

LOS ALTOS HILLS GHG EMISSIONS INVENTORY RESULTS & NEW TARGETS

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**Environmental Initiatives Committee
& Steve Schmidt (resident & contractor to town)
Presentation to LAH Town Council, 2016**

AGENDA

What is this and Why do it?

Inventory: Gov't Operations

Inventory: LAH Community

Cost of Mitigation Plans

Requested Council Actions

WHAT IS A GHG INVENTORY?

The process of accounting for all GHG* sources within a defined boundary.

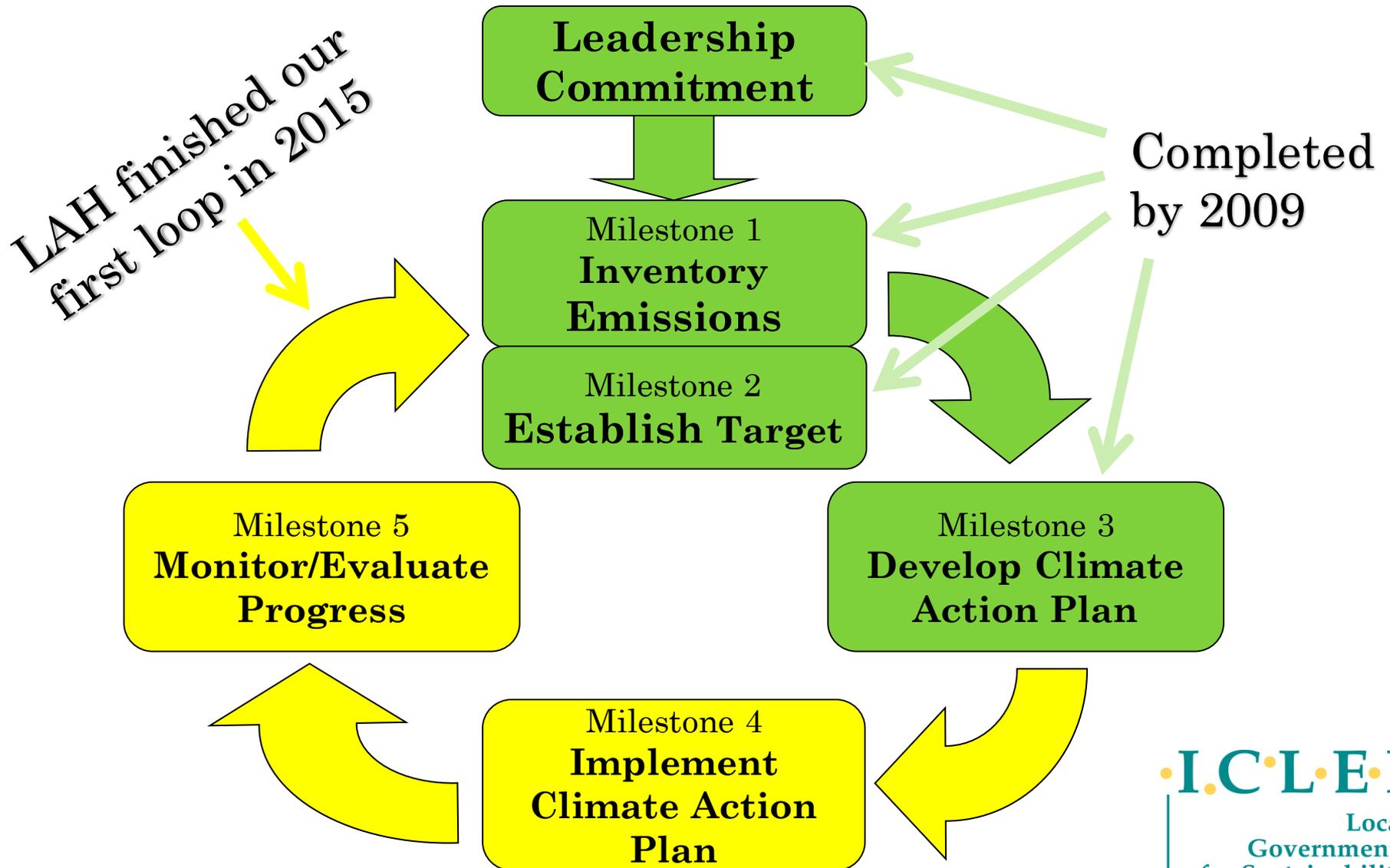
* Greenhouse Gases (GHGs):

