

# New SEEC Resources for San Mateo County Local Governments

San Mateo County RICAPS Meeting  
*June 28, 2016*



# About SEEC

The collaborative employs a variety of **strategies to catalyze local climate and energy action:**

- Education and tools for climate action planning
- Venues and opportunities for peer-to-peer networking and information sharing
- Technical assistance to implement, track and assess progress of cities and counties
- Support and recognition for local agencies participating in the Beacon GHG emissions and energy efficiency program



# SEEC Key New Projects

- ***State of Climate Action*** Report reviewing local government best practices, opportunities and barriers to EE and climate achievements
- SEEC **Collective Impact Projects:**
  - Regional technical assistance:
    - Cap and trade funding
    - Weatherization
    - Zero net energy roadmapping
    - Stakeholder engagement

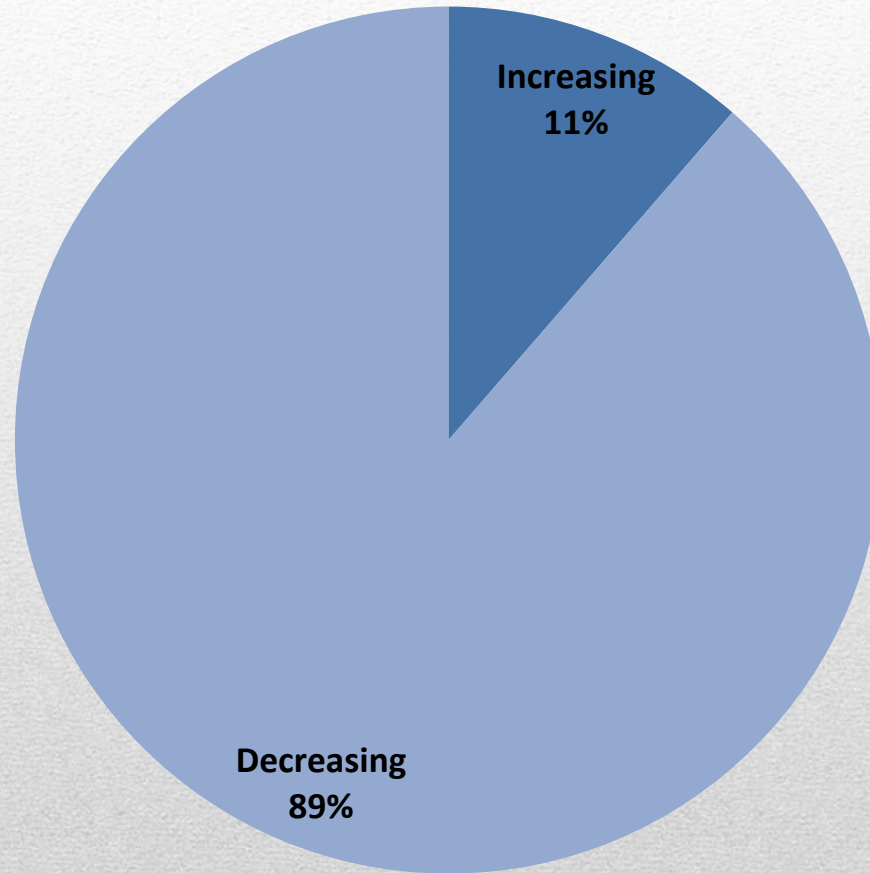
# State of Local Climate Action

- SEEC research project utilizing data from ClearPath, Beacon Awards, Best Practices Coordinator records, etc
- Evaluating status, progress, successes and barriers
- Report to be published in late Summer





