

City of Palo Alto Utilities
Electric Supply Portfolio Carbon Neutral Plan
Adopted by Council on March 4, 2013 ([Staff Report 3550](#), [Resolution 9322](#))

1. Carbon Neutral Definition

A carbon neutral electric supply portfolio will demonstrate annual net zero greenhouse gas (GHG) emissions, measured at the Citygate¹, in accordance with The Climate Registry's Electric Power Sector protocol for GHG emissions measurement and reporting.

2. Carbon Neutral Plan Objective

Reduce the City of Palo Alto's overall community GHG emissions by achieving carbon neutrality for the Electric Supply Portfolio starting in calendar year 2013 within an annual rate impact not to exceed 0.15 cents per kilowatt-hour (¢/kWh) primarily through the: 1) engagement of customers to increase energy efficiency; 2) expansion of long-term renewable resource commitments; 3) promotion of local renewable resources; 4) continued reliance on existing hydroelectric resources; and 5) meeting short-term balancing requirements and/or neutralizing residual carbon through the use of short-term purchases of renewable resources and/or renewable energy certificates (RECs).

3. Resource Strategies

a. *Energy Efficiency*

- i. Continue to pursue energy efficiency strategies as identified in the Council-approved ten-year Energy Efficiency Plan.

b. *Long-term Renewable Resources*

- i. Continue to pursue the City's Renewable Portfolio Standard (RPS) goal to purchase renewable energy to supply at least 33% of retail sales by 2015 while ensuring that the retail rate impact of these purchases does not exceed 0.5 ¢/kWh.
- ii. Continue to pursue local renewable resources through the Palo Alto CLEAN and PV Partners programs.
- iii. Pursue additional RPS-eligible, long-term renewable resources (beyond the RPS goals) to achieve a target of 100% carbon-free resources based on average year hydroelectric generation.

c. *Short-term Renewable Resources and Renewable Energy Certificates*

- i. For calendar years 2013 through 2016, procure short-term renewables, if the price is comparable to that of an un-bundled REC;
- ii. For calendar years 2013 through 2016, procure RPS-eligible, un-bundled RECs as needed to achieve carbon neutrality based on actual load and resources;

¹ Citygate is the location of the City's main meter where the City interconnects to the Pacific Gas and Electric transmission system. Emissions associated with the output of the locally sited fossil gas fired combustions units (COBUG), while not measured at Citygate, will be neutralized.

- iii. Neutralize anthropogenic GHG emissions associated with renewable resources with unbundled-RECs, which may or may not be RPS-eligible.
- d. *Banking and Truing Up*
 - i. In the event that there are surplus renewables beyond the load in a particular year, bank as many RECs as allowable under the TCR EPS protocol from qualifying renewables from that year to minimize the need for purchasing RECs in subsequent years.
 - ii. Neutralize emissions associated with market purchases resulting from deviations between expected and actual load and renewable and hydroelectric generation resources with unbundled-RECs, which may or may not be RPS-eligible.

4. Hydroelectric Resources

- a. Continue to preserve and advocate for existing carbon-neutral hydroelectric generation resources that provide approximately 50% of average year resource needs.
- b. Plan for and acquire carbon neutral resources assuming average hydroelectric conditions going forward.
- c. Under adverse hydroelectric conditions, procure unbundled-RECs, which may or may not be RPS-eligible, to achieve carbon neutrality up to the 0.15 ¢/kWh rate impact limit and seek Council direction if carbon neutrality cannot be achieved within the rate impact limit.
- d. Under favorable hydroelectric conditions, where carbon neutral resources are expected to be surplus to needs, even after allowable banking, then pursue selling short-term renewable energy, or the renewable attributes, associated with one or more carbon-neutral resources in the portfolio.

5. Financial and Rate Payer Impacts

- a. In addition to the RPS annual rate impact limit of 0.5 ¢/kWh, the cost of achieving carbon neutrality shall not exceed 0.15 ¢/kWh based on an average hydro year.
- b. Revenues collected from surplus energy sales related to hydroelectric resources under favorable conditions (e.g. wet years), will be maintained within reserves to adjust for the cost of achieving carbon neutrality under adverse hydroelectric years.
- c. To the extent available and allowable, revenues from the auction of cap-and-trade allowances may be used to fund resources acquired to meet the carbon neutrality goals.

6. Reporting and Communication

- a. Develop a communication plan for stakeholders to inform them of the City's efforts towards achieving a carbon neutral electric supply.
- b. Submit an annual, verified report of the carbon content of the electric supply portfolio to The Climate Registry.
- c. Provide customers a report of the electric supply portfolio's carbon content to supplement the mandated Power Content Label.
- d. Inform large commercial and/or corporate customers of the City's carbon neutral portfolio and its relevance to their individual corporate sustainability goals.

7. Implementation Plan

The tasks that need to be completed in the next two years pending Council approval of the Carbon Neutral Plan in February 2013 are listed in the table below.

Item	Timeframe
1. Modify electric supply portfolio models and Energy Risk Management Policies, Guidelines and Procedures to account for Carbon Neutral objectives, balancing, banking of renewable attributes, reporting and financial impacts.	By April 2013
2. Modify the Long-term Electric Acquisition Plan (LEAP) to include the carbon neutral objective	By June 2013
3. Develop communication plan to inform customers and stakeholders of Carbon Neutral Plan and efforts.	February to April 2013
4. Based on response to the Fall 2012 request for proposals, seek approval of new renewable power purchase agreements to meet the City's RPS up to approximately 100% of the long-term resource needs in average hydro years.	December 2012 to June 2013
5. Determine resource needs for CY 2013 through CY 2016 and develop plan to acquire short-term renewable resources.	By June 2013
6. Determine long-term renewable purchase volumes for beyond CY 2016 and develop plan to acquire long-term renewable resources.	By September 2013
7. Procure RECs as needed to neutralize carbon emissions based on actual load and resources for CY 2013.	By May 2014
8. Along with annual Power Content Label, produce and report to customers the carbon intensity of the electric supply portfolio.	May/June 2014 and annually thereafter
9. Produce and submit Electric Power Sector (EPS) and Local Governments Operation Protocol (LGOP) reports to The Climate Registry (TCR) for CY 2013.	July and October 2014 and annually thereafter
10. Get independent verification of TCR reports and submit audited reports to TCR.	By December 2014 and annually thereafter
11. Redesign the PaloAltoGreen program according to Council direction.	By December 2013