

Compliance, Tools & Synchronization: A Guide to Climate Action Planning Resources in California



3rd Annual Statewide Energy Efficiency Best Practices Forum

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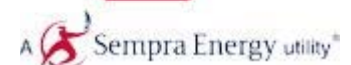
ICLEI – Local Governments for Sustainability

July 19, 2012

Statewide Energy Efficiency Collaborative (SEEC)



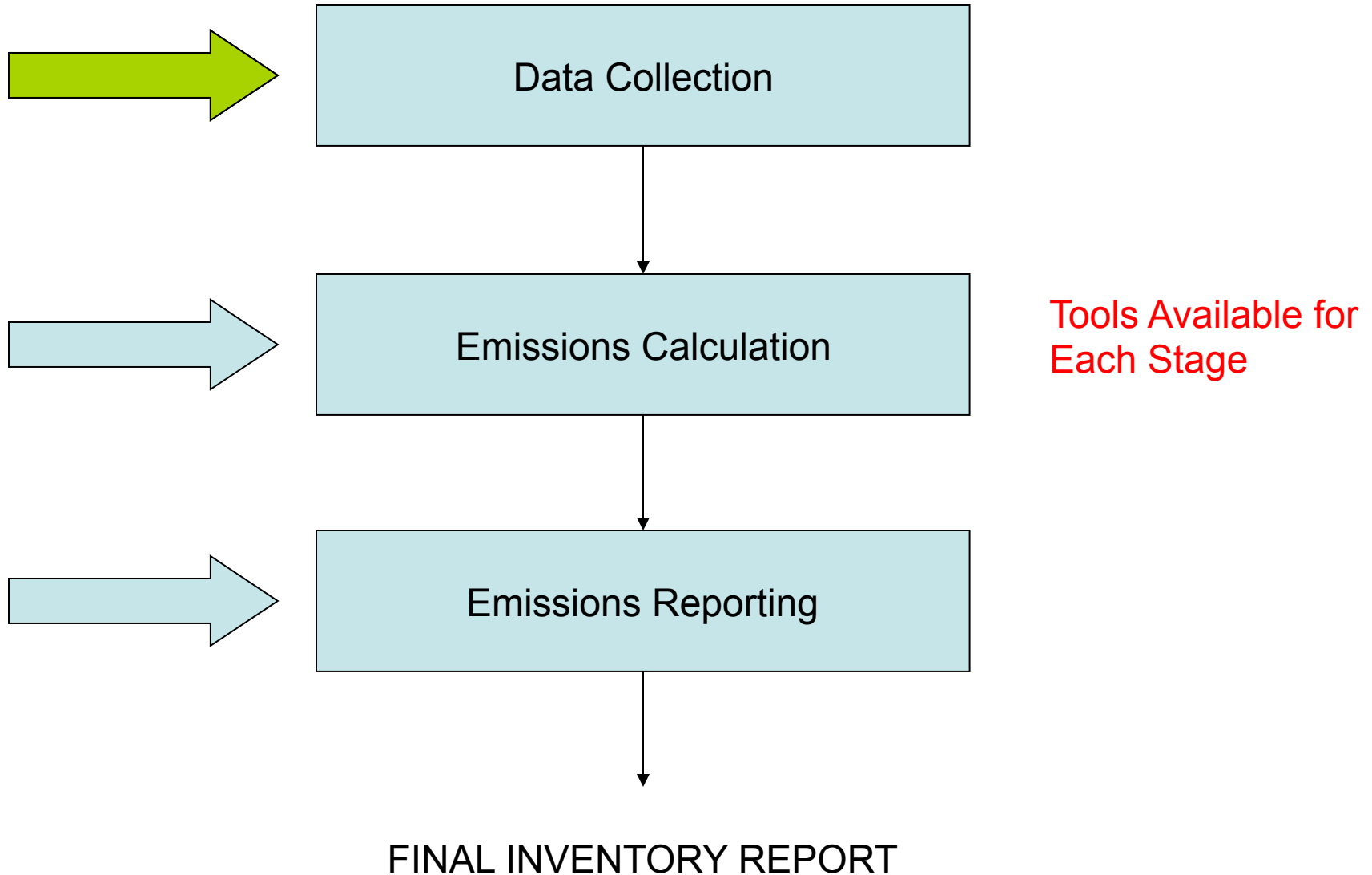
SEEC is a new alliance to help California cities and counties reduce greenhouse gas emissions and save energy.