## Emissions Trends in Sample CA Cities 2005-2010\*



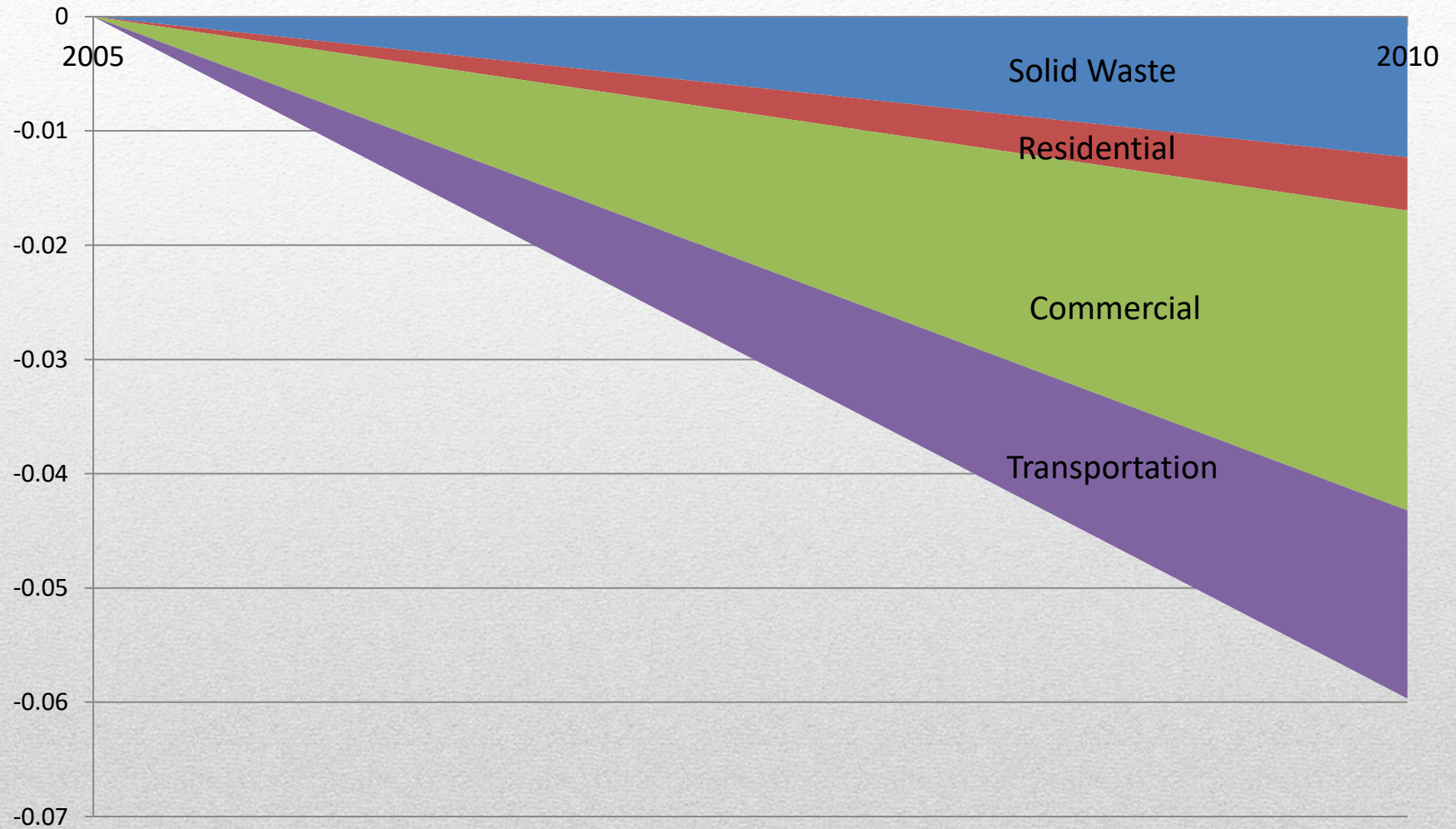
*\* Based on data from 44 jurisdictions with multiple, complete inventories in SEEC ClearPath.  
Where inventory not available for 2005, then 2006 or 2007 substituted.  
Where not available for 2010, 2011, 2012, or 2013 substituted.*

# Overall Emissions Reduction

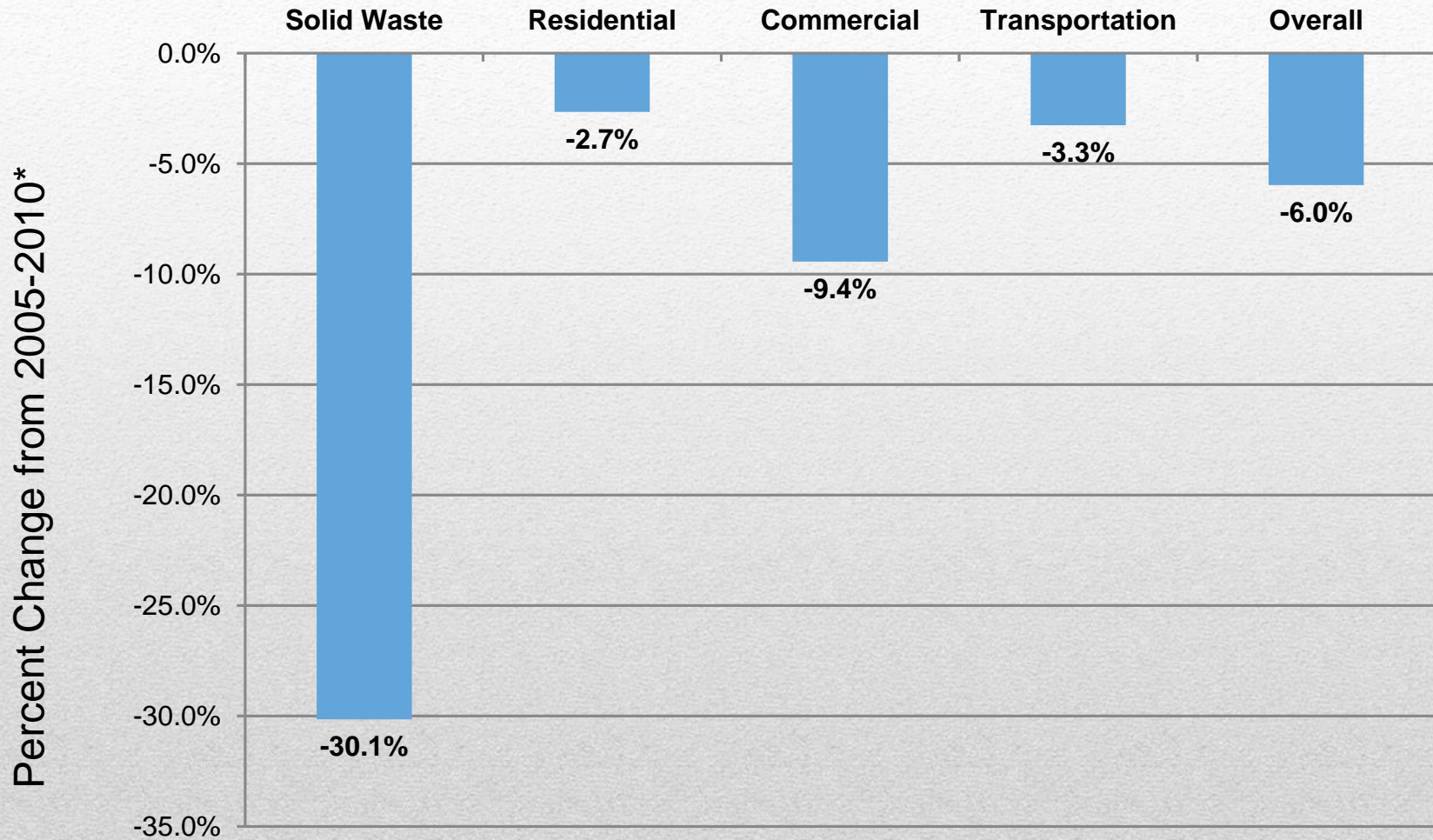
- Total reductions across 44 jurisdictions:
    - 1,721,000 MMbtu electricity
    - 1,934,000 MMbtu commercial and residential fuels
    - 1,269,000 metric tons CO<sub>2</sub>e
  - Equivalent to removing 268,000 cars from the road.
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# Net Change in Emissions Across 44 Jurisdictions, Compared to Overall 2005 Emissions



