

# Quick Start Guide for Setting A Greenhouse Gas Reduction Target



## Climate Mitigation for Local Governments: Milestone Two

November 2010

# Statewide Energy Efficiency Collaborative

## AN ALLIANCE TO SUPPORT LOCAL GOVERNMENT

This Quick Start Guide is a product of the **Statewide Energy Efficiency Collaborative** (SEEC). SEEC is a new 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 Investor Owned Utilities.

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 and tools for climate action planning, venues for peer-to-peer networking, technical assistance 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.



---

The program is funded by California utility ratepayers and administered by Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison, and Southern California Gas Company under the auspices of the California Public Utilities Commission.

# Table of Contents

<b>Table of Contents</b> .....	<b>3</b>
<b>Executive Summary</b> .....	<b>4</b>
<b>The Purpose of Setting a Reduction Target</b> .....	<b>4</b>
<b>How You Can Benefit</b> .....	<b>5</b>
<b>Emissions Reduction Target Quick Start Guide</b> .....	<b>6</b>
<b>Milestone Two in 5 Steps</b> .....	<b>6</b>
<b>Expected Project Timeline</b> .....	<b>6</b>
<b>Step 1: Revisit Milestone One – Emissions Inventory &amp; Forecast</b> .....	<b>7</b>
Key Terms .....	7
Recommended Forecasting Methodology .....	8
Backcasting .....	9
<b>Step 2a: Align with Existing Elected Official, State, or Regional Goals</b> .....	<b>10</b>
State of California Targets and Guidance .....	10
<b>Step 2b: Review Climate Science and Common Targets</b> .....	<b>11</b>
Climate Science and General Guidance .....	11
Common Targets .....	12
Other Types of Targets .....	13
<b>Step 3: Set Short-, Medium- and Long-Term Targets</b> .....	<b>14</b>
<b>Step 4: Present Targets for Adoption by City/County Council or Board</b> .....	<b>15</b>
<b>Step 5: Submit Results to ICLEI for Milestone Award</b> .....	<b>16</b>
Timing and Other Considerations .....	16
Award Distribution & Presentation Opportunities .....	16
Media Attention .....	16
Other Reporting Considerations .....	17
<b>Next Steps</b> .....	<b>18</b>
Milestone Three: Developing a Climate Action Plan .....	18
Milestones Four & Five: Implementing and Evaluating a Climate Action Plan .....	18
<b>Project Resources</b> .....	<b>19</b>

# Executive Summary

## The Purpose of Setting a Reduction Target

It is commonly said that, of all levels of government, local government is where the “rubber really meets the road.” From planning to police and fire, code enforcement, public infrastructure maintenance, taxation and more, local governments exercise more authority and ability than any other level of government within their jurisdiction. Simply put, local governments drive local action. Any successful local government program hinges on strong political and community commitment to the program’s core goals. By setting a clear benchmark for success so that everyone can have a role in creating and achieving climate and sustainability goals, an emissions reduction target focuses and drives local commitment toward a clear and measurable outcome.

An emissions reduction target is also an important component to the climate action planning process. It creates the interim and final goals for emissions reduction strategy-building. Setting a target enables policy-makers to outline a set of policies, programs and projects whose cumulative emissions reductions will achieve the emissions reductions target. The target sets a tangible focal point, without which a climate action plan would merely be a collection of ideas and strategies lacking an overall performance metric and therefore no cohesive measurement for evaluating the plan’s success.

This Quick Start Guide is the second in a series to assist local governments to understand and act to reduce their impact on climate change. The greenhouse gas emissions reduction target is the second step in a framework developed by ICLEI-Local Governments for Sustainability USA (ICLEI) called the “Five Milestones for Climate Mitigation.” This Five Milestone process involves the following steps:



- Milestone One:** Conduct a baseline emissions inventory and forecast
- Milestone Two:** Adopt an emissions reduction target for the forecast year
- Milestone Three:** Develop a local climate action plan
- Milestone Four:** Implement the climate action plan
- Milestone Five:** Monitor progress and report results

As local governments typically contribute roughly five to ten percent of the total greenhouse gas emissions generated throughout the community, ICLEI recommends developing a reduction target and strategies for both local government operations and the community at large.

Setting an emissions reduction target also allows a local government to ensure that its efforts are in line with other state or regional policies and the most recent science pertaining to dangerous concentrations of atmospheric greenhouse gases or localized criteria air pollutants. In summary, a target provides an objective toward which to strive and against which to measure progress. It allows a local government to quantify its commitment to fighting global climate change, demonstrating that the jurisdiction is serious about taking action.