ICLEI Five Milestones for Climate Mitigation

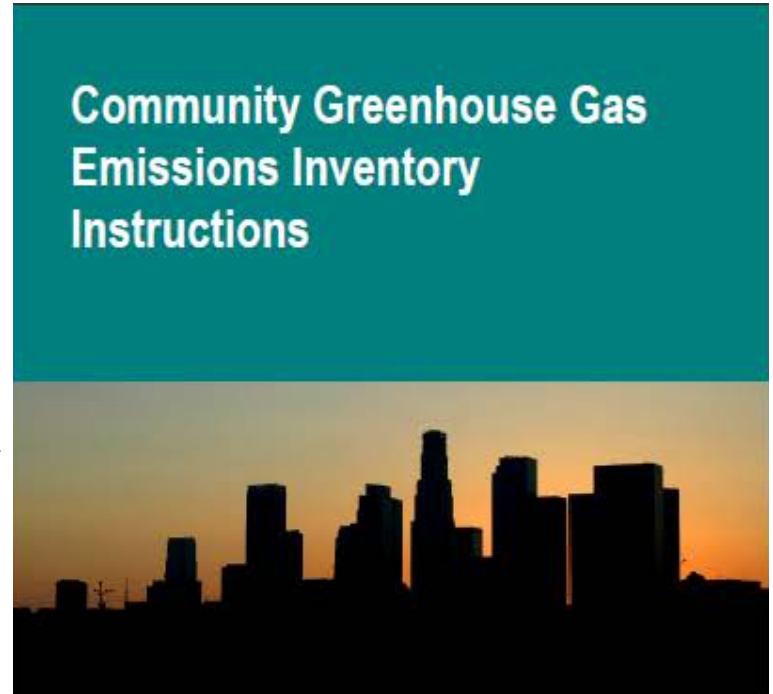


Stages of a GHG Inventory




SEEC Master Data Workbook

- Data Collection Tool for Community Sectors
- Excel-based
- Comes with instruction manual



Part 1: Data Gathering
March 2011

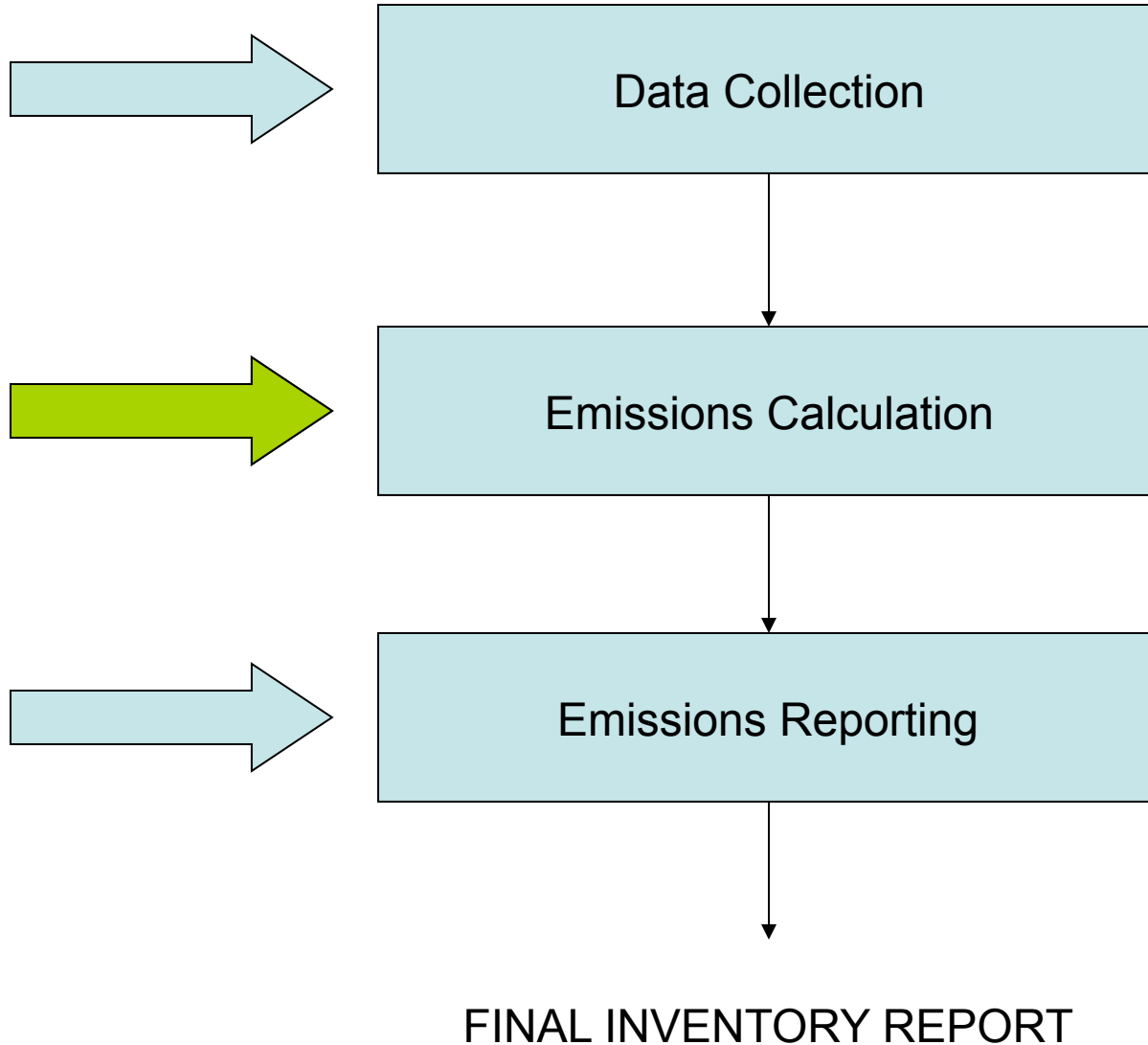
Sectors in Master Data Workbook

- 
- Built Environment (Residential, Commercial, and Industrial)
 - Transportation
 - Solid Waste
 - Water / Wastewater
 - Power Generation
 - Other Sources

Residential Sector - Data Collection Form

Record Name	Electricity Consumption		Natural Gas Consumption		Other Fuel Consumption		Data Source
	Usage	Units (e.g. kWh)	Usage	Units (e.g. therms)	Usage	Units (e.g. gallons)	(Name, Dept, Title, Phone, Email)
		kWh		Therms			
		kWh		Therms			
		kWh		Therms			
		kWh		Therms			
		kWh		Therms			
		kWh		Therms			
	0	kWh	0	therms	0		