## Net Change Across 44 Jurisdictions, by Sector



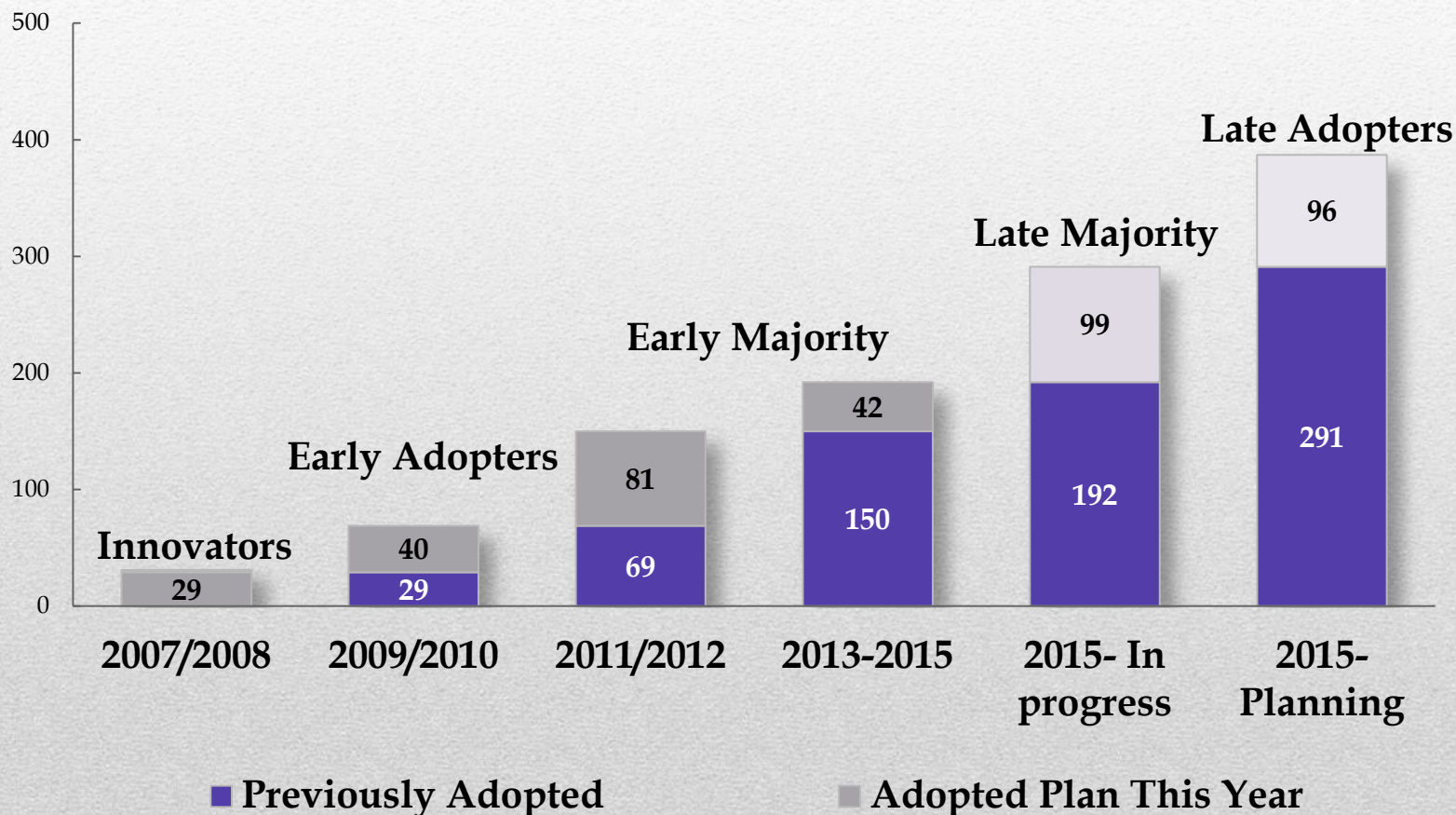


# SEEC 2016 Collective Impact Projects

**Focus: *Broaden, Deepen and Accelerate Action***

- **Gateway Cities:** Assist StartUp communities to initiate and mainstream climate action best practices in a region with limited capacity and a high proportion of disadvantaged residents
- **San Mateo County:** Support the diffusion of climate action innovations by PathFinder communities in a region with mature local and regional climate programs

