

California Energy Commission
RENEWABLE ENERGY PROGRAM
Summary of Activities
January 1, 2007 – March 31, 2007

RENEWABLE ENERGY PROGRAM

❖ **Goal: To achieve a self-sustaining renewable energy supply for California**

Renewables Portfolio Standard Program

California RPS statutes require retail sellers to increase the renewable content of their electricity sales by at least 1 percent per year, with a goal of serving 20 percent of the state's retail electricity sales with renewables by 2010, made law in September 2006 with the enactment of Senate Bill 107 (Simitian), Chapter 464. California's energy policy, set by Governor Schwarzenegger, expanded the goal to achieve 33 percent renewables by 2020 for the state as a whole. The RPS program sets goals that help inform the policies of the other programs in the Renewable Energy Program.

The Energy Commission and the California Public Utilities Commission (CPUC) jointly implement the RPS. The Energy Commission's roles are to certify renewable facilities as eligible for the RPS, distribute supplemental energy payments (SEPs) to cover above-market costs, and design and implement an accounting system to track and verify RPS compliance. The CPUC develops rules for and provides oversight of procurement activities.

Renewable generators that win a contract through an investor-owned utility's competitive solicitation may be eligible for SEPs from the Energy Commission. Eligible new or repowered facilities priced above the market price referent (MPR) may apply for SEPs from the Energy Commission to pay the difference between the contract price and the MPR. The Energy Commission may set a cap on the amount of SEPs it issues.

Following are RPS activities through March 2007:

Since the RPS policy was established in 2002, the state's investor-owned utilities — Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E) — have conducted a number of renewable energy solicitations. From these competitive solicitations, and also through bilateral negotiations, the investor-owned utilities have signed 85 contracts for 2,935 to 4,433 megawatts (MW) of new and existing renewable energy projects (range reflects build-out options). This includes 61 contracts for 2,121 to 3,618 MW for new, repowered, or restarted renewable facilities, with 16 of these projects currently online, representing 324 MW. Of these 61 contracts, 8 have been subsequently canceled, 12 delayed (with 4 online, but with delays), 39 appear to be on track/schedule (in fact, 12 of these contracts are online), and the status of 2 is unknown. In terms of percentages, 9 to 15 percent of the capacity under contract for new, repowered, or restarted renewable facilities have begun operations (updated April 6, 2007).

- The Energy Commission adopted a staff draft of the revised *Renewables Portfolio Standard Eligibility Guidebook* on March 14, 2007, in response to changes in law and regulatory and market developments. The initial Committee draft was released in December 2006. The Renewables Committee held a workshop on January 10, 2007, and subsequently released a revised Committee draft that incorporated written and verbal public comments received during and in response to the workshop.

RPS CONTRACTS

This quarter, the investor-owned utilities executed contracts as a result of continuing negotiations from their 2005 solicitation, and also executed various bilateral contracts.

2005

IOU RPS Solicitation

- On January 2, 2007, SCE applied for approval of seven contracts totaling a minimum of 239 MW. Of these contracts, one is a new 1.5 MW biogas facility; four are repowered wind facilities totaling a minimum of 31.83 MW; two are existing facilities – one biogas (2.84 MW) and one geothermal (204 MW). Each of the seven contracts has a duration of 20 years.
- On February 2, 2007, SDG&E filed an advice letter (1872-E) for CPUC approval of a 10-year contract with an existing biogas facility totaling 49 MW.
- On March 1, 2007, SDG&E filed an advice letter (1879-E) with the CPUC for approval of a 5-year contract with an existing 4.6 MW biogas facility.

2006

IOU RPS Solicitation

No contracts executed during this period.

2007

IOU RPS Solicitation

No contracts executed during this period.

Bilateral

- On February 2, 2007, PG&E filed an advice letter (2979-E) for approval of a bilateral contract with a new biogas facility. Contract duration and facility capacity are unavailable.
- On February 17, 2007, SCE filed an application to the CPUC for approval of a 15-year bilateral contract with a re-started 15 MW biomass facility.
- On February 28, 2007, PG&E filed an advice letter (2996-E) for approval of a bilateral contract with a new biogas facility. Contract duration and facility capacity are unavailable.

Western Renewable Energy Generation Information System (WREGIS)

The Energy Commission is working with the Western Governors' Association, state and provincial representatives, and renewable energy market participants to design and implement an accounting system to verify compliance with California's RPS by retail sellers. WREGIS, a regional renewable energy tracking and registry system, will provide WREGIS Certificates to support verification of compliance with regulatory and voluntary renewable energy programs in the Western Interconnect.