Stages of a GHG Inventory



Emissions Calculations



Master Data Workbook

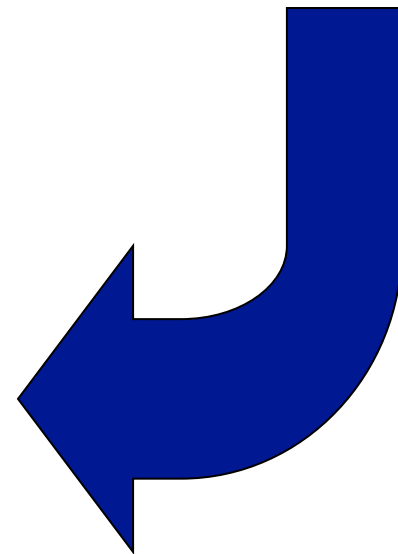
Manual Data Entry



Emissions Calculator

Emissions Outputs

(e.g. MTCO_{2e})



SEEC Online Community Inventory Tool

- Calculates GHG Emissions based on entered Data
- Creates Charts and Tables
- Comes with Instructions Guide



ICLEI Community Greenhouse Gas Emissions Inventory Instructions



Part 3: Community Inventory Tool Instructions
Manual
March 2011

Sector Data Entry in Calculator

Residential Commercial Industrial Transportation Waste Generation In-Jurisdiction Landfills Wastewater

Inventory Record Save Save & New Cancel

Record Name Residential 1 Name of Record

Info-Only Record Scope 3 Record

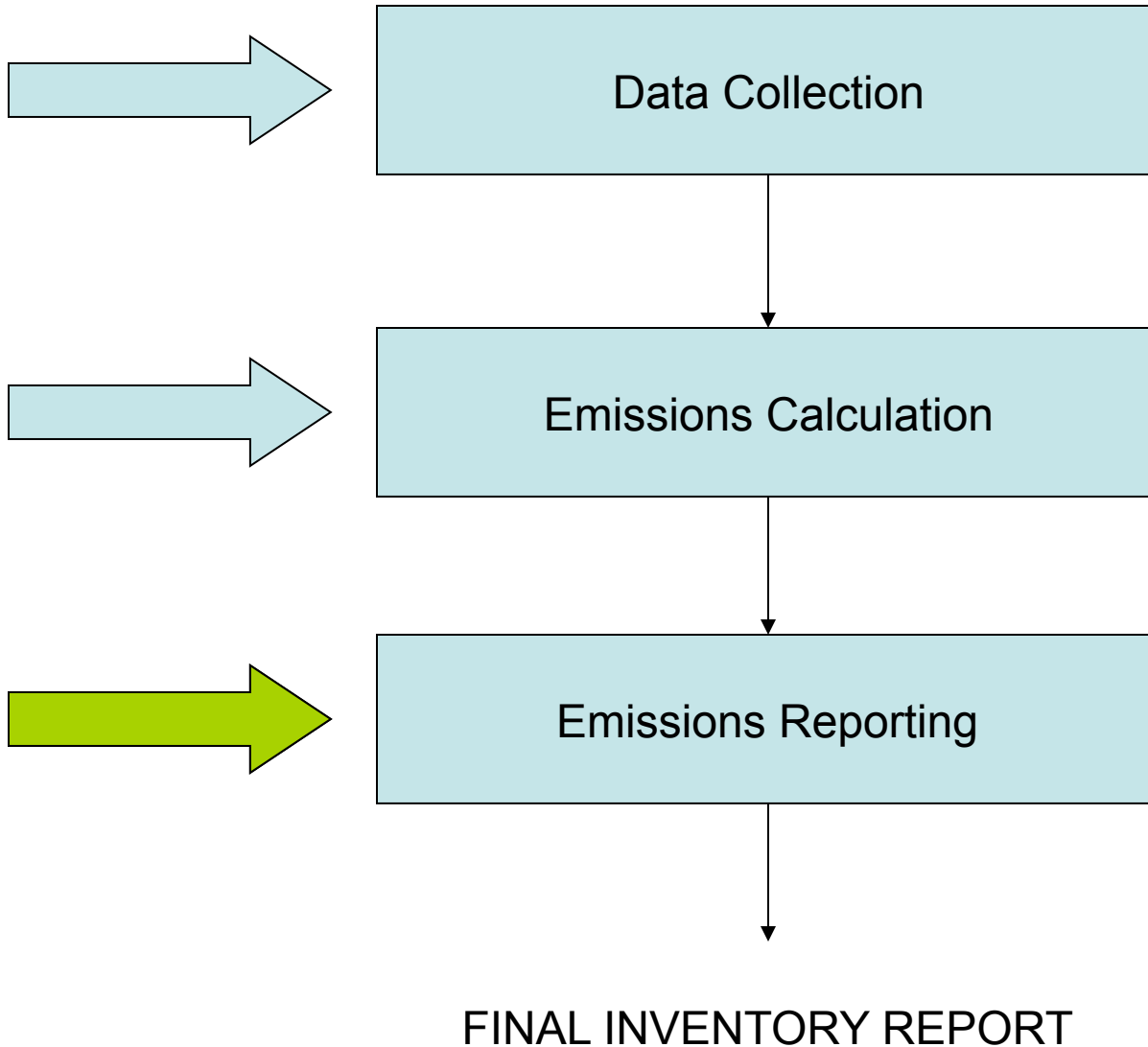
Use CEC Average Electricity Coefficients