- Gases that cause large changes to global climate with small changes in concentration
- Includes carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs)
- Collectively known as the “six Kyoto gases” and normalized as “CO₂ equivalents” (CO₂e)
- Usually measured in Metric Tons (MT) of CO₂e

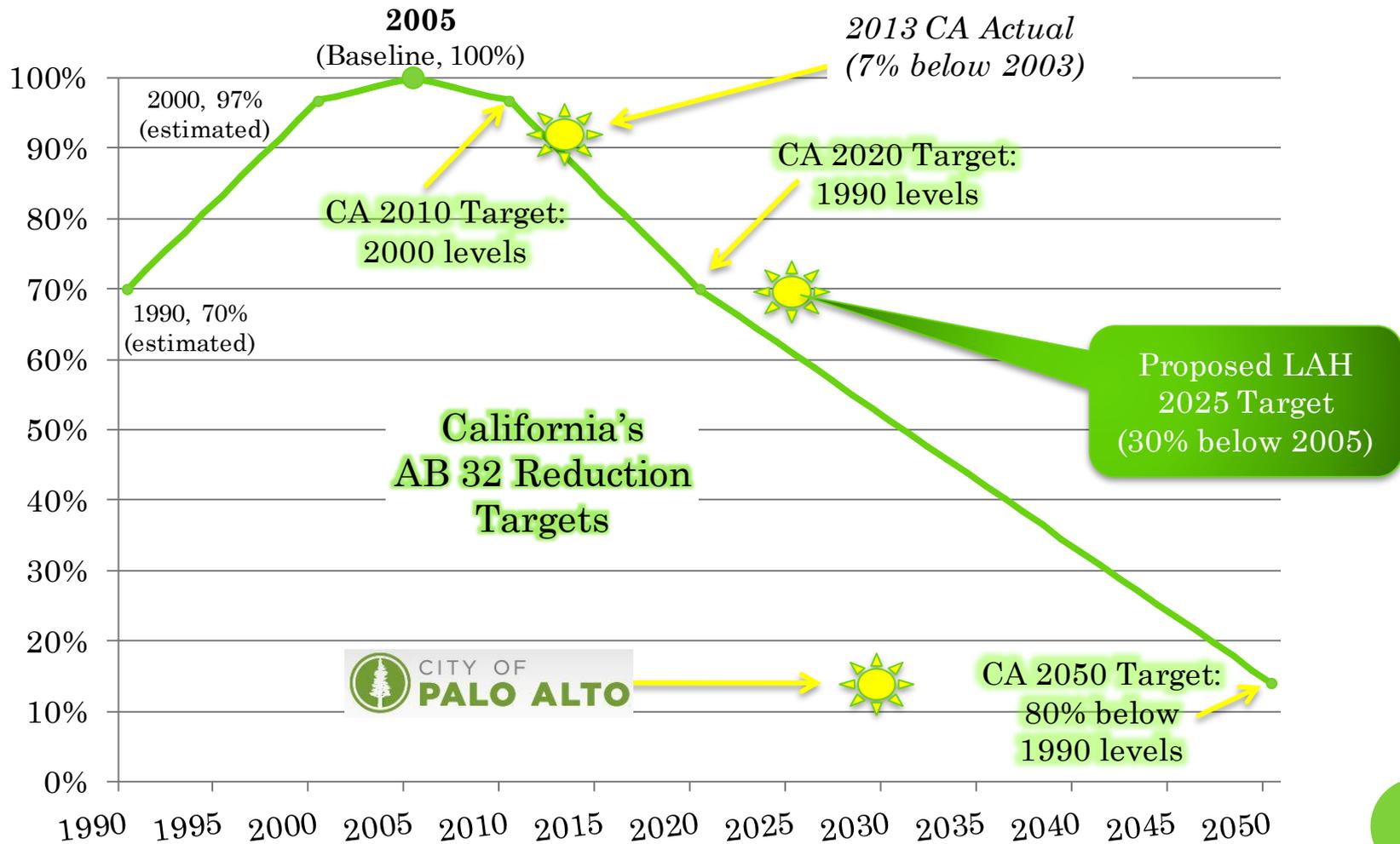
WHY TRACK GHGs? RELATED POLICIES

- AB-32 “The Global Warming Solutions Act of 2006”
 - “Ensure rigorous and consistent accounting of emissions”
- LAH General Plan, Conservation Element
 - **Policy 4.1:** “Support regional, state, and federal programs that improve air quality in the Bay Area.” (*e.g. AB-32*)
 - **Program 11.1:** “Environmental Monitoring – Develop a procedure for monitoring known or potential environmental problems to ensure that irreversible damage will not occur.”
- US Mayors’ Climate Protection Agreement
 - **LAH Resolution No. 45-06** passed unanimously 6/08/2006
 - “Strive to meet or beat the Kyoto Protocol targets in our own community”
- ICLEI Membership Resolution
 - **LAH Resolution No. 18-08** passed unanimously 3/13/2008
 - “Town will undertake ICLEI’s five milestones to reduce both greenhouse gas and air pollution emissions throughout the community”
- Silicon Valley Clean Energy Agreement (SVCE)
 - **LAH Resolution No. 11-16** passed unanimously 01/27/16
 - "Intended to to achieve competitive electric rates, reduce greenhouse gas emissions, and increase energy efficiency."

