

# *State of Local Climate Action: California 2016*



Statewide  
Energy  
Efficiency  
Collaborative



Supporting California local governments



## Supporting California local governments

The Statewide Energy Efficiency Collaborative (SEEC) is an alliance to help cities and counties reduce greenhouse gas emissions and save energy. SEEC is a collaboration between three statewide non-profit organizations and California's four largest Investor Owned Utilities. This program is funded by California utility customers and administered by Southern California Gas Company, San Diego Gas & Electric Company, Pacific Gas and Electric Company and Southern California Edison, under the auspices of the California Public Utilities Commission.

SEEC members are:

- ICLEI – Local Governments for Sustainability USA
- Institute for Local Government
- Local Government Commission
- Pacific Gas and Electric Company
- San Diego Gas and Electric Company
- Southern California Edison Company
- Southern California Gas Company

SEEC provides education, tools, technical assistance, venues for peer-to-peer networking, and recognition for local agencies that reduce greenhouse gas emissions and energy use. The collaborative effort is designed to build upon the unique resources, expertise and local agency relationships of each non-profit organization, as well as those of the four investor owned utilities.





# Foreword



**T**he call to act on climate change is more pressing than ever before. Around the world and in California, we are experiencing record-breaking temperatures and heat waves, more frequent and more intense extreme weather events, persistent drought conditions, flooding, and wildfire - all of which present serious risks to human health and wellbeing, critical infrastructure and transportation, local economies, food security, and national security. Rising seas, changing landscapes and loss of biodiversity also have dramatic implications that will not be fully understood for years to come. Amid these unprecedented risks and great uncertainty, climate change presents a pivotal opportunity for collaboration across sectors, jurisdictions, and levels of government.

Local governments in particular play a vital role as they are uniquely positioned to implement on-the-ground solutions that reflect their communities' values, creating a lasting impact from the bottom up. They are best suited to engage and mobilize their public, and design and implement projects that are equitable, cost-effective, and impactful. Local governments are also responsible for translating state and federal policies into practice.

Recent conditions have challenged California's local governments to go further with less as they pursue climate action. New state-level mandates that aim to push California to respond to climate change quickly and more effectively - from the doubling of energy efficiency and production of half of the state's energy by renewables mandated by SB 350 to the market-enabling energy benchmarking requirements of AB 802 - prompt greater need for action, and resources for action, at the local level. The state's energy code grows increasingly stringent, and updates bringing us closer to zero net energy are coming fast. New energy codes widen the gap in compliance in our existing building stock, and challenge local governments to identify innovative and efficient resources to communicate, incentivize and enforce compliance. Although the demand to take action is greater than ever before, local governments simultaneously face budget and staffing cuts, making it more difficult to champion energy and climate action over competing priorities.

Despite these challenges, we are seeing strong local government leadership on climate and energy activities. Energy conservation commitments and actions are coming from a growing number of local government actors, reflecting the many values that climate and energy investments provide to jurisdictions - from air quality and public health improvements, to economic development and job creation, to a demonstrated commitment to fiscal responsibility with taxpayer dollars. Leading jurisdictions are going beyond programs and policies that capture the 'low-hanging fruit' of energy reductions to build and retrofit buildings to achieve deep savings and zero

net energy. They are motivating community and market action through education, energy ratings and disclosure, innovative competitions, behavioral programs, and business recognition programs that tie energy and climate action to community goals. They are also committing to and pursuing renewable energy through community choice aggregation and new utility renewable options.

And critically, cities and counties are finding innovative solutions to do more with less. They are ensuring the actions they take are ones that gain traction and last, by ensuring these actions reflect their jurisdictions' long-term needs and interests. Local governments are also finding efficiencies through regional collaboration, and are sharing and seeking best practices from across the state and beyond - but are doing so in a way that does not compromise their ability to maintain local direction of key issues.

This report is a powerful first step toward capturing and analyzing progress we have made as a statewide community. The data and stories shared in this report allow Californians to celebrate and learn from the progress made to date, and arm local governments and other key decision makers with initial findings to understand where we are succeeding, and why. The report also connects local governments to an understanding of how and where their peers are moving forward, providing an opportunity for reflection and refinement of their own local methods - as well as an opportunity for sharing out their own best practices.

Taking a statewide view of California's local climate action is a challenge. The sheer diversity in solutions, resources, and applications of policies and programs across California's 482 cities and 58 counties makes tracking and reporting a complex and ongoing project. The Statewide Energy Efficiency Collaborative (SEEC) offers a unique vantagepoint from which to view local progress across the state. SEEC has direct connections with more than 400 of these local governments, and also works with regional efforts, state agencies and utilities to better understand local progress and needs. In this report, SEEC leveraged these relationships, reviewed greenhouse gas inventory and emissions reduction target data stored in systems such as ClearPath, as well as data from the Beacon program. SEEC welcomes feedback and additional collaboration as we continue to hone our collective statewide understanding of local climate action - and we look forward to supporting California's local governments as they continue to lead on climate and energy innovations.

*-Jordan Decker, Statewide Energy Efficiency Best Practices Coordinator & Julia Kim, Project Manager, Local Government Commission*





# Measuring California's Sustainability Initiatives

## Inventories & Trends



1.2 Million Tons CO<sub>2</sub>e measurable decrease 2005 through 2010



The equivalent of removing 256,000 cars from the road



44 Jurisdictions Sampled = 8% of California's Population

## Targets



100 Communities that have set reduction goals



Targeted Reductions –  
45 Million Tons CO<sub>2</sub>e by 2020  
83 Million Tons CO<sub>2</sub>e by 2050

## Plans



42% of local governments have completed a climate, energy or sustainability plan

## Implementation

117 local governments have implemented voluntary or mandatory energy efficiency or green building regulations

More than 95 have benchmarked some or all of their municipal buildings



# Executive Summary

This year, 2016, marks ten years since the adoption of AB 32, California's landmark Global Warming Solutions Act. In those ten years, local governments throughout the state have made considerable progress in cutting the greenhouse gas (GHG) emissions that are fueling climate change. Local governments can be critical partners as the State moves to implement SB32, which extends ambitious emissions goals out to 2030. And as many states around the country contemplate how to best engage local governments in meeting their energy and climate targets under the Clean Power Plan and other initiatives, California can serve as a valuable model for consideration.

Local governments are following a framework that works: measuring emissions baselines, setting emissions targets, adopting and implementing policies, and achieving measurable emissions reductions. CEQA guidance has brought this framework into the mainstream as the recommended approach for evaluating and mitigating the community-scale GHG impacts of General Plans. At the same time, funding programs like the ratepayer-funded Energy Efficiency Local Government Partnerships have emerged to support elements of the process. At the project level, cities and counties are collaborating to create innovative approaches that are being replicated around the state. Meanwhile, mayors and other local leaders are stepping up to affirm their commitment to climate action and are making California heard on the global stage.

This report analyzes data compiled through the diverse programs offered by the Statewide Energy Efficiency Collaborative (SEEC), as well as from other key sources<sup>1</sup>, to provide the most comprehensive review of these achievements to

date. The goal of the report is to better inform local government activities as well as those of state agencies, non-profit organizations, researchers and others that seek to support local governments in mitigating climate change. These findings are summarized below.

**Inventories and Trends:** For the first time, local emissions trends are emerging from a significant number of local community-scale inventories over multiple years, conducted using accounting protocols endorsed by state agencies. A sample of 44 jurisdictions representing just 8 percent of the state's population shows a total decrease of 1.2 million tons CO<sub>2</sub>e from 2005 to 2010, equivalent to removing 256,000 cars from the road in a five year period. The largest decreases were in the solid waste and commercial sectors, while smaller decreases were found in the residential and transportation sectors.

**Targets:** The trends described above are only a portion of the emissions reductions achieved in recent years, and an even smaller portion of the reductions targeted by local governments over the next few decades. One hundred California local governments have set targets for emissions reduction that, if met, will result in a collective reduction of more than 45 million tons CO<sub>2</sub>e each year by 2020, and 83 million tons CO<sub>2</sub>e each year by 2050 (with only 13 of the local governments having set 2050 goals). These targeted reductions represent 83% of the state's 2020 goal, and 21% of the statewide 2050 goal.

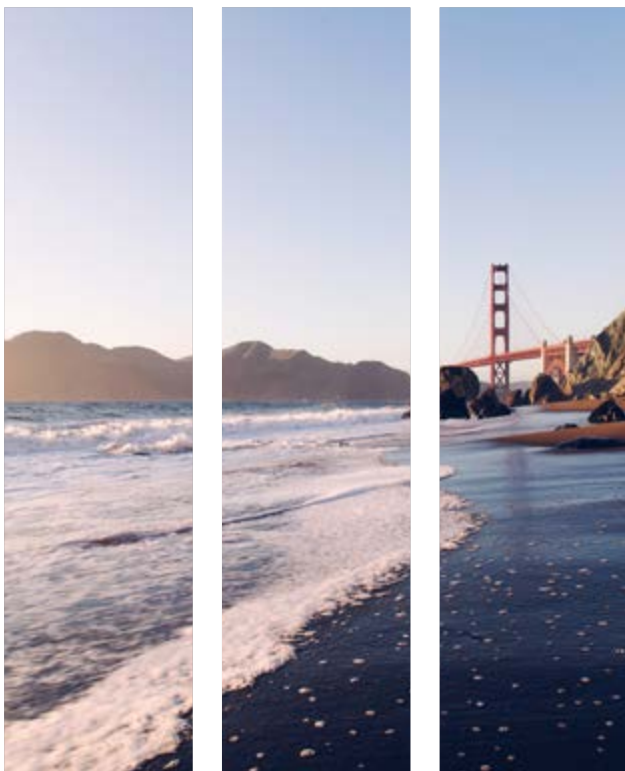
**Plans:** Statewide, 42% of local governments have completed a climate, energy or sustainability plan that directly addresses GHG emissions. However, this progress is not uniform. Large jurisdictions have completed plans at much higher rates than medium or small jurisdictions, and there is considerable variation in completion between regions as well. In addition, while many local governments report having a plan in progress or in the works,

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<sup>1</sup> Key data sources include the SEEC ClearPath software, SEEC Beacon Program, SEEC Best Practices Coordinator Database, and the Governor's Office of Planning and Research (OPR) Annual Planning Surveys 2012 and 2016.

the rate at which plans are being adopted has dropped considerably since peaking in 2013.

**Implementation:** At least 117 local governments have implemented voluntary or mandatory energy efficiency or green building regulations for the community. More than 95 have benchmarked some or all of their municipal buildings. At least twenty-seven have established or participate in a revolving loan fund for municipal energy efficiency projects. And at least twenty-five have implemented some form of commissioning and retrocommissioning for energy efficiency of their buildings. These numbers represent an in-progress data collection and the actual number of local governments implementing each may be larger. More complete data, and data on additional kinds of programs will be released in the Statewide Best Practice Coordinator's 2016 Annual Report, expected to be released in the first quarter of 2017.



## Case Study Themes

This report tells the stories of six diverse local and regional agencies who are leading on climate action around the state. Themes related to motivating factors and barriers to success emerged from these case studies, supported by the data and experience of the SEEC partners interacting with more than 400 local governments around the state; these themes are summarized below.

- Local governments are succeeding by framing climate action in the context of other important community goals like public health and economic development.
- Local governments are succeeding despite resource constraints, but they can achieve more with more resources.
- Identifying a sustainability coordinator who can champion climate action across departments is an important ingredient for success.
- Cities are not acting alone, but in partnership with counties, regional agencies, utilities, other local governments, and other organizations.
- Emerging funding opportunities such as cap and trade allowance programs or ratepayer-funded Local Government Partnerships can be an effective motivator for climate action.



# Conclusions

Local governments have made great progress on local climate mitigation in the ten years since the State set the stage for its transition to a sustainable, low-carbon future with the passage of AB 32. A framework for emissions management consisting of inventories, goals, plans, implementation, and monitoring has been institutionalized statewide, and resources have been provided through SEEC and many other outlets to support local governments in moving through these milestones. Those who have moved through the milestones are demonstrating meaningful, measurable reductions in carbon pollution. Innovation is taking place in communities large and small through diverse projects around energy efficiency and other strategies.

Despite these achievements, this report finds that progress is uneven and shows signs of slowing in some cases. Renewed engagement and investment can take local progress to the next level. More investment in regional approaches can help small- and medium-sized local governments to effectively move forward with planning and implementation, and new approaches are needed to support regions that are falling behind.

The State of Local Climate Action report represents a major step forward in understanding what local governments are doing and how they are doing it. The question of why certain approaches are working while others are not merits greater attention going forward, and a foundation has been laid to better inform future research in this area. From the Air Resource Board's forthcoming Local Climate Action Database and the Governor's Office of Planning and Research engagement with local governments, to ongoing SEEC-led research and analysis performed under the Compact of Mayors campaign, a knowledge base is emerging that stands to inform the next generation of state-local collaboration in meeting ambitious climate change goals.

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SAN FRANCISCO

Bay Trail



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A hiker in a red jacket and backpack is seen navigating a rocky trail in a misty forest. The hiker is positioned in the lower center of the frame, surrounded by tall, thin trees and large rocks. The atmosphere is foggy, creating a sense of depth and mystery. The hiker's red jacket stands out against the muted greens and greys of the forest.

# Introduction

**T**he goal of this report is to provide a broad yet detailed picture of what local governments in California are accomplishing in their climate mitigation efforts, as well as where gaps remain. This report is the product of a major effort to bring together data from multiple sources, including from the Statewide Energy Efficiency Collaborative (SEEC) programs and tools like the Beacon Program and the ClearPath emissions management software, from the ratepayer-funded Local Government Partnerships Program, and from local government websites and direct contacts between local governments and SEEC partners. While a considerable amount of data has been collected and is presented in this report, the effort to fully collect comprehensive data on energy efficiency and climate mitigation planning, policies and programs is ongoing and the report identifies several areas where additional research is needed.

This report is organized in two major chapters. The first chapter is data-focused with an analysis of local government actions in the areas of conducting greenhouse gas inventories, setting emissions goals, developing plans, implementing policies and programs, and leading by example through emissions reduction in their own operations. The second chapter presents case studies of four local governments and two regional agencies. The case studies allow for deeper analyses to better understand motivations, barriers and effective approaches. Finally, a conclusion provides some recommendations for approaches and support that could help local governments in California accelerate climate action.