Input Data Output Data

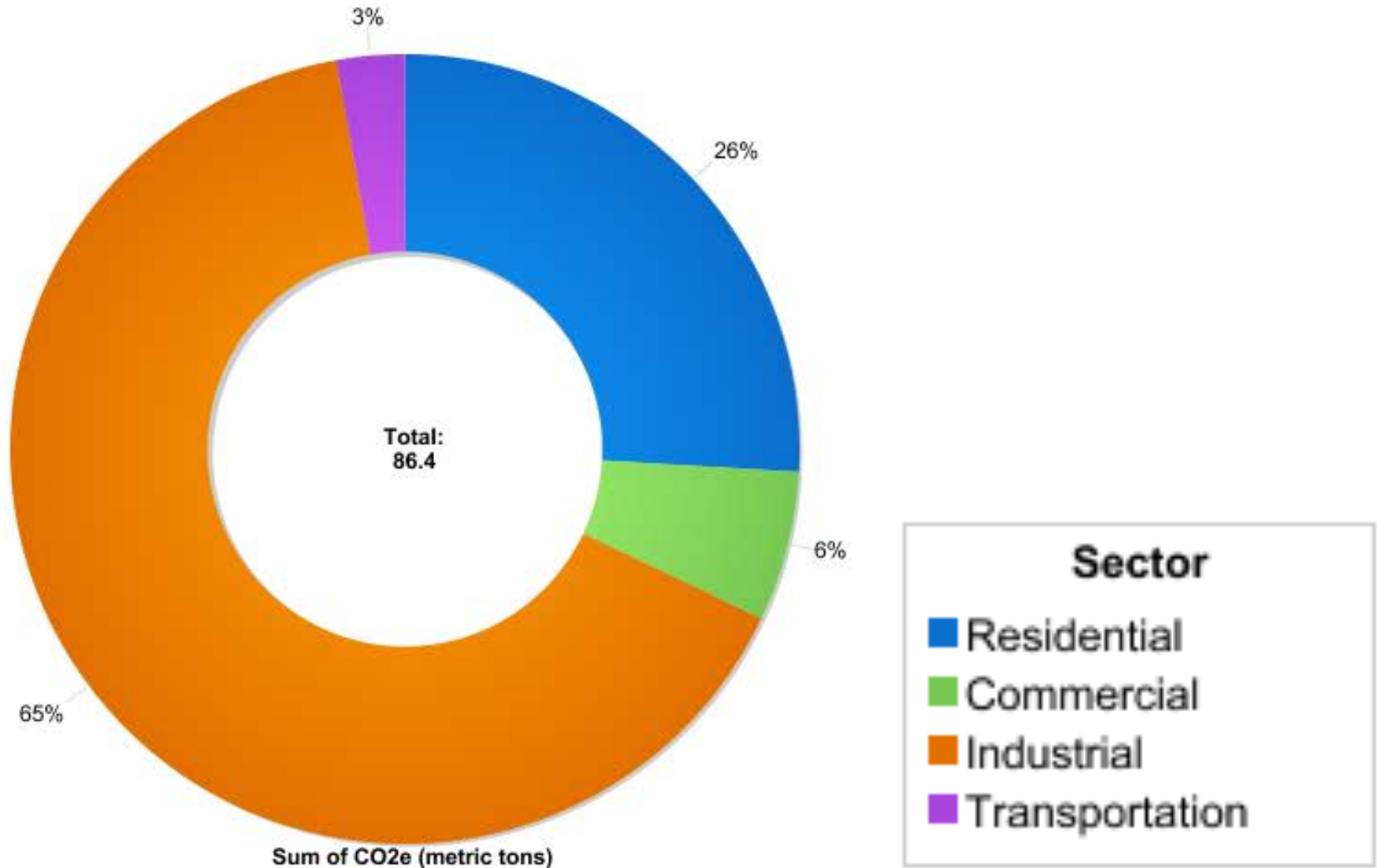
Energy Usage

Fuel	Usage	Unit	CO2e (metric tons)	Energy (MMBtu)
Electricity		kWh	0.00	0.00
Green Electricity		kWh	0.00	0.00
Natural Gas		therms	0.00	0.00
Propane		gallons	0.00	0.00
Fuel Oil		gallons	0.00	0.00