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- APX, Inc., the Software Development & Technical Operations contractor, continued work to modify an existing generation tracking system for the purposes of WREGIS.
 - The WREGIS Project Team and APX finalized the WREGIS System Design Documents, which explain how the application will function, on March 13, 2007.
 - APX began designing and testing the WREGIS software in March 2007.
- WREGIS Administration
 - A new, dedicated WREGIS website debuted in March at www.wregis.org. This site provides updates and important WREGIS documents and will be the future home of the WREGIS application.
 - The WREGIS Administrative staff conducted outreach via informational webinars on March 20, 2007 and March 21, 2007. Approximately 70 stakeholders attended remotely.
- The WREGIS Committee held regularly scheduled conference calls to discuss policy issues related to WREGIS.
- The Energy Commission estimates that WREGIS will be operational in late June 2007.
- WREGIS expenditures this quarter:
 - Enterprise Networking Solutions contract for \$193,200 for the services of a Senior Project Manager consultant for the WREGIS project. Expended \$51,348
 - Visionary Integration Professionals contract for \$198,000 for the services of a Program Development Project Manager consultant for WREGIS. Expended \$73,500
 - Personal Enterprises, Inc. contract for \$115,200 for the services of a Quality Assurance/ Configuration Management Consultant for WREGIS. The QACM ensures APX performs the appropriate quality assurance and user acceptance testing, and all WREGIS documentation undergoes version control and adequate storage. Expended \$34,160
 - Public Sector Consultants, Inc. contract for \$55,100 for the services of an Independent Project Oversight Consultant for WREGIS. The IPOC is required by the Department of General Services for the WREGIS Project to evaluate project risks. Expended \$29,000
 - APX, Inc. contract for \$3,277,702 for the services of a Software Development and Technical Operations Contractor for WREGIS. The SD&TO modifies an existing generation registry and tracking system to serve the needs of WREGIS. Expended \$186,719
 - Western Electricity Coordinating Council contract for \$2,202,750 for the services of an Administrative home for WREGIS. The WREGIS Administration staff runs the day-to-day operations of WREGIS. Expended \$78,155

New Renewable Facilities Program (NRFP)

The NRFP fosters the development of new in-state renewable electricity generation facilities by providing financial support. The program consists of two parts:

1. Production incentives (cents per kWh payments for renewable energy generated) for proposed projects were allocated to the lowest bidders during three competitive solicitation processes, per SB 90. Production incentives are paid over a five-year period once a project begins electricity production.
 - Incentive payments totaling approximately \$852 thousand were made during this quarter.
 - Approximately \$110 million is encumbered for participating auction winners.

- Forty-seven¹ projects are currently online and producing electricity, representing 488 megawatts of new renewable energy capacity.
- Since its inception in June 1998, the NRFP has paid a total of almost \$68 million in production incentives to 47 new renewable generating facilities for 7,356 gigawatt-hours of generation.
- During this quarter, two projects funded by the NRFP were fully paid, and the project accounts were closed:

CEC ID #	FAA#	Name
50053	REN-98-022	Mountain View Power Partners (Catellus 1)
50054	REN-98-023	Mountain View Power Partners (Catellus 2)

- During this quarter, fourteen projects funded by the NRFP reached the end of their five-year collection period, and the project accounts were closed:

CEC ID #	FAA#	Name
50036	REN-98-019	Mountain View Power Partners (Alexander 1)
50037	REN-98-020	Mountain View Power Partners (Alexander 2)
50038	REN-98-021	Mountain View Power Partners (Alexander 3)
50039	REN-98-013	Mountain View Power Partners (16 West - 1)
50040	REN-98-014	Mountain View Power Partners (16 West - 2)
50049	REN-98-009	Mountain View Power Partners (Phoenix 2)
50050	REN-98-010	Mountain View Power Partners (Phoenix 3)
50051	REN-98-011	Mountain View Power Partners (Phoenix 4)
50052	REN-98-012	Mountain View Power Partners (Phoenix 5)
50055	REN-98-024	Mountain View Power Partners (Catellus 3)
50057	REN-98-026	Mountain View Power Partners (Catellus 5)
50058	REN-98-025	Mountain View Power Partners (Catellus 4)
50066	REN-01-066	Mountain View Power Partners LLC (Alexander 4)
50067	REN-01-067	Mountain View Power Partners (Catellus 6)

¹ The Wintec #2 wind project was split into two projects, but in order to maintain consistency with previous years, it will continue to be reported as one project.