# The Scope and Scale of Local Climate Action

Climate change is widely viewed as one of the most pressing societal challenges of our time, and cities and counties are often highlighted as important contributors to solutions. This was not always the case, however. As early as the 1980's, a handful of innovators began to investigate how best local governments could help to reduce the greenhouse gas (GHG) emissions that cause climate change. In 1991, the City of Chula Vista joined with ICLEI and 12 municipalities from the US, Canada, and Europe to pilot the Urban CO2 Reduction Project, the first program to promote the development of climate action plans. By the mid-90's, a handful of California local governments joined the Cities for Climate Protection campaign and began working through a process of measuring and managing carbon pollution.



The state's cities and counties have come a long way since these modest beginnings. Today, hundreds of local governments have set out climate mitigation goals, and many are well on their way to achieving them. This chapter documents the status of these efforts using statewide data, organized around climate planning framework commonly used by local governments. This framework is used in the Cool California local government toolkit, in SEEC resources, and in ICLEI's Five Milestones of Emissions Management (shown in Figure 1 below). The steps are to:

- Conduct a baseline greenhouse gas (GHG) inventory.
- Define targets
- Develop a plan
- Implement Strategies
- Monitor progress and evaluate results



Two additional sections discuss key considerations that do not clearly fit in the five-step framework. First, while this report primarily focuses on local governments addressing GHG emissions from the community as a whole, a section also looks at how local governments are leading by example through actions taken in their own operations. An additional section addresses public leadership commitments made by local elected officials, such as signing on to the Compact of Mayors.





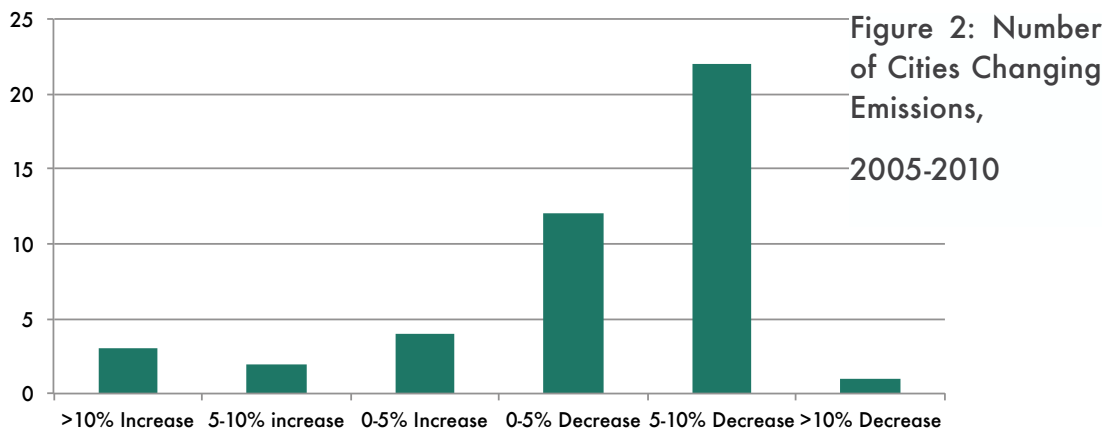
# Inventories and Trends

Conducting a GHG inventory serves as the first step for local governments to determine baselines for municipal and community-wide emissions, and also serves as a powerful tool to demonstrate concrete results of local government action. Today, at least 220 local governments in California have completed a community-wide GHG inventory<sup>1</sup>. This report looks at three aspects of local community inventories in California. First, a sample of communities with multiple-year inventories is evaluated as an indicator of the emissions reductions that California communities are achieving over time. Secondly, the scope of local energy and emissions management efforts is evaluated in terms of included sectors and sources, and judged for completeness in relation to the US Community Protocol, the accounting standard used by local governments in California to develop community inventories. Finally, the report looks at how regional approaches are helping local governments complete inventories.

## Emissions Trends 2005-2010

Comparing a local community baseline GHG inventory with an inventory for a subsequent year is one of the most concrete and detailed indicators of how emissions are changing. The SEEC ClearPath tool provides a unique opportunity to analyze detailed inventory data in one place, allowing comparison of emissions from 2005-2010 across a sample of 44 local governments<sup>2</sup>. These 44 jurisdictions represent 8.2% of the population of California.

Collectively, these 44 local governments achieved an emissions reduction of 1.2 million tons of CO<sub>2</sub>e, the equivalent of removing 256,000 cars from the road. 89% saw decreasing emissions over the period, while only 11% increased emissions. The net change across all the 44 local governments was a decrease of 6%. A more detailed look at emissions changes is provided in Figure 2. As can be seen, half of the cities showed an emissions decrease of 5-10%, with a large number also decreasing 0-5%, and a few decreasing more than 10%.



1 This number is for inventories identified by the Statewide Local Government Energy Efficiency Best Practices Coordinator, using data from the OPR Planning Survey, direct contact with local governments, and local government websites.

2 About 50 local governments have complete (more than five records) inventories for multiple years in the SEEC ClearPath tool, with a total of 127 inventories between these local governments. To analyze emissions trends, we identified inventory pairs, mostly with 2005 as the base year and 2010 as the second inventory. For some a first inventory of 2004, 2006 or 2007 and/or a second inventory of 2011, 2012, or 2013 were used. We performed a basic check for data completeness, removing those with, for example, data for a sector in one year but not in the other. After removing those with incomplete data, 44 local governments were left with inventories for two or more years, allowing us to look at emissions trends. This analysis includes emissions only in the residential, commercial, transportation and solid waste sectors. Industrial fuel use (which accounted for 22% of statewide emissions in 2012), and industrial electricity use are not included in most local community inventories, so were excluded from this analysis.

In addition to these overall trends, it is helpful to look at emissions changes by sector. The net change across the 44 jurisdictions by sector is shown in Figure 3. Solid waste had by the far the largest decrease at 30%<sup>3</sup>. This change was driven primarily by a decrease in the amount of waste sent to landfills, which decreased by 24%. The remaining decrease in solid waste emissions could result from increased landfill gas collection at the landfills the waste is sent to, and/or to changes in composition of waste disposed.

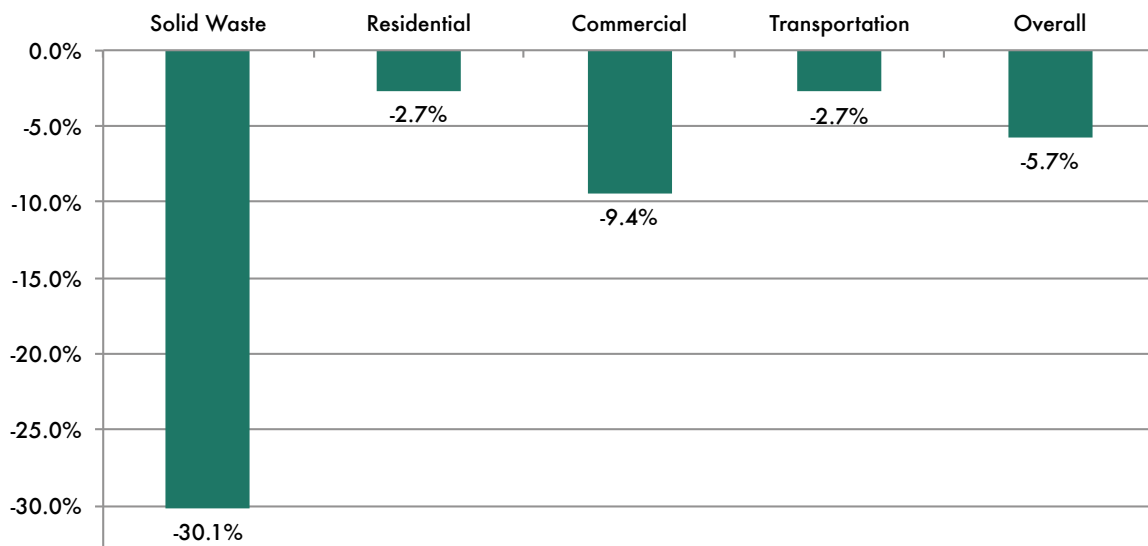


Figure 3: 2005-2010 Net Emissions Reductions of 44 Jurisdictions, by Sector



<sup>3</sup> This analysis is based on emissions from waste generated by the community in the inventory year. The waste generated emissions calculation assigns to the inventory year all future emissions from the waste disposed of in that year.

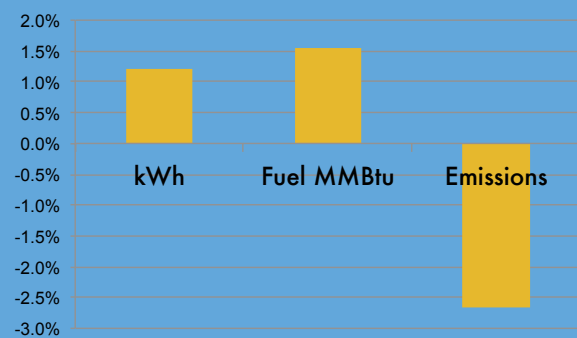
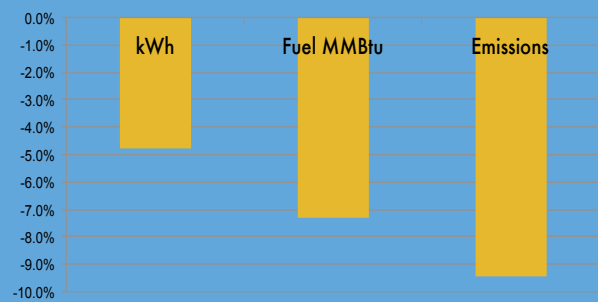
Looking at data from Cal Recycle, the decrease in waste disposed by these jurisdictions is similar to that of the state as a whole. 2005 represented the peak amount of waste disposed since 1990. Statewide, the amount disposed decreased 26% by 2010, and continued decreasing slightly through 2012, then rebounded slightly by 2015<sup>4</sup>. This decrease is likely driven by state and local policies increasing diversion to recycling and composting. Overall waste generation also is typically correlated with economic activity, so the economic downturn starting in 2007 may have contributed to the decrease in waste disposed from 2005-2010.

The commercial sector saw the next largest decrease at 9%. We can look at this sector in more detail by looking at changes in electricity and fuel usage, as shown in Figure 4. The overall emissions decrease is larger than the decrease in either electricity or fuel usage. This is because the electricity also became cleaner over this period as on more renewable generation sources were added to the grid.

The change in residential emissions was much smaller than the change in commercial emissions. Residential usage of fuels and electricity stayed about the same, each increasing a little over 1% as shown in Figure 5. Commercial energy use may be more responsive to economic conditions than residential energy use, which may partly explain why commercial energy use decreased, while residential energy use did not. Despite these increases, residential emissions decreased slightly because of cleaner electric generation.

Finally, transportation emissions decreased by about the same amount as residential emissions at 3%.

It is helpful in looking at emissions to have more than two years to compare. With a two-year comparison, emissions may be affected by weather or other variations that are evened out over a longer time. Only a few local governments have longer series of inventories. San Luis Obispo



Middle Figure 4: Net Commercial Sector Energy and Emissions Changes Across 44 Jurisdictions

Bottom Figure 5: Net Residential Sector Energy and Emissions Changes Across 44 Jurisdictions

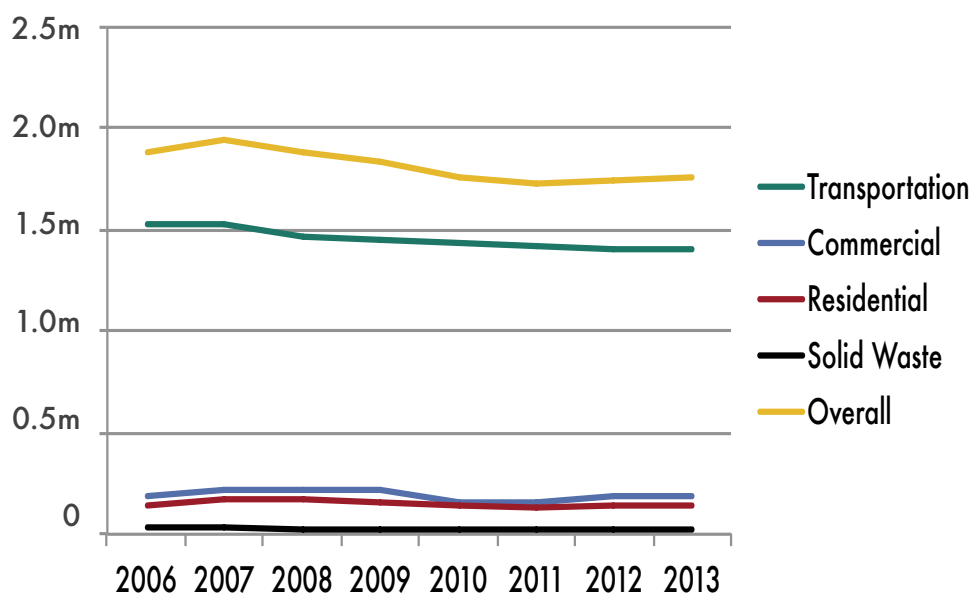
4 Cal Recycle, "State of Disposal in California", Figure 2. <http://www.calrecycle.ca.gov/Publications/Documents/1556%5C201601556.pdf>

County has inventories for every year from 2006 through 2013. San Luis Obispo County inventory trends for each sector are shown in Figure 6. The net trend for these emissions shows a substantial decrease, although there is a slight increase from 2011 through 2013.

The data described above represents a small sample of California local governments. While SEEC ClearPath provides a source of data that is both rich in detail and easy to access, the SEEC partners are also collecting additional sources of local community inventory data. For example, Beacon Award<sup>5</sup> participants are increasingly sharing inventory reports for both government operations and the community. Data from Beacon applications for 23 local governments that reported community emissions reductions shows an average reduction of 10%.<sup>6</sup>



Figure 6: San Louis Obispo County Emissions by Sector, 2006-2013



5 For more information on the Beacon program, see the Local Governments Leading by Example section of this chapter, and <http://www.ca-ilg.org/beacon-award-local-leadership-toward-solving-climate-change>

6 Similar to the ClearPath data, most of these reductions compare 2005 and 2010 inventories, but some are for other years.