# Climate Action Plans: From Innovators to the Mainstream





# What is a Sustainable Community?

**Sustainable communities are places where people prosper and thrive, now and over the long term.**

# ILG's Sustainability Program



**Energy Efficiency  
& Conservation**



**Water &  
Wastewater  
Systems**



**Green Building**



**Waste Reduction  
& Recycling**



**Climate-Friendly  
Purchasing**



**Renewable Energy  
& Low-Carbon  
Fuels**



**Efficient  
Transportation**



**Land Use &  
Community  
Design**



**Open Space &  
Offsetting Carbon  
Emissions**



**Community &  
Individual Action**



## Join Beacon

The Beacon Program provides a framework for local governments to share best practices that create healthier, more efficient, vibrant communities. The program honors voluntary efforts by local governments to reduce greenhouse gas emissions, save energy and adopt policies and programs that promote sustainability.

- To learn more about the Beacon Program, visit [www.ca-ilg.org/BeaconProgram](http://www.ca-ilg.org/BeaconProgram).

## Achieve Results

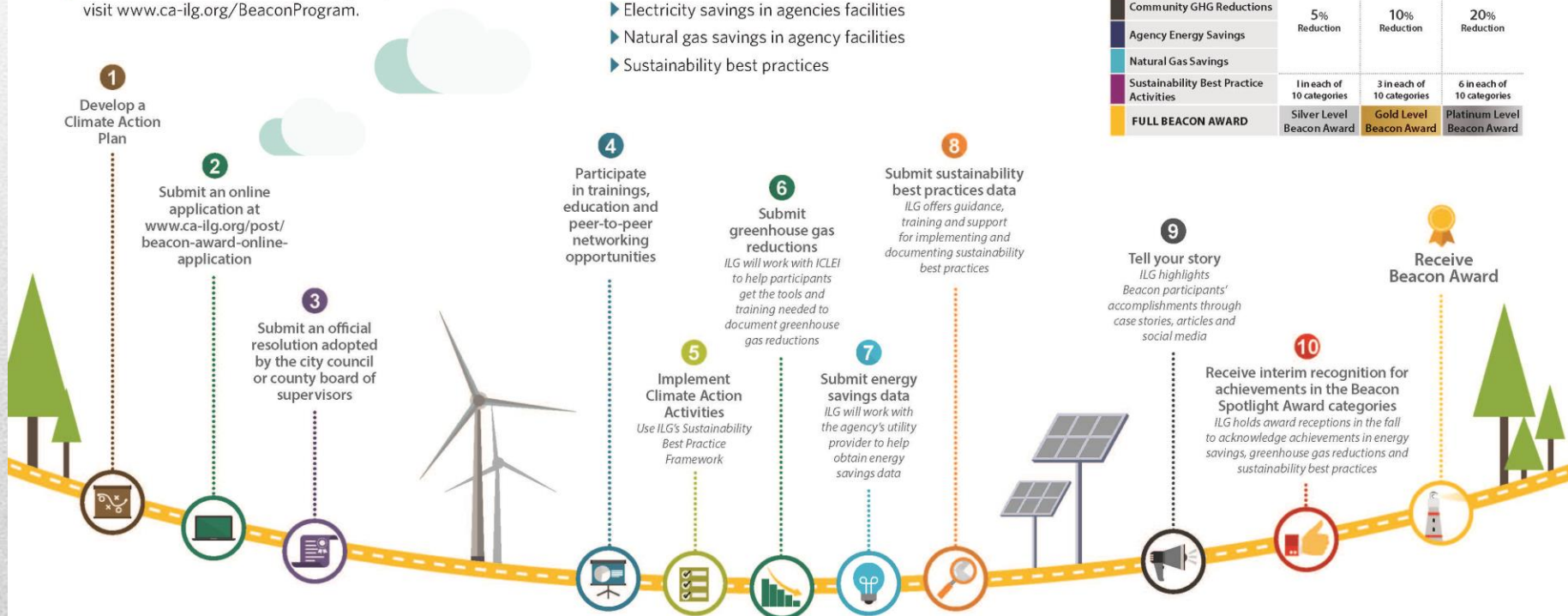
The Institute for Local Government provides resources and technical support to assist participants in their journey through the Beacon Program. Through our partnerships within the SEEC collaborative, we are able to help participants obtain and record achievements in five areas of accomplishment.

