California @ 50 Million: Goals for the Future

Renewable Electricity Generation

Goal

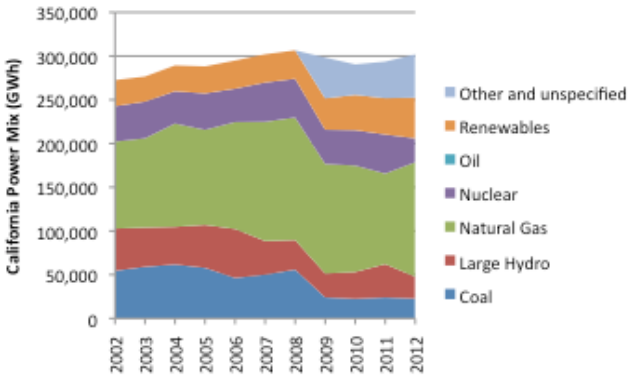
California's Renewable Portfolio Standard requires that at least 33% of the state's electricity come from renewable sources by 2020.

Why it is Important

Increased use of renewable energy generation is a critical piece of the state's strategy to reduce greenhouse gas (GHG) emissions. California has abundant natural resources suitable for renewable energy generation. California, with its history of support for renewable energy generation, can be a global leader in the movement towards renewable energy to prevent climate change.

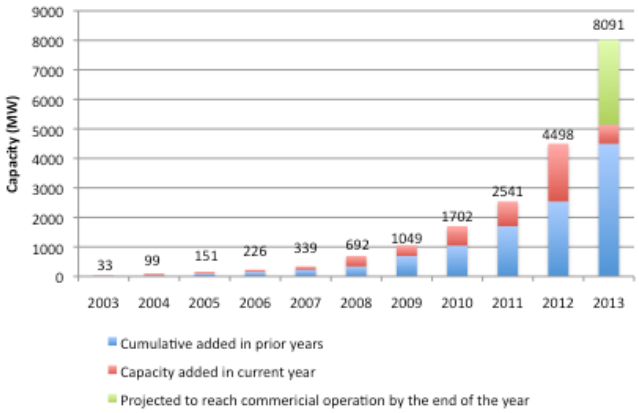
These renewable energy sources, such as wind, solar, geothermal, biomass, and hydroelectric, will reduce California's dependence on oil, slow climate change, and improve air quality. California's commitment to renewable energy has also stimulated investment in clean technology and contributed to the creation of jobs.

Recent Trends

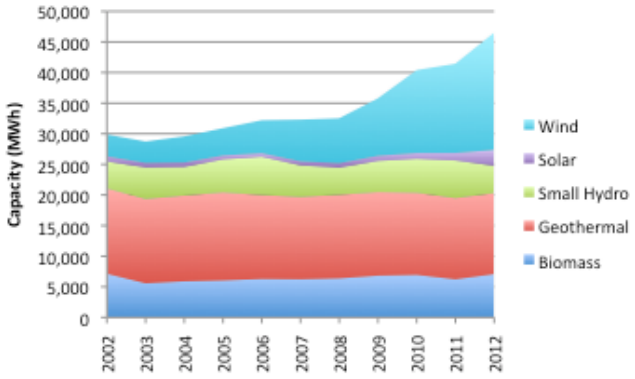


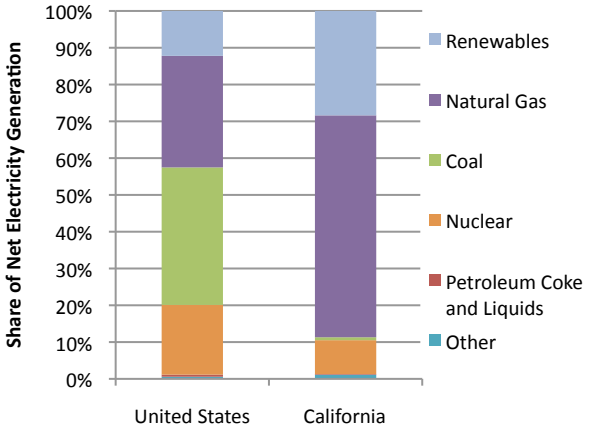
The share of California's power mix from renewable energy sources has increased over time. Over the same time, the amount of power generation from coal has declined. In 2002, 11% of the state's power was derived from renewable sources and 20% from coal. In 2012, only 8% derived from coal and 15% from renewable sources.[1]

The generating capacity from renewable energy sources in California has increased dramatically over the past ten years. And, that capacity will almost double in 2013. By the end of 2013, it is projected that over 8000 MW of generating capacity will be commercially available from renewable sources.[2]



Hydroelectricity provides about 10 percent of the state's electricity generation. However, only small hydroelectric (facilities 30 MW or less) counts toward the RPS. Since 2002, an increasing share of renewable electricity generation is coming from wind and solar sources.[3]





Twenty nine states, the District of Columbia, and 2 US territories have renewable portfolio standards. California's has the most aggressive target for 2020. When compared to the net electricity generation mix of the United States as a whole, California has a far larger share of electricity from renewable sources and natural gas.[4]

Actions to Take

California's RPS established interim targets for renewable electricity of 20% renewable electricity by the end of 2013, and 25% renewable electricity by 2016. To meet the state's long-term GHG emission reduction goals, the state will need to continue accelerating the use of renewable energy sources and work toward a near-zero carbon electricity generation system.

Data Sources

[1] Total electricity system power data are from the California Energy Commission: http://energyalmanac.ca.gov/electricity/total_system_power.html

[2] Generation Capacity from Renewable Sources from the California Public Utilities Commission: http://www.cpuc.ca.gov/NR/rdonlyres/384E3432-6EAB-4492-BF88-992874A7B978/0/2013_Q1RPSReportFINAL.pdf

[3] Information on renewable portfolio standards nationwide available from the North Carolina Solar Center's Database of State Incentives for Renewables and Efficiency: http://www.dsireusa.org/

[4] California and US net electricity generation data from the Energy Information Administration: http://www.eia.gov/electricity/data/browser/. Figures from DOE are not directly comparable to data in earlier figures because all hydroelectric generation is included as "renewables," not just small hydroelectric.