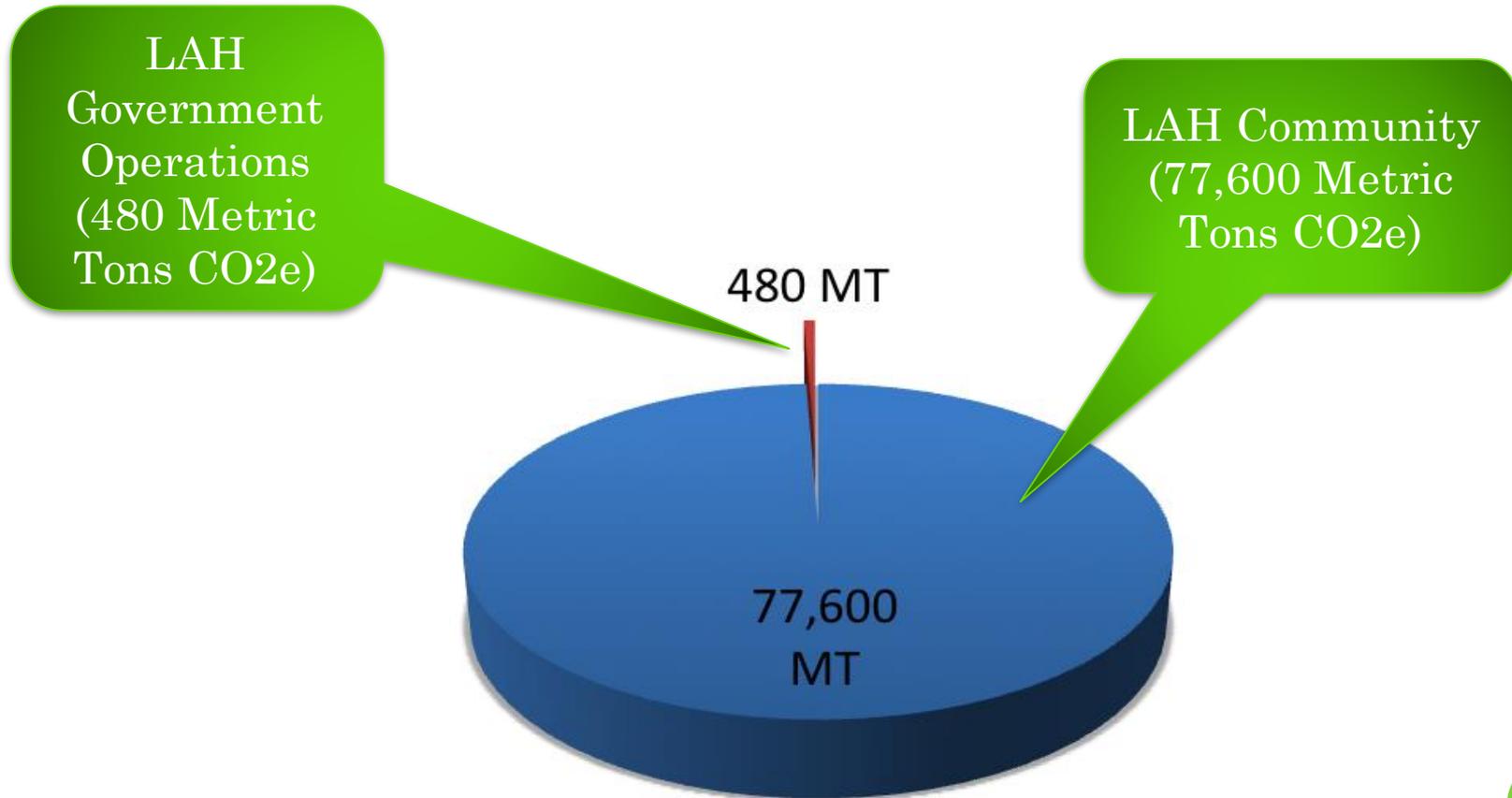
HOW WE DO IT: ICLEI'S 5 MILESTONE PROCESS



CALIFORNIA'S AB 32 EMISSIONS TARGETS



TWO REQUIRED GHG INVENTORIES



GOVERNMENT OPERATIONS INVENTORY

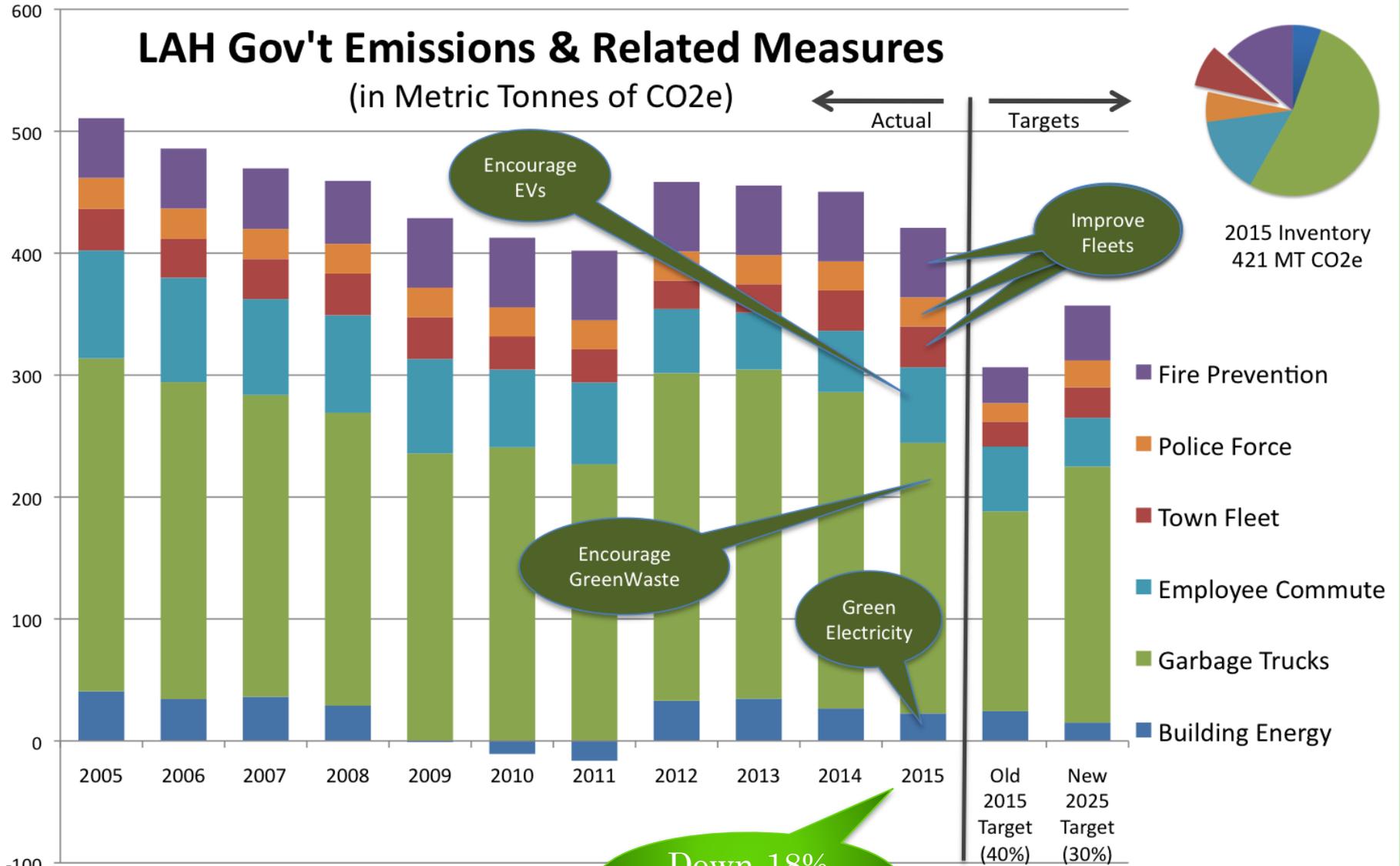
LAH Gov't Emissions & Related Measures

(in Metric Tonnes of CO₂e)

← Actual → → Targets ←



2015 Inventory
421 MT CO₂e



Down 18%
from 2005

LAH GOVERNMENT OPERATIONS: PROPOSED MITIGATION ACTIVITIES

○ Garbage Trucks:

- Encourage Green Waste to reduce truck emissions

○ Employee Commute:

- Encourage EVs by providing free charging for town staff
- Some benefit via auto efficiency

○ Vehicle Fleets

- Town Fleet: Continue to improve vehicle efficiency
- Police and Fire: Educate, Encourage & Monitor (?)

○ Building Energy:

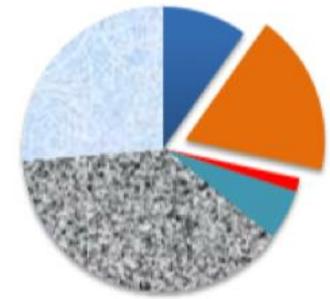
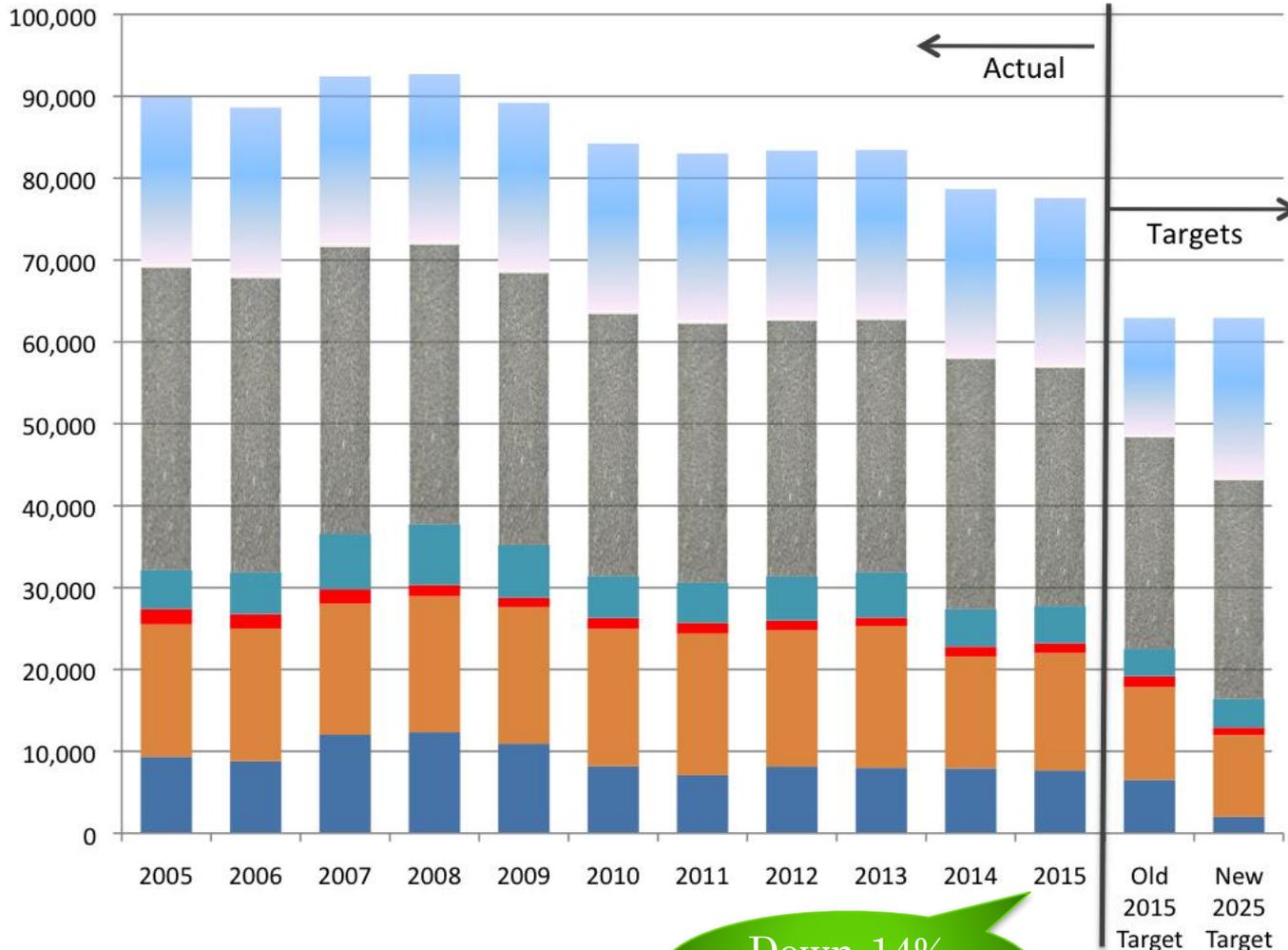
- Forecast switch to 100% Green Energy by 2018

	2015 Progress*	2025 Target*	% of Goal
Garbage Trucks	-51	-63	81%
Employee Commute	-27	-49	32%
Vehicle Fleets	6	-16	10%
Building Energy	-18	-26	17%