## Inventory Scope and Completeness

The US Community Protocol is an emissions accounting standard for community-scale GHG inventories, published by ICLEI in 2013 and endorsed by the Governor's Office of Planning and Research. The completeness of local community inventories is evaluated here in terms of minimum protocol requirements. The Community Protocol was developed to provide improved and standardized accounting practices for US local community inventories, and creates a consistent framework across local inventories. The Community Protocol requires that, at a minimum, inventories include emissions from five Basic Emissions Generating Activities (BEGAs). These are 1) residential and commercial electricity use, 2) residential and commercial stationary fuel use, 3) on-road transportation, 4) energy associated with water use and generation of wastewater, and 5) solid waste generation.

Among those inventories in SEEC ClearPath with at least five records, almost all (98-99%) do have records for residential and commercial energy, transportation, and solid waste sectors. However, only about 80% have water and/or wastewater energy records<sup>7</sup>. Given the recognized importance of the water-energy nexus, this suggests more support is needed to help local governments account for the energy associated with water use and wastewater generation.

## Regional Approaches to Inventories

Local governments may complete inventories in multiple ways. Many of the early local governments to complete inventories did them using city staff resources. Others have hired consultants or formed partnerships with university faculty to complete the inventory. Funding through Local Government Partnerships Programs have supported many of these inventories.

Over the past few years, many inventories have been completed as part of regional efforts, led by councils of governments or regional energy alliances. In some cases regional agency staff have completed the inventories, while in other cases regional agencies provided centralized training and management of interns to complete the inventories.

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<sup>7</sup> In the SEEC ClearPath tool there are 158 inventories that are marked as official and have at least five records (a record contains data on a particular emissions source or activity, for example, residential electricity use). Inventories may also have multiple records for each sector. For example in the commercial sector there may be records for utility electricity, direct access electricity, natural gas, propane, etc.



# Emissions Reduction Targets

Setting a greenhouse gas emissions reduction target is important to ensure ongoing commitment of a local government, and to provide a benchmark to measure progress against. Most commonly, a target is defined as a percentage reduction from baseline year emissions, to be achieved by a particular target year. These targets also provide another way to look at the potential impact of local action.

For a sample of 39 California local governments with both emissions reduction targets and baseline inventories, meeting these targets will reduce emissions by 17 million tons of CO<sub>2</sub>e by 2020, and 41 million tons of CO<sub>2</sub>e by 2050<sup>8</sup>. For an additional 61 local governments with targets and estimated baseline emissions based on population, meeting the targets will result in an additional 28 million tons of CO<sub>2</sub>e by 2020, and 42 million tons of CO<sub>2</sub>e by 2050. Together these two groups would reach a reduction of more than 45 million tons CO<sub>2</sub>e each year by 2020, and 83 million tons CO<sub>2</sub>e each year by 2050 (with only 13 of the local governments having set 2050 goals). These targeted reductions represent 83% of the state's 2020 goal, and 21% of the statewide 2050 goal.

The above results are based on data on targets and baseline that were available at the time of the writing of this report. These local governments and their targets are listed in Appendix A. SEEC partners are working to develop a comprehensive list of all emissions reduction targets set by local governments in California. The overall impact would be significantly larger if all local governments in California set emissions reduction targets similar to those set by local governments in the sample.



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<sup>8</sup> Targets were obtained through self-reporting to the carbonn Climate Registry (cCR), from the 2012 OPR survey, and from local government websites or climate action plans. Baseline inventory data were obtained through self-reporting to the carbonn Climate Registry (cCR), from the SEEC ClearPath tool, and from local government websites or climate action plans. This sample of local governments contains many local governments not included in the previous sample of local governments used for inventory comparisons over time, although there is some overlap.

# Planning

A climate action plan is a roadmap for how a local government will reach its emissions reduction goals. A climate action plan usually addresses the emissions generating activities in a community in a comprehensive way; these will usually include residential and commercial energy use, transportation, and sometimes solid waste. Local governments may also develop plans that focus more narrowly on electricity and natural gas use. In addition, emissions reductions may be addressed through a sustainability plan that also addresses other environmental, health, and social goals.

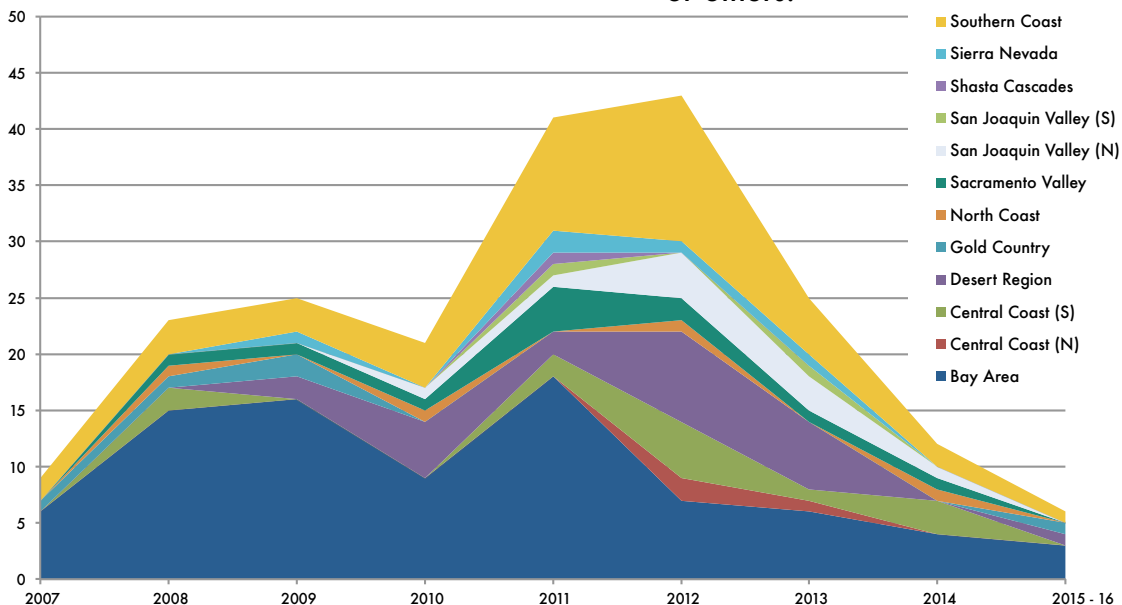
At least 228 local governments in California have adopted a climate, energy or sustainability plan, including at least 132 climate action plans. An additional 172 local governments have climate, energy or sustainability plans planned or in process. A full list of local governments with plans completed, in progress, and planned is included in Appendix B.

Figure 7 shows the development of these plans over time, broken down by regions of the state. Local governments in the Bay Area show strong early leadership in the development of plans, with other regions,

particularly the Southern Coast and Desert regions, increasing the pace of plan development particularly in the 2011-2013 timeframe. Plan adoption then appears to drop off in 2014-2016. As noted above, 172 local governments report plans that are in progress or that they plan to develop. This, combined with the observed drop off in plan adoptions, suggests that a valuable area for further research would be whether there are barriers that are slowing or stopping these local governments with planned and in progress plans from reaching completion.

Another theme shared by local governments is the challenge to conduct holistic climate action planning efficiently and cost-effectively when plan development funding sources restrict planning activities to specific segments and are often not available simultaneously. Ratepayer energy efficiency program funding supplied through investor-owned utility/local government partnerships has allowed many local governments to complete energy-efficiency chapters of climate action plans that they would otherwise not have been able to do. However, these local governments have struggled to find funds to develop plans for renewable energy deployment, or for efficiency gains in the transportation sector, or others.

Figure 7: Action Plan Adoption by Year and Region



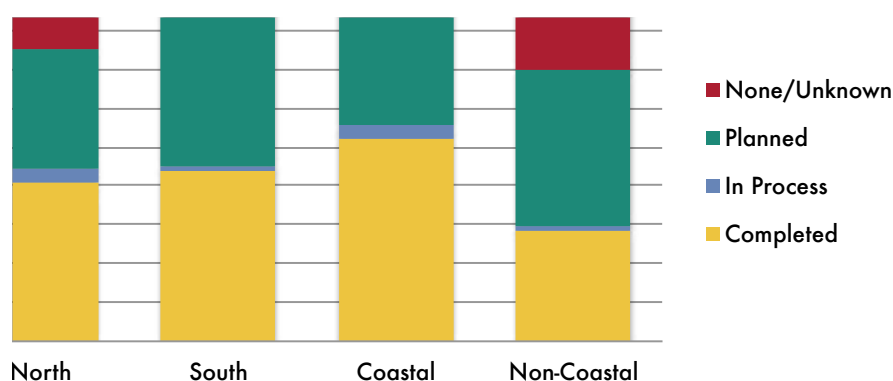
## Regional Variation in Plan Development Rates

As noted above, there are significant differences by region in the completion of plans. Cities in the Bay Area were early adopters, and 72% of Bay Area cities have adopted a climate action plan. The Southern Coast area was a little slower to being adopting plans, but has made considerable progress, with 30% having adopted plans and another 25% with plans in progress. In the San Joaquin Valley on the other hand, only 19% have adopted plans, with 10% having plans in progress.

Looking at larger regions, as shown in Figure 8, the divide between progress made on planning in northern vs. southern California is relatively minimal, though the difference in progress made in coastal vs. non-coastal communities is somewhat more pronounced.

Looking at a smaller geographic scale in some cases shows greater regional differences. For example, among the eleven local governments in the Coachella Valley Association of Governments (CVAG), eight have adopted plans, and the other three have plans in progress. In contrast, of the eight cities in the nearby Imperial Valley, only one has a plan in progress, and the remainder were not found either to have adopted plans or to be planning to develop one.

While the methodologies used vary, regional collaboration and coordination has emerged as a theme for gaining efficiencies and political momentum for climate and energy planning. At the same time, local governments are careful to ensure climate action planning is at its core a local effort, and that planning engages key stakeholders from the beginning and reflects the needs, interests, and values of the community and its governing bodies. Regional efforts focused on those regions that have not yet achieved high levels of plan adoption could be an effective strategy to increase the overall rate of plan completion in the state. More research should be conducted on the barriers that local governments in these regions face.



Above Figure 8: Climate, Energy and Sustainability Plans by Large-Scale Region



## Variation in Plan Development by Community Characteristics

Another way to look at plan completion is by the size of the local government. While 63% of local governments over 100,000 in population have adopted a climate, energy or sustainability plan, only 49% of those between 50,000 and 100,000, and 26% of those under 50,000 have done so. This finding is not unexpected, given that smaller local governments are likely to have greater resource constraints. Nonetheless, it points to a need to continue to develop approaches that can help small and medium-sized local governments develop plans. The example of Nevada City and the case studies of Monterey, Ventura County Regional Energy Alliance, and the Western Riverside Council of Governments in Chapter 2 of this report provide some indication of the kind of approaches that might be effective.

Interestingly, looking at a statewide basis, local jurisdictions that have one or more disadvantaged communities (as designated by CalEPA) have adopted climate action plans at about the same rate as local jurisdictions that do not have any disadvantaged communities.

Finally, jurisdictions that are utilizing SEEC resources are preparing plans at significantly higher rates than jurisdictions not utilizing SEEC resources (as shown in Figure 9). SEEC connects local governments to a statewide network, allowing them to share and receive best practices and resources. SEEC also offers recognition through the Beacon program which provides an incentive for plan completion.

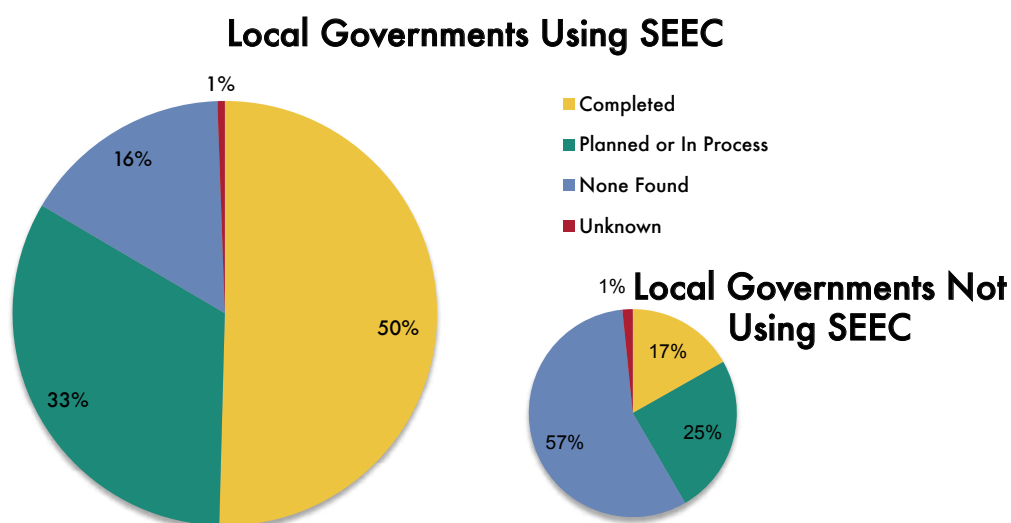


Figure 9: Energy, Climate and Sustainability Plan Completion, and SEEC Resource Use

## Nevada City

Nevada City is a very small city (population about three thousand) in the Sierra region. Climate action in this region has been greatly helped by a utility-supported regional energy efficiency program run by the Sierra Business Council (SBC). In 2010-2011, driven by interest of the mayor at the time, Nevada City had begun a municipal greenhouse gas inventory. However, the work was slow because of very limited capacity, as the city has only one planner on staff.

The City's new City Manager is also very supportive of climate action, and contacted the Sierra Business Council for help through a new program. SBC helped the city to complete its municipal inventory, and subsequently the community inventory was completed as part of a regional project. After the regional inventory project, the City was the first in the region to sign on for development of an energy action plan through the program. The plan was adopted in May, 2015, with goals to reduce community-wide energy use and increase use of renewable energy. The first year of implementation was also supported through the regional program, and the City has been able to provide energy code trainings to local contractors and building officials, to develop a solar roadmap identifying good installation sites on city facilities, and to begin benchmarking and energy audits of city facilities. An important next step is to set up a working group of city staff, community members and one or more elected leaders to keep the work moving forward. The city is also interested in pursuing a California Energy Commission grant to move more quickly and make the community net-zero energy.