- Reducing agency greenhouse gas emissions
- Reducing community greenhouse gas emissions
- Electricity savings in agencies facilities
- Natural gas savings in agency facilities
- Sustainability best practices

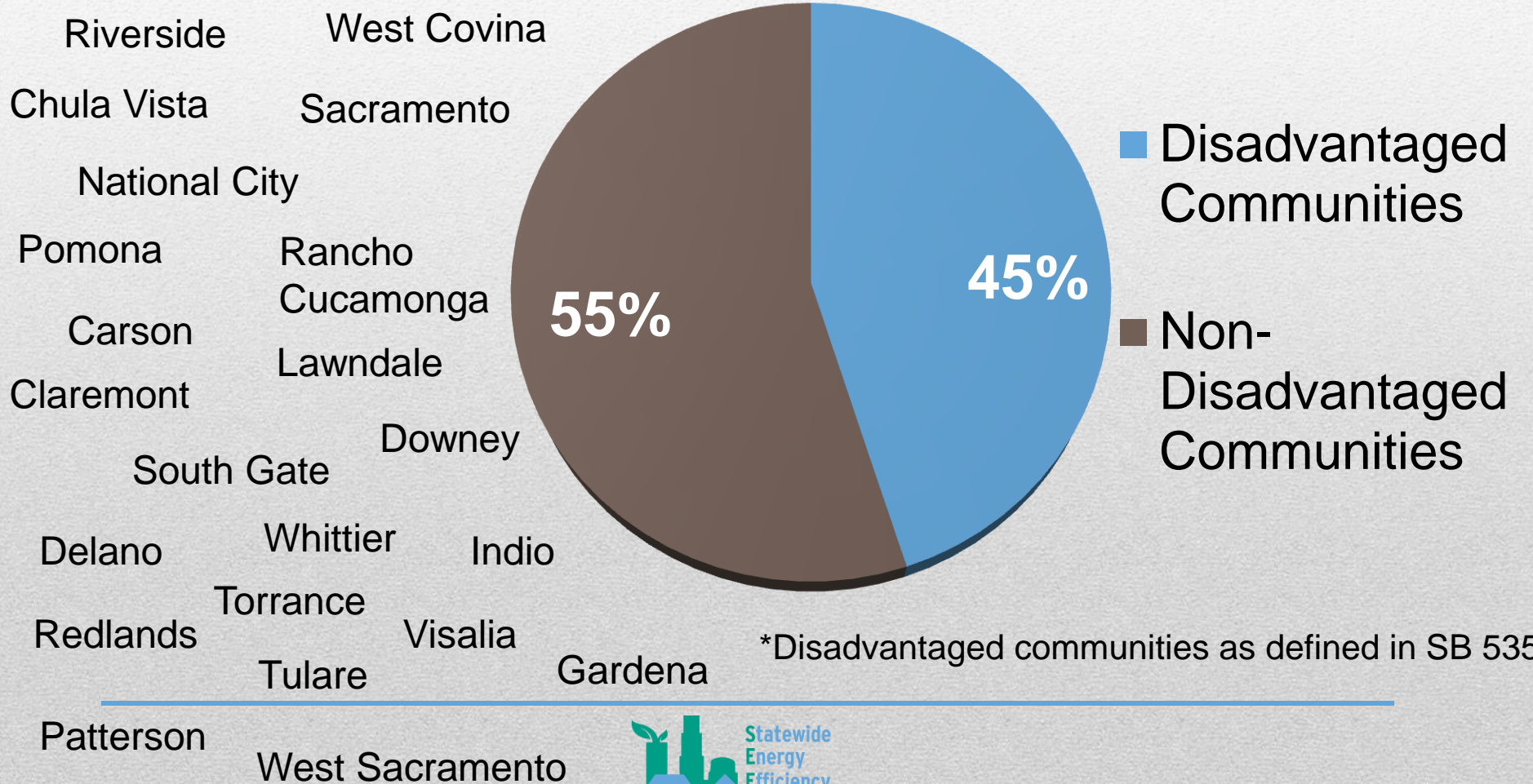
## Celebrate Success

Within each area, a participant can earn Beacon Spotlight awards-silver, gold and platinum- based on level of achievement. To win a full Beacon award, participants are required to demonstrate achievement in all five areas.

SPOTLIGHT AWARD Areas of Accomplishment	SILVER LEVEL	GOLD LEVEL	PLATINUM LEVEL
Agency GHG Reductions	5% Reduction	10% Reduction	20% Reduction
Community GHG Reductions			
Agency Energy Savings			
Natural Gas Savings	1 in each of 10 categories	3 in each of 10 categories	6 in each of 10 categories
Sustainability Best Practice Activities			
FULL BEACON AWARD	Silver Level Beacon Award	Gold Level Beacon Award	Platinum Level Beacon Award



# Beacon and SEEC: Helping Disadvantaged Communities Prepare for Climate Action





# San Mateo County Communities Beacon Accomplishments

## 2015 Beacon Awards

Brisbane – Gold    Redwood City – Silver    San Mateo County – Silver

### 2015 Spotlight Awards

Burlingame  
Colma  
Daly City  
Foster City  
Menlo Park  
Millbrae  
Portola Valley  
San Carlos  
San Mateo

SPOTLIGHT AWARD AREAS OF ACCOMPLISHMENT	SILVER LEVEL	GOLD LEVEL	PLATINUM LEVEL
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Natural Gas Savings			
Sustainability Best Practice Activities	1 in each of 10 categories	3 in each of 10 categories	6 in each of 10 categories
<b>FULL BEACON AWARD</b>	Silver Level Beacon Award	Gold Level Beacon Award	Platinum Level Beacon Award

# San Mateo County Communities Beacon Accomplishments

San Carlos Beacon recognition for environmental sustainability:



<https://www.youtube.com/watch?v=GQpqQTOZ9qY>



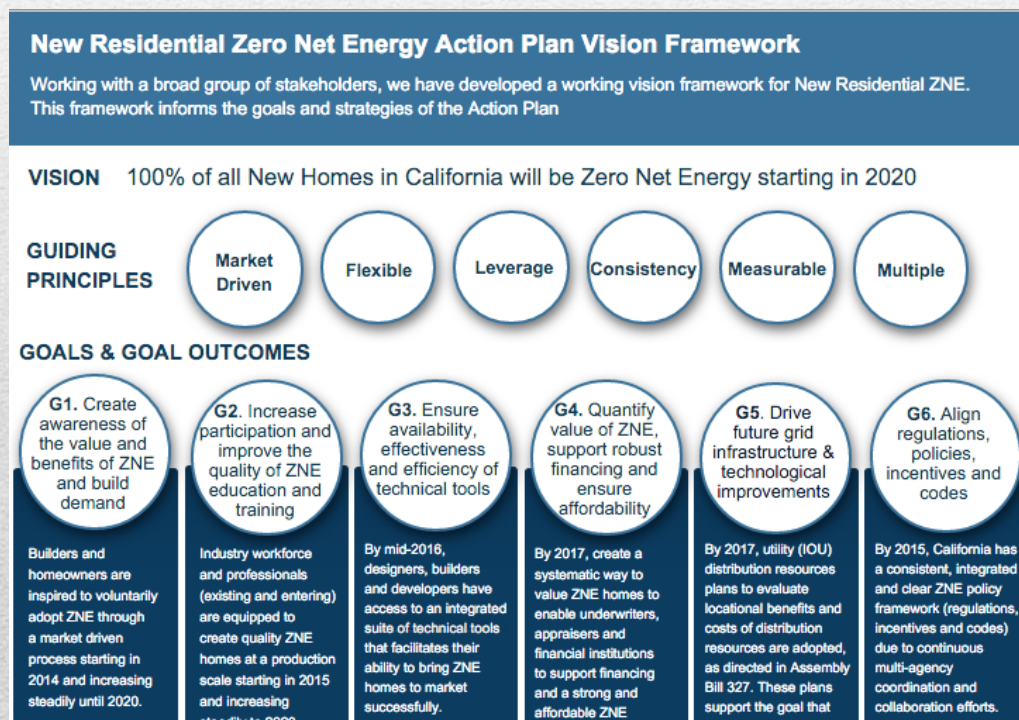
# SEEC and San Mateo County

- Sharing and developing resources on:
  - ✓ “Beyond code” policy consideration
  - ✓ Stakeholder engagement
  - ✓ Zero Net Energy implementation
  - ✓ Energy/water management

# Zero Net Energy Resources

State goals point to 100% Zero Net Energy Residential New Construction by 2020. (& Comm. by 2030...)

- *What does that mean?*
- *How do we get there?*





# Zero Net Energy Resources

- ***What does ZNE mean?***
  - Total building annual energy use equals total building energy production
  - *Many* definitions – also Eco Districts
- ***How do we get there?***
  - Develop strategies for deep energy efficiency and savings
  - Develop strategies for renewables/DER deployment
  - Engage and incentivize the community and key stakeholders

# ZNE Best Practices

- Going beyond the energy code with local policies
- Benchmarking and disclosing energy use
- Leading by example with ZNE city and county buildings
- Support community adoption:
  - Streamlined permitting for high efficiency/renewables
  - ZNE/EE training and education for realtors, builders, designers, etc. on benefits!
  - Promotion of resources (tech. assistance and \$\$)



# Examples Supporting ZNE: City of Lancaster

- Solar on 97% of municipal buildings and 25 schools
- Solar ordinance for new homes
- Streamlined permitting for solar PV
- Builder incentives for high-efficiency measures (LED lighting, ENERGYSTAR appliances, greywater systems and WaterSense fixtures, EV charging and energy storage) through the Better Built Home Program





# Examples Supporting ZNE: City of Chula Vista

- Beyond code: Solar PV and thermal [pre-wiring and pre-plumbing requirements](#), increased EE standards
- City reserves right to require green consultant on City projects
- Promotes financing and incentives for residents
- [Provides resources to building stakeholders](#) to improve compliance with energy efficiency and green building codes and to promote construction of sustainable buildings.

## Free Energy Training

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### Energy Code Compliance

Date: Wednesday, January 28, 2015, 11am  
Speaker: Martyn C. Dodd, Principal of I  
Location: City of Chula Vista - Building

[Presentation](#)



### Energy Code Compliance

Date: Wednesday, March 25, 2015, 11am  
Speaker: Martyn C. Dodd, Principal of I  
Location: City of Chula Vista - Building

[Presentation](#)



### Over the Counter and Onl

Date: Tuesday, April 14, 2015, 12pm-1pm  
Speaker: Lynne Mitschke, Lindsey Hav  
Location: City of Chula Vista - Building

[Presentation](#)



# Examples Supporting ZNE: City of Santa Monica

- Ordinance requiring solar on new buildings, energy efficiency beyond code
- LEED Platinum [Pico Branch Library](#) heads toward ZNE
- LEED Gold [Annenberg Community Beach House](#)
- [Roadmapping](#) for Net Zero Water
- Promotion of financing and technical assistance for residents