## How You Can Benefit

There are several major advantages for local governments who are successful in their climate planning efforts:

- **Money savings:** Developing climate and energy strategies can help your local government slash energy costs to save taxpayer dollars. Short and long-term cost-saving project options exist for every local government and await implementation. If local governments do not undertake these projects, who will?
- **Climate leadership:** By taking action now to address climate change, your local government and elected officials can be recognized for their leadership on climate and energy issues.
- **Community benefits:** Measures to reduce GHG emissions and energy consumption typically have many co-benefits. They can improve air quality and public health, stimulate the local economy, create green jobs, and make communities more livable and walkable. People want to live in healthy, accessible communities.
- **Regulatory preparedness:** Through legislation such as AB 32 and SB 375, and through the creation of the California Public Utility Commission's Long Term Energy Efficiency Strategic Plan, the State of California has shown national leadership on climate change. Aspects of climate legislation and planning frameworks will impact local governments and planning agencies. Taking action will help you be prepared. For a comprehensive list of current local, state and federal statutes plus state and local regulations affecting air quality management in California, please see <http://www.arb.ca.gov/html/lawsregs.htm>.

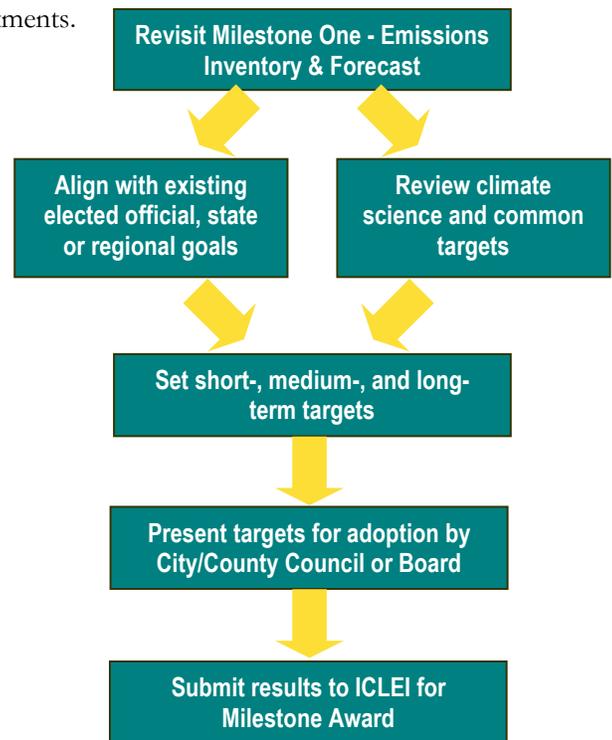
This Guide provides an overview of both local government operations and community-wide greenhouse gas emissions reduction targets. By setting these targets, you are acting now to make government operations more efficient and limit future impacts that threaten the lives and property of residents and businesses within your community. Let us begin!

# Emissions Reduction Target Quick Start Guide

This guide is intended to help you quickly gain an understanding of emissions reduction targets and will provide tips and helpful resources to plan for and ultimately achieve reduction commitments.

## Milestone Two in 5 Steps

1. Revisit Milestone One – Emissions Inventory & Forecast
- 2a. Align with existing elected official, state, or regional targets  
- AND/OR -
- 2b. Review climate science and common targets
3. Set short-, medium- and long-term targets
4. Present targets for adoption by City/County Council or Board
5. Submit results to ICLEI for Milestone Award



## Expected Project Timeline

Establishing a greenhouse gas emissions reduction target should take between one to three months depending on several factors:

- Preexistence of a reduction commitment
- Depth of stakeholder engagement
- Amount of resources dedicated to the effort
- Creativity and dedication of all involved

Sample timelines are included below. Feel free to use these for your own project timeline, adjusting as necessary. Your target could take more or less time than is shown here. Expected total hours for each step are included in later pages.

### With Preexisting Reduction Commitment

Tasks	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Revisit Milestone One – Emissions Forecast						
Align with existing elected official, state, or regional goals						
Set short-, medium- and long-term targets						
Present targets for adoption by City/County Council or Board						
Submit results to ICLEI for Milestone Award						

### Without Preexisting Reduction Commitment

Tasks	Month 1	Month 2	Month 3
Revisit Milestone One – Emissions Forecast			
Review climate science and common targets			
Set short-, medium- and long-term targets			
Present targets for adoption by City/County Council or Board			
Submit results to ICLEI for Milestone Award			

