

CITY OF SUNNYVALE



# Climate Action Plan Workshop and CAP Overview

July 14, 2010

# **CAP Workshop #1**

## **“My Role on the Road” Survey**

Most people drive alone, but prefer to bike or walk. People listed as priorities:

- Safe bike lanes
- Increased frequency of public transit stops
- More mixed-use development to promote alternative transportation
- Education for motorists regarding bicycle and pedestrian safety

# CAP Workshop #1

## Sustainable Sunnyvale

- Community involvement and engagement
- Alternative energy
- Multimodal transportation options
- Water conservation
- Improved land use planning

# CAP Workshop #1

## Challenges

- Lack of long term vision
- Funding
- Existing vs. future land use and infrastructure
- Politics and bureaucracy
- Education, awareness and communication
- Personal behaviors

# CAP Workshop #1

## Strategies

- Making changes at the policy level
- Collaboration between government and private entities
- Continued education and public outreach
- Monetary and non-monetary incentives for sustainable practices
- Utilize foundations and for-profit interests for initial capital (grants, partnerships, etc.)

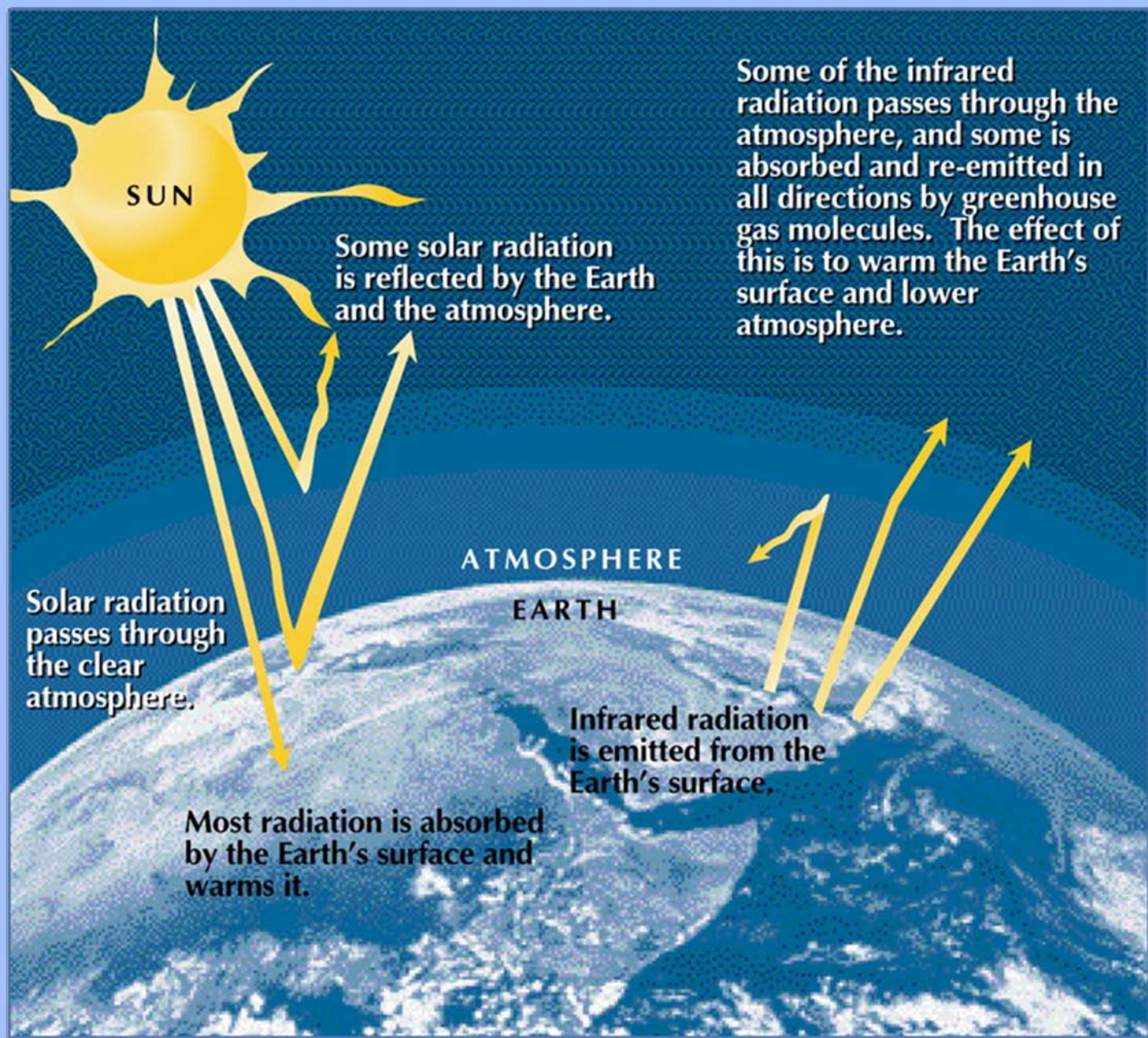
Your workshop experience?

What did you hear?