# Examples Supporting ZNE: City of Palo Alto

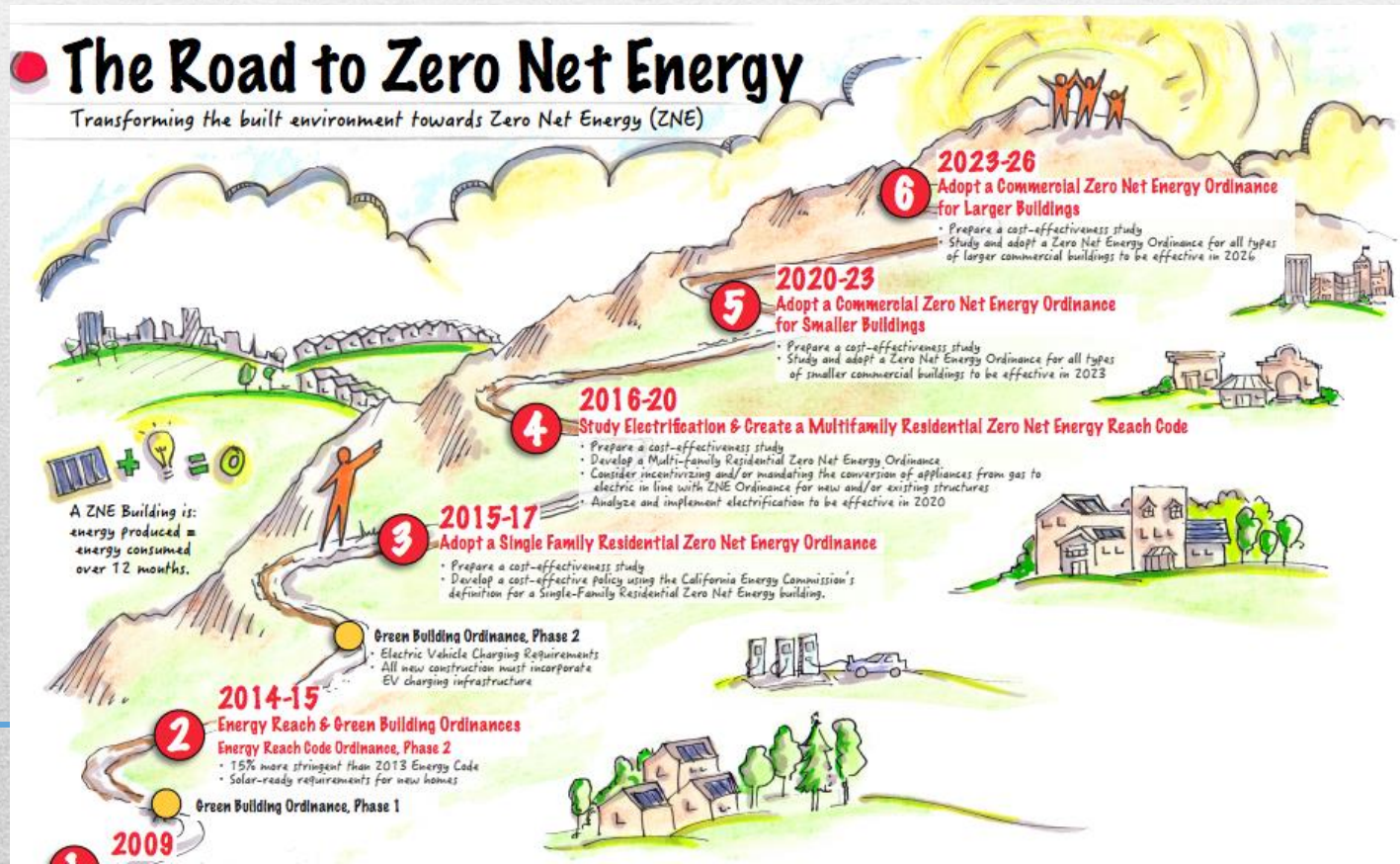
- New ZNE-focused reach code beyond 2016 Energy Code, and ZNE cost effectiveness study
- On-Demand [Compliance trainings](#) for City's reach codes to streamline and “eliminate the guesswork”
- Heat pump water heater [pilot program](#) (City has renewable electric energy)





# Examples Supporting ZNE: City of Palo Alto

- Accessible information for the community (+Road to [ZNE Video](#))





# Examples Supporting ZNE: City of Fontana

- SCE, CPUC, EPRI, and Meritage Homes [create the first ZNE community](#) in California
- LEDs, heat pump water heaters, spray insulation, and solar
- 1,900-2,900sf
- \$370,000+
- Testing ZNE operation as well as construction
- [Positive owner responses \(NYTimes\)](#)



*Meritage Homes photo*



# ZNE Resources:

- Incentives and assistance through PG&E, BayREN
- State and federal [funding](#)
- Statewide Codes and Standards
- Realtor Education and Training
- Resources on the res. market case for ZNE
  - [NAHB study](#) shows that homeowners will pay for efficiency
  - Premium on PACE homes shown in [Journal of Structured Finance article](#)
- Other Resources:
  - [eecoordinator.info/tag/zero-net-energy-ZNE](http://eecoordinator.info/tag/zero-net-energy-ZNE)