Through a combination of internal leadership and regional support, this small city has been able to make considerable progress in addressing local GHG emissions.



# Implementation - Energy and Climate Policies and Programs

The Statewide Local Government Energy Efficiency Best Practices Coordinator (Coordinator) is charged with tracking and reporting key local government policy and program development that supports the five goals for local governments under the California Energy Efficiency Strategic Plan (last updated 2011). These goals, broadly, are:

1. **Going Beyond Code.** Local governments lead adoption and implementation of “reach” codes stronger than Title 24, on both mandatory basis and voluntary bases.
2. **Code Compliance & Enforcement.** Strong support from local governments for energy code compliance enforcement.
3. **Leading by Example: Municipal Savings.** Local governments lead by example with their own facilities and energy usage practices.
4. **Supporting Community Savings.** Local governments lead their communities with innovative programs for energy efficiency, sustainability and climate change.
5. **Building Government Energy Expertise.** Local government energy efficiency expertise becomes widespread and typical.

Historically, the Coordinator has tracked the following policies and programs to share progress towards these goals:

- Plans and initiatives developed by local governments to address greenhouse gas emissions (for municipal operations, and/or community-wide)
- Reach codes (for municipal and/or general buildings)
- Benchmarking activities and use of utility management software
- Revolving energy funds
- Commissioning and retro-commissioning activities

The last comprehensive report from the Coordinator on these activities was shared in 2012 (2012 Coordinator Annual Report). The 2012 status of these programs, and current expansion of tracking of these activities to date (July 2016) is described below. It is important to note that the effort to gather data on these activities into a new comprehensive database is a work in progress; numbers shared in this report are not comprehensive and therefore are likely conservative. An update of these numbers will be available in the Coordinator’s upcoming Annual Report, to be released in 2017.

## Reach Codes (and Above Code Policies)

In 2012, the Coordinator report shared that 43 cities and counties had adopted reach codes approved by the California Energy Commission (CEC). Additionally, it was shared that 8 cities and counties had set mandatory requirements above state energy code for their municipal properties.

By the close of the 2008 energy code in 2013 (and the adoption of the 2013 Building Energy Efficiency Standards, or BEES), 45 local governments had adopted reach codes approved by the CEC. In contrast, as of July 2016 - with the close of the 2013 standards and the beginning of enforcement of the 2016 BEES coming at the end of 2016 - we see that in the entirety of the 2013 cycle, only 8 local governments adopted reach codes and had those codes approved by the CEC. This represents a sharp decrease in reach code adoption from the previous energy code cycles. Reasons for this anecdotally shared by local governments include the high bar set by the 2013 BEES combined with limited compliance paths (and resulting pushback on the 2013 BEES from some contractors and builders), as well as the economic climate and decreases in local government staffing capacity.

Despite the decreased adoption of CEC-approved reach codes in the 2013 cycle, it would be incorrect to say that local governments are moving away energy efficiency code activities. Local governments such as the City of Los Angeles and the City and County of San Francisco have either implemented or have in process mandatory energy efficiency standards for existing buildings. Other local governments are focusing more strongly on green building and building performance, by implementing requirements that buildings meet voluntary standards under the state's CalGREEN code, reach different levels of LEED, or receive a minimum number of GreenPoints. Other governments are turning to policies that set voluntary goals or recommendations above the BEES, but mandate review and disclosure of building energy performance through a checklist, or through the U.S. Department of Energy's Home Energy Score.

To date, the Coordinator has tracked that a total of 117 local governments have taken action to implement energy efficiency or green building regulations in their jurisdictions. These regulations range from voluntary to mandatory, and





may be focused across sectors, or specifically on municipal, residential, or non-residential sectors. The policies of several of these local governments have been made obsolete with the emergence and mandatory adoption of the 2013 BEES and/or the 2013 CalGreen Standards.

A total of 23 local governments have enacted energy efficiency or green building regulations specific to their municipal portfolios to lead by example in their jurisdictions. These policies range from setting a higher bar for municipal building energy and water efficiency through LEED or GreenPoint requirements (such as in Ontario, Manhattan Beach, Cupertino, San Leandro or Rohnert Park), adoption of a Civic Green Building Ordinance (such as in Pleasanton), or - in the case of the City of Hayward, adoption of a new ambitious municipal Zero Net Energy policy.

New resources are available to help local governments understand the value of going beyond code - and to communicate these values with key community stakeholders - such as developers and realtors - as well. Reports from local governments such as the City and County of San Francisco are helping to communicate the energy savings opportunities uncovered and motivated by above code policies. Reach code cost effectiveness studies across all climate zones (and other resources) are under development and are being made available by the investor-owned utility Codes & Standards team. Challenges that local governments have faced in triggering CEC code compliance software cost effectiveness is also under a collaborative review by the CEC, the investor-owned utilities, industry and local government alike - resulting corrections to the software are expected to support further beyond code policy adoption.

To date, at least 2 local governments have submitted reach codes to exceed the new 2016 BEES ahead of the January 2017 deadline for adoption.



## Benchmarking and Utility Management Software Activities

In 2012, the Coordinator report shared that 68 local governments had engaged in some kind of benchmarking activity (e.g., benchmarking policy or plan development or implementation). To date, the Coordinator has identified 55 cities and counties that have developed or adopted an energy benchmarking plan or policy, and 95 cities and counties that have either completed benchmarking of some or all of their municipal buildings.

In 2012, the Coordinator report shared that 28 local governments reported using a program to review and manage their utility energy use. To date, the Coordinator has identified 125 local governments utilizing a software or web-based tools to manage and review their utility bills and energy usage. Over 80 of these have reported using the U.S. Environmental Protection Agency (EPA)'s ENERGY STAR Portfolio Manager, as either a primary or backup management tool. Many local governments are using the systems such as EnergyCAP or Los Angeles County's Enterprise Energy Management Information



System (EEMIS) - some local governments are using custom tools, such as Chula Vista's C3 system.

Energy benchmarking is a critical step in identification of energy-saving opportunities in a local government's portfolio - but requires dedicated staff time and resources. A significant amount of local government benchmarking activity relies on external support - and is often supported through the utility-local government partnerships (LGPs) that are supported by energy efficiency ratepayer funds regulated by the CPUC. Making sure a city or county sees an end goal beyond the act of benchmarking itself - for example, the promise of a capital improvement or funding award - is a great best practice for ensuring staff stay committed to and engaged with a benchmarking project. Local governments have also successfully leveraged interns or fellows to support in their benchmarking efforts.

## Revolving Energy Funds

In 2012, the Coordinator report shared that 11 local governments had implemented revolving energy funds for energy efficiency and sustainability projects that are replenished by cost savings generated by the projects.

Creating a revolving energy fund (typically, a fund for energy projects that is replenished by the ongoing annual cost savings realized in implementation) is an excellent strategy to support cost-effective projects of interest. Through a revolving energy fund, a local government can control its own project eligibility rules and timelines, rather than struggling to meet those set by a third party funder. To date, the Coordinator has tracked that at least 27 cities and counties have either their own revolving loan fund in place, or - in the case of cities in the Western Riverside Council of Governments (WRCOG) territory - have committed access to a multi-city revolving energy fund. At least two additional local governments have plans to develop an energy-focused revolving loan fund in the near future.

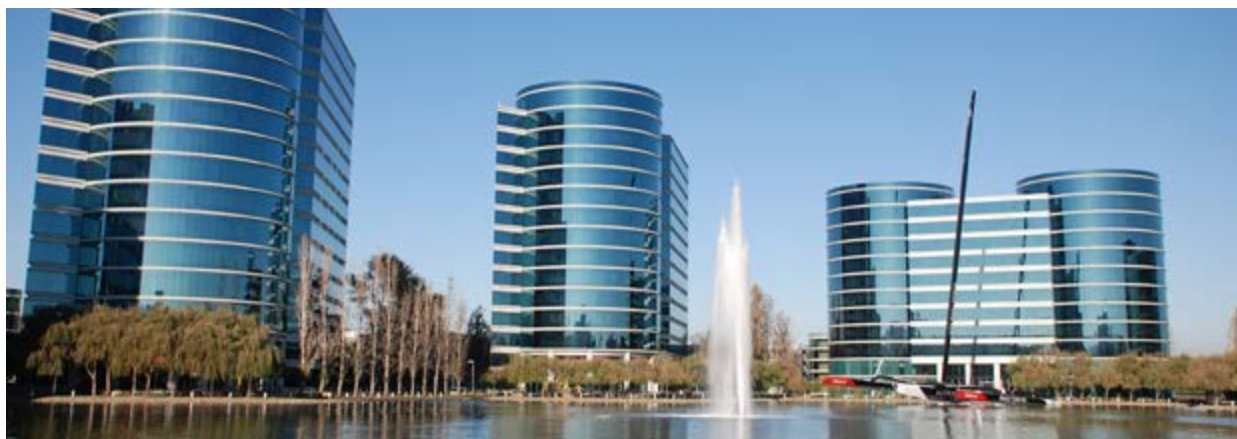
While traditionally, most revolving energy funds have been replenished directly by energy utility bill savings, California local governments are bringing new and interesting models to the table. The WRCOG Beyond

Framework Fund Program, established in 2015, instead uses income from its administration of the HERO Program to support Beyond Program projects in local governments across its subregion (learn more about this program in Chapter 2). Also as of 2015, the City of Watsonville has adopted a Carbon Fund Program that places a new fee on building renovations and development that may be refunded through implementation of energy efficiency or clean energy measures; the proceeds from the fee are to be used to implement the City's new climate action plan. A new type of revolving energy fund is also planned by the Silicon Valley Clean Energy Authority (SVCE), a partnership of 12 local governments formed in March 2016 that has committed to providing its Santa Clara customers with 100% clean electricity upon starting operation in 2017; SVCE will be setting aside a percentage of its revenue to invest in local renewable energy projects and energy programs.

## Commissioning and Retro-commissioning Activities

In 2012, the Coordinator report shared that 20 local governments were engaged in commissioning and retro-commissioning in their facilities. To date, 25 local governments have been identified using energy efficiency focused commissioning or retro-commissioning<sup>9</sup> strategies in their facilities. Retro-commissioning of buildings is a powerful way to improve operations and increase energy efficiency of existing buildings; Retro-commissioning measures often also have a very desirable payback, especially in larger buildings. However, retro-commissioning can also be difficult to implement due to lack of committed budget and the behavior change, training, and motivation of facilities managers and engineers needed for its effective adoption.

The County of Los Angeles has developed a strong retro-commissioning program by compellingly communicating the opportunities for correcting energy use (e.g., showing instances of simultaneous heating and cooling) and improving facilities operations to build management and budget support; by combining retro-commissioning activities with their use of the EEMIS utility management system to analyze energy use, they are also able to communicate the retro-commissioning Program's value by sharing project results: including that retro-commissioning of 80 large facilities resulted in an average cost of \$1.20 per square foot, and average annual energy savings of \$0.50 per square foot.



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<sup>9</sup> Commissioning refers to the testing of a new building's mechanical systems and controls to verify that they are functioning as designed and at maximum efficiency. Retro-commissioning refers to similar testing of the systems of an existing building.



## Further Program and Policy Tracking

As of 2016, the Coordinator has begun tracking additional municipal activities, including activities supporting energy compliance (e.g., streamlined permitting, fee reductions or incentives, technical assistance and compliance education), municipal energy audits and retrofits, distributed energy resource (DER) projects, and participation in consumer choice aggregation (CCA) programs.

To date, over 50 local governments have been identified as having completed one more multiple energy-saving municipal building retrofits (another 20 local governments have retrofits planned or in process). Another 45 local governments have been identified as having completed energy-efficient streetlighting upgrades (another 28 local governments have such projects planned or in process). For more information on local government progress on above-code activities, energy code compliance support, municipal facility policies and projects, and community programs (such as the California Green Business Program or PACE programs) that local governments run or promote, visit the [EECoordinator.info](http://EECoordinator.info) website.

## Implementation Progress by Region

Remarkably, the data gathered to date show that the distribution of the plans, policies and projects are not restricted to a specific set of regions - rather, energy and climate action in California has spread throughout the state. Figures 10 and 11 show implementation of policies and programs broken down by Northern and Southern California, as well as by coastal and non-coastal regions. While these data provide a high-level, first cut into climate and energy progress regionally in California, the results are significant. Looking broadly across California, climate and energy planning - and implementation - is occurring everywhere.