2. Financial production incentives, referred to as SEPs, are provided to cover above-market costs of meeting the RPS, subject to certain cost constraints. If an eligible facility secures a power purchase agreement with a retail seller through a competitive solicitation, it may apply for SEPs.
 - The Energy Commission received a SEP application for a geothermal project under contract with PG&E, planned for either the Newbury Volcano or near Mount Shasta. However, the milestone date for the project final configuration, noted in the contract approved by the CPUC, has passed. In addition, there were discrepancies between the SEP application and the contract regarding the amount of SEPs requested, and the amount of production expected during the first years of the contract. The Energy Commission will not be able to consider the SEP request until a contract amendment, reflecting the current situation and clearing up discrepancies, is approved by the CPUC. A SEP application submitted previously by Esmeralda-Truckhaven Geothermal was withdrawn in February 2007.

Emerging Renewables Program (ERP)

The ERP provides consumers of electricity in investor-owned utility service territories with a rebate incentive to offset the cost of purchasing and installing new renewable energy systems at their homes and businesses. Reduced purchase costs encourage manufacturers and retailers to expand operations and reduce costs to consumers. Incentive payments are based on the rated electrical capacity of the system.

Through 2006, eligible technologies were solar photovoltaic (PV), small wind, fuel cells using renewable fuels, and solar thermal electric. Effective 2007, only small wind systems (rated output of 50kW or less) and fuel cells (using a renewable fuel) are eligible. The California Solar Initiative, discussed below, has replaced the solar components of both the Energy Commission's ERP and the CPUC's Self-Generation Incentive Program.

- During this quarter, payments totaling \$23.1 million were made for 1,766 installed systems, representing 8.5 MW of capacity.
- Approximately 53 reservation requests were received for about 328 kW of wind capacity.
- Payments to date total \$341 million for 23,500 systems representing approximately 101 MW of distributed generation capacity.
- Funds encumbered for 4,800 systems total \$78 million, representing 28.9 MW of capacity.
- Updated public information concerning the ERP continued to be made available on the Energy Commission's website.
- Based on an estimate of the funds necessary to approve all rebate applications submitted through December 31, 2006, staff and the Energy Commission's Renewables Committee will be recommending the reallocation of \$31,500,000 Renewable Resource Trust Fund dollars to the ERP. This will allow the ERP to continue making reservations and payments for the purchase and installation of renewable energy systems, to avoid major market and funding disruptions, and ensure adequate funding for all applications currently submitted.

– California Solar Initiative/New Solar Homes Partnership

The California Solar Initiative (CSI) is a \$3.35 billion solar incentive program administered by the CPUC, Energy Commission, and publicly-owned utilities from 2007 through 2016. The CPUC is responsible for providing incentives to the nonresidential and existing residential markets, and the Energy Commission's New Solar Homes Partnership (NSHP) program offers incentives to encourage solar installations in the residential new construction market within the investor-owned electric utility service areas. The CSI replaces the solar components of both the Energy Commission's ERP and the CPUC's Self-Generation Incentive Program.

- The NSHP program was officially open for business on January 2, 2007.
- An NSHP Affordable Housing Advisory Committee Meeting was held on March 23, 2007, at the Energy Commission. The focus of the meeting provided members and participants with

an opportunity to exchange ideas on staff and advisory committee proposals regarding the implementation of the affordable housing component of the NSHP.

- A total of six reservation requests was received during this quarter.

Expenditures for the NSHP support contracts are reported under their funding source, the Consumer Education Program.

– **Pilot Performance-Based Incentive Program**

This pilot program began in January 2005 as a possible long-term option for building the PV market in California. With a budget of \$10 million, the program offers a rebate level of \$0.50 per kWh based on the energy production of the installed solar PV system. The initial reservation period is one year to install the system. Quarterly performance payments are made over a three-year period. The Pilot Performance-Based Incentive Program closed in the fall of 2006 when all program funds were awarded.

- Fourteen systems, representing 615 kW of capacity, are installed and receiving quarterly payments.
- As of March 31, 2007, funds encumbered for 16 approved applications represent \$4.5 million and 1.5 MW of additional potential capacity.
- As described in the ERP Guidebook, the Energy Commission is evaluating the pilot program to determine if program objectives were met, and program design and incentive levels were adequate. In June and July of 2006, a survey was conducted to gather data from applicants of the Pilot Performance-Based Incentive program. In addition, staff also surveyed PV customers of the CPUC's Self-Generation Incentive Program in order to compare the two programs. Survey results were compiled and analyzed, and staff anticipates publishing the evaluation report in the third quarter of 2007.