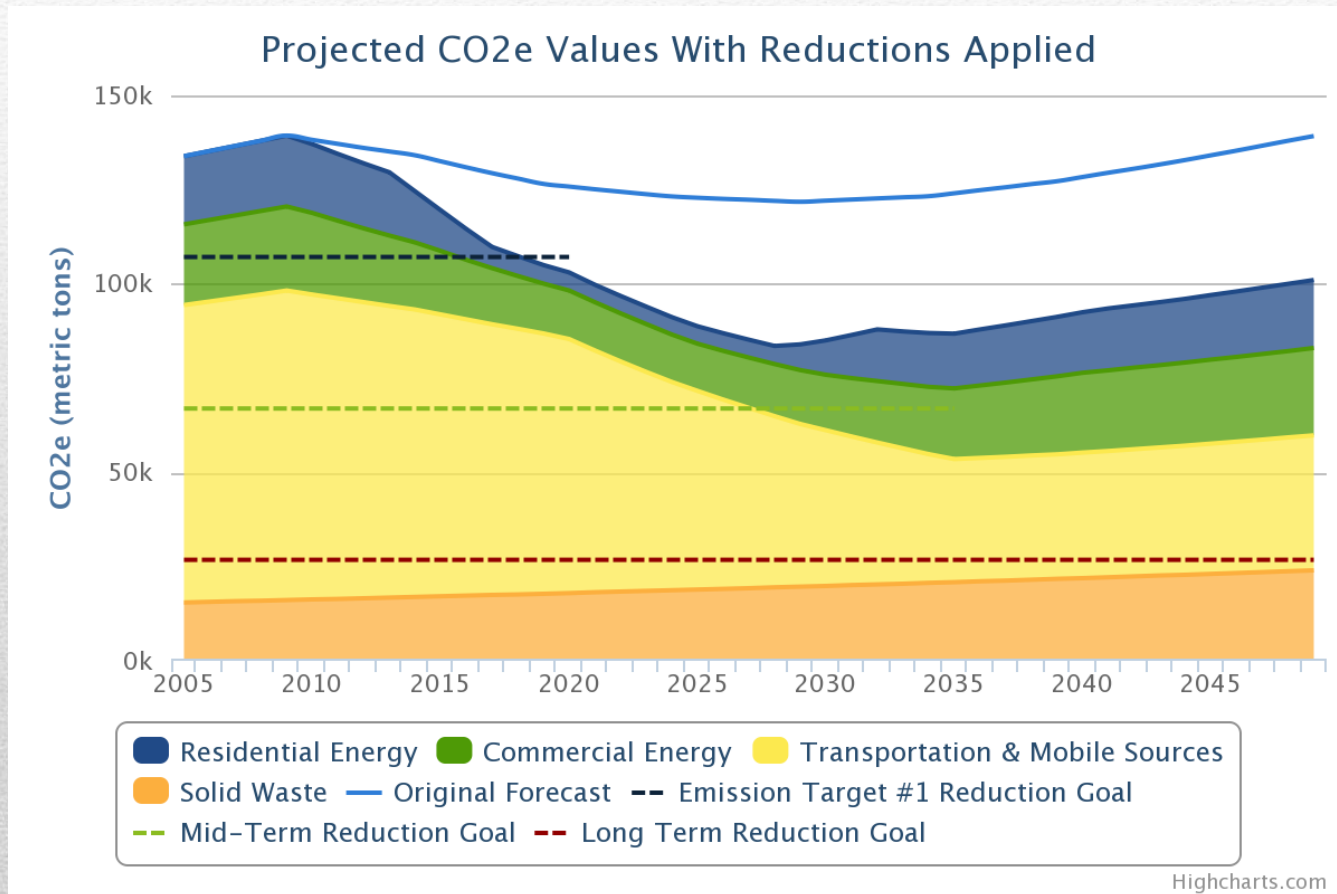
# SEEC ClearPath Tool

- Protocol-compliant inventory calculations
- Dynamic forecasting features
- Decision-support for climate action planning
- Implementation tracking
- Emissions monitoring
- Community-scale and government operations tracks
- Online office hours available twice/month
- Scheduled webinar trainings available for San Mateo County governments





# Real-time visualization



# SEEC Resources



## Statewide Local Government EE Best Practices Coordinator

Supporting California local governments

- Provides information around Programs with Promise, Best Practices, CURRENTS newsletter, Listserv as well as Strategic Plan Updates - [www.eecoordinator.info](http://www.eecoordinator.info)

## Events & Training (ICLEI, ILG and LGC)

- Complete set of SEEC webinars and on-demand training modules for GHGs inventories, Protocols, CAPs, Forecasting & Planning, and Energy Efficiency - <http://californiaseec.org/training>

## Resources & Guidance (ILG, LGC and ICLEI)

- Suite of frameworks, protocols, quick start guides, templates, case studies, trainings, webinars and videos - [http://californiaseec.org/resources-guidance#b\\_start=0&c4=ondemandtraining](http://californiaseec.org/resources-guidance#b_start=0&c4=ondemandtraining)

## Software Tools (ICLEI)

- SEEC ClearPath California - <http://clearpath.californiaseec.org>

## Beacon Award (ILG)

- Access to complete program resources of how to participate, profiles of participating jurisdictions and more resources supporting local sustainability efforts - <http://californiaseec.org/beacon-award>

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## SEEC Forum (LGC)

- Annual SEEC Best Practices Forum - <http://www.lgc.org/caseec/forums>