Stages of a GHG Inventory



Calculator Outputs: Real-time Charts based on Entered Data



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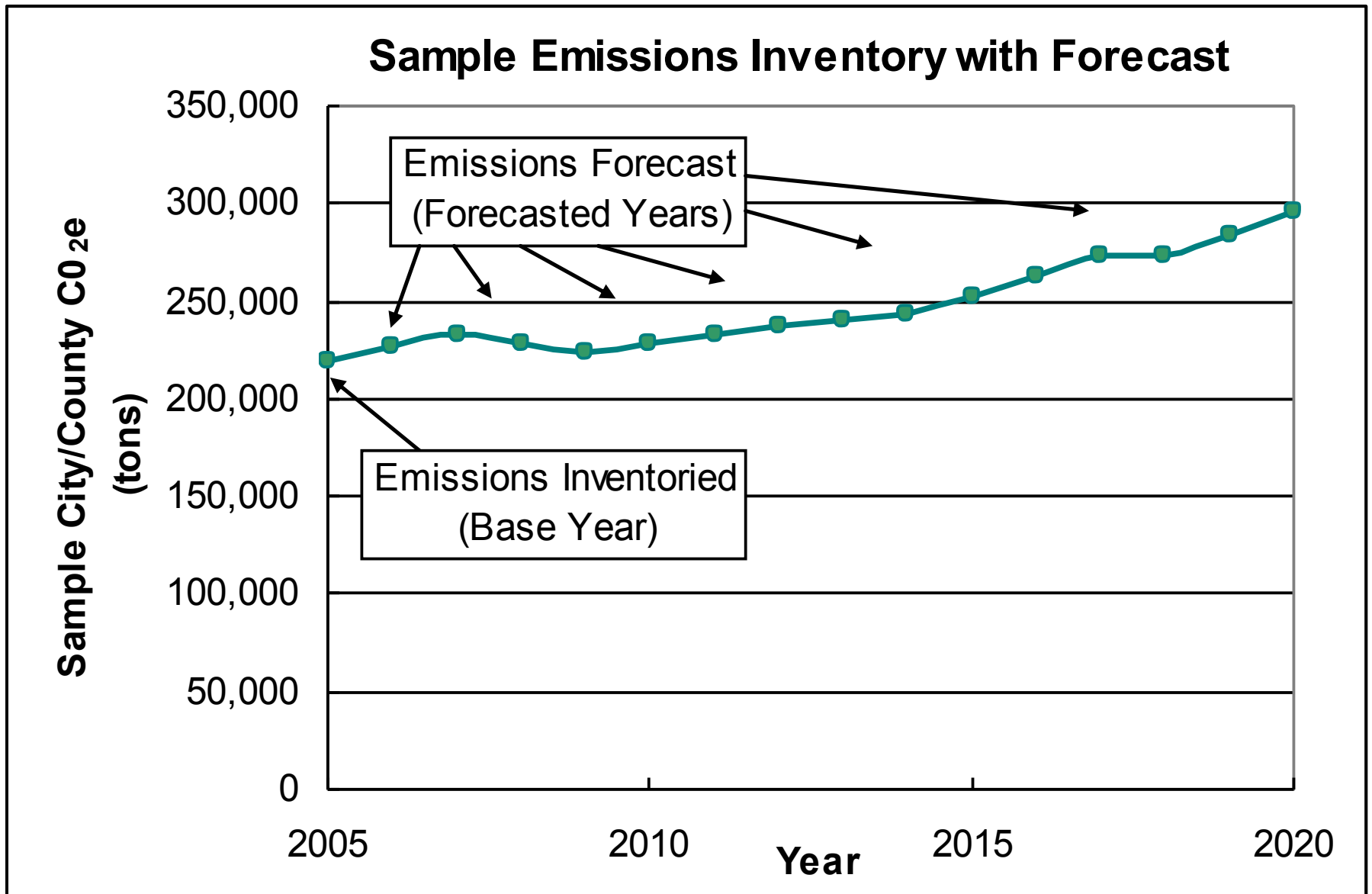
We' ve Reported Baseline Emissions

What' s Next?

