From: Hansen, Craig
To: Pat Deibert
Subject: California Energy Commission 2015
Date: Thursday, October 01, 2015 10:50:48 AM
Attachments: California_Renewable_Energy_2015_Overview_and_Programs.pdf

---

California Renewable Energy Overview and Programs

California, with its abundant natural resources, has a long history of support for renewable energy.

In 2009, 11.6 percent of all electricity came from renewable resources such as wind, solar, geothermal, biomass and small hydroelectric facilities. Large hydro plants generated another 9.2 percent of our electricity.

Around the turn of the 20th century, tens-of-thousands of homes in Southern California took advantage of the "California sunshine" to heat water for their homes. The oil crises of the 1970s gave rise to concerns over dependence on fossil fuels. At that time, federal and state tax credits helped establish a new solar and wind industry. Wind turbine farms cropped up on the slopes of hills in three primary locations.

Following deregulation of the electric utilities in 1998, the California Energy Commission was placed in charge of a new **Renewable Energy Program** to help increase total renewable electricity production statewide. This followed decades of bipartisan legislative and gubernatorial support for renewable energy, helping to make California a recognized leader in the field.

The Energy Commission's Renewable Energy Program provided market-based incentives for new and existing utility-scale facilities powered by renewable energy. It also offered consumer rebates for installing new wind and solar renewable energy systems. The program also helps educate the public regarding renewable energy. Find out more about the history of the program.

From 1998 to December 31, 2006, the Energy Commission's **Emerging Renewables Program** funded grid-connected, solar/photovoltaic electricity systems under 30 kilowatts on homes and businesses in the investor-owned utilities' service areas, wind systems up to 50 kW in size, fuel cells (using a renewable fuel), and solar thermal electric. The California Public Utilities Commission (CPUC) funded larger self-generation projects for businesses. Since 2007, the Emerging Renewables Program has focused on providing incentives toward the purchase and installation of small wind systems and fuel cells using a renewable fuel.

Effective 2007, the solar portion of the Emerging Renewables Program ended and was replaced with Senate Bill 1's vision for California to have two programs to support onsite solar projects: the Energy Commission's New Solar Homes Partnership and the California Public Utilities Commission's California Solar Initiative. In addition, there would be a variety of solar programs offered through the publicly owned utilities. This statewide effort is known collectively as Go Solar California and has a statewide campaign goal of 3,000 MW of solar generating capacity with a budget of $3.35 billion.

The CPUC's California Solar Initiative (CPUC ruling - R.04-03-017) moved the consumer renewable energy rebate program for existing homes from the Energy Commission to the utility companies under the direction of the CPUC. This incentive program also provides cash back for solar energy systems of less than one megawatt to existing and new commercial, industrial, government, nonprofit, and agricultural properties. The CSI has a budget of $2 billion over 10 years, and the goal is to reach 1,940 MW of installed solar capacity by 2016.

The Energy Commission's New Solar Homes Partnership, a $400 million program, offers incentives to

Renewable Energy Rebates & Incentives

Incentives for Solar / PV Systems

Renewable Energy Programs

Renewable Energy Home
History of Commission's Renewable Energy Program
Combined Heat and Power
Electric Program Investment Charge
Emerging Renewables Program
Existing Renewable Facilities Program
Geothermal Grant and Loan Program (GRDA)
Guidelines, Publications, and Reports
New Renewable Resources Account
New Solar Homes Partnership
Notices For Renewable Energy Program
(For specific proceedings, see each below)
Power Source Disclosure Program
(SB 1305)
Renewables Portfolio Standard (RPS)
Renewable Energy Program Quarterly Updates
Consumer Education
CONTACT US

Proceedings

Rulemaking: Enforcement Procedures for Local Publicly Owned Electric Utilities - 13-RPS-01
Large Solar Energy Projects in California
Renewable Energy and Conservation Planning Grants
(Docket #12-GREP-1)
SB 1 - Senate Bill 1 Eligibility Criteria and Conditions for Solar Energy System Incentives
(Docket # 07-SB-1)
Bioenergy Action Plan
(Docket: # 06-BAP-1)
New Solar Homes Partnership Proceeding

encourage solar installations, with high levels of energy efficiency, in the residential new construction market for investor-owned electric utility service areas. The goal of the NSHP is to install 400 MW of capacity by 2016.

