

# California Energy Commission, Renewable Energy Program



Peter Dempster, California Biomass Collaborative

## Covanta Mount Lassen Power in Westwood, California

The Mount Lassen Power biomass facility manages more than 270 tons of sawmill waste and forest residues each day. Incentive funding provided by the Existing Renewable Facilities Program supports the project as it converts these materials into approximately 11.5 megawatt hours of electricity, enough to meet the needs of 11,500 homes



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## Tracy Biomass, Tracy, California

Tracy Biomass is a 20 megawatt biomass plant that generates enough electricity to power 19,000 homes. Each year, on average, the facility processes 170,000 dry tons of biomass waste, diverting urban wood waste from local landfills and avoiding open-burning of orchard waste. To date, the Existing Renewable Facilities Program has incentivized their electricity production with nearly \$5.3 million.

## Renewable Energy Program

Since 1998, the California Energy Commission's (Energy Commission) Renewable Energy Program has supported policies and programs that provide Californians with cleaner sources of energy for their homes, businesses, and schools. The Renewable Energy Program has encouraged investments in renewable energy by providing various rebates and renewable electricity production incentives for new and existing renewable facilities and emerging technologies. Meeting California's energy needs while reducing greenhouse gas emissions with renewable resources are the centerpieces of the program's efforts and are key to achieving the state's ambitious Renewables Portfolio Standard (RPS), California

*"Over the years, California's commitment to clean energy has been enhanced by its relationship with CESA. The organization has proven to be a valuable tool in coordinating and supporting the efforts of states who share the common vision of a clean energy future for the nation."*

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Solar Initiative, and greenhouse gas reduction goals.

### Renewables Portfolio Standard

California's RPS requires retail energy sellers to increase renewable energy as a percentage of their retail sales to

20 percent by 2010. Governor Arnold Schwarzenegger's signing of two Executive Orders set into motion higher RPS goals challenging California to get one-third of its electricity from renewables by 2020. The Energy Commission and the California Public Utilities Commission jointly implement the state's RPS, and the Energy Commission is tasked with certifying renewable facilities as eligible for the RPS and designing and implementing an accounting system to track and verify RPS compliance.

### Western Renewable Energy Generation Information System (WREGIS)

The Energy Commission, together with APX, Inc., and the Western Electricity Coordinating Council, implemented and put into operation the WREGIS, a regional



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renewable energy certificate tracking and registry system. Launched in 2007, WREGIS issues and tracks WREGIS Certificates to support verification of compliance with California's RPS and with regulatory and voluntary renewable energy programs in the Western Interconnect.

### Existing Renewable Facilities Program

The Existing Renewable Facilities Program 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.

### Emerging Renewables Program

The Emerging Renewables Program provides rebates and production incentives to end-use consumers who purchase and install eligible renewable energy systems for on-site generation. Through 2006, eligible technologies were solar photovoltaic, small wind, fuel cells using renewable fuels, and solar thermal electric. Effective in 2007, only small wind systems and fuel cells (using a renewable fuel) are eligible. The Energy Commission's New Solar Homes Partnership (NSHP) and the California Public Utilities Commission's California Solar Initiative have replaced the solar component of the Emerging Renewables Program.

### New Solar Homes Partnership

The Energy Commission's NSHP intends to create a sustainable market for solar homes and to gain builder commitment to install solar energy systems. The program offers incentives to encourage solar installations, with high levels of energy efficiency, in the residential new construction market. The goal of the NSHP is to install 400 MW of capacity by 2016.

### Senate Bill 1

Senate Bill 1 (Murray, Chapter 132, Statutes of 2006), an extensive and multi-faceted legislation, enacts Governor Schwarzenegger's Million Solar Roofs Initiative and is built upon the California Public Utilities Commission's California Solar Initiative, the Energy Commission's NSHP, and the publicly owned utilities' existing solar energy incentive programs. With an emphasis on energy efficiency and high performance installations, this \$3.35 billion comprehensive statewide solar effort aims to install 3,000 MW of capacity by 2016.

### Consumer Education

The Consumer Education Program funds grants and contracts to increase public awareness of renewable energy and its benefits and helps develop a consumer market for renewable energy and small-scale emerging renewable energy technologies.

Californians embraced the power of the sun in the Energy Commission's second annual **GO SOLAR CALIFORNIA SWEEPSTAKES**, which educated consumers about solar and energy efficiency. Nearly 31,000 online entries were received in the contest and more than 22 percent requested more information about solar energy. The sweepstakes, which ended October 31, 2009, challenged entrants to test their solar knowledge for a chance to win "green" prizes, including a Green Home Makeover. Visitors took a quiz and watched an educational video about the Energy Commission's New Solar Homes Partnership on the [GoSolarCalifornia.org](http://GoSolarCalifornia.org) website.

Final payments have been issued and the results are in for the **EMERGING RENEWABLES PROGRAM's** enormously successful solar PV rebate program offered from 1998 through 2006. The program was responsible for 122.6 MW of generating capacity and issued total rebates of \$398 million for more than 28,000 on-site solar system installations.

**20% BIOMASS TARGET** In addition to the 20 percent by 2010 renewable energy goal established under California's RPS statute, Governor Schwarzenegger has called for a 20 percent target within this goal to be met with electricity from biomass. Currently, generation from biopower resources provides about 20 percent of California's renewable energy. Of this 20 percent, more than 70 percent of California's biopower generation comes from solid-fuel biomass facilities receiving funding from the Existing Renewable Facilities Program.

Since its beginning in 1998, the **NEW RENEWABLE RESOURCES ACCOUNT** conducted three auctions resulting in 47 projects being brought online—principally wind, geothermal, and landfill gas—for 488 MW of new renewable electricity. Although the account was discontinued in July 2008, its production incentives provided more than \$76 million in payments and supported about 8,730 GWh of generation.



### Ironwood at Wolf Creek Solar Home, Temecula, California

Taking advantage of Southern California's sunshine, 92 homes in the Ironwood at Wolf Creek subdivision have installed solar systems and applied for rebates under the New Solar Homes Partnership (NSHP). These "Solar Advantage" homes feature a subtle solar tile product and meet the NSHP's Tier II energy efficiency levels, meaning they are 35 percent more energy efficient than California's current Title 24 Building Standards.