

California Energy Commission
RENEWABLE ENERGY PROGRAM
Summary of Activities
January 1, 2008 – March 31, 2008

RENEWABLE ENERGY PROGRAM

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

ACCOMPLISHMENTS

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. The RPS was enacted in 2002 and the 20 percent by 2010 target was codified in September 2006 with the enactment of Senate Bill 107 (Simitian, Chapter 464). The Governor, the Energy Commission, and the CPUC endorsed an enhanced goal of 33 percent renewables by 2020 for the state as a whole. Greenhouse gas reduction goals codified in Assembly Bill 32 (Nuñez, Chapter 488, Statutes of 2006) add to the importance of achieving these renewable targets. The RPS program sets goals that help inform the policies of the other programs in the Renewable Energy Program.

The Energy Commission and the CPUC jointly implement the RPS. The Energy Commission's initial roles were to certify renewable facilities as eligible for the RPS, design and implement an accounting system to track and verify RPS compliance, and distribute supplemental energy payments (SEPs) to cover the above-market costs of renewable energy procured to meet the RPS. In October 2007, the enactment of SB 1036 repealed the provisions for awarding SEPs and required the Energy Commission to refund the remaining unencumbered SEP funds to the retail sellers, which occurred in March 2008. The legislation also transferred the administrative responsibility for above-market costs to the CPUC. The CPUC develops rules for and provides oversight of procurement activities.

Following are RPS activities through March 2008:

Since the RPS policy was established in 2002, the state's investor-owned utilities (IOUs) — Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric — have conducted a number of renewable energy solicitations. From these competitive solicitations (including an all-source solicitation), and also through bilateral negotiations, the investor-owned utilities have signed 93 contracts for 6,211 to 8,409 megawatts (MW) of new and existing renewable energy projects to date (range in capacity reflects build-out options). This includes 81 contracts representing 5,597 to 7,795 MW of new, repowered, or restarted renewable facilities. Of these, 23 contracts are with projects that are currently online for 530 MW of capacity (588 MW of maximum capacity from projects only partially online). Online facilities

account for 9 percent of the total minimum contracted capacity for new, repowered, or restarted renewable facilities. (Data updated April 18, 2008.)

- The Energy Commission released a final *RPS Eligibility Guidebook* in January 2008 after its December 2007 adoption of the *Draft RPS Eligibility Guidebook* that incorporated written and verbal public comments received during and following a September 2007 workshop.
- The Energy Commission and the CPUC are developing a *Joint Agency Staff Report on Tracking System Operational Determination* to determine whether the RPS accounting system is operational, capable of independently verifying that the electricity is generated by an eligible energy resource and delivered to a retail seller, and can ensure against double counting of renewable energy credits. When such a conclusion is made, the CPUC may authorize the use of tradable renewable energy credits to satisfy the requirements of the RPS. The Energy Commission and the CPUC held a workshop on March 17, 2008, to solicit public input on the initial *Draft Joint Agency Report*. The CPUC plans to release a revised *Draft Joint Agency Report* in May 2008, with both agencies planning to adopt a final report in summer 2008.

RPS Contracts

The IOUs continued RPS contract activities this quarter as a result of their solicitations conducted in 2006 and 2008. Contracts were executed as a result of the solicitations while others were negotiated bilaterally, separate from the RPS solicitation process.

2006 All Source Solicitation

- On January 31, 2008, CPUC Decision D.08-01-028 approved a 2-year contract between SDG&E and a new 1.5 MW biomass facility.

2006 IOU RPS Solicitation

- On March 13, 2008, the CPUC's Resolution E-4126 approved a 20-year contract between SCE and a new 50 MW geothermal facility.

2008 Bilateral Solicitation

- On January 23, 2008, SCE filed an advice letter (2203-E) with the CPUC requesting approval of two 20-year contracts, each with a new 2 MW biogas facility.
- On February 1, 2008, SDG&E filed an advice letter (1963-E) with the CPUC requesting approval of a 20-year contract with a new 40 MW geothermal facility.
- On February 15, 2008, PG&E filed an advice letter (3211-E) with the CPUC requesting approval of a 7-year contract with an existing 57 MW geothermal facility.