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Emissions Forecasting

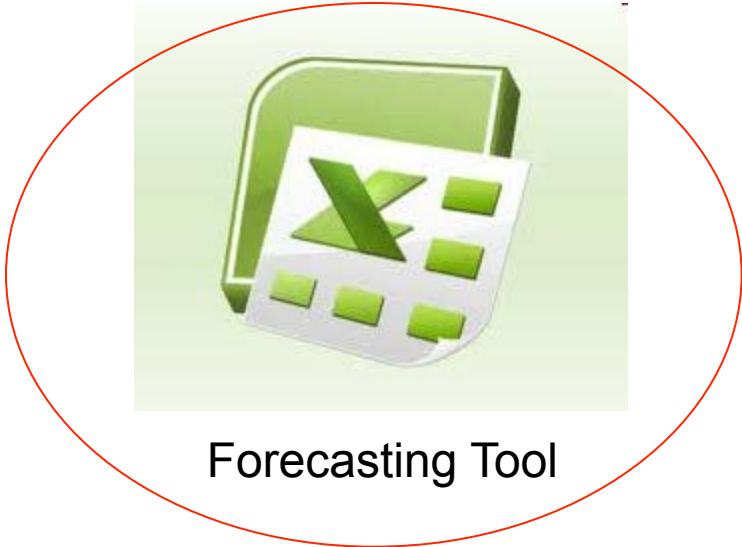
The Business-As-Usual Forecast



Forecasting

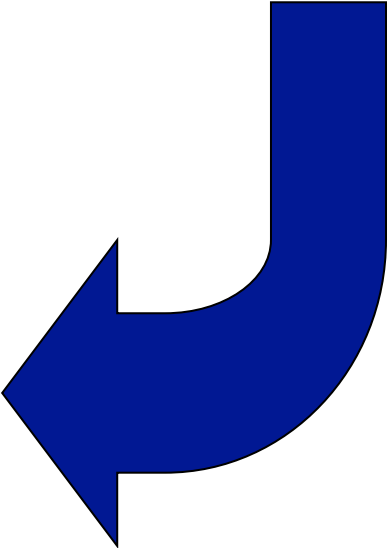
Baseline
Inventory
Data

Manual Data Entry



Forecasting Tool

Forecasted Emissions



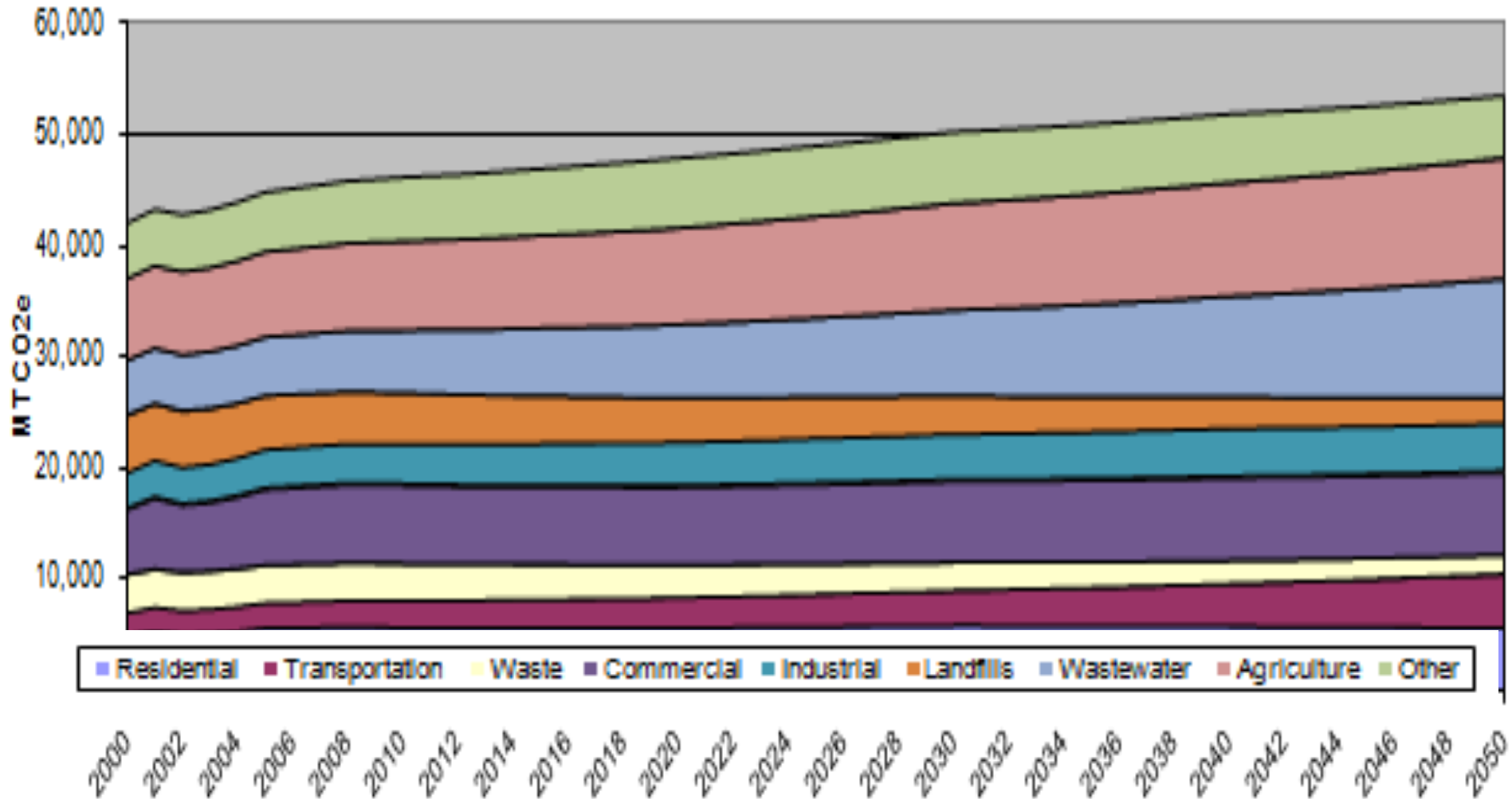
SEEC Forecasting Tool

- Excel based tool
- Calculates future emissions by sector
- Accounts for State Policies under business as usual scenario
- Relies on users to determine sector-based growth rates



Forecast Output Chart

Emissions Forecast by Sector





**We' ve developed a
Forecast.**

What' s Next?