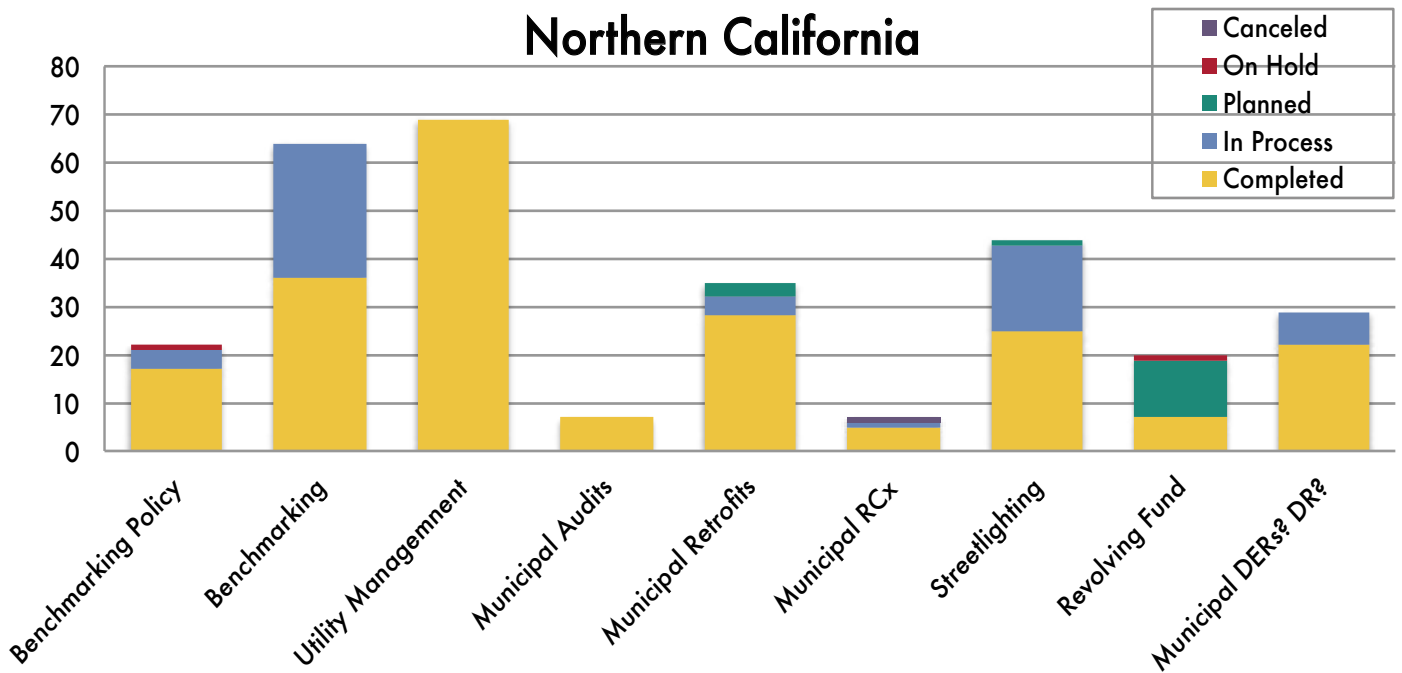
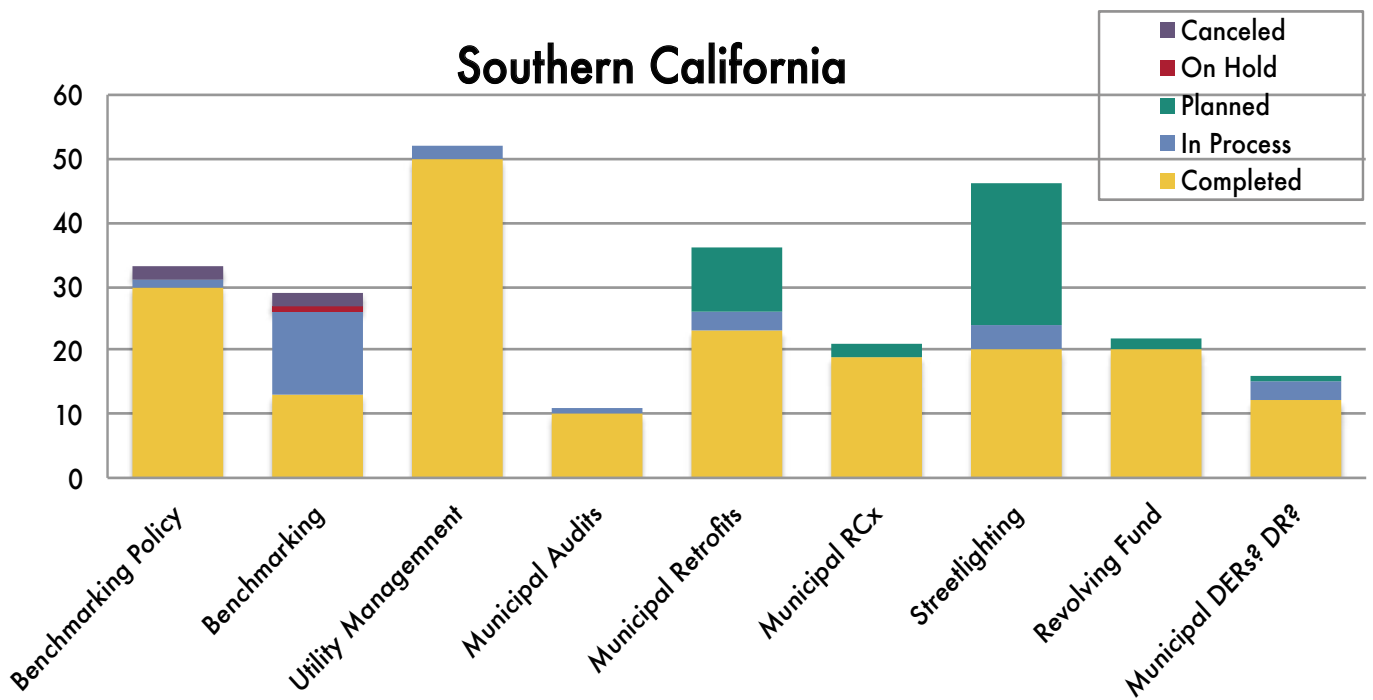


Figure 10: Comparison of Municipal Projects in Northern and Southern California



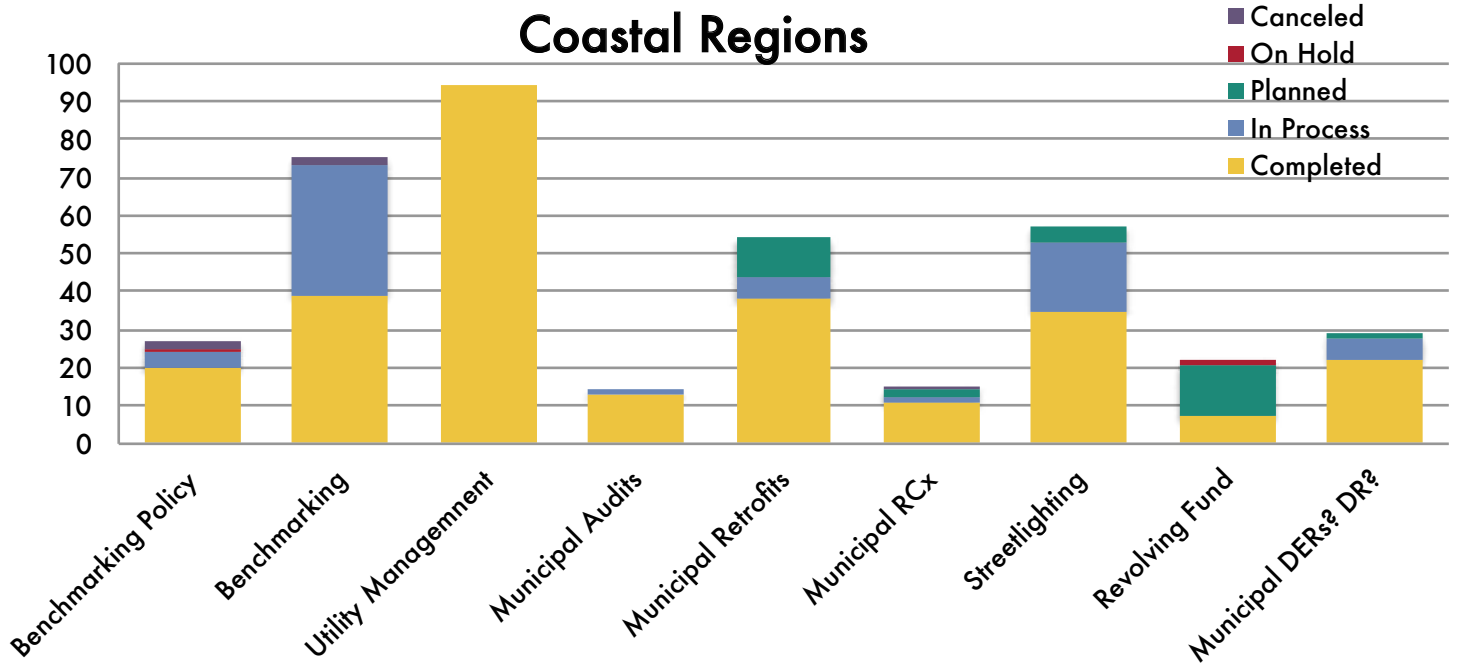
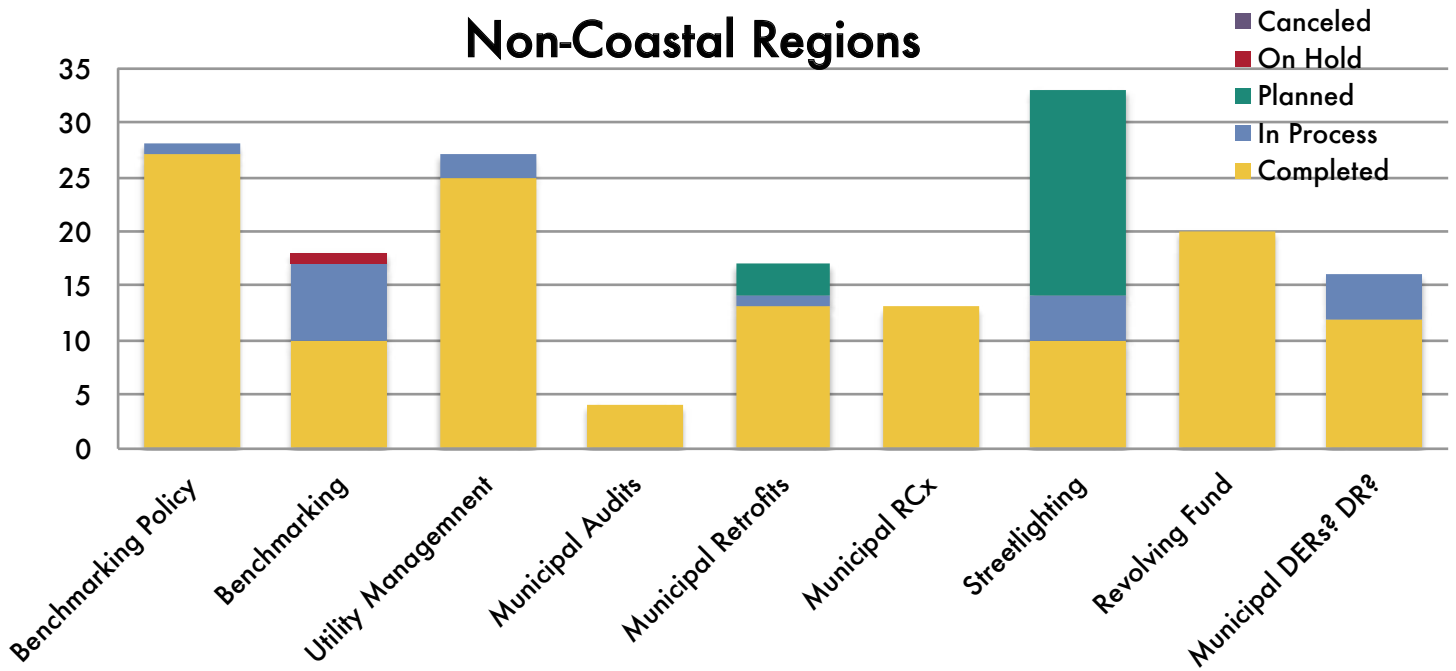


Figure 11: Comparison of Municipal Projects in Coastal and Non-Coastal Regions

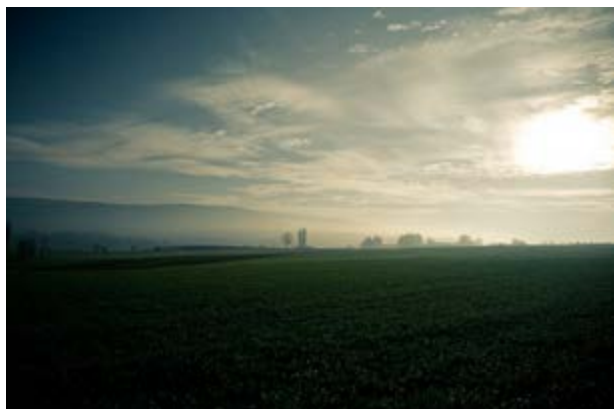


# Funding for Local Implementation

## *Cap and trade allowance revenue*



The Greenhouse Gas Reduction Fund receives funds from auction of cap and trade allowances. Disbursement of these funds through grant programs began in FY 2014-2015<sup>10</sup>. Local governments are eligible entities for many of the grant programs from cap and trade funds. Local governments have received funds in support of affordable housing (as part of a sustainable land-use pattern), low-carbon transit operations (such as hybrid or electric transit vehicles), transit services expansion, water efficiency projects, and agricultural land conservation strategies. Many cap and trade allowance programs have a portion of funds set aside or prioritized for communities identified as disadvantaged communities (DACs).<sup>11</sup> Of the \$912 million in implemented funds through these programs as of December 2015, \$356 million went to projects in disadvantaged communities, and \$469 million went to projects benefiting disadvantaged communities.<sup>12</sup>



## *Utility Funding—Local Government Partnership programs*

Another source of funding for local government programs and policies in the area of energy efficiency are the Local Government Partnerships (LGP) programs, managed by investor owned utilities (IOUs) under the auspices of the California Public Utility Commission. These partnerships support local governments to retrofit local government facilities, promote and implement community energy efficiency programs, and advance other activities in alignment with the California Energy Efficiency Strategic Plan (CEESP).



10 <http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/ggrfprogrampage.htm>

11 Disadvantaged communities have been identified by the California EPA, using data from the Cal EnviroScreen Tool <http://oehha.ca.gov/calenviroscreen>.

12 [http://arb.ca.gov/cc/capandtrade/auctionproceeds/cci\\_annual\\_report\\_2016\\_final.pdf](http://arb.ca.gov/cc/capandtrade/auctionproceeds/cci_annual_report_2016_final.pdf)

Overall funding on local government partnership activities in 2013-2014 was \$154,207,000.<sup>13</sup> The retrofits and installations through this funding produced annual savings of 214,357,000 kWh electricity and 1,878,000 therms of natural gas.

The portion of this funding for CEESP support activities is worth a closer look, as these activities include advancement of policies looked at earlier in this section, such as building code enforcement and compliance, education, and the development of the energy portion of climate action plans. Funding disbursed under Local Government Partnership programs for activities supporting the CEESP from 2013-2015 is shown in Table 1.

Projects funded under Goal 1 include development and implementation of reach codes, green building policies, and voluntary green building incentive programs. Activities funded under Goal 2 include training for local government staff on the Title 24 energy code, as well as efforts to streamline and improve the permitting and inspection process. Under Goal 3, projects include benchmarking of municipal facilities, systems for energy use tracking and management, and development of retro-commissioning policies for municipal facilities. Under Goal 4, funded activities include development of energy action plans and climate action plan energy elements, greenhouse gas inventories, programs to engage businesses in energy efficiency, and other planning and public outreach activities. Finally, activities under Goal 5 include outreach and education, as well as coordination with other local governments and best practices sharing.

<sup>13</sup> More detail on these programs available through CPUC Fact Sheet: Government Energy Efficiency Programs (2013-2014). <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=5554>

Table 1: Local Government Partnership Funding for CEESP Activities from 2013-2015, by Goal Area

Strategic Plan Goal	Funding for completed projects
Goal 1: Reach Codes	\$4,173,000
Goal 2: Code Compliance	\$537,000
Goal 3: Lead by Example	\$12,484,000
Goal 4: Community Leadership	\$4,153,000
Goal 5: Local Government Energy Efficiency Expertise	\$1,605,000
<b>Total</b>	<b>\$22,953,000</b>

Summary of data developed as part of 2013-2015 program cycle close-out reporting for Strategic Plan support activity. When the 2013-2015 program reports are complete, they will be available at <http://eecoordinator.info/coordinator-utility-reports/>. Note that the timeframe for this data is one year longer than for the LGP program total above. Values rounded to the nearest \$1000.

## Regional Cooperation on Implementation

Due to the interconnected nature and scale of climate change, and the urgency for local governments to take action, regional cooperation has emerged as a key strategy to leverage limited resources to maximize impact. From counties and councils of governments to regional collaboratives and information-sharing networks, regional entities have played a critical role in providing resources, technical assistance, funding, coordination support and opportunities to learn, share and network to further local climate action. The level of regional engagement can also span from light-touch, online information sharing to comprehensive projects, jointly designed and implemented, but all forms provide important regional perspectives that allows local jurisdictions to better achieve shared goals while maintaining local control.

Regional cooperation has emerged as a way for local governments to leverage limited resources to achieve shared goals in the implementation of emissions reduction programs and policies as well as in planning and inventories. For example, Redwood Coast Energy Authority (RCEA) has played an important role in promoting and implementing energy efficiency programs in a rural region where both customers and contractors are highly spread out. RCEA also led development of regional electric vehicle (EV) readiness plan. The regional approach is essential for planning EV charging in a rural area, since many charging points need to be publicly owned, and strategic placement is needed to achieve coverage.

The emPower Program operating in Santa Barbara, San Luis Obispo and Ventura counties is another example. The Empower Program simplifies the process of energy efficiency upgrades for homeowners through pre-screened contractors, a standardized menu of upgrades, and available financing. The program was developed by Santa Barbara County, and then the other two counties decided to participate and offer the program as well.



# Local Governments Leading by Example

In addition to programs and policies that directly influence community-wide energy use by residents and businesses, local governments also play an important leadership role by reducing energy use and emissions in their own buildings and operations.

One source of data about local government leadership is the Beacon Program operated by the Institute for Local Government (ILG) through SEEC. The program honors voluntary efforts by local governments to reduce greenhouse gas emissions, save energy and adopt policies that promote sustainability. Communities may be awarded Spotlight Awards based on achievements in an individual area such as agency (government operations) electricity or natural gas use, agency greenhouse gas emissions reduction, or implementing a certain number of best practices. Full Beacon Awards are also given for holistic achievement across all six areas.

As shown in Table 2, the data submitted by Beacon participants shows emissions reductions for local government operations that are larger than those in the community dataset described previously. Local governments have been particularly effective at reducing electricity use, with 15 local governments receiving the Platinum level award for electricity use reductions greater than 20%.

On average, Beacon participants showed an expected reduction 16% in government electricity use as a result of reported efficiency projects. In most cases, the reported projects were implemented between 2005 and 2010. Participants also showed an expected 19% reduction in natural gas usage, and a 19% reduction in overall government operation GHG emissions. The three local governments with the largest reductions in each category are shown in Table 3.

Beacon Award Level	Number of Local Governments		
	Electricity	Natural Gas	GHG Emissions
Silver 5-10% reduction	8	6	4
Gold 10-20% reduction	20	4	8
Platinum >20% reduction	15	7	8

Table 2: Number of Local Governments Achieving Beacon Award Levels for Government Operations Energy Usage and Emissions

Electricity		Natural Gas		Emissions	
Local Government	Reduction	Local Government	Reduction	Local Government	Reduction
Portola Valley	43%	Palo Alto	35%	Palo Alto	52%
Millbrae	42%	Portola Valley	34%	Hayward	43%
Rolling Hills Estates	27%	Chula Vista	30%	Sonoma County	29%

Table 3: Top Reductions Achieved by Beacon Participants





## Leadership Commitments

Local governments are also demonstrating leadership by committing to climate action and reporting their progress through national and global campaigns. A national survey in 2015 found that the most common motivations for sustainability action by local governments were the potential for fiscal savings (46 % listed as very significant and 38% as significant), and leadership of elected officials (45.8% listed as very significant and 35.8% as significant).<sup>14</sup> Two such campaigns are the Compact of Mayors and the Resilient Communities for America agreement (RC4A).

The Compact of Mayors is the world’s largest collaboration of cities and city networks to address climate change, with over 450 cities worldwide signed on. In 2015, President Obama issued a call to action for U.S. cities to sign onto the Compact. Cities signing on commit to develop a GHG inventory, set emissions reduction targets, and develop a climate action plan over a three-year period. Twenty-six California cities have committed to the Compact, representing about one-fifth of the total signatories in the U.S. and the largest group of any state or province worldwide. These California signatories are listed in Appendix B.

The Resilient Communities for America Agreement is a national campaign of elected officials who pledge to create more resilient cities, towns, and counties, built to overcome extreme weather, energy, and economic challenges. Thirty-one California local governments are among the 200 national signatories.



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14 ICMA. Local Government Sustainability Practices, 2015. Summary Report--March 2016.



# Case Studies

As the following case studies illustrate, climate action in California is happening across a wide variety of communities, large and small, urban, suburban and rural, well-off and disadvantaged. Together these local governments and others like them are forging a new path of sustainable development for California.

# South Gate

—Sustainability as a Path to Prosperity



Since the economic downturn of 2008, California's cities have endured several years of slow job growth and tight fiscal constraints that have squeezed the ability of local agencies to provide essential public services. While many cities in California have rebounded from the Great Recession, others continue to experience troubling levels of unemployment, underemployment, and income disparity. Many of these same communities also suffer greater exposure to health and environmental hazards that pose a risk to their residents. As a result, businesses and civic leaders alike are searching for ways to promote lasting and sustainable prosperity for their communities.



The City of South Gate in southern Los Angeles County is making a concerted effort to pursue prosperity through sustainability, working together with other cities in the larger Gateway Cities region. With more than two million residents, the region includes 27 cities and a dozen unincorporated communities covering more than 200 square miles, stretching from Long Beach to the borders of downtown Los Angeles. Once the heart of southern California's defense and aerospace industries, the Gateway Cities are working hard to adapt to changing economic trends and emerging business opportunities. About 760,000 people work in the nearly 65,000 businesses, public agencies and non-profit organizations in the Gateway Cities. Most employees - 59% - are blue collar workers in the manufacturing, wholesale, retail and food service industries. Income per household is about \$54,000, 12% less than the statewide average, with more than a quarter of the children under 18 living in poverty.

The City of South Gate was hit hard by the decline of industrial employment in southern California following the end of the Cold War. Ten years after a highly publicized corruption scandal, this predominantly Latino city of 100,000 residents along the I-710 corridor in southeast Los Angeles is implementing a visionary General Plan to guide the creation

of a more healthy and prosperous community.

South Gate participates in the Local Government Partnership energy efficiency programs administered by Southern California Edison and SoCalGas, and has participated in the SEEC Beacon program since 2011. The city's hard work and commitment have paid off. Despite the constraints the city faces as a disadvantaged community with limited fiscal and staff resources, South Gate reduced energy use in its facilities by 12% and cut greenhouse gas emissions by 11% for its operations and by 7% for the community as a whole, while at the same time developing new job opportunities for city residents. Last year, South Gate was recognized for these accomplishments as one of only four cities in California to receive the Institute for Local Government's full Beacon Award.

According to South Gate council member Jorge Morales, the city is working hard to create a better future for the next generation. "We like the environment, but we love our kids. We've learned that your zip code matters more than your genetic heritage in determining if you're obese, pre-diabetic, diabetic or asthmatic. We're committed to reimagining and redefining our zip code - what it means to live and work in South Gate."

# Sustainable Commercial and Industrial Development

The new Azalea Regional Shopping Center is perhaps the most prominent example of South Gate's pursuit of sustainable economic development. The shopping center transformed 30 acres of vacant industrial land into a retail amenity that is "green" from the inside-out. The center boasts a host of environmental features, including use of recycled water, electric vehicle charging stations, energy efficient lighting, and a unique "living wall" of greenery.

Built to Gold Level LEED standards, the shopping center's green building credentials weren't earned at the expense of local jobs. The city and the developer worked with the Hub Cities Consortium, a regional workforce development non-profit, to establish the Azalea Local Hire Program. The city reported that in 2014, 40% of the jobs in the center were held by residents from South Gate, and the city expects the center to eventually employ 800 people as additional businesses open.

Retail isn't the only economic sector in South Gate that has successfully blended economic and environmental benefits. Armstrong World Industries, a major national flooring company with a manufacturing facility in South Gate instituted production efficiencies and recycling processes that reduced the amount of floor tile scrap going to landfills by 93% between 2010 and 2013, eliminating more than 150 tons of waste per month. Water use in the plant was reduced from 6.8 million gallons in 2009 to 2.6 million gallons in 2014. In addition to conserving resources and saving money, these accomplishments earned the firm a Los Angeles Green Business Leadership Award in 2015.

Other manufacturing, recycling and composting businesses in South Gate and other Gateway Cities have achieved similar results. According to city leaders, these initiatives have paid off in many ways. "Bottom line, we have learned a lot from the private sector on how to deploy environmental best practices," says South Gate City Manager Michael Flad.



# Regional Collaboration

While South Gate has emerged as a leader, it is not acting alone— other Gateway Cities are also working hard to attract sustainable economic development to their communities. One way that city leaders in the area are combining forces is through the Gateway Cities Council of Governments, a joint powers agency that represents the 27 cities in the region, as well as several unincorporated communities in Los Angeles County.

One issue the Council has taken on is access to parks and open space. The Gateway Cities have less park space per capita than most communities elsewhere in the region and throughout the state. The Council of Governments sponsored legislation creating the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, which has brought millions of dollars in state grants to local cities for parks and open space improvements.

In another forward-looking initiative, the Gateway Cities COG

is participating in planning for the Eco-Rapid Transit Project, a 40-mile corridor linking Bob Hope Airport in Burbank with downtown Los Angeles, then through the Gateway Cities to the city of Artesia. Several cities along the route are reviewing their land use and transportation plans to anticipate the increased mobility and economic activity that development of the rail line is expected to bring to the region.

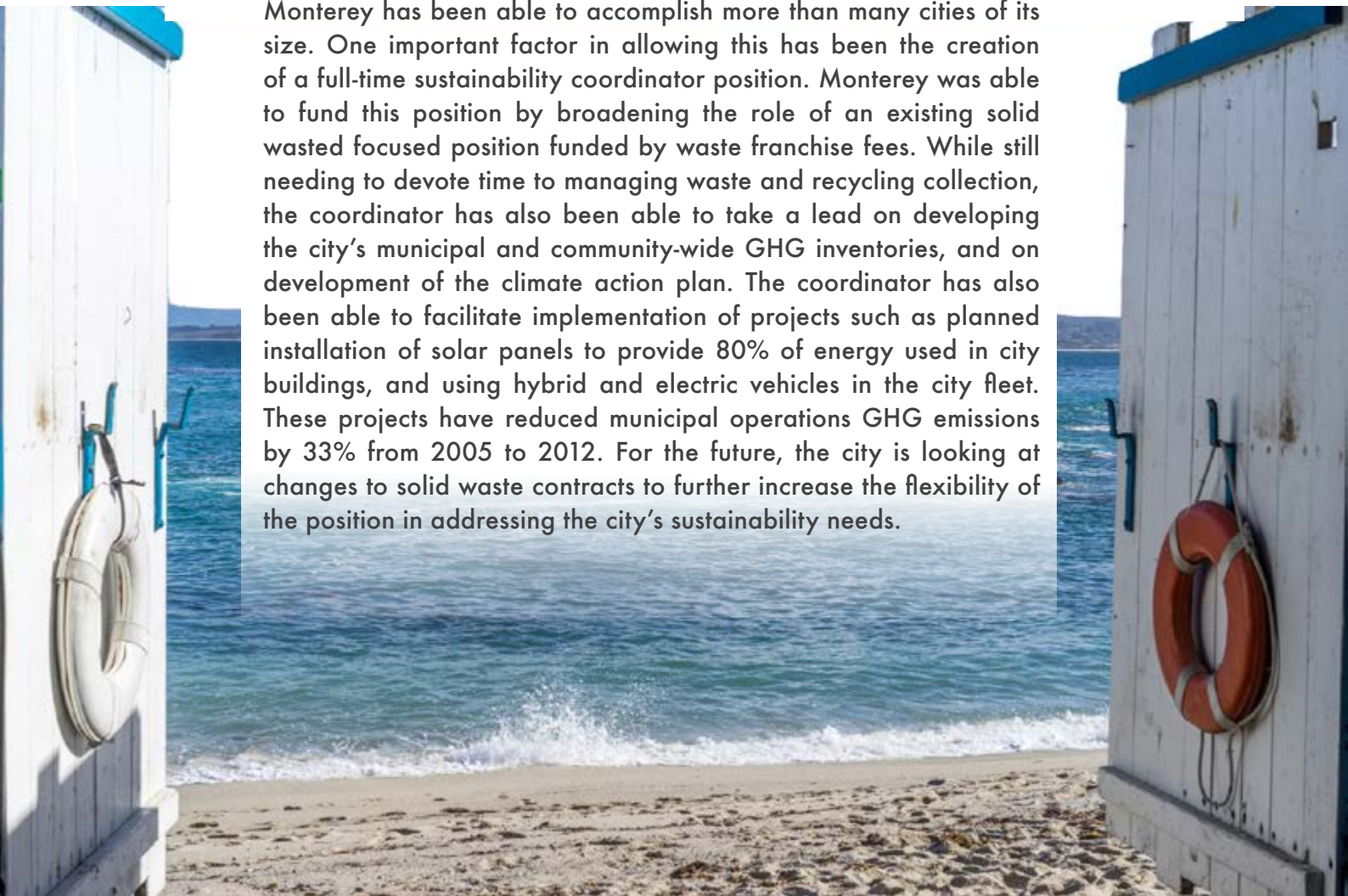
Working individually and collaboratively, the Gateway Cities are using creativity, partnerships and an entrepreneurial spirit to overcome the barriers that often face traditionally disadvantaged communities and those facing economic transitions. Through the persistent pursuit of sustainable development that melds the values of economic prosperity, environmental quality, and community health and well-being, these communities are determined to create a better future for their residents while doing their part to address the serious threat of climate change.



# Monterey—Making a Green Destination

**M**onterey is a small coastal city, with a population of about 28,000. Tourism and agriculture are major drivers of the regional economy. The coastal environment, the area's history, and attractions like the Monterey Bay Aquarium draw many visitors. Monterey also draws people as a conference location. Recognizing that tourists and conference organizers are increasingly interested in the environmental performance of places they visit, the city has made it a goal to be known as a green destination. Action is also motivated by concern that climate change will damage the natural environment that draws people to visit, and will harm agriculture in the region.

A key element in making Monterey a green destination is an in-progress remodel of the city's conference center designed to achieve LEED certification, as well as to allow for zero waste conferences. Local hotels agreed to an increased tax to pay for the conference center upgrades, recognizing that maintaining the brand of the conference center is important to continuing to draw visitors to the city. The goal to make the city a green destination is also an important motivator for development of the city's community-wide climate action plan, released for public comment in April 2016. The plan proposes community choice aggregation to increase the percentage of the community's electricity coming from renewable sources, and development of transit options to connect the city to the San Francisco Bay Area and peninsula.



Monterey has been able to accomplish more than many cities of its size. One important factor in allowing this has been the creation of a full-time sustainability coordinator position. Monterey was able to fund this position by broadening the role of an existing solid waste focused position funded by waste franchise fees. While still needing to devote time to managing waste and recycling collection, the coordinator has also been able to take a lead on developing the city's municipal and community-wide GHG inventories, and on development of the climate action plan. The coordinator has also been able to facilitate implementation of projects such as planned installation of solar panels to provide 80% of energy used in city buildings, and using hybrid and electric vehicles in the city fleet. These projects have reduced municipal operations GHG emissions by 33% from 2005 to 2012. For the future, the city is looking at changes to solid waste contracts to further increase the flexibility of the position in addressing the city's sustainability needs.



Another factor that has allowed Monterey's accomplishments has been strong regional support, including support from the Association of Monterey Bay Area Governments (AMBAG). Support from AMBAG was particularly helpful as Monterey began its efforts. The regional agency provided review and recommendations, assistance in getting energy data, and has facilitated collaboration in the region, and with nearby regions.

The combination of strong internal motivations, dedicated staff time and regional support have allowed Monterey to make considerable progress in addressing climate change.





# Sacramento

## Collaborative Approaches to Planning

The City of Sacramento is the state's capital and sixth largest city in California. The city's population is just shy of 500,000 people, and is expected to grow by approximately 165,000 residents in the next 20 years. The guiding vision in the city's General Plan is to be the most livable city in America. Underlying this vision are six basic principles: grow smarter, maintain a vibrant economy, create a healthy city, make great places, develop a sustainable future and live light to reduce the carbon footprint.

Sacramento has effectively moved this vision forward through collaborative approaches with agencies, businesses and non-profit institutions in the community and regionally. These approaches have led to major new developments in the downtown area that incorporate the latest in sustainable design, as well as to energy savings in the city's own operations.

The 2035 General Plan, building on several earlier plans, is the city's action plan for reducing greenhouse emissions and adapting to climate change based on strategies like mixed-use development that encourages walking and biking, use of public transit, green building practices, use of solar energy systems, architectural design to reduce heat gain and water conservation measures. The city has adopted aggressive targets for reducing greenhouse gas emissions, both in the near and long term. The near-term target is focused on reducing emissions by 15% to 1990 levels by 2020 consistent with state mandates, while the long-term goals set Sacramento on a path for GHG emissions reductions of 38% by 2030, and 83% by 2050.

The city also supports the region's Metropolitan Transportation Plan/Sustainable Communities Strategy, which is aligned with the Sacramento Region Blueprint. The Blueprint, an innovative project developed in 2004, contains an extensive study of the linkages between transportation, land use and air quality. The collaborative process was aimed at developing guiding principles for growth and transportation projects that consider the needs of the region as a whole.



# Sustainable Design in New Developments

One key to Sacramento's ability to entice developers to the region with environmentally-friendly design is the attractive menu of mitigation measures the city provides. For example, the City of Sacramento has adopted a first of its kind Caltrans highway mitigation model that allows for non-capacity increasing and sustainable project contributions, such as street car or light rail, in-lieu of the traditional model of mitigations aimed at widening freeways and increasing capacity. Getting residents out of their cars is a big focus for the city. In 2013, the City of Sacramento revisited all of their parking requirements, reducing many, and eliminating parking requirements in the downtown area altogether.

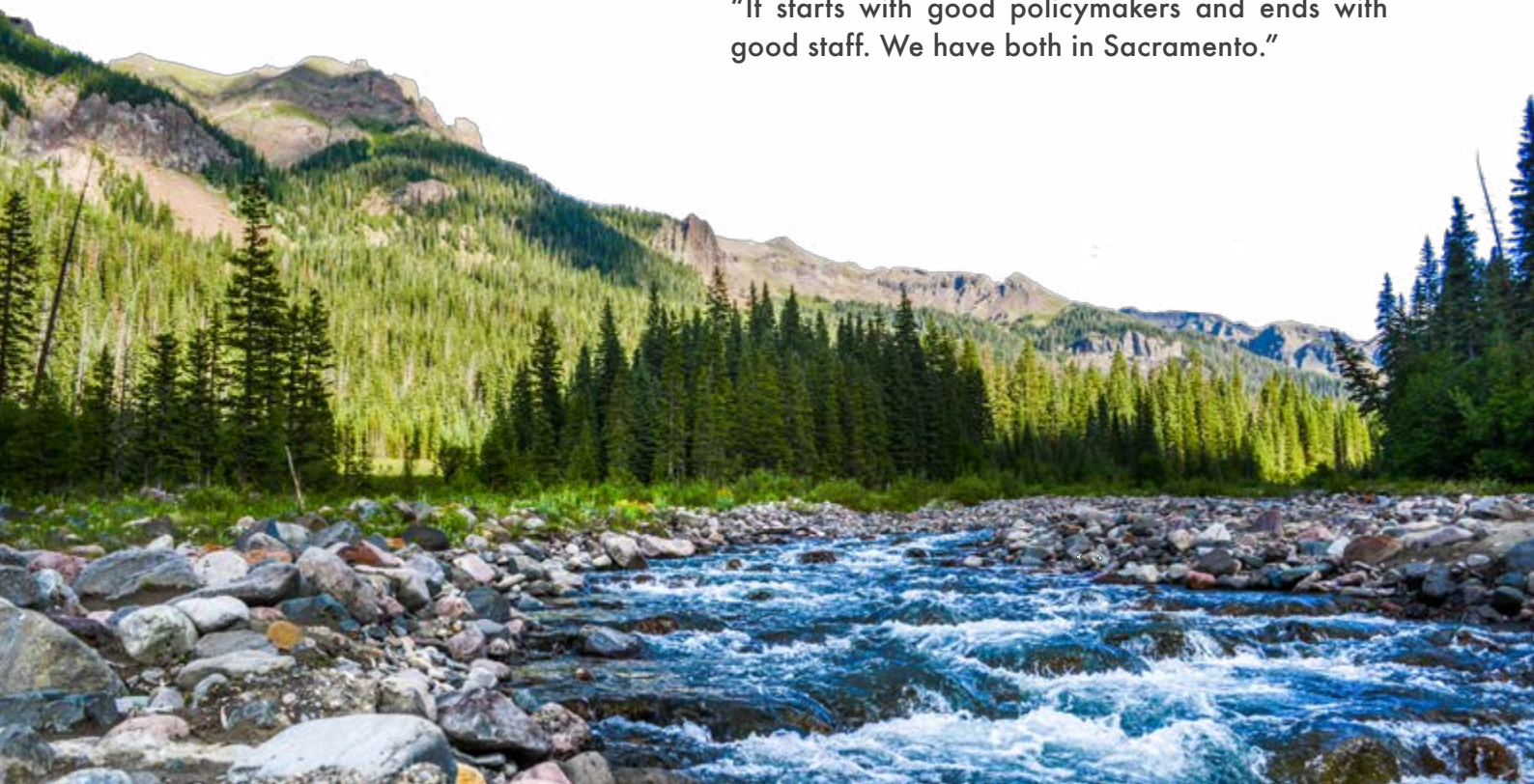


While several blocks of Sacramento's downtown remain in great need of improvements, there are several major revitalization projects underway. One of the most impressive is the Downtown Railyard Remediation Project. Considered the largest infill development site in the country, this 240-acre, former EPA Brownfield is being transformed into a master-planned, mixed-use project that will include 12,000 housing units, more than two million square feet of office space and almost equivalent space for retail, hotel and other commercial uses. The project includes many environmentally-friendly aspects such as rainwater recapture, a solar hot water heating system, solar PV and a large area dedicated to bike parking. In addition, the site will host 29 acres of parks and open space and a 25,000-seat outdoor soccer stadium for the city's team, Sacramento Republic FC. This area will be the intermodal transportation center, having connections for heavy and light rail, and to a proposed streetcar system to link the downtown area with the city of West Sacramento across the Sacramento River. This project was funded with a federal TIGER grant, and monies from the Strategic Growth Council and Prop 1C grants.

Just down the street, the city is building a new indoor arena that will serve as the new home for the city's professional basketball team. The arena will be carbon and grid neutral (zero net energy), as well as LEED Gold-certified. The new facility is being built by local contractors who are using locally sourced materials. It is estimated that 10 to 15% of visitors will walk, bike or take public transportation to events at the new arena. More than 13,500 parking spaces exist within a 1/2-mile of the arena, many of which will be available through technology that allows the visitor to reserve and pay for the parking spot using their smart phone. The technology also enables the city to institute dynamic pricing.

## Leading by Example

When cars are necessary, the city is working to be as green as possible. "Since we are one of the largest cities in the region, I think it is important that we set the example", says Sacramento's city manager, John Shirey. Over the past few years, the City of Sacramento has pioneered a number of alternative-fuel programs, including one of the first to use renewable compressed natural gas (CNG) produced from local food waste that is converted in an anaerobic digester. The city also uses more than one million gallons of liquefied natural gas (LNG) to power its garbage trucks, and will soon have one of the first all-electric powered garbage trucks. While the city has received grants for innovations like its network of CNG fueling stations, they say that the ability to green its fleet is possible because of conscientious decisions made during normal replacement cycles. These accomplishments, combined with other energy and greenhouse gas reductions in City operations have earned the city recognition, including a silver-level Beacon Spotlight Award in Sustainability Best Practices in 2012, advancing to gold the next year and then on to the platinum level in 2014 and a full Beacon Award in 2016. When asked about the secret to these steady and significant achievements, city manager John Shirey says it's all about the people: "It starts with good policymakers and ends with good staff. We have both in Sacramento."



# Ventura County Regional Energy Alliance

## Supporting Local Champions with a Regional Program

Located on the coast, north of Los Angeles County, Ventura County has a highly varied geography, with mountain, forest and wilderness areas next to agricultural areas and cities. While the county as a whole has a population of over 800,000, most cities in Ventura County are relatively small. Four cities – Oxnard, Thousand Oaks, Simi Valley, and Ventura – have populations over 100,000, while the remainder of the population is spread through six smaller cities and through unincorporated areas. Few of these cities have had the capacity to move forward climate action plans or program implementation on their own. The Ventura County Regional Energy Alliance (VCREA) has provided guidance and offered resources to help the cities collectively move forward with local greenhouse gas inventories, climate action plans, and regional implementation of energy efficiency programs.

The VCREA emerged from a working group formed in the wake of the California energy crisis of 2001. The Alliance is now set up as a Joint Powers Authority, with board representation from the county and from five of the cities, as well as from the school district, community college, and the regional sanitation district.

VCREA's climate related work began with development of GHG inventories for the ten cities in the county. Following this, VCREA developed draft climate or energy action plans, which included GHG aggregated community inventories as well as individual municipal inventories for all cities in 2014 using IOU Strategic Plan funding. The plan also provides projected reduction targets of 5% up to 15% that encompass several emission sources other than energy. Some cities have customized and adopted the plans, while others have not yet done so. VCREA is circling back this year with the cities that have not adopted plans to encourage them to do so. Setting up to be able to access funds from cap and trade has been a significant motivator to cities to develop action plans.

VCREA has also successfully implemented a variety of energy efficiency programs at a regional level, saving energy and money. This includes outreach and promotion of SCE and SoCalGas customer energy efficiency and direct install programs for local governments. A successful part of VCREA's approach has been to learn from and leverage programs developed in other regions.





Thus VCREA worked with Santa Barbara and San Luis Obispo Counties to expand the Empower program from those counties to Ventura County. The Empower Program simplifies the process of energy efficiency upgrades for homeowners through pre-screened contractors, a standardized menu of upgrades, and available financing. VCREA is now looking at replicating the Santa Barbara County green business program, and San Luis Obispo County's use of CivicSpark fellows to further develop their service offerings to small and medium sized business customers<sup>15</sup>.

Another key component of VCREA's success has been to work with an energy champion who is on staff at each city. While most of these staff people have a primary job description that is not focused on climate or energy efficiency, each is excited about the work of making their communities more energy efficient. And regular contact between VCREA staff and these champions keeps programs moving forward across the county in a coordinated way.

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15 CivicSpark is a Governor's Initiative AmeriCorps program administered through the Local Government Commission dedicated to building capacity for local governments to address climate change and water management needs. <http://civicspark.lgc.org/about/>

# Western Riverside Council of Governments

## Building Innovative Programs through Flexibility for Local Needs

The Western Riverside Council of Governments (WRCOG) represents seventeen cities, the Eastern and Western Municipal Water Districts, and the Morongo Band of Mission Indians and the County Board of Supervisors in Riverside County, California's 4th most populous county. WRCOG serves the western portion of Riverside County, an area that is growing rapidly as a region within commuting distance of Los Angeles. The popular resort area of the County - including Palm Desert, Palm Springs, Indian Wells, etc. is served instead by Coachella Valley Association of Governments (CVAG). The WRCOG territory covers approximately 2100 square miles located 60 miles east of downtown Los Angeles. The stated purpose of WRCOG is to unify Western Riverside County so that it can speak with a collective voice on issues of mutual concern that cross jurisdictional lines. The programming "components" focused on by WRCOG are: economic development, education, energy and environment, health, land use, planning and community development, local government, public safety, transportation, and water and wastewater.

WRCOG's role in energy and climate work has grown from early conversations with jurisdictions testing the waters on interest in sustainability to a subregional climate action plan and suite of programs, including the Home Energy Retrofit Opportunities (HERO) program, the BEYOND Program, streetlight energy efficiency planning, and oversight of an intra-regional feasibility study reviewing the potential for community choice aggregation (CCA).



The by-laws of the Council allow WRCOG to flexibly use its programs and activities to respond to the interests and requests of its jurisdictions. In doing so, the Council has kept at the heart of its mission the mantra, "Respect Local Control, Provide Regional Perspective." Each of the program components identified above has a Subcommittee through which local jurisdictions bring suggestions. The issues local jurisdictions bring to WRCOG are typically ones where regional coordination can create efficiency gains. Leveraging the most efficient resources for the job is essential in a region in which only one city (Riverside) has a dedicated sustainability coordinator. According to Tyler Masters at WRCOG, "A lot of jurisdictions in the past five years - in part due to the economy - have reduced staff by up to 40%. Looking into opportunities for taking a regional approach has been a good way to allow cities to increase services with a reduced administrative burden."







# Subregional Climate Action Plan: How the Region Got to Climate Action Planning, and Where It's Going

WRCOG released a subregional climate action plan (CAP) in 2014, which provides its jurisdictions with a statewide legislative background on climate action and lays out the current inventory of regional greenhouse gas (GHG) emissions, and goals and strategies to reduce and monitor them. As seen in many jurisdictions, regionalizing climate action planning provides efficiency gains, ensures data is categorized similarly between cities, and supports plan adoption. However, development of a subregional climate action plan that will be utilized by each jurisdiction, and that truly reflects the needs and interests of a diverse and large region is no simple feat - and took years of planning and stakeholder engagement.

In 2011, WRCOG held a visioning workshop with the members of each of its subcommittees to identify the most pressing issues for each of the subcommittee focus areas. WRCOG and its members then worked on goals to address these issues, which were synthesized into a Sustainability Framework in 2012. By framing and identifying sustainability priorities based specifically on the interests and issues identified as priority by its member jurisdictions, WRCOG created a meaningful Framework backed by its jurisdictions that allowed the Council to "start the discussion" on sustainability action. With the Framework in place, WRCOG and its jurisdictions moved forward on Energy Action Plans and greenhouse gas inventories through utility-local government partnerships.

Next, a subregional Climate Action Plan was chosen as the best way to move forward state mandated climate action planning in a way that would reflect the interconnectedness of the subregion (and high level of mobility between cities - many WRCOG residents live in one city and work in another, and shop or spend leisure time in another). The regional approach also reduces strain on limited local government staff capacity. The final subregional CAP identifies GHG reduction targets of 15% below current emissions by 2020 and 49% below current emissions by 2035, and provides GHG reduction measures/strategies in four primary sectors: energy, transportation and land use, solid waste and water.

As planning moves to implementation through both regional and city-level efforts, WRCOG continues to coordinate with the cities' sustainability leads (given the lack of staff, many cities' planning or public works directors step in to fill this role) to track and report progress and provide support. Some WRCOG member cities are taking the subregional CAP and going above and beyond, using it as the basis for further individual planning. The City of Riverside used the CAP and local measures to develop its Economic Prosperity Action Plan and Climate Action Plan, released January 2016. Furthermore, member cities and WRCOG alike are finding that the Subregional CAP allows for new engagement on funding opportunities, such as the South Coast Air Quality Management District's recently released grants for electric vehicle deployment. The Sustainability Framework focus areas and the strategies outlined in the Subregional Climate Action Plan continue to guide program and policy development - including WRCOG's HERO program activities and BEYOND program.

## WRCOG's HERO and BEYOND Programs

The Home Energy Retrofit Opportunity, or "HERO" Program, is now offered widely in jurisdictions across California but not so long ago was just an idea in the works at WRCOG. As several cities brought the desire for Property Assessed Clean Energy (PACE) financing to the Council's attention following the passage of California's Assembly Bill 811, it was determined that establishment of a PACE program was a priority interest to the subregion, and an opportunity that would be most beneficially managed regionally. WRCOG served as an essential leader not only to manage the procurement process, set program guidelines and oversee general program administration, but also to defend and champion the program and communicate program successes and metrics. Under WRCOG's leadership, the HERO Program has grown to include jurisdictions throughout the subregion, but also jurisdictions throughout the state for a total of 331 jurisdictions served as of May 2016, and has financed over \$1.3 billion in energy and water improvements across more than 55,000 homes.

The BEYOND Program was developed in 2015 as a new way to direct income from the HERO program back into community-prioritized energy and sustainability projects. Through BEYOND, WRCOG provides a funding allocation to each member jurisdiction (calculated based on its population) to fund a project selected by the jurisdiction. BEYOND project eligibility is very simple: the project must align with one or more of the Sustainability Framework goals established through the stakeholder process in 2011. As of May 2016, 30 BEYOND projects have been approved, with many projects already underway; projects include energy efficiency audits in the City of Murrieta, sustainable landscaping for a park in the City of Temecula, and bike rack and water station installation at the City of Moreno Valley. All projects are expected to be completed by August 2017, at which point WRCOG anticipates releasing notice of a second round of BEYOND funding.





## Reducing the Barrier of Capacity:

### Efficiency Gains through a Regional Approach to Streetlight Acquisition

WRCOG's current work in streetlight efficiency is a great example of the Council providing regional leverage and administrative efficiencies on issues of interest to local jurisdictions. Throughout WRCOG territory, 63,000 streetlamps are fitted with old high or low pressure sodium lamps. The potential of local jurisdictions to purchase the streetlights from Southern California Edison and change out the sodium lamps to LED technology represents a significant savings opportunity, reducing utility bills by an estimated \$4.5 to \$5.5 million per year - and 4,895 metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e). However, such a process requires staff to manage streetlight procurement and oversee all aspects of the LED upgrades. Local jurisdictions have gained efficiencies by centralizing this management at WRCOG, while developing an approach that preserves the ability to follow local preferences. WRCOG is also working with local jurisdictions to identify whether a regional approach would help reduce the burden of maintaining the lights as well. Possible solutions include sharing electrical engineers and O&M staff regionally, or using a regional call center for reporting streetlight burnouts or pole damage.



# Conclusion

Collectively, the data and case studies in this report provide insights into the ways local governments are overcoming barriers and into policies that would facilitate further action. Some of the lessons from these local government leaders include:

- Local governments are succeeding by framing climate action in the context of other important community goals. By emphasizing solutions that reduce emissions and make communities more resilient to extreme weather while also benefiting economic development and public health, local governments build broad community support for action. For example, South Gate is focusing on greening retail and manufacturing, Monterey is focusing on making the city a 'green destination' for tourists and conferences, and Sacramento is focusing on urban development. The strength of a broad message is exemplified in South Gate council member Jorge Morales's statement that "We like the environment, but we love our kids."
- Local governments are succeeding despite resource constraints, but they can achieve more with more resources. For example, Sacramento is greening the fleet through consistent upgrades as part of normal replacement cycles; access to additional funding sources would allow them to transition the fleet more quickly. Also, while many small and medium-sized local governments have completed climate, energy or sustainability plan, others have not had the resources to complete plans at the same rate as larger local governments.
- Identifying a sustainability coordinator who can champion climate action across departments is an important ingredient for success. Monterey accomplished this by adding sustainability to the job description of an existing solid waste staff person. VCREA works with a green champion identified in each city; even though in most cases the person also has responsibilities outside of energy, VCREA points to these champions as a key factor in what they have accomplished. Making long-term resources available to support staff time dedicated to sustainability would help small and medium sized local governments especially to move forward more quickly.
- Cities are not acting alone, but in partnership with counties, regional agencies, utilities, other local governments, and other organizations. In the cases of Monterey and Nevada City, this support from other local governments and from supporting organizations (Association of Monterey Bay Area Governments and Sierra Business Council, respectively) is identified as very important in allowing them to develop emissions inventories and plans, and to identify effective policies or projects.
- Emerging funding opportunities can be an effective motivator for climate action. For example, Ventura County cities were motivated to participate in the regional development of climate action plans in part by the potential for those climate action plans to help them access cap and trade allowance funding.

# Appendix A

GHG Reduction Targets set by California Local Governments as of 2015

Local Governments with *Established* Baseline GHG Inventory Data used in Analysis

Local Government	Base Year	Short-term target		Medium Target		Long-term Target	
		Reduction	Year	Reduction	Year	Reduction	Year
Riverside	2007	26	2020	49	2035	80	2050
Los Angeles	1990			45	2030	80	2050
Hayward	2005	12	2020			82	2050
Santa Cruz	1990	30	2020			80	2050
Palo Alto	2005	15	2020				
Benicia	2000	10	2020				
American Canyon	2005	15	2020				
Antioch	2000	15	2020				
Arcata	2005	20	2010				
Berkeley	2000	33	2020				
Calistoga	2005	15	2020				
Chula Vista	1990	20	2010				
El Cerrito	2005	15	2020	30	2035		
Emeryville	2004	25	2020				
Fremont	2005	25	2020				
Marin County	1990	30	2020				
Napa	2005	15	2020				
Napa County	2005	15	2020				
Novato	2005	15	2020				
Oakland	2005	36	2020				
Ontario	BAU	30	2020				
Pittsburg	2005	15	2020				
Sacramento County	2008	15	2020				
Saint Helena	2005	15	2020				
San Diego	1990	15	2010				
San Francisco	1990	25	2017	40	2025	80	2050
San Jose	2007	50	2022				
San Luis Obispo	2005	15	2020				
San Rafael	2005	25	2020				
Sonoma County	1990	25	2015				
Yountville	2005	15	2020				
Santa Monica	1990	15	2015				
Sacramento	2005	15	2020	38	2030	80	2050

## Local Governments with *Estimated* Baseline GHG Inventories used in Analysis

Local Government	Base Year	Short-term target		Medium Target		Long-term Target	
		Reduction	Year	Reduction	Year	Reduction	Year
Alameda County	current	15	2020				
Apple Valley	2005	15	2020				
Banning	2010	15	2020				
Burlingame	2005	15	2020			80	2050
California City	2005	5	2020				
Calimesa	2010	15	2020				
Canyon Lake	2010	15	2020				
Chico	2005	25	2020				
Chowchilla	2007	15	2020				
Citrus Heights	2005	10	2020				
Clovis		5	2020	10	2035		
Coachella	2010	15	2020	49	2035		
Colma						80	2050
Contra Costa County	2005					80	2050
Corona		1.48 MMT Co2e	2020				
East Palo Alto	2005	15	2020				
El Cerrito		15	2020	30	2035		
Elk Grove	2005	15	2020				
Encinitas		15	2015				
Fort Bragg		15	2015	30	2030		
Fresno		30	2025				
Gonzales	2005	15	2020				
Grover Beach	2005	15	2020				
Hemet	2010	15	2020				
Hughson	2005	15	2020				
Humboldt County	2003	10	2020				
La Quinta	2005	9.63	2020	27.7	2035		
Laguna Beach	1990					80	2050
Lake Elsinore	2008	22.3	2020				
Larkspur	2005	15	2020				
Livermore	2008	15	2020				
Lomita		20	2020				
Millbrae		15	2020			80	2050
Milpitas		18	2020				

Mountain View	2005	15	2020				
Murrieta		15	2020				
National City	2005	15	2020				
Newark	2005	15	2020				
Norco	2010	15	2020				
Pacifica		40	2020			95	2050
Palmdale		15	2020				
Palos Verdes Estates		10	2020				
Perris	2010	15	2020				
Pico Rivera		8	2020	13	2035		
Pleasanton	2005	15	2020				
Poway		7	2020	13	2035		
Riverside County		40	2020				
Ross		15	2020				
San Bernardino County	2007	15	2020				
San Carlos		15	2020	35	2035		
San Jacinto	2010	15	2020				
San Leandro	2005	25	2020				
San Mateo	2005	15	2020	35	2030	80	2050
Solano County	2005	20	2020				
Sutter County		27	2020				
Temecula	2010	15	2020				
Tracy	2006	15	2020				
Vallejo	2008	15	2020				
Ventura County	2005	15	2020				
West Hollywood	2008	15	2020	20	2035		
Woodland						80	2050

# Appendix B

## California Jurisdictions Committed to the Compact of Mayors as of May 2016

Benicia  
Berkeley  
Chula Vista  
Cupertino  
Emeryville  
Fremont  
Lancaster  
Long Beach  
Los Angeles  
Manhattan Beach  
Oakland  
Palm Springs  
Palo Alto  
Richmond  
San Diego  
San Francisco  
San Jose  
San Luis Obispo  
San Rafael  
Burlington  
Santa Barbara  
Santa Cruz  
Santa Monica  
Solana Beach  
Sonoma County Regional  
Climate Protection Authority  
West Hollywood  
Yountville





# Photo Credit

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