Western Renewable Energy Generation Information System

The Energy Commission, in conjunction with the Western Governors' Association and renewable energy market stakeholders, designed and implemented an accounting system to verify that renewable energy output is counted only once for the purposes of California's Renewable Portfolio Standard and other regulatory or voluntary programs related to renewable energy throughout the west. The Western Renewable Energy Generation Information System (WREGIS), a regional renewable energy certificate tracking and registry system, provides

WREGIS Certificates to support verification of compliance with regulatory and voluntary renewable energy programs in the Western Interconnect.

- APX, Inc., the System Development & Technical Operations Contractor
 - APX continued to provide maintenance and support services for WREGIS and to make changes to the system that were requested by stakeholders and approved by the WREGIS Committee.
 - APX developed a design proposal for the addition of verification of energy delivery functionality to WREGIS. This design proposal was in response to stakeholders from states (including California) with a Renewables Portfolio Standard that includes delivery in its eligibility requirements. In future months, APX will develop a cost and schedule estimate for the finalized delivery design proposal and bring it to the WREGIS Committee for approval.
- WREGIS Administration
 - 120 companies registered to be Account Holders in WREGIS by March 27, 2008.
 - It is expected that all California RPS-obligated entities will become WREGIS Account Holders by the California RPS-obligated date of May 1, 2008.
 - A revised version of the WREGIS Terms of Use agreement, which must be signed by all WREGIS Account Holders, was proposed by stakeholders on March 10, 2008. The WREGIS Committee will vote on whether to approve the new Terms of Use agreement at their meeting on April 23, 2008.
- The WREGIS Committee held monthly conference calls to discuss and review policy issues related to WREGIS, such as minor changes to system functionality and program documents.
- WREGIS expenditures this quarter from the Consumer Education account (unless noted otherwise):
 - APX, Inc. contract for \$3,277,702 for the services of a System Development and Technical Operations (SD&TO) Contractor for WREGIS. The SD&TO Contractor modified an existing generation registry and tracking system to serve the needs of WREGIS and will continue to perform operations and maintenance for the system at least through the end of the Energy Commission/APX Contract in October 2010. Expended \$55,751
 - Western Electricity Coordinating Council contract for \$2,202,750 for the administration of WREGIS. The WREGIS Administration staff runs the day-to-day operations of WREGIS. Expended \$103,593

New Renewable Facilities Program

The New Renewable Facilities Program (NRFP) fosters the development of new in-state renewable electricity generation facilities by providing financial support. In October 2007, the enactment of SB 1036, effective January 1, 2008, radically impacted the NRFP. In accordance with the legislation's direction, the Energy Commission implemented the following this quarter:

- The Energy Commission terminated all pending awards made to projects under the New Renewable Resources Account of the Renewable Resource Trust Fund (RRTF) prior to January 1, 2002, unless the projects were online and operational by January 1, 2007.
- In March, the Energy Commission refunded the New Renewable Resources Account's remaining unencumbered funds (totaling \$461,681,784) to the electrical corporations whose ratepayers contributed funds to support the RRTF. These electrical corporations included Pacific Gas & Electric, San Diego Gas & Electric, Southern California Edison, and Bear Valley Electric Service (a division of Golden State Water Company).
- The Energy Commission's authority to award SEPs was eliminated as of January 1, 2008. Beginning 2008, the CPUC has authority over the disposition of SEPs for above-market costs.

Under the NRFP's original SB 90 funding, production incentives (cents per kWh payments for generated renewable energy) for proposed projects were allocated to the lowest bidders during three competitive solicitation processes. Production incentives are paid over a five-year period once a project begins generating electricity.

- During this quarter, the NRFP paid approximately \$830,000 in production incentives to 12 facilities for 151 gigawatt-hours of renewable generation.
- Approximately \$55 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 approximately \$73.7 million in production incentives to forty-seven new renewable generating facilities for 8,284 gigawatt-hours of generation.
- During this quarter, two pending funding awards were terminated as required by SB 1036. The funds from these awards were included in the March 2008 transfer of funds to the electrical corporations.