– **Affordable Housing Program**

Solar PV systems installed on affordable housing projects and meeting defined criteria are offered rebates 25 percent higher than the standard ERP rebate, not to exceed 75 percent of the system cost.

- During this quarter, payments of \$639,000 were made to 16 affordable housing projects.
- \$3.3 million remains reserved for 196 projects pending completion.
- The Affordable Housing Program represents 678 kW of installed renewable electrical capacity for 213 systems as of December 31, 2006.

– **Solar Schools Program**

In May 2004, the Solar Schools Program offered \$4.5 million in incentives to eligible public and charter schools for the installation of solar PV systems. Over thirty schools have been selected to receive the higher rebate – participants receive double the current ERP rebate – and awardees claim their rebate when their PV system is fully installed and operational. The Solar Schools Program is now closed. The program was funded equally by the Energy Commission's Emerging Renewables Program (\$2.25 million) and the California Attorney General's Alternative Energy Retrofit Account (\$2.25 million).

- The ten remaining schools are in various stages of completing their PV installation projects. No additional rebate award payments were made during this quarter.
- To date, 23 schools have completed the installation of their PV systems, with payments totaling \$3.14 million for over 500 kW of solar capacity.

Existing Renewable Facilities Program (ERFP)

This program provides production incentives of up to 1.5 cents per kilowatt-hour to biomass, solar thermal, and wind facilities. Incentive payments are tied to market prices, with no payments made if the market price is above a predetermined target price.

- During this period, about \$5.0 million in payments were made for 807 GWhs of October to December 2006 generation.
- To date, cumulative payments totaling \$249 million have been made to existing facilities for generation.
- ERFP rollover funds — those remaining after payments have been made and rolled over to the next payment cycle as available funds — total \$13.6 million.
- 378 facilities are registered as renewable suppliers, with 102 eligible for funding from the ERFP.
- In January 2007, the Renewables Committee held a workshop to solicit public comments on the staff draft *Existing Renewable Facilities Program Eligibility Guidebook*, which was revised in response to changes in legislation. The Renewables Committee Draft version of this guidebook was adopted at the March 14 Business Meeting. Under the revised Guidebook, individual biomass and solar thermal facilities will be assigned individual target prices and caps based on an Energy Commission staff analysis of financial information submitted by the facilities. Staff expects to receive this information from the individual facilities during the second quarter of 2007.

Consumer Education Program

This program awards grants and contracts to increase public awareness of renewable energy and its benefits, and to help build a consumer market for renewable energy and small-scale emerging renewable technologies.

Consumer Education activities this quarter:

- New Solar Homes Partnership contract activities

A contract for \$105,000 is in place to assist the NSHP with developing partnerships with builders and other stakeholders. Activities conducted by the contractor include: researched building industry partnership trends; developed draft guidelines and a list of proposed builders for partnership development; met with the Energy Commission's Public Interest Energy Research staff to identify overlap in marketing programs; conducted initial meetings with builders on potential partnership opportunities; began interviews with NSHP Advisory Committee members, as well as other stakeholders, to gain industry knowledge and feedback for marketing campaign and partnership development strategies. Expended \$15,334
- The KEMA technical assistance contract supported Consumer Education activities as follows:
 - New Solar Homes Partnership activities: developed conference agendas; coordinated NSHP activities, reviewed database documentation, developed process flow diagrams. Expended \$90,775
 - Affordable housing technical support: Assisted with subcommittee activities; met with staff, utilities, and other stakeholders. Expended \$6,812
 - WREGIS development activities: Provided technical advice and assistance to staff in reviewing and drafting Project Memos and issue briefs on Project Issue Requests; developed election materials; drafted WREGIS Data Confidentiality Matrix; provided training to new program and Energy Commission staff for WREGIS Committee meetings and election process; attended and provided support for WREGIS Committee and Subcommittee meetings; provided communications support; provided updates to the website, including posting notes, agendas, etc.; corresponded with stakeholders regarding questions about WREGIS; compiled stakeholders' comments; assisted in developing a process document and contact list for state and voluntary programs that will interface with WREGIS. Expended \$9,062