Committee overseeing Renewable Energy:

David Hochschild
Commissioner and Presiding Member
Renewables Committee

Utility Companies and Renewable Energy

In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2017. The *2003 Integrated Energy Policy Report* recommended accelerating that goal to 20 percent by 2010, and the *2004 Energy Report Update* further recommended increasing the target to 33 percent by 2020. The state's **Energy Action Plan** supported this goal. In 2006 under Senate Bill 107, California's 20 percent by 2010 RPS goal was codified. The legislation required retail sellers of electricity to increase renewable energy purchases by at least 1 percent per year with a target of 20 percent renewables by 2010. Publicly owned utilities set their own RPS goals recognizing the intent of the legislature to attain the 20 percent by 2010 target.

On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08 requiring that "... [a]ll retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." The following year, Executive Order S-21-09 directed the California Air Resources Board, under its AB 32 authority, to enact regulations to achieve the goal of 33 percent renewables by 2020.

In the ongoing effort to codify the ambitious 33 percent by 2020 goal, SBX1-2 was signed by Governor Edmund G. Brown, Jr., in April 2011. In his signing comments, Governor Brown noted that "This bill will bring many important benefits to California, including stimulating investment in green technologies in the state, creating tens of thousands of new jobs, improving local air quality, promoting energy independence, and reducing greenhouse gas emissions."

This new RPS preempts the California Air Resources Board's 33 percent Renewable Electricity Standard and applies to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt the new RPS goals of 20 percent of retails sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020.

Timeline of California's Renewables Portfolio Standard

2002: Senate Bill 1078 establishes the RPS program, requiring 20% of retail sales from renewable energy by 2017.

2003: Energy Action Plan I accelerated the 20% deadline to 2010.

2005: Energy Action Plan II recommends a further goal of 33% by 2020.

2006: Senate Bill 107 codified the accelerated 20% by 2010 deadline into law.

2008: Governor Schwarzenegger issues Executive Order S-14-08 requiring 33% renewables by 2020.

2009: Governor Schwarzenegger issues Executive Order S-21-09 directing the California Air Resources Board, under its AB 32 authority, to adopt regulations by July 31, 2010, consistent with the 33% renewable energy target established in Executive Order S-14-08.

2011: Senate Bill X1-2, signed by Gov. Edmund G. Brown, Jr., codifies 33% by 2020 RPS.

For assistance regarding the Renewable Energy Program areas, please contact:

Renewable Energy Call Center
Toll Free - 844-217-4925
Outside California - 916-653-0237
E-mail: Renewable@energy.ca.gov

(Docket: # 06-NSHP-1)

Avian Wind Guidelines
(Docket: # 06-OII-1)

AB 162
Power Source Disclosure Rulemaking
(Docket: #10-PSDR-01)

SB 1038
Continuation of Renewable Energy Program
(Docket: # 02-REN-1038)

SB 1078
Renewables Portfolio Standard
(Docket: # 03-RPS-1078)

Solar Offset Program

Related Links

California Renewable Energy Transmission Initiative (RETI)

California's Clean Energy Future

Database of Incentives for Renewables & Efficiency

DRECP
Desert Renewable Energy Conservation Plan

Geothermal Program
RD&D and Commercialization

Public Interest Energy Research (PIER) Program
Renewable Energy Technologies Subject Area

Renewable Energy for Kids
Energy Quest Website

Western Renewable Energy Generation Information System (WREGIS)

Wind Energy in California

Subscribe

Renewables List Serve

Automated Email Notifications

First name:

Last name:

Email address:

You will receive an email requesting that you confirm your subscription.

Send Reset

Translate this Website / Traducir Sitio Web
Conditions of Use | Privacy Policy
Decisions Pending and Opportunities for Public Participation
Copyright © 1994-2015 California Energy Commission, All Rights Reserved
State of California, Edmund G. Brown Jr., Governor