# In the next 30 minutes:

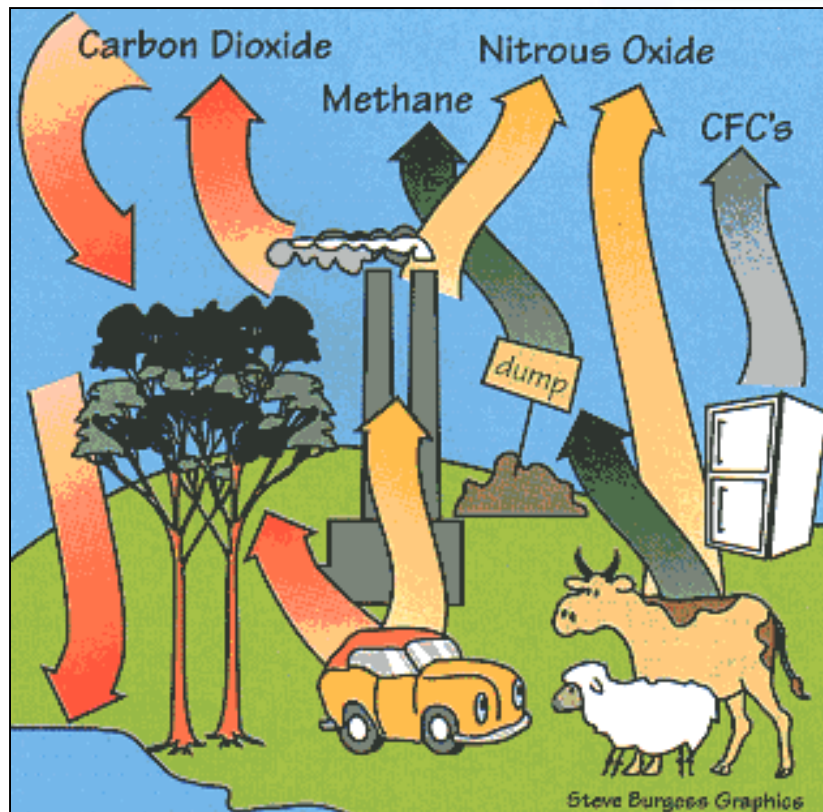


- Climate Change Overview
- Climate Action Plan Overview
- Target Setting
- GHG Reduction Measures
- Relationship of LUTE/CAP/EIR
- CEQA
- Questions/discussion



Source: U.S. EPA State and Local Climate Change Outreach Kit, March 2000

# Greenhouse Gases



- Carbon dioxide ( $\text{CO}_2$ )
- Methane ( $\text{CH}_4$ )
- Nitrous Oxide ( $\text{N}_2\text{O}$ )
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFC)
- Sulfur hexafluoride ( $\text{SF}_6$ )



# Definitions



- **Climate change** is a change in long-term weather patterns
- **Global warming** refers to an average increase in the Earth's surface temperature

# What is a Climate Action Plan?

- A plan to reduce GHG emissions
- Quantify the impacts of policies to reduce GHGs
- Programmatic policy document linked to the General Plan
- Mitigates impacts of plans and projects within the City that are consistent with the CAP
- Provides for streamlined permitting for future projects consistent with the CAP

# Why Create a CAP?

- Compliance with State of California mandates (AB 32, SB375 & SB 97)
- Eligibility for more funding
- Reduced time and cost for new development consistent with CAP
- Encourage implementation of City policies by quantifying benefits
- Adaptable and easily updated

# What's Included in a CAP?

- Overview of GHG emissions sources
- Set of GHG reduction targets
- Sector specific measures
  - Land Use & Transportation
  - Waste
  - Energy
  - Urban Forest/Sequestration
- Quantification of reduction measures
- Adaptation Measures
- Implementation Strategies



# Relationship between LUTE/CAP/EIR

City and community together achieve  
greenhouse gas reduction targets!



- CAP is separate policy document
- Related to and consistent with GP/LUTE
- Some City, regional and State programs in the CAP
- EIR will cover both LUTE and CAP
- Following a concurrent process

# Community-wide GHG Emissions Inventory

Community-  
Wide  
Greenhouse  
Gas  
Inventory

**Residential**

Electricity  
Natural Gas

**Commercial  
Industrial**

Electricity  
Natural Gas

**Transportation**

Highway VMT  
Local road VMT

**Waste**

Landfilled Waste

**Other**

Urban Forest  
Off-road  
equipment

# Target Setting

- Establish forecast years
  - 2005 Baseline
  - 2010 (current year)
  - 2020 (Consistency with BAAQMD CEQA Guidelines and AB32)
  - 2035 (Consistency with SB375,LUTE)
- Identify strategic policy focus
- Identify achievable target