* In MT CO2e

LAH COMMUNITY INVENTORY

LAH Community GHG Emissions in Metric Tons CO₂e

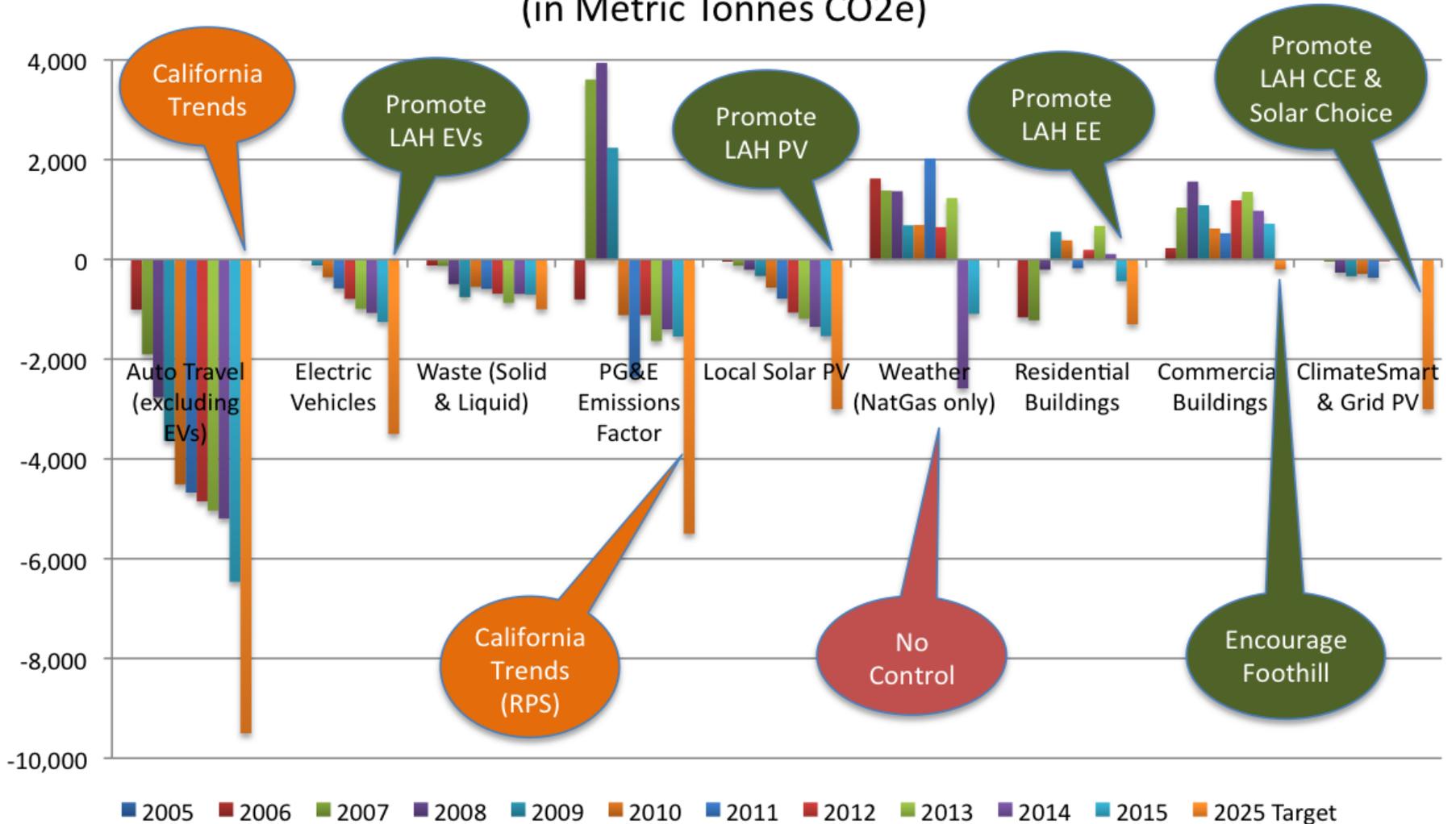


- Air Travel (est)
- Auto Travel (VMT)
- Commercial Buildings
- Waste (Solid & Liquid)
- Residential Heating Fuel
- Residential Electricity

Down 14%
from 2005

LAH COMMUNITY: MITIGATION OPPORTUNITIES

LAH Community Impact Analysis & Related Measures (in Metric Tonnes CO₂e)



LAH COMMUNITY PROPOSED MITIGATION ACTIVITIES

- Promote CCE/SolarChoice:
 - Encourage residents to switch to 100% clean electricity
- Promote LAH EVs:
 - Educate residents on benefits
- Promote LAH PV
 - Continue existing programs
- Promote LAH EE:
 - More virtual energy audits
 - Targeted programs (e.g. HPWH rebates)
- Encourage Foothill
 - Work with their sustainability team to explore options

	2015 Progress*	2025 Target*	% of Goal
Promote CCE & SolarChoice	0	-3,800	14%
Promote LAH EVs	-1,251	-3,500	13%
Promote LAH PV	-1,539	-3,000	11%
Promote LAH EE	-436	-1,300	5%
Encourage Foothill	714	-200	1%