## Step 1: Revisit Milestone One – Emissions Inventory & Forecast

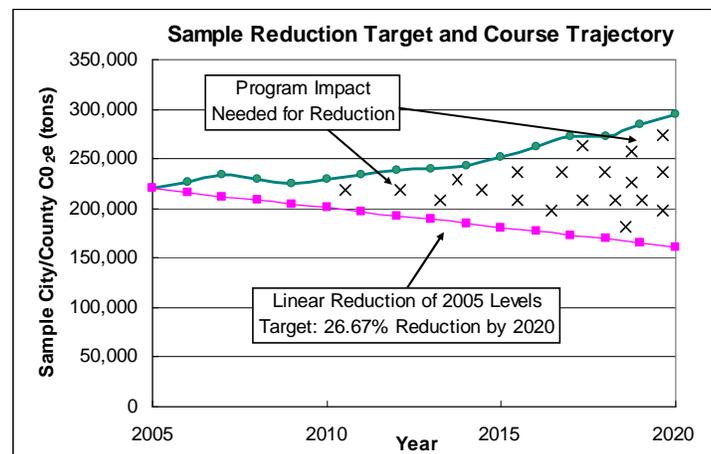
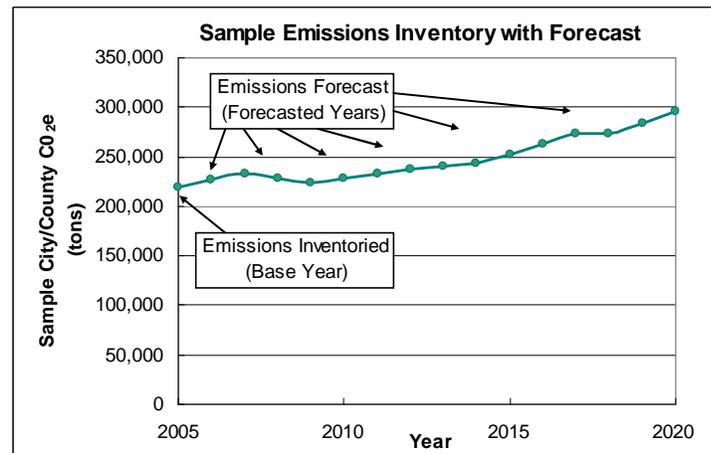
**Estimated staff time:** 16 to 40 hours

Recall that an emissions baseline and forecast were created as part of Milestone 1. Guidance for this process is provided here due to the relationship between emissions forecasts and reduction targets. While emissions forecasts, like other types of future modeling or predictive estimation, suffer from inherent uncertainty, it was once observed, “The only way to predict the future is to have power to shape the future.”<sup>1</sup> By creating an emissions forecast in combination with a reduction target and trajectory, one can estimate the impact necessary to achieve reduction goals and plan accordingly. The forecast should only be used for estimating scope of work; it is, at best, a hypothetical and unverifiable projection. Conducting baseline inventories as time goes on is the only way to verify progress. Still, forecasting can be useful for understanding what may be needed to reach local targets.

### Key Terms

ICLEI recommends that local governments develop a **business as usual (BAU) emissions forecast**. BAU forecasts, by definition, estimate what the volume of emissions will be in the future if no further actions are taken by the local government to reduce those emissions. By this definition, an emissions forecast would take relevant local trends into account but would exclude additional local government influences on these factors such as new policies, programs, or other efforts, and would assume that local government action remains constant. Useful trends for a BAU forecast might include:

- Population growth rate
- Local economic activity indicators
- Number of full time local government employees (useful for forecasting government emissions)
- Changes in square footage of government facilities, residential, commercial, industrial space
- Changes in vehicle miles traveled
- Other useful indicators gathered by the Census Bureau, state, regional, or local planning efforts



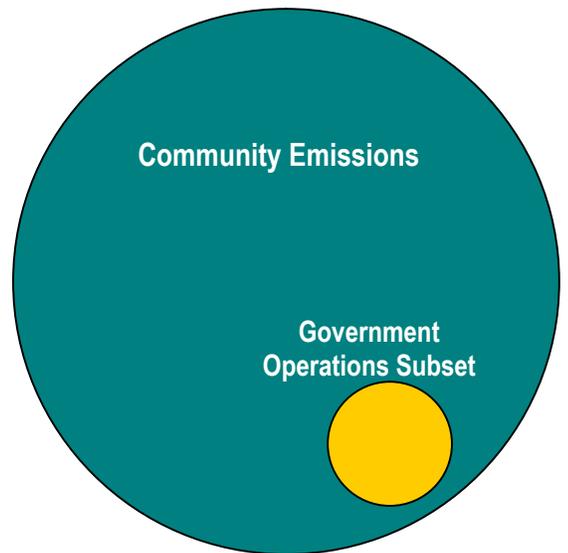
<sup>1</sup> Hoffer, Eric. *The Passionate State of Mind: And Other Aphorisms*. 1955.

Local governments may also include specific external factors that are guaranteed to affect emissions at fixed points in the future. This could include local emissions gains or losses resulting from state policies, for example, the effect of Assembly Bill 1493 (Pavley) on vehicle emissions or scheduled increases in the portion of electricity delivered from renewable energy sources through the State of California Renewable Portfolio Standard. One should not include any unquantifiable, ambiguous, or debatable factors into a BAU emissions forecast. Avoid accounting for actions that may or may not happen.

Ultimately, you should altogether avoid attempts to develop a perfect emissions forecast, instead focusing on the overall level of effort that will allow you to reach your reduction targets – despite variance that may be observed in events as they unfold. The Bay Area Air Quality Management District has developed specific guidance regarding inclusion of particular external factors in a BAU forecast; that document is available [here](#).