CEC ID #	FAA#	Name
50022	REN-98-018	Calpine Telephone Flat Inc.
50026	REN-98-017	Calpine Siskiyou Geothermal Partners, L.P. Fourmile Hill

Emerging Renewables Program

The Emerging Renewables Program (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

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.

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 for both solar and wind projects totaled \$4.5 million for 375 installed systems. This represents 2.2 MW of capacity.
- Approximately 14 reservation requests were received for about 101 kW of wind capacity.
- Payments to date total \$400 million for 28,069 systems representing approximately 125 MW of distributed generation capacity.
- Funds encumbered for 551 systems total nearly \$11 million, representing 3.9 MW of capacity.

– **California Solar Initiative/New Solar Homes Partnership**

The California Solar Initiative (CSI) is a \$3.35 billion solar incentive program with the goal of installing 3,000 MW of capacity by 2016. The CSI is administered by the CPUC, Energy Commission, and publicly-owned utilities. 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, with high levels of energy efficiency, in the residential new construction market for investor-owned electric utility service areas. The NSHP portion of the CSI goal is to install 400 MW of capacity. Unlike the ERP, incentives under the NSHP are not capacity-based. Instead, the actual incentive for a particular system and installation is dependent on an Expected Performance-Based Incentive calculation of the system's performance compared to a reference system.

NSHP Program Activity

NSHP activity for the 1st quarter of 2008 included the following:

- A total of 79 reservation requests for 2,412 solar systems were received.
- Since the program's inception, there have been a total of 234 applications received for 3,981 solar systems through March 31, 2008.
- At the end of this quarter, \$390,000 has been paid and \$3.5 million has been encumbered.

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

Program Administration

An important part of NSHP program implementation, which will soon be realized, is IOU program administration. Although the NSHP program requires eligible applications to achieve high levels of energy efficiency, the cost of achieving higher

efficiency can be significantly offset when applicants participate in the IOUs' (PG&E, SCE, SDG&E) Residential New Construction programs, which offer incentives for high levels of energy efficiency. With coordinated IOU administration of both the NSHP and Residential New Construction programs, greater efficiencies can be achieved, ultimately simplifying the application process for consumers. SDG&E took over program administration on March 20, 2008. Contracts for SCE and PG&E are still being reviewed. SCE is expected to take over as program administrator for its service area in the near future, with PG&E following shortly thereafter.

In addition to the change in program administration, an online application web tool has been developed. This online application allows consumers to apply to the NSHP program online, minimizing paperwork and saving time. In addition, consumers and program administrators will be able to easily follow applications through the various stages of the NSHP 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 offered a rebate level of \$0.50 per kWh based on the energy production of the installed solar PV system. The initial reservation period was one year to install the system with quarterly performance payments made over a three-year period. The Pilot Performance-Based Incentive Program received a total of 55 applications and closed December 31, 2006 with commencement of the California Solar Initiative.

- During the quarter payments of \$65,609 were made.
- A total of 19 systems, representing 890 kW of capacity, are installed and receiving quarterly payments.

– **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 to new applicants. 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).

- Through the end of the quarter, the program has paid \$3.4 million for 25 schools, resulting in more than 529 kW of added solar capacity.
- Three remaining schools are in various stages of completing their PV projects. Due to various financial issues, five schools have cancelled their rebate awards and were unable to continue with their solar PV projects.

Existing Renewable Facilities Program

The Existing Renewable Facilities Program (ERFP) offers production incentives to biomass, solar thermal electric, and wind facilities. Incentive payments are tied to market prices, with no payments made if the market price is above a predetermined target price. Beginning 2007, under Senate Bill 1250's program structure, facilities must apply for funding. Applications must include a project-specific target price request and a cents/kWh cap on funding for energy produced in a calendar year.