ICLEI Five Milestones for Climate Mitigation

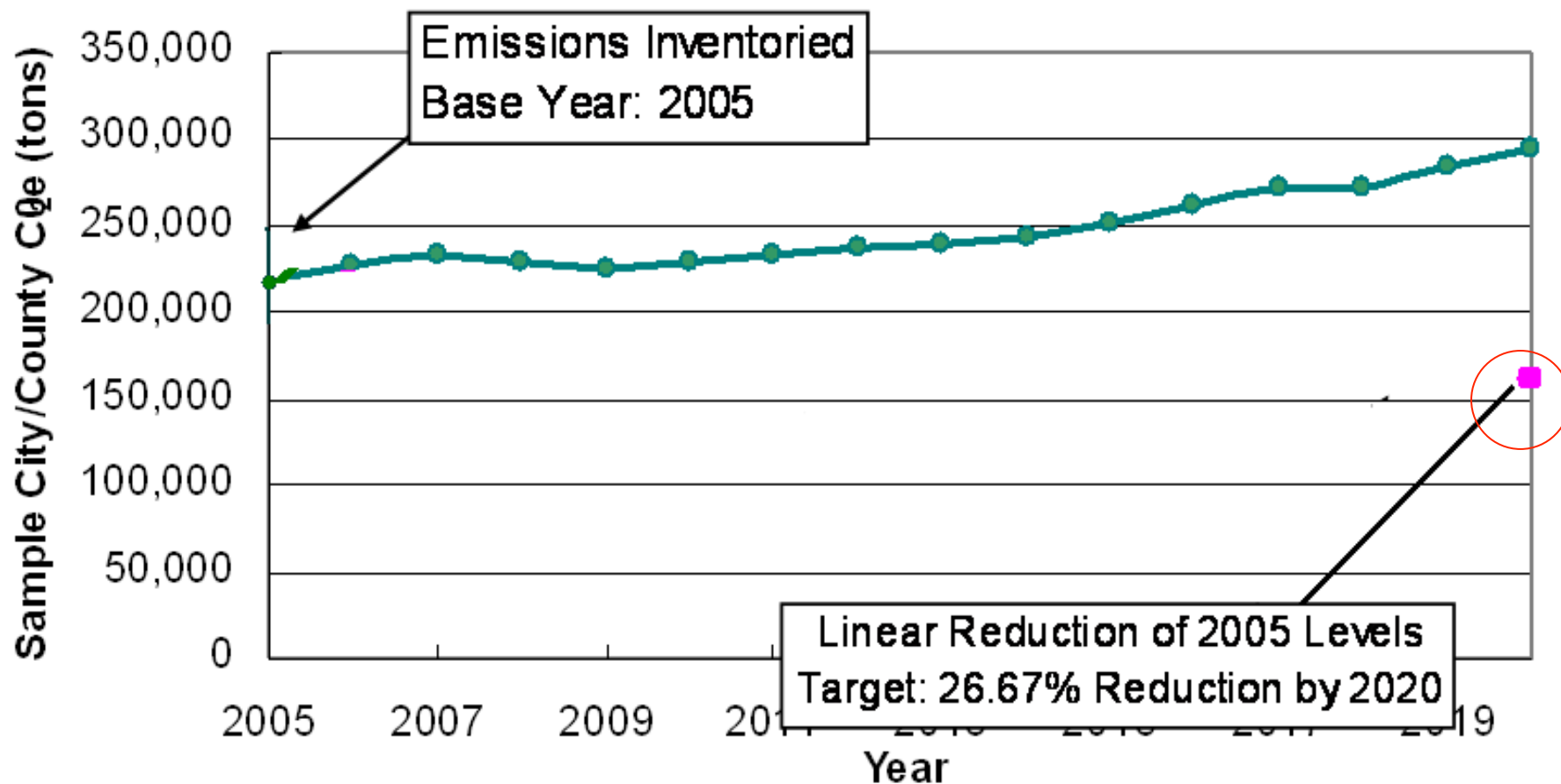


Setting an Emissions Reduction Target



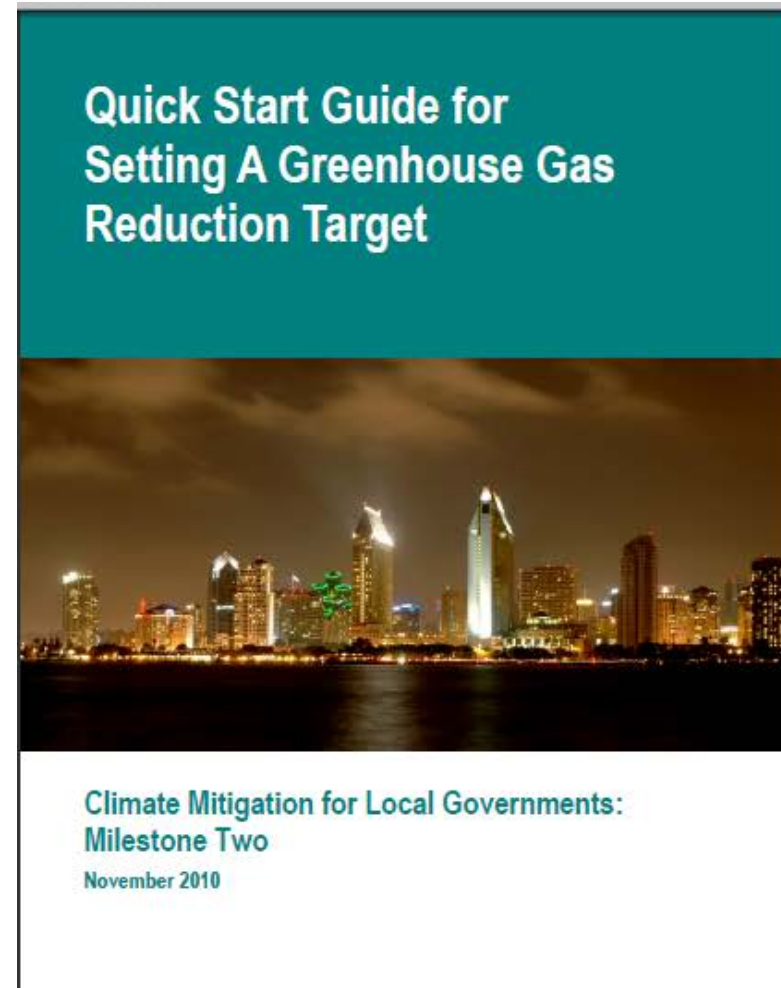
Target and Trajectory

Sample Reduction Target and Course Trajectory



Target-Setting Process

- Revisit Inventory and Forecast
- Review Climate Science and Common Targets
- Align with State, Regional, or Federal Directives
- Set short, medium, and long-term targets
- Present Targets to City Council or Board
- Guidance document available on Target-setting:



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**We' ve Set Reduction
Targets**

What' s Next?