### Recommended Forecasting Methodology

Recall that emissions from government operations are captured as a subset within overall community emissions. For example, aggregate data for commercial energy use by the community includes energy used for municipal buildings and community vehicle-miles-traveled estimates include miles driven by municipal fleet vehicles. Community emissions forecasts, therefore, represent overall emissions and are the standard format for reduction targets. You may wish to set a separate target for emissions from government operations, and even set unique targets for individual departments.



In general, ICLEI recommends using one of two approaches for government operations and community emissions forecasts, an aggregate approach and a sector-specific approach. The aggregate approach applies growth rates to the total emissions of either a government operations or community inventory, and the sector-specific approach addresses each sector independently. Both approaches use an iterative method to determine future years. A hybrid approach utilizing a mix of methods is also feasible. Reference the chart below for calculation methodologies of these approaches.

Government Operations Aggregate BAU Forecast	$BAU\ Emissions_{year\ x} = BAU\ Emissions_{year\ x-1} * (1 + \% \Delta\ in\ local\ government\ full\ time\ employees\ between\ years\ x-1\ and\ x)$
Government Operations Sector-Specific BAU Forecast	$BAU\ Emissions_{year\ x} = BAU\ Emissions_{year\ x-1} +$ <ul style="list-style-type: none"> <li>• Marginal <math>\Delta</math> Emissions in All Buildings and Facilities between years x-1 and x +</li> <li>• Marginal <math>\Delta</math> Emissions in Public Lights between years x-1 and x +</li> <li>• Marginal <math>\Delta</math> Emissions in Wastewater Facilities between years x-1 and x +</li> <li>• Marginal <math>\Delta</math> Emissions in Vehicle/Transit Fleets between years x-1 and x +</li> <li>• Marginal <math>\Delta</math> Emissions in Water Delivery Facilities between years x-1 and x +</li> <li>• Marginal <math>\Delta</math> Emissions in Solid Waste between years x-1 and x +</li> <li>• Marginal <math>\Delta</math> Emissions in Employee Commute between years x-1 and x +</li> <li>• Marginal <math>\Delta</math> Emissions in Power Generation between years x-1 and x +</li> </ul>

	<ul style="list-style-type: none"> <li>• Marginal <math>\Delta</math> Emissions in Other Process/Fugitive Emissions <small>between years x-1 and x</small></li> </ul> <p>* Some sectors may not apply to a given local government inventory if services are not under local government control. If the service is performed by another entity within the jurisdiction boundary, add that sector to the community forecast.</p>
Community Aggregate BAU Forecast	$\text{BAU Emissions}_{\text{year } x} = \text{BAU Emissions}_{\text{year } x-1} * (1 + \% \Delta \text{ in jurisdiction population}_{\text{between years } x-1 \text{ and } x})$
Community Sector-Specific BAU Forecast	$\text{BAU Emissions}_{\text{year } x} = \text{BAU Emissions}_{\text{year } x-1} +$ <ul style="list-style-type: none"> <li>• Marginal <math>\Delta</math> Emissions in Residential <small>between years x-1 and x</small> +</li> <li>• Marginal <math>\Delta</math> Emissions in Commercial and Industrial <small>between years x-1 and x</small> +</li> <li>• Marginal <math>\Delta</math> Emissions in Solid Waste <small>between years x-1 and x</small> +</li> <li>• Marginal <math>\Delta</math> Emissions in Transportation <small>between years x-1 and x</small> +</li> <li>• Marginal <math>\Delta</math> Emissions in Other Process/Fugitive Emissions <small>between years x-1 and x</small></li> </ul> <p>* For residential sector, use population growth rates or similar indicators; for commercial, use economic growth rates or similar indicators; for solid waste, transportation, and other emissions, use a weighted average of population and economic growth rates or similar indicators</p>

Consider updating your forecast method the next time you create a baseline via an emissions inventory, noting the accuracy of the original forecast. Please also note that emissions forecasts become increasingly uncertain the further out they are projected. Lastly, document your forecast assumptions and methodology to allow future refinement.

### Backcasting

In addition to forecasting emissions levels, there are situations in which local governments may wish to estimate emissions from a year antecedent to the base year. This type of analysis, or “backcast,” has most commonly been conducted by local governments to estimate 1990 emission levels. 1990 is a standard benchmark for state, federal and international climate policy; however, it is often difficult or impossible for local governments to attain the energy and activity data needed to conduct a proper baseline emissions inventory for the year 1990. Local governments aiming or required to comply with state, federal and international policy may have no other choice than to backcast 1990 emission levels based upon a more recent inventory year such as 2005.

ICLEI does not advise, however, that local governments attempt to formally establish an emissions baseline according to a backcast analysis. A formal emissions baseline should be derived directly from data procured for that year through a greenhouse gas emissions inventory. Similarly, ICLEI does not advise that local governments set targets against 1990 unless they have conducted a formal emissions inventory for that year. If compliance with 1990-based policy is a concern and 1990 energy and activity data are not available, then ICLEI advises negotiating a reasonable alternative or, as a last resort, utilizing the forecast methods above to derive a backcast estimate. In this case,  $\text{BAU Emissions}_{\text{year } x}$  is the known variable; find  $\text{BAU Emissions}_{\text{year } x-1}$  to backcast emissions.

## Step 2a: Align with Existing Elected Official, State, or Regional Goals

**Estimated staff time:** 8 – 24 hours

If your local elected leadership has already committed to a particular reduction target, or if your jurisdiction seeks to comply with an expressed reduction target as part of a regional or state policy, one might simply adopt that target and immediately begin planning efforts toward that goal. Of course, a jurisdiction may go beyond existing commitments if they consider the requirements too low.

### State of California Targets and Guidance

An integral component of the State of California's climate protection approach has been the creation of three core emissions reduction targets at the community level. While these targets are specific to the community scale, they can be used to inform emissions targets for government operations as well. On June 1, 2005, California Governor Schwarzenegger signed Executive Order S-3-05 establishing climate change emission reduction targets for the State of California. The California targets are an example of near-, mid-, and long-term targets:

- Reduce emissions to 2000 levels by 2010
- Reduce emissions to 1990 levels by 2020
- Reduce emissions 80% below 1990 levels by 2050



In 2006, the California Legislature passed and Governor Schwarzenegger signed the Global Warming Solutions Act of 2006 (AB 32), which set the 2020 greenhouse gas emissions reduction goal into law. AB 32 required that the Air Resources Board determine the statewide greenhouse gas emissions level in 1990 and that the Board approve a statewide greenhouse gas emissions limit, equal to that level, to be achieved by 2020. Based on its 1990-2004 inventory work, ARB staff recommended 427 million metric tonnes of carbon dioxide equivalent (MMT $\text{CO}_2\text{e}$ ) as the total statewide greenhouse gas 1990 emissions level and 2020 emissions limit.

The AB 32 Scoping Plan provides further guidance on establishing targets for local governments that do not have 1990 baselines established through an emissions inventory. Specifically, the Plan suggests creating an emissions reduction goal of 15 percent below “current” levels by 2020. This target has informed many local governments’ emissions reduction targets, and many local governments in California with adopted targets have targets of 15 to 25 percent reductions below 2005 levels by 2020.

For more information regarding AB 32, please see the California Air Resources Board's AB 32 Scoping Plan webpage at <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm> or Cool California's Local Government Toolkit at <http://www.coolcalifornia.org/article/local-gov-toolkit>.

Finally, many local governments have found it useful to align their emission reduction targets with those of neighboring or nearby jurisdictions. Not only might this facilitate the political process required to formally adopt targets; such alignment may also allow local governments to achieve economies of scale and leverage regional influence when planning for projects and investments at a cross-jurisdictional scale. Alignment with other local government emission reduction targets is discussed further in Step 2b below.

## Step 2b: Review Climate Science and Common Targets

**Estimated staff time:** 8 -24 hours

In absence of an existing commitment, or if your community wishes to go beyond the existing commitment, it is helpful to use the latest scientific findings and reduction targets of others in forming your own targets.

### Climate Science and General Guidance

The preponderance of scientific opinion is in agreement that we must reduce greenhouse gas emissions a minimum of 80% below 1990 levels in order to stabilize the Earth's climate. Today, human activities are producing about twice as much CO<sub>2</sub> as the earth's various natural carbon sinks (oceans and forests) can absorb. That means that even if we were to stabilize emissions at current levels, greenhouse gas concentrations in the atmosphere would continue to increase.

There is growing consensus among climate scientists that in order to avoid the most dangerous future climate change scenarios, the global concentration of greenhouse gases needs to stabilize at 450 parts-per-million by volume (ppmv) CO<sub>2</sub>e by mid-Century.<sup>2 3 4</sup> In order for this to happen, emissions from Western industrialized countries would need to be reduced between 25 and 40 percent below 1990 levels in 2020, and between 80 to 95 percent below 1990 levels in 2050.<sup>5 6</sup> This acceptable range is based on the range of error in the climate models and on the specific per capita emission levels of each country. The United States, for example, would need to reduce its emissions closer to 95% below 1990 levels, as it is one of the highest per capita emitters of CO<sub>2</sub>e in the world.

In general, ICLEI recommends a community-wide reduction target of 80% by 2050. Since local government operations are considered a subset of total community emissions, the local government should also commit to an 80% reduction in

---

<sup>2</sup> Intergovernmental Panel on Climate Change 2007. Fourth Assessment Report.

<sup>3</sup> Schnellhuber, H. J. and W. P. Cramer 2006. Avoiding Dangerous Climate Change. Cambridge University Press.

<sup>4</sup> Hare, B. and M. Meinshausen 2004. "How Much Warming are we Committed to and How Much Can be Avoided?" October 2004, <http://www.pik-potsdam.de/research/publications/pikreports/.files/pr93.pdf>

<sup>5</sup> IPCC 2007. Fourth Assessment Report

<sup>6</sup> UNFCCC 2007. "Synthesis of information relevant to the determination of the mitigation potential and to the identification of possible ranges of emission reduction objectives of Annex I Parties." Technical Paper. 26 July, 2007.

emissions related to its operations by 2050, or preferably, lead by example by setting a stronger target. As the range of error in climate models is reduced over time, these targets ought to be updated.

## Common Targets

Many local governments elect to adopt targets that align with one or more relevant statewide, national or international targets, including, but not limited to:

<b>Common Emission Reduction Targets</b>		
<b>Title</b>	<b>Reduction Target</b>	<b>Notes</b>
<b>International and National Agreements</b>		
Kyoto Protocol Target for the United States of America	7% below 1990 levels by 2012	Non-binding as the US is not a signatory
US Conference of Mayors' Climate Protection Agreement	7% below 1990 levels by 2012	
G8 Nations	50% below 1990 levels by 2050	Baseline years may vary, but efforts must be comparable. Markedly weaker than other targets
<b>State of California Targets</b>		
California Executive Order S-3-05	Reduce to 2000 levels by 2010 Reduce to 1990 levels by 2020 80% below 1990 levels by 2050	
California AB 32	Reduce to 1990 levels by 2020	
<b>A Sample of California Local Government Targets</b>		
City of Arcata	20% below 2000 levels by 2010	
City of Benicia	Reduce to 2005 levels by 2010 10% below 2000 levels by 2020	
City of Berkeley	33% below 2000 levels by 2020	
City of Chula Vista	20% below 1990 levels by 2010	
City of Hayward	12% below 2005 levels by 2020 82% below 2005 levels by 2050	
City of Los Angeles	35% below 1990 levels by 2030	
Marin County	15% below 1990 levels by 2020	
City of Novato	15% below 2005 levels by 2020	
City of Oakland	36% below 2005 levels by 2020	
Sacramento County	15% below 2005 levels by 2020 80% below 1990 levels by 2050	
City of San Diego	15% below 1990 levels by 2010	
City of San Francisco	20% below 1990 levels by 2012	
City of San Jose	50% below 2007 levels by 2022	
City of San Luis Obispo	15% below 2005 levels by 2020	

Regardless of scientific imperatives and trickle-down incentives from state and federal government, if the emissions reduction target does not harmonize with local leadership, then the target is likely to be more of an obstacle rather than a vehicle to success. As such, it is important to ensure that your emissions reduction target is responsive to local political ambitions and sensitivities. In many cases, alignment with the targets of peer communities may facilitate this discussion.

## Other Types of Targets

Utilizing creative or other types of targets may be helpful, depending on local circumstances. Examples include:

- Department-specific targets
- Sector-specific targets
- Climate neutrality

Targets for each department that generate emissions within local government operations could allow staff to do a more in-depth analysis of what is achievable in each sector and encourage department heads to institute these actions and develop a climate-conscious culture within operations, and can be formed as a response to the findings of the major opportunities presented in the government operations inventory. Likewise, sector-specific targets can help focus efforts on community reductions. Finally, some local governments, such as the City of Seattle, have adopted a goal of climate neutrality as a commitment to the elimination of emissions for which the city and its citizens are responsible, including “life cycle” emissions that occur outside of the city’s organizational boundary and that may not be counted as part of the traditional greenhouse gas emissions inventory.

ICLEI recommends that a jurisdiction’s near-term climate work be guided by the long-term goal of reducing its emissions by 80 percent to 95 percent from the 2005 baseline level by the year 2050. By referencing a long-term goal that is in accordance with current scientific understanding, a local government can demonstrate that it intends to do its part towards addressing climate change.

### Step 3: Set Short-, Medium- and Long-Term Targets

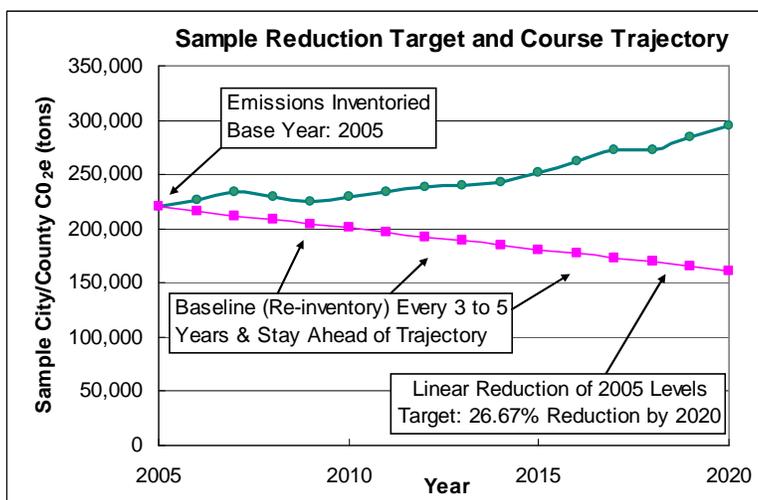
**Estimated staff time:** 80 -200 hours

Setting and achieving a meaningful reduction target requires widespread participation, dedication, and informed decision-making. Local leadership is necessary to set and achieve major goals. The following engagement activities should be considered and utilized as locally appropriate:

- A public comment process for proposed targets
- Creation of a stakeholder or advisory committee consisting of local staff and community players
  - Academia, industry, air quality management districts, citizen groups, and others
- Education as needed of local government staff, the public, or elected leadership

These and related activities contribute to fostering the consensus and will be necessary for emissions reduction policies and successful climate or air quality plans. The target-setting and climate action planning processes are crucial times to engage these stakeholders so that they can truly have a ‘stake’ in setting the tenor of your endeavors.

ICLEI recommends that regardless of the chosen long-term emissions reduction target (e.g., 15-year, 40-year), local governments should establish interim targets or create a linear reduction trajectory toward the final target. Near-term targets facilitate additional support and accountability, and help to ensure continued momentum around local climate protection efforts. To monitor the effectiveness of its programs, your local government should plan to re-inventory its emissions on a regular basis; many jurisdictions elect to perform annual inventories. ICLEI recommends conducting an emissions inventory at least every five years.



It is important to keep in mind that it will be next to impossible for local governments to reduce emissions by 80 to 95 percent without the assistance of state and federal policy changes that create new incentives and new sources of funding for emissions reduction projects and programs. However, in the next 15 years, there is much that local governments can do to reduce emissions independently. It is also important that your local government works to reduce its emissions sooner, rather than later: the sooner a stable level of greenhouse gases in the atmosphere is achieved, the less likely it is that some of the most dire climate change scenarios will be realized. Your targets should be both ambitious and achievable.

## Step 4: Present Targets for Adoption by City/County Council or Board

**Estimated staff time:** 24 – 80 hours

Once you have started to explore appropriate emission reduction targets for your community, it is imperative that these targets are formally adopted by your City or County Council or Board. Adopting emission reduction targets through a formal process, such as a resolution, can institutionalize the local government's commitment to the targets beyond a particular political administration. Formal adoption decreases the likelihood of costly retraction when changes in leadership occur.

Many local governments have found that engaging with elected officials in the process of setting and adopting emission reduction targets can help build support for on-going efforts to reduce emissions in concert with the Climate Action Plan. Depending on historical and current levels of involvement by elected officials in discussions around climate protection, the process may serve as a crucial opportunity to educate and build consensus around this issue. Engage your mayor, county executive, and council and board members early and often in these conversations. Doing so can help to alleviate controversies that might occur in public forums such as Council meetings, particularly if you are late in bringing this issue to the table.

Consider the following when seeking formal adoption of emission reduction targets by your local government officials:

- **Start with the science.** If your local government has not previously considered the formal adoption of a reduction target, use this as an opportunity to educate your elected officials about climate science, including a clear description of what impacts will be felt locally if we fail to address climate change. Present the findings of your emissions inventory and forecast so that local leaders are aware of the implications of conducting “business as usual.”
- **Inspire friendly competition.** If your local leaders are skeptical about setting reduction targets, or are not comfortable with more ambitious targets, use friendly competition to your advantage. The analysis you conducted in Step 2 will allow you insight into what neighboring or peer communities are doing; share the information you have gathered about the targets set by nearby communities.
- **Consider seeking adoption of targets and a climate action plan concurrently.** Many local leaders may feel uncomfortable adopting targets if there is not yet a clear path towards how they will be achieved. In some cases, it may be easier to develop targets in an iterative process alongside the climate action plan. Doing so may allow you to explore a variety of short and long-range scenarios which can be presented to local leadership, increasing their comfort and commitment level towards particular targets.

## Step 5: Submit Results to ICLEI for Milestone Award

**Estimated staff time:** 2 – 8 hours

If your local government is a member of ICLEI, the last step in the process of establishing an emissions reduction target is to gain recognition for your efforts. ICLEI Milestone Awards are a great way to recognize the efforts of local governments, reinforce political support for climate planning activities, and garner attention for climate programs. In order to receive ICLEI's Milestone Two Award for Climate Mitigation, ICLEI members must submit the following:

- An adopted resolution, proclamation, or statement incorporated in an official local government plan or other binding document that identifies a community-wide emissions reduction target for a given future year, typically expressed as a percentage below a baseline year by forecast year.

ICLEI staff can provide members with assistance through this process. Once the Milestone Award is approved, ICLEI staff will email a congratulations letter to the primary elected official liaison and primary staff liaison. The letter outlines steps completed to achieve the milestone, requirements for the next milestone, and ICLEI resources available. ICLEI staff will also discuss separately with you the appropriate timing and method of presenting the award to your local jurisdiction.

### Timing and Other Considerations

It makes sense to maximize the benefits from receiving a Milestone Award. Getting an award near budget time or an election cycle could be invaluable for keeping your climate program well-funded and appreciated by decision-makers. Getting an award on Earth Day or in conjunction with the announcement of a forthcoming climate action plan can help to raise community-wide awareness of the jurisdiction's sustainability initiatives and demonstrate collaboration with other entities. Consider carefully how to get the most benefit from your award, and discuss your ideas with ICLEI staff.

### Award Distribution & Presentation Opportunities

While creative ideas are always welcome, ICLEI has identified three basic opportunities for presenting milestone awards:

1. Receive your award in a group award process at national or regional events
2. Receive your award locally at a city council meeting, special ceremony, or other event
3. Request your award by mail from ICLEI

### Media Attention

ICLEI staff will work with members' primary and media liaisons to provide media assistance as it is useful to local circumstances. ICLEI resources include a template press release and tips for getting media attention. Avenues for announcing awards include ICLEI regional newsletters, your jurisdiction's newsletters, radio, and print media.

## Other Reporting Considerations

CEQA (California Environmental Quality Act) is a State statute requiring public agencies to evaluate the environmental impacts of discretionary development plans and projects in their jurisdictions. The state Office of Planning and Research updated CEQA guidelines to require analysis of climate change in CEQA documents, which came into effect in March 2010. The guidelines direct lead agencies to make a "good faith effort" to describe emissions, and emissions inventories have become a common feature of CEQA documents.

In addition to incorporating ICLEI's Milestone 1 into CEQA analysis, many jurisdictions are finding that climate change impacts resulting from both government operations and community-wide activities are "significant" under CEQA. As a result, local governments may identify both emissions reductions targets and Climate Action Plans (ICLEI Milestones 2 and 3) as mitigation measures to reduce climate change impacts to less-than-significant levels.

# Next Steps

Formalizing and instituting an emissions reduction target is a major commitment to protect local sustainability and combat climate change. If your local government has completed this important step, congratulations! Crucial efforts remain – most immediately, the creation of a Climate Action Plan.

## Milestone Three: Developing a Climate Action Plan

You now have an emissions baseline that can be used to inform planning efforts for municipal operations and community projects, as well as a forecast and reduction target. All of these steps lead to the development and ongoing implementation of a Climate Action Plan. Your local Climate Action Plan should include all of the actions your jurisdiction has already implemented since the base year and all measures your jurisdiction plans to implement in the future to meet its GHG emissions reduction target. Consider strategies tailored to the sectors with the most emissions, and explore potential projects or programs. The Climate Action Plan needn't be a long document, and it can be incorporated into another document your local government already produces (e.g., master plan, air quality plans).



## Milestones Four & Five: Implementing and Evaluating a Climate Action Plan

After publishing your Climate Action Plan, it's time to get to work. Implementing emissions reduction measures is, of course, the most important part of the Milestone process. By laying the groundwork through the inventory, reduction target, and climate action planning process, you will have the ability to select and prioritize the very best emissions reduction measures. Finally, by periodically updating inventories, creating new baselines, and adding new measures to the climate action plan, you will be able to track and report your local government's progress in climate protection and demonstrate reductions in emissions. Good luck!

# Project Resources

ICLEI has created a number of tools to assist local governments with the development of a greenhouse gas emissions reduction target. The following tools should be saved as resources and supplemental information to this report:

- The “Master Data Workbook” contains most or all of the raw data (including emails), data sources, emissions, notes on inclusions and exclusions, and reporting tools, and is available on the SEEC website here: [www.californiaseec.org](http://www.californiaseec.org). This information is vital to calculating an emissions forecast.
- The “Clean Air & Climate Protection Software” (CACP 2009) is available to ICLEI members and is used to calculate emissions based on energy use and other data gathered. CACP 2009 contains a tool called the “Forecast Builder” which can be used to generate emissions forecasts.
- Links included in the body of this report:
  - California Air Resources Board Guide to State and Federal Laws and Regulations: <http://www.arb.ca.gov/html/lawsregs.htm>
  - Bay Area Air Quality Management District GHG Quantification Guidance for Local Governments: [http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/GHG%20Quantification%20Guidance\\_5\\_3\\_10.ashx](http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/GHG%20Quantification%20Guidance_5_3_10.ashx)
  - California Air Resources Board AB 32 Scoping Plan: <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>
  - Cool California Local Government Toolkit: <http://www.coolcalifornia.org/article/local-gov-toolkit>
- Press release templates are available to ICLEI members and can help you generate media interest in your local government climate protection efforts. Visit [www.icleiusa.org](http://www.icleiusa.org) for more information.