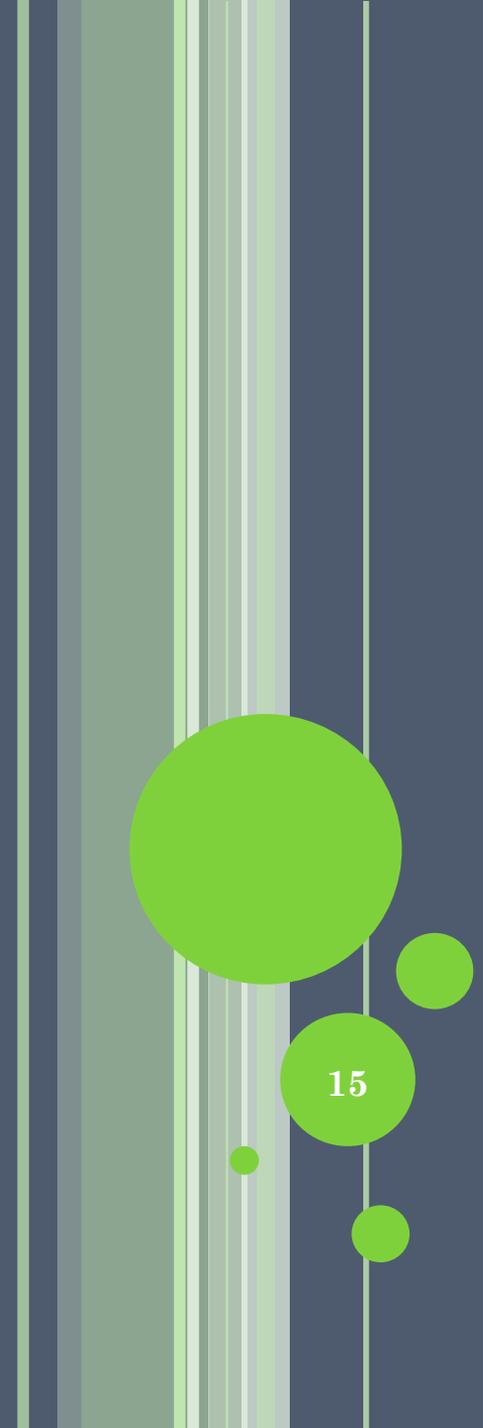
* In MT CO2e

COST / BENEFITS OF MITIGATION PLANS

Activity	Owner	Estimated Cost through 2025	Benefits
Promote 100% Green Electricity benefits to LAH residents	EIC	TBD (estimated at \$3,000/year)	Sustainability & increased choice
Promote EV benefits to LAH residents	EIC	\$0	Sustainability, local business, great cars
Promote PV benefits to LAH residents	EIC	\$0	Sustainability
Promote Energy Efficiency options to LAH residents	EIC	TBD (estimated at \$1,000/year)	Sustainability, cost reductions
Encourage Foothill to reduce GHGs	EIC	\$0	Sustainability
Reduce GHG emissions from GW Garbage Trucks	EIC	\$0	Sustainability
Reduce GHG emissions from LAH Employee Commute	City Manager	TBD (estimated at \$1,000/year)	Sustainability
Reduce GHG emissions from LAH Vehicle Fleets	City Manager	\$0 (?)	Sustainability
Reduce GHG emissions From LAH Building Energy	City Manager	\$0 (?)	Sustainability, cost reductions

REQUESTED COUNCIL ACTIONS

1. Approve GHG inventories, new targets, mitigation plan, and continued monitoring through 2025 as presented
 - Climate Action Plan required by state law
 - If approved, this slide deck will go on record as the LAH Climate Action Plan, replacing the prior plan from 2009
 - EIC to return to Council for detailed approvals as needed
2. Approve LAH joining COP21 “Paris Pledge for Action”
 - Details at www.ParisPledgeForAction.org/sign
 - Confirms that LAH is “ready to play our part” to support the objectives of the Paris agreement signed by 175 countries on April 22nd, 2016

The slide features a dark blue background. On the left side, there are several vertical decorative elements: a wide, light green-to-white gradient bar, a thin white vertical line, and a cluster of five bright green circles of varying sizes. The largest circle is at the top left, with others of decreasing size arranged in a descending pattern towards the bottom left.

ADDITIONAL MATERIALS

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SAMPLE PERSONAL GHG INVENTORY