During this period, Funding Award Notices were issued to the following facilities for calendar year 2007: Burney Mountain Power, Covanta Delano, Covanta Mendota, Mount Lassen Power, Pacific Oroville Power, and Pacific-UltraPower Chinese Station. The ERFP paid a total of \$9.95 million to existing biomass and solar thermal electric facilities in the first quarter of 2008. Of that amount, approximately \$2.12 million was for 354 GWh of October through December 2007 generation (payments to Sierra Pacific, Sunray, Pacific Lumber, Burney Forest, Big Valley, Woodland Biomass, Sierra Power, Rio Bravo Rocklin, Rio Bravo Fresno, H.L. Power, Dinuba Energy, and Colmac Energy facilities) and approximately \$7.83 million in payments to additional facilities for 1,855 GWh of January through December 2007 generation (Tracy Biomass, Luz Solar Partners III-IX, Wheelabrator Shasta, Collins Pine, Pacific-UltraPower Chinese Station, Pacific Oroville, Burney Mountain, Mount Lassen Power, Covanta Delano, and Covanta Mendota).

- To date, cumulative payments totaling \$267 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 \$16.1 million.
- 649 facilities are certified as RPS eligible renewable suppliers, with 137 eligible for funding from the ERFP.

A draft version of the revised *ERFP Guidebook* was released for program participants' review in March 2008. Staff expects to submit a revised *ERFP Guidebook* to the Energy Commission for adoption in mid-2008. No Funding Awards will be issued for the 2008 calendar year until this Fifth Edition of the *ERFP Guidebook* is adopted.

Consumer Education Program

This program is designed 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.

- **New Solar Homes Partnership**

Contract support activities:

ProProse contract for \$105,000 assists the NSHP campaign by securing varying levels of partnerships. These include builders' participation in the program, financial institutions offering energy efficiency and solar-friendly loans or programs, realtors and appraisers, utilities, and other entities to help leverage the NSHP's outreach and public awareness campaign dollars.

- The Energy Commission approved an amendment to this contract at its January 30, 2008, Business Meeting. The amendment would extend the term another 14 months and add an additional \$145,000 to continue efforts of partnership development for purposes of leveraging dollars for the NSHP Public Awareness Campaign. The amendment is currently awaiting approval by the Department of General Services Procurement Division.
- Contractor activities: Held meetings and discussions with Energy Commission staff; negotiated with Clear Channel regarding a two-year sweepstakes and additional bonus media; began discussions with SMUD regarding other possible partnership activities; conducted a solicitation and selected Wells Fargo to be the primary sponsor of the NSHP public awareness campaign in exchange for value in advertising and a \$500,000 grand prize give-away for the joint sweepstakes with Clear Channel; wrote case studies for solar home builders in California to be included in the Builder Outreach Kit; reviewed and provided feedback on the NSHP logo branding submitted under the Edelman contract; wrote and revised builder partnership matrix to use in soliciting partnerships from builders; worked with Edelman team to develop 2008 media plan; presented media plan to the Energy Commission Chairman and the NSHP Advisory Committee; attended status meetings with Energy Commission and Edelman staff.

Expended \$34,367 - Expenditures paid during this quarter are for activities conducted last quarter. Activities under this contract have been put on hold effective January 1, 2008, pending DGS approval of contract amendment.

Edelman three-year contract for \$4.3 million provides an array of marketing and media planning services. These include market research to analyze and identify California home buyers who are most likely to seek higher levels of energy efficiency and solar photovoltaic systems when purchasing new homes; determining the most effective messaging, logo design, and branding; creative development (advertisements and print collateral); and ad placement.

- Contractor activities: Revised and submitted a final draft market research report; coordinated various partnership development activities including developing metrics for measuring success, submitting a revised plan for municipal outreach efforts, narrowing the scope to include elements most likely to achieve success, and submitting a proposed budget and timeline for implementing the local government outreach plan; continued work on the Builder Outreach Kit case studies and other kit materials with ProProse and Energy Commission staff; submitted a revised Final 2007 Marketing and Media Plan and presented it to the Energy Commission Chairman and NSHP Advisory Committee; coordinated budget and ad buy approvals with the Energy Commission; negotiated initial contracts with media vendors and placed ad buys per approved plan; developed and submitted the Draft 2008 Market and Media Plan in coordination with ProProse; assisted ProProse in the development of a Sponsorship Matrix; conducted trademark research, submitted revised solar brand logos, and finalized the "California Sun Certified" logo per Energy Commission direction; researched opportunities and coordinated efforts for Energy Commission participation in various events including a builder announcement event at the State Capitol, a builder announcement press release,

media advisory for the Solar Power 2007 conference, and abstracts to the Pacific Coast Builders Conference and American Solar Energy Conference for future participation; began developing creative design, including obtaining videos and photos from builders, for flash work to be included on the Go Solar website; developed and submitted a media list and calendar for builder trade publications.