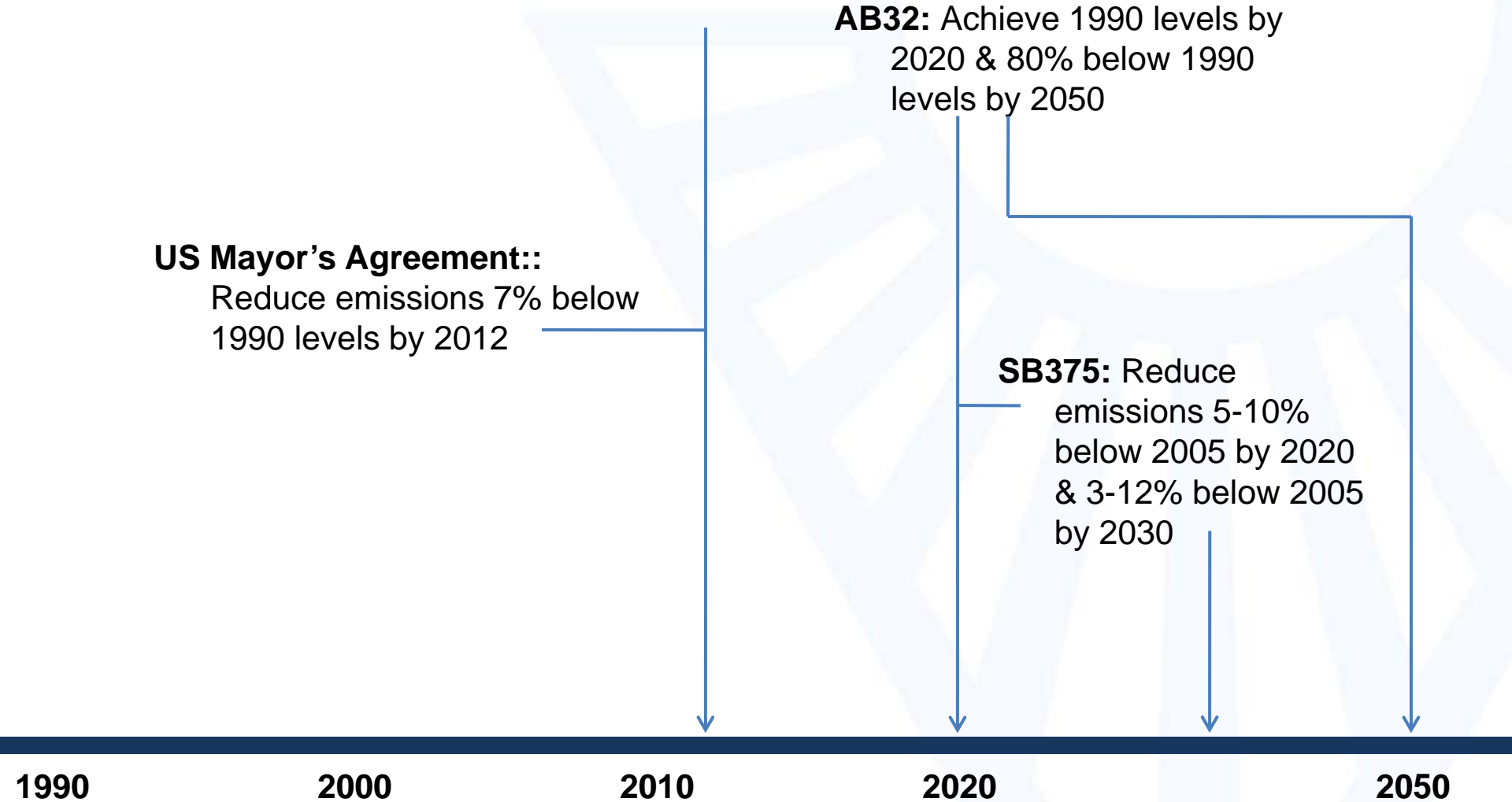
# Summary of Reduction Targets

**Kyoto Protocol:** Achieve 1990 levels by 2012

**AB32:** Achieve 1990 levels by 2020 & 80% below 1990 levels by 2050

**US Mayor's Agreement:**  
Reduce emissions 7% below 1990 levels by 2012

**SB375:** Reduce emissions 5-10% below 2005 by 2020 & 3-12% below 2005 by 2030



# Summary of Reduction Targets

**Seattle:** Reduce emissions 7% below 1990 by 2012 & 30% below by 2024 & 80% below by 2050

**Berkeley:** Reduce emissions 33% below 2000 by 2020 & 80% below 2050

**Sonoma County:** Reduce emissions 20% below 1990 by 2010

**BAAQMD CEQA Guidelines:** Reduce emissions 15% below 2008 by 2020

1990

2000

2010

2020

2050

# Emission Reduction Measures – Where are they from?

- Draw from existing local plans and activities (policy audit) and best practices
  - General Plan
  - CAPCOA, BAAQMD, AG, OPR
  - Regional planning activities
  - Existing programs and activities

# The Life of a Reduction Measure

What's a reduction measure? A City's action to reduce GHG emissions from municipal operations and from the community.

## STAGE

1

### GOAL

What is the desired outcome by 2030?

### EXAMPLES

- increase tree canopy
- reduce urban heat island effect
- sequester carbon

2

### METHOD

How can the City and/or community make change happen?

- create an ordinance
- provide an incentive
- pursue partnerships
- identify & fund new projects

3

### SPECIFIC ACTION

Where? Who?  
When? How?

- require tree replacements & plantings
- develop & