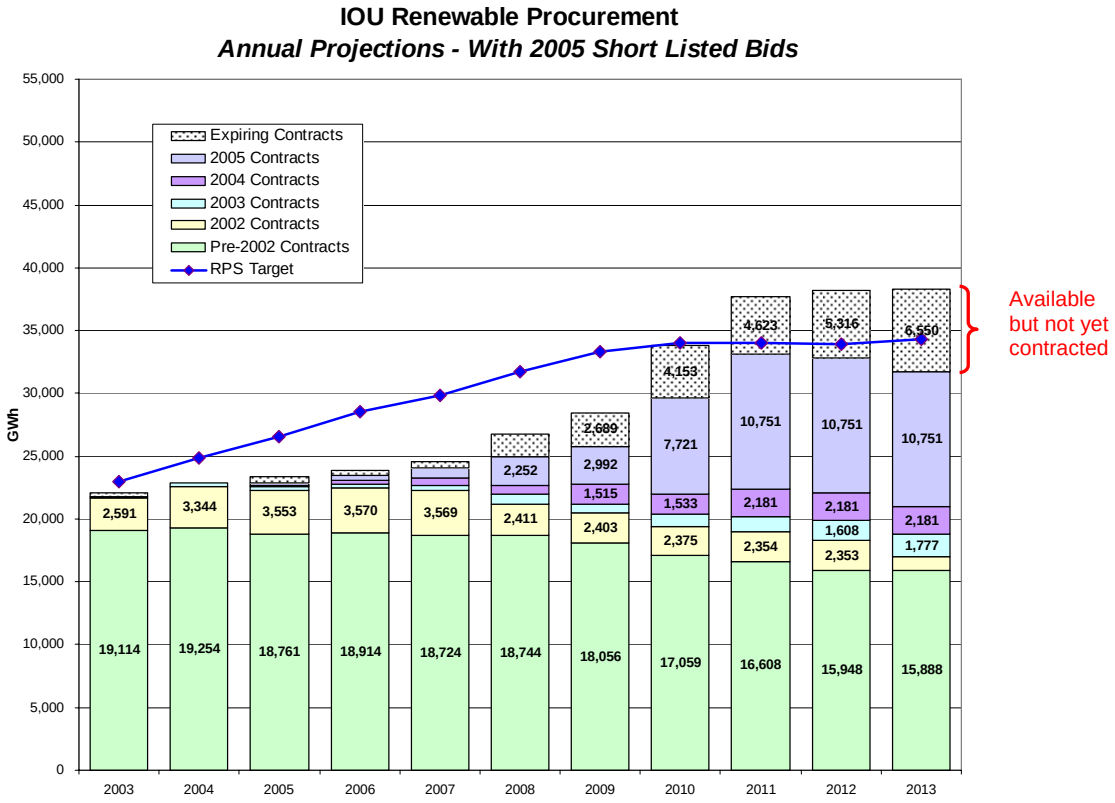
Of these contracts approved since 2002, 767 MW of capacity were online as of August 1, 2006. Pursuant to RPS legislation, the Commission uses actual deliveries, not signed contract capacity, as the metric to determine RPS compliance. The CEC determines the amount of actual final deliveries. In 2005, the utilities' actual renewable deliveries totaled 23,826 GWh.

- PG&E – 13.5 % (9,801 GWh)
- SCE – 17.7% (13,195 GWh)
- SDG&E – 5.5% (830 GWh)

[4] 1 of these contracts (5 MW) was later canceled.
[5] 5 of these contracts (64 MW) were later canceled.
[6] 1 of these contracts (40 MW) was later canceled.
[7] 1 of these contracts (38 MW) was replaced in 2004 by a contract for 28-43 MW.

Figure 1 illustrates forecasted RPS deliveries by solicitation year. The chart includes deliveries from projects under the 2005 solicitation that have been short-listed by the IOUs and are either still under negotiation or pending approval at the CPUC. Note that it is reasonable to assume that the expiring contracts (dotted area on the chart) will be resigned by one of the IOUs.

Figure 1.



The IOUs Are Following the Aggressive RPS Implementation Schedule Adopted by the Commission

Many implementation dates are set by the CPUC, and as such are common among all IOUs. Some issues, and therefore implementation schedules, are IOU-specific. We first provide the general implementation schedule, and then more utility-specific details below.

The IOUs are still negotiating contracts from the 2005 solicitations. The majority of contracts will be filed with the CPUC by November 2006.

On December 7, 2005, PG&E, SCE and SDG&E filed supplements to their respective 2005 long-term Plans. On December 22, 2005, PG&E, SCE and SDG&E filed their 2006 RPS Plans and draft RFOs. The IOUs issued their 2006 RPS solicitations in July 2006, and expect to issue 2007 solicitations in 1st Quarter 2007. All three utilities will file long-term procurements plans at the end of November 2006, and will host public workshops in early December 2006 to present the plans. The plans will cover all procurement activities, including RPS, from 2007 to 2016.

In August 2006, each IOU filed a Transmission Cost Ranking Report with the CPUC, which presents how transmission costs are considered in the utility bid evaluation and ranking process.

Utility-Specific Implementation Details

PG&E

PG&E estimates that its 2006 APT (annual procurement target – the total amount of renewable energy it must procure in 2006) is about 10,942 gigawatt-hours (GWh). In its 2006 solicitation, PG&E seeks additional renewable energy contracts equal to about 1% to 2% of its retail sales volume - approximately 700 to 1,400 GWhs per year.

In 2007, PG&E will require more capacity to meet its reserve margin requirements, and additional peaking energy resources to meet its net energy requirements. After 2007, PG&E requires additional dispatchable peaking and shaping resources to meet energy and capacity requirements for all subperiods. PG&E is especially interested in projects that offer deliveries no later than early 2008.

PG&E seeks offers for four specific renewable products: (a) as-available, (b) baseload, (c) peaking, or (d) dispatchable. PG&E will also consider two types of

combination products: (a) peaking and as-available, or (b) peaking plus other firm deliveries in any combination.[8]

In 2006, PG&E proposes to accept bids from all eligible renewable resources, resulting in the acceptance of bids with delivery points anywhere in California, in addition to the CAISO delivery points authorized in D.05-07-039.

PG&E 2006 RPS Solicitation Schedule

- PG&E issues RFO: June 30, 2006
- Notice of Intent to Bid Due: July 10, 2006
- Pre-Bid Conference: July 20, 2006
- Deadline for Submission of Bids: September 8, 2006
- PG&E submits Shortlist to CPUC: October 20, 2006
- Execution of Final Agreements (tentative): Q4 2006 - Q1 2007

SCE

SCE estimates its APT for 2006 is 14,220 GWh. SCE favors renewable projects able to deliver power by December 31, 2008, and will not consider any proposals with an initial start date after January 1, 2013.

After completing its 2005 procurement, SCE intends in 2006 to contract for the balance of renewable power necessary to achieve 20% renewables by 2010. SCE believes it will achieve 20% renewable power in 2010 if it successfully procures to its

[8]D-04-12-048, p. 2: "In our direction to the Investor-Owned Utilities (IOUs) [PG&E, SCE and SDG&E] regarding the procurement of resources to meet identified needs, and in recognition of the substantial amount of procurement to be undertaken as a result of our resource adequacy decisions, we make a number of significant findings. First, following the "loading order" contained in the Joint Agency Energy Action Plan (EAP) is the highest priority, meaning that energy efficiency and demand-side resources should be employed first. When these opportunities are captured, renewable generation is to be procured to the fullest extent possible - whenever an IOU issues a Request for Offer/Proposal (RFO/RFP) for generation resources, it must justify its selection of fossil generation over renewable generation offers. In other words, selection of renewable generation is the rebuttable presumption guiding IOU generation procurement."

highest overall procurement needs scenario in 2010. SCE estimates it will be above 20% in 2010 if it achieves its low case overall procurement needs.

For generating facilities located in SCE's service territory, SCE says the only acceptable delivery point is the CAISO's SP-15 Zone. For facilities outside SCE's service territory, SCE will consider proposals with a delivery point outside of SP-15, but within the CAISO control area.

SCE 2006 RPS Solicitation Schedule

- SCE releases RFO: July 14, 2006
- Proposal conference: August 10, 2006
- Notice of Intent To Bid: August 18, 2006
- Proposals due: September 22, 2006
- SCE notifies sellers selected for SCE Final Short List: November 17, 2006
- Submits contracts to CPUC for review and approval: December 12, 2006

While transmission is a concern among all the IOUs, coordination of projects, contracts and open access transmission within the SCE service territory is particularly complicated. One of the most promising areas for new renewable power is the Tehachapi area in Southern California, which has approximately 4,500 megawatts of wind energy potential. The Commission formed the Tehachapi Collaborative Working Group to develop a proposed Transmission Plan of Service for the area. Multiple project phases are necessary. SCE's Tehachapi implementation schedule is as follows:

- Draft EIR (environmental impact review) released for Segment 1: July 2006
- Final EIR to be released: late October 2006
- SCE in-service date: January 2009
- Draft EIR released for Segments 2 and 3: August 2006
- Final EIR released: December 2006
- SCE in-service date: May 2009

- SCE applies to build Phase 2: March 2007[9]
- SCE applies to build Phase 3: June 2007

SDG&E

SDG&E states that its 2006 APT is 741 GWh. SDG&E expects to exceed its 2006 APT, and will bank APT surpluses for future compliance.

SDG&E will consider products which start deliveries in 2007, 2008, 2009 or 2010. SDG&E prefers in-basin renewable resources.

SDG&E 2006 RPS Solicitation Schedule

- RFO issued: July 17, 2006
- Last date for bid submission: September 1, 2006
- Develop Final Short List: October 10, 2006
- Complete negotiations and sign contract: December 4, 2006

SDG&E indicates that additional transmission is necessary to deliver power produced by geothermal and solar resources to load. In response to a Commission order, the Imperial Valley Study Group studied transmission adequacy in the Salton Sea region. SDG&E filed the group's report with the CPUC in October 2005.

SDG&E states in its 2006 RPS Plan that contracts for resources in the Imperial Valley without adequate transmission capability will be contingent upon SDG&E obtaining approval to build the Sunrise Powerlink, a new 500 kilovolt (kV) line from Imperial Valley to the San Diego area. SDG&E filed an initial application for CPUC approval for Sunrise in December 2005, and then deferred application submittal until June 2006. The CAISO Board approved the project in August 2006. SDG&E indicates it will meet its 20% RPS goal by 2010 if Sunrise is approved and constructed. Although

[9] CAISO board to consider revised plan of service for approval in December 2006. SCE currently determining effects on application filing schedule.

SDG&E's RPS eligible deliveries were only 5.5% of total retail sales in 2005, it has the lowest overall electricity sales of the 3 IOUs (approximately 1/5 of the sales of either PG&E or SCE), and its significant renewable procurement thus translates into large percentage gains.

In addition to the Tehachapi and Sunrise Powerlink transmission projects, the ISO and FERC are independently reviewing a third RPS-related transmission project in Southern California. The proposed Lake Elsinore Advanced Pumped Storage (LEAPS) project would add a 500 MW pumped storage project, and interconnect a 500 kV transmission line to SCE and SDG&E transmission lines, which could increase SDG&E's ability to import additional energy from the SCE area. The project could be operational by 2009.

CPUC RPS Workplan

The CPUC coordinates long-term procurement planning, ensures resource adequacy, and implements the EAP within one "umbrella" proceeding: R.06-02-013. On September 25, 2006, the Commission directed the utilities to file comprehensive long-term procurement plans by November 20, 2006. The plans are to include a comprehensive description of activities the IOUs will undertake to meet the short-term RPS goal of 20% by 2010, and the long-term goal of achieving 33% renewable procurement by 2020. Attachment A provides a summary of 2006 RPS activities underway, and a preliminary schedule for aspects of the new long-term integrated resource planning cycle.

Attachment A

The Commission's 2006 Workplan Addresses Procurement and Transmission Resources to Ensure the IOUs Meet the RPS Goals for 2010 and Beyond

Focus Area 1: RPS Solicitation Process			
Task 1: 2006 Solicitations	**Entity**	**Timeframe**	**Status**
Approve IOU procurement plans	CPUC	July 2006	√
Commence IOU solicitations/Issue RFO	IOU	July 2006	√
Deadline for bids	Bidders	Sept 2006	√
Bid evaluation	IOUs	Sept 2006	
Calculate/issue proposed MPR	CPUC ED	Oct 2006	
Adopt 2006 MPR	CPUC	Nov 2006	
Submit bids short list to CPUC	IOUs	Nov 2006	
Approve contracts via multiple resolutions	CPUC	Nov-Jan	
Approve amended contracts (those needing CEC SEPs) via multiple resolutions	CPUC		
Task 2: Determine RPS Reporting/Compliance Guidelines and Applicable Years (Note final compliance determinations cannot be made for 2004 until 2008, or for 2005 until 2009, due to flexible compliance rules.)	**Entity**	**Timeframe**	**Status**
Staff report to propose reporting and compliance rules	CPUC ED	Feb 2006	√
Staff workshop	CPUC ED	Mar 2006	√
Compliance reports filed– data from 2003-2005	IOUs	Aug 2006	√
Updated compliance reports filed	IOUs	Oct 2006	
Proposals to implement Bioenergy Action Plan filed	IOUs	Oct 2006	
Final decision to determine reporting/compliance	CPUC ALJ	Nov 2006	
Final decision on R/C rules	CPUC	Dec 2006	
Proposals for flexible compliance in 2010	IOUs	Jan 2007	
Ruling to approve format and schedule	CPUC ALJ	Feb 2007	
Updated compliance reports filed	IOUs	Mar 2007	
Initial LSE compliance reports filed	LSEs	Mar 2007	

Hearings, if necessary	ALJ	April 2007	
Proposed decision issued	ALJ	May 2007	
Final decision adopted	CPUC	Aug 2007	
Updated LSE compliance reports filed	LSEs	TBD	
LSE compliance determination	CPUC	TBD	
Task 3: Refine Post-2006 Contract Solicitation & Selection Process			
Staff workshop and report on "Lessons Learned"	CPUC ED	Oct 2006	
Meet quarterly with developers and IOUs to assess claims of non-participation/gaming	CPUC ED	Oct 2006	
Proposal to standardize assessment of project viability	CPUC ED	Nov 2006	
Issue proposed decision to assess impediments and refine process	CPUC ALJ	Dec 2007	
Final decision adopted	CPUC	Jan 2007	
Task 4: ESP/CCA Participation			
Program design	CPUC	Oct 2006	√
Program implementation	CPUC	Q1 2007	
Focus Area 2: Streamline RPS Transmission			
Authorize IOU backstop cost recovery under §399.25	D06-06-034	June 2006	√
Revise CPUC review process for TX permitting	CPUC	Sept 2006	
Address/resolve ISO queue issues	CPUC	Sept 2006	
Assess Transmission Ranking Cost Reports	CPUC	Oct 2006	
Resolve temporary/early interconnection			
Task 1: Address Area-Specific Transmission Needs			
Tehachapi Phase 1			
Antelope-Pardee initial draft environmental impact review(EIR)		Mar 2006	√
Draft EIR		July 2006	√
Final draft EIR		Oct 2006	
Approve CPCN (certificate of public convenience and necessity)		Dec 2006	
Antelope Vincent & Tehachapi-Pardee			
Draft EIR		Aug 2006	√
Final EIR		Dec 2006	
Approve CPCN		Jan 2007	
Tehachapi Working Group Report #2	Multiple	April 2006	√

Designate CPUC Tehachapi Project Manager	CPUC	June 2006	√
Joint CPUC/ISO workshop #1		Aug 2006	√
Issue draft Tehachapi Plan of Service (POS)	ISO	Oct 2006	
Approve Tehachapi POS	ISO	Dec 2006	
Sunrise			
Application for CPCN (Permit To Construct)	SDG&E	June 2006	√
Focus Area 3: Market design			
Task 1: Confidentiality of RPS Information (R. 05-06-040)	CPUC		√
Adopt interim rules	CPUC	June 2006	√
Adopt final rules	CPUC	April 2007	
Task 2: Tradeable RECs	CPUC		
Issue Proposed Decision	CPUC	Q3/Q4 2007	
Adopt Final Decision	CPUC	Q3/Q4 2007	
Focus Area 4: 33% By 2020			
Task 1: RPS Resource Planning			
Issue long-term procurement plans (2007-2016)	IOUs	Nov 2006	
Process to evaluate and approve LTPP	CPUC	TBD	
Task 2: Study emerging RPS technologies	CPUC	TBD	