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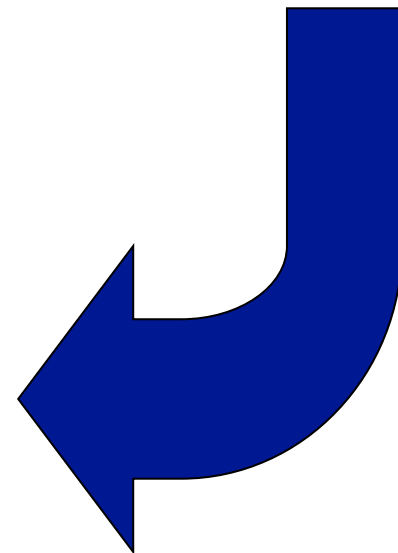
Developing Mitigation Measures

Mitigation Measures Development

Forecasted
Emissions
and
Reduction
Target



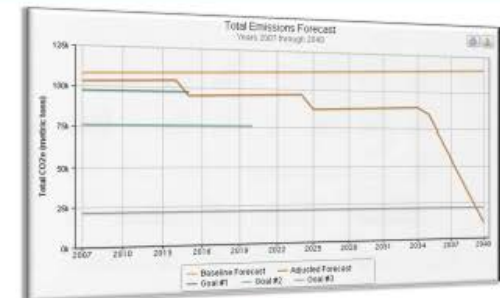
Potential Mitigation
Measures that could be
included in Climate Action
Plan



Climate Action Planning Assistant (CAPA)

- Online Tool
- Calculates emission reduction potential of various measures
- Gives instant feedback on the impact of an action against BAU forecast.
- Allows users to create and compare different scenarios and combinations of measures.
- Comes with Instructions Guide

Climate Action Planning Technical Guide



Detailed Guidance Using the SEEC
Climate and Energy Management
Suite
March 2012



CAPA Mitigation Strategy

Calculator

Photovoltaic Panels

Degree of Implementation kW of planned installed solar capacity

Enter the total planned installed capacity you plan to deploy.

Implement Cumulatively ?

Effective Useful Life Years ?

Enter Degree of Implementation

Savings

Generation Potential kWh/kW Installed per year

Enter the value as appropriate from the Reference Sheet linked above.

Annual Electricity Produced **6,816,000** kWh per year

Electricity Emission Coefficient **0.000301** metric tons per kWh

RPS Adjustment Factor ?

Annual Electric Emission Savings **2,051.62** metric tons per year


Total Annual Emission Savings

2,052 metric tons per year

Estimated Emission Reduction Benefits

Climate Action Plan Template


[Jurisdiction] Climate Action Plan Template (Energy Portion)



The nation's inventories

Local Actions and Policies for Reducing [Jurisdiction]'s Greenhouse Gas Emissions

Approved by [Local Authority]
[Date Approved]
[Reference to Public Record]
[Reference to Further Information]
Produced by [Name of Lead Department or Task Force]
With Assistance from the Statewide Energy Efficiency Collaborative

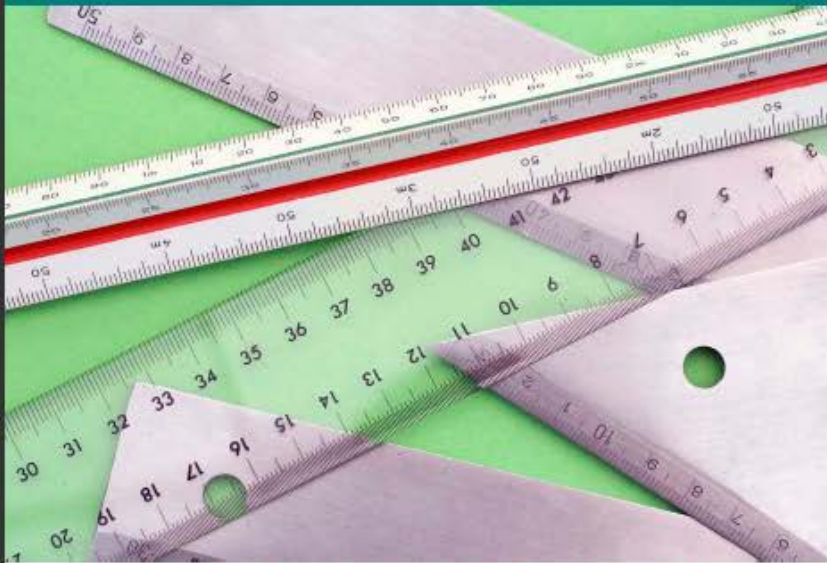


ICLEI Five Milestones for Climate Mitigation



Measuring Progress Towards Target

Measuring and Reporting Progress in Reducing GHG Emissions



Climate Mitigation for Local Governments Milestone Five

March 2012

Climate Action Progress Report Template



Implementation Progress and Emissions Reductions
Achieved through the Climate Action Plan of [Year]

City Planners' Energy Action Resource Guide

City Planners' Energy Action Resource Guide



Greenhouse Gas Reduction Measures for
New Development

November 2011



Web-based Trainings: Coming Soon!

- Short Recorded Training Modules on Concepts, Tools, and Process for:
 - Inventories
 - Target-setting
 - Forecasting
 - Action Planning
- Interactive e-learning



Next Steps

- Tools for Monitoring Emission Reduction
- Community Protocol for GHG Emissions Inventories
- Upgrades to Existing Tools
- Trainings



Questions?

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