Expended \$174,220

- **KEMA**

Technical assistance contract provides support for Consumer Education activities as follows:

- Utility Allowance Model work: Contractor is developing a quantitative model to be made available to California's affordable housing community in order to estimate utility expenses for affordable housing developments considering solar electric systems. Work this quarter included continued coordination with the Alternative Compliance Method vendors; performed internal tests and revised software accordingly; compiled external beta-tester list and draft beta release memo; submitted Project-Specific Utility Allowance tool beta release and memo to external testers; created KEMA Sharepoint site for software download; and responded to stakeholders on testing issues and questions regarding the tool's functionality.

Expended \$17,903

- NSHP Affordable Housing Technical Support: Contractor serves on various sub-committees providing support to the affordable housing element of the NSHP and provided responses to staff and stakeholders' inquiries regarding NSHP impact from amendment of IRS regulations, the NSHP process, etc.

Expended \$817

- WREGIS development activities: Participated in WREGIS Committee meeting and prepared and submitted meeting notes to members.

Expended \$763

- **New Technical Support Contract**

In January 2008, a total of three proposals were received in response to a Request for Proposal for a contractor to provide technical support to the Renewable Energy Program for a three-year period. All three proposals were independently reviewed by a four-person evaluation and selection committee. KEMA, Incorporated was selected as the winning bidder and a Notice of Proposed Award was posted in February. The \$3,861,000 contract is scheduled for possible approval at the Energy Commission's April 16 Business Meeting.

Additional Renewable Energy Program Activities

- **Cost Benefit Study of Self-Generation Incentive Program**

Pursuant to Assembly Bill 2778 (Lieber, Chapter 617, Statutes of 2006), on or before November 1, 2008, the Energy Commission, in consultation with the CPUC and California Air Resources Board, must evaluate the costs and benefits, including air pollution,

efficiency, and transmission and distribution system improvements, of providing ratepayer subsidies for renewable and fossil fuel “ultraclean and low-emission distributed generation,” as part of the Energy Commission’s *Integrated Energy Policy Report*. The Energy Commission must include recommendations for changes in the eligibility of technologies and fuels under the program, and whether the level of subsidy should be adjusted after considering its conclusions on costs and benefits.

A contract with TIAX was approved at the Energy Commission’s Business Meeting, in January 2008, to provide a comprehensive cost-benefit analysis of electric generation technologies related to the CPUC’s Self-Generation Incentive Program. On March 19, the Department of General Services signed and approved the TIAX contract; the contract’s end date is December 31, 2008. A kick-off meeting was held at the Energy Commission on March 27 to discuss scope of work, due dates and deliverables, and contract terms.

- **Guidelines for California’s Solar Electric Incentive Programs**

Senate Bill 1 (Murray, Chapter 132, Statutes of 2006) requires the Energy Commission, in consultation with the CPUC, local publicly-owned electric utilities, and interested members of the public, to establish eligibility criteria for solar energy systems; conditions for incentives; rating standards for equipment, components, and systems for electric ratepayer-funded solar energy incentive programs in California by January 1, 2008.

The bill identifies the following conditions for receiving ratepayer funded incentives:

- High quality solar energy systems with maximum system performance to promote the highest energy production per ratepayer dollar
- Optimal system performance during periods of peak demand
- Appropriate energy efficiency improvements in the new and existing home or commercial structure where the solar energy system is installed

Guidelines for California’s Solar Electric Incentive Programs Pursuant to Senate Bill 1 (publication #CEC-300-2007-012-CMF) was made available to the public in January 2008 after its adoption at the Energy Commission’s December 2007 Business Meeting. Staff provided support to the CPUC, investor-owned utilities, publicly owned electric utilities, and trade associations to assist them with their solar programs in order to comply with these Guidelines.