Renewables Portfolio Standard
Be Renewable

The California Energy Commission (CEC) & Renewable Energy Development

The California Energy Commission is involved in many efforts to promote and support renewable energy development, which is critical to achieving California's greenhouse gas emissions reduction goals.

The Renewables Portfolio Standard (RPS) plays a critical part in helping California meet its goals by making integrity – on the part of utility companies and the people they serve - the centerpiece of renewable energy conversation. The RPS system, and the experts that use it, work to verify data rapidly. This increases the number of facilities that can organize, operate, and generate renewable energy.

Getting a certificate helps renewable facilities to receive financing.

A CEC specialist reviews applications and issues certificates that set recognized generation capability.

Renewable electrical generation facilities (i.e. wind, solar) submit applications and generation data to CEC to receive a certificate.

Facilities report all power sold by source to RPS, both renewable and non-renewable.

The RPS collects utilization data and compares reported renewable power by source to the certified sources' capacity.
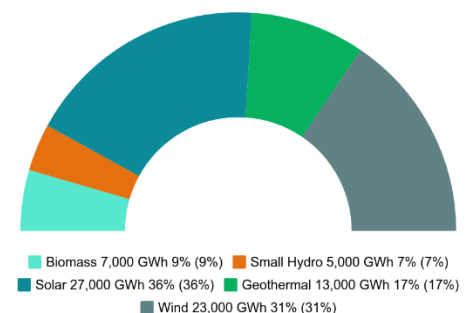
How does the Renewables Portfolio Standard (RPS) system work?

Staff certifies eligible renewable energy facilities and verifies all renewable energy credits procured by utilities. With this data, RPS staff verifies the amount of renewable energy generated and distributed, tracks progress of publicly owned utilities, and promotes renewable energy.

The Renewables Portfolio Standard system has increased functionality and the ability to accommodate expanded data collection and storage needs to meet current and future state policy requirements.

CEC has set a progressive target for the state's utility companies: To increase their procurement of eligible renewable energy resources to 33 percent of retail sales by 2020 and 50 percent by 2030.

2017 Estimated RPS Eligible Generation (In-State and Out-of-State)

- Biomass 7,000 GWh 9% (9%)
- Small Hydro 5,000 GWh 7% (7%)
- Solar 27,000 GWh 36% (36%)
- Geothermal 13,000 GWh 17% (17%)
- Wind 23,000 GWh 31% (31%)

Source: California Energy Commission, November 2017

With this project, CEC sought to implement a secure, user-friendly application that can:
- execute RPS business processes swiftly and accurately,
- grant customers the ability to submit data, reports, files, and applications electronically,
- reflect and facilitate record updates as necessary through a web–based interface,
- provide staff with work flow capability, making it easier to review applications, and perform automated data analysis and processing, and,
- give staff the ability to perform ad hoc queries and generate ad hoc reports.

Selected Functionality and Benefits of the RPS Solution

Staff have faster access to data, business rules, and formula comparison that run automatically in the system.

RPS Unit can generate reports and track progress of renewable energy goals on their dashboard.

Left navigation bar adds / removes different screens based on application type.

External Users can view a shell generation report if they are required to enter data based on their energy production.

Integrated GIS technology verifies spatial location features of certifying facilities.

Internal users decide what to send back to users with lock / unlock screen function.

Tracks statuses of reports & applications for end users on their dashboard.

Allows for 2-level review process by requiring 2 users to view application.

Email communication between external users & RPS staff is available throughout the system.

Internal users have moved away from paper applications and can upload & store supporting documents in the system.

Staff no longer have to manually calculate renewable and non-renewable energy.

External users are able to request an adjustment to eligible Renewable Energy credits at any time.

Current Status of RPS Goals

According to a report released by CEC in December 2017, CA is on target to meeting the 2020 goal of 33% RPS goal.

REACHING CALIFORNIA'S RENEWABLES GOALS

30% PROGRESS 33% GOAL 2020 50% GOAL 2030

Source: California Energy Commission, November 2017

Trinity Technology Group, Inc. and RPS Project

Trinity Technology Group provided full system development lifecycle services for this project, including strategic planning, project management, analysis, design, development, testing, training, implementation, maintenance, and knowledge transfer.

Certification Application Summary screen shows what kinds of information is collected from facilities seeking certification.

One of RPS' verification screens shows an example of monthly Generation Data consumed and submitted by a facility.

Trinity Technology Group

Trinity Technology Group has been building working IT solutions that solve real business problems for nearly 20 years in Sacramento. Our team of talented professionals – from business analysts to seasoned developers, quality assurance analysts to project managers – work with you to create formal plans for each critical process and to deliver the solution your department needs.