

Planning for a Resilient Future Energy Action Plans for the Cities of Ventura, Moorpark, and Thousand Oaks

Brief Summary

Ventura County Regional Energy Alliance (VCREA) and the Community Environmental Council, in partnership with the cities of Ventura, Moorpark, and Thousand Oaks, have prepared Energy Action Plans (EAPs) for all three cities, as well as EAP templates for the remaining jurisdictions within Ventura County. Work began on the EAPs in November 2017 and continued through March 2021. The EAPs contain goals, strategies, and actions for each city to reduce greenhouse gas (GHG) emissions related to energy generation and consumption over the next ten years. Each EAP includes: 1) a comprehensive GHG emissions inventory; 2) future scenario forecasts for 2025 and 2030; 3) GHG emissions reduction strategies; and 4) timeframes, costs, co-benefits, and responsible parties for strategy implementation.

The EAPs are structured to achieve each city's fair share of the statewide reduction goal established by California Senate Bill 32 (Pavley, Chapter 249, Statutes of 2016), which requires a statewide reduction of 40% below 1990 GHG emissions by 2030. Additionally, to protect their community, especially vulnerable populations, the EAPs provide a framework to address the environmental, health, and safety concerns of residents and workers as they relate to climate change impacts on the energy system.

Lead Agency and Partnerships

- Lead Agency and Project Manager: Ventura County Regional Energy Alliance (VCREA)
- Primary Partner, Outreach Coordinator, and kWh Administrator: Community Environmental Council
- EAP Development Support: Cities of Ventura, Moorpark, and Thousand Oak
- kWh Countdown Technical Assistance: TRC and Abraxas Energy Consulting
- EAP Support: Rincon Consultants, Inc.

Drivers

The development of EAPs was driven by a desire of the City Councils and community advocates to create a plan to reduce energy use, increase energy efficiency, shift to renewable energy resources, and electrify both transportation and natural gas-powered processes to achieve significant energy savings and GHG reductions. Furthermore, the EAPs are intended to accelerate each city's development of a climate action plan (CAP) and inform the policies that promote climate adaptation and reduce GHG emissions in each city's General Plan Update.

Engagement Process

All three cities conducted robust public outreach and engagement to provide residents, business owners, city staff, community-based organizations, and other stakeholders with the opportunity to participate in developing the EAPs. Bilingual, geographically, and demographically diverse targeted outreach was conducted to reach all stakeholder groups and accurately represent community needs. A variety of methods were utilized, including



Photo by VCREA Staff

surveys, workshops, tabling events, and stakeholder meetings. Additionally, since the Ventura County region was lacking data on energy usage in small to medium size businesses, a pilot program called kWh Countdown was developed as part of the EAP engagement process. kWh Countdown provided free energy audits and benchmarking for these types of businesses. Through the kWh Countdown program, 34 energy audits were conducted at no cost to Ventura County businesses. Eight facilities were also evaluated for the feasibility to install solar

systems. Data gathered from the pilot project helped to understand small to medium size businesses' energy usage and needs for energy upgrades. This data informed and supported the development of EAP strategies for the commercial sector.

Climate Impact Area



Thomas Fire Photo by Bill Nash

Climate change is causing more severe temperatures and prolonged droughts. These circumstances trigger dangerous events that imperil life and property, such as the Thomas Fire that began in December 2017, and burned for 40 days, threatening the cities of Santa Paula, Ventura, Ojai and Fillmore, as well as many unincorporated communities, before moving into Santa Barbara County. Thus, in addition to reducing GHG emissions, the EAPs serve as a planning tool to mitigate the impacts of climate change on the region's energy systems. By

implementing EAP strategies that promote building and transportation electrification, energy efficiency, shifts in energy use timing, and the adoption of local renewable energy and storage resources, all three cities are taking the next step to support a local renewable, resilient electricity system.

Funding Source

- California Energy Commission's Local Government Challenge: \$427,544

- Southern California Edison (SCE) and Southern California Gas Company's Strategic Plan Program: \$124,969

Research and Data

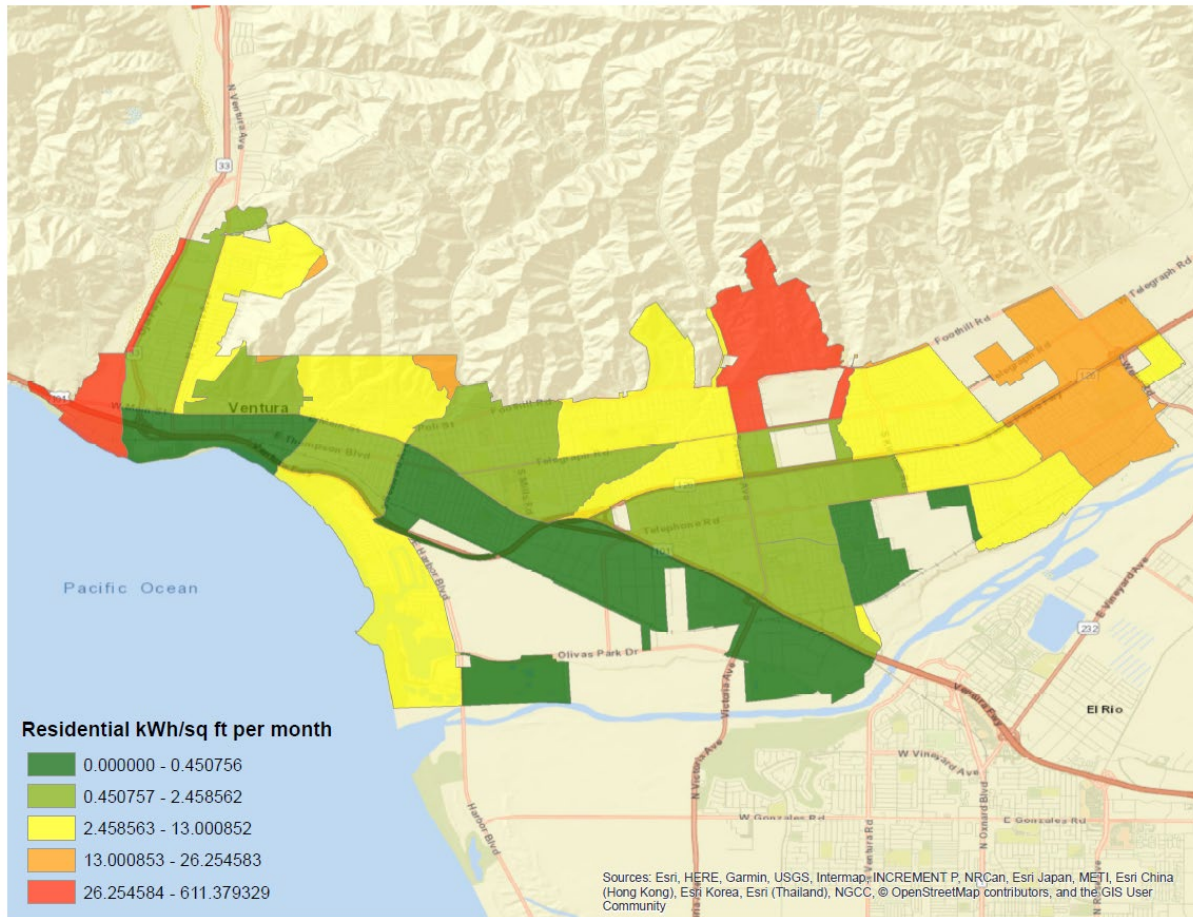
The EAPs were prepared using California Air Resources Board's 2017 Climate Change Scoping Plan and the latest GHG emissions accounting protocols (e.g., International Council for Local Environmental Initiatives' (ICLEI) Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions and ICLEI's Local Government Operations Protocol).

The EAP inventory computations were carried out using ICLEI's ClearPath online tool and in-house Microsoft Excel-based data management tools. These inventories were used to inform development of the GHG reduction strategies along with community opinion and priorities, extensive research of best practices, and a review of spatial community energy consumption data specific to the City. Each EAP strategy identifies GHG and energy reduction targets for 2025 and 2030. Excel-based monitoring tools have been developed to collect data and track GHG emissions so each city can monitor progress. ClearPath will be utilized to track its progress in reducing GHG emissions and assess the effectiveness of the EAP strategies. The methodologies, including the computations and assumptions, related to the GHG inventory, forecast, and emission reductions for each EAP strategy are thoroughly explained in EAP Appendix B: GHG Inventory Methodology, Appendix C: GHG Forecasting Methodology, and Appendix D Planning Scenario Methodology, respectively. For additional information, please check out each city's draft EAP at <https://www.vcenergy.org/services/local-government/energy-action-plans/>.

Challenges

A major challenge in developing the EAPs was the availability of energy data needed to develop the GHG emissions inventories and strategies. Due to the California Public Utilities' Final Decision adopting Privacy Rules directed at accessing Energy Usage and Usage-Related Data While Protecting Customer Privacy (D.14-05-016), the cities were unable to receive customer energy usage data from SCE. They were able to obtain granular electricity usage data from University of California, Los Angeles' Energy Atlas which is a database of building energy consumption that links utility account information to building characteristics, sociodemographic data, and other significant attributes that can be expressed spatially. This data helped to identify where energy efficiency is necessary, where to focus outreach efforts and possible incentives, and where energy reduction programs should be developed.

Ventura Residential Electricity Usage 2016 (kWh/sq. ft/month)



Outcomes

Energy Action Plan. Each jurisdiction's EAP describes three GHG scenarios that are forecasted: 1) future housing, employment, and population growth under business-as-usual; 2) adjusted business-as-usual that incorporates emissions reduction due to federal and state legislative actions; and 3) Community Planning Scenario considers implementation of the EAP strategies and actions during the period of 2020 through 2030.

Under the Community Planning Scenario, when all federal, state, and local action reductions are applied, each City's GHG emissions are forecasted to decrease by 44 or 45 percent by 2030.

- City of Ventura: 281,911 MT CO₂e (44%)
- City of Moorpark: 95,097 MT CO₂e (44%)
- City of Thousand Oak: 611,750 MT CO₂e (45%)

In addition to the direct GHG reduction benefits associated with the EAP strategies, the strategies lower utility bills, reduce pollution, increase the usage of renewable energy, increase equity, and enhance local resiliency in preparation for rising utility costs, natural

disasters, and global climate change. Co-benefits for the strategies were identified through input from City staff and community engagement from a variety of methods, including community surveys, a community workshop, tabling events, and stakeholder meetings. Through this engagement process, eight co-benefits were picked and considered in the strategy selection. Thus, each EAP strategy details its associated co-benefits; energy savings and GHG emission reductions; City costs and City and community cost savings; potential funding sources; implementation timelines; and a responsible party.

kWh Countdown. The kWh Countdown program energy audits and solar analysis identified the total combined potential for the three cities of:

- 3.30 million kilowatt-hour (kWh) reductions
- 11,659 therm reductions
- 1,147 kW demand savings per year892 kW of solar systems

Replicability

EAP templates were developed to assist the remaining cities in the Ventura County region as well as other cities and counties with customizing their own EAPs.

Additional Resources *(if applicable)*

- <https://www.vcenergy.org/services/local-government/energy-action-plans/>
- <https://californiaseec.org/seec-clearpath/>
- <https://energyatlas.ucla.edu/>
- <https://www.kwhcountdown.org/>

Further Information

Heather Allen, VCREA Program Administrator, heather.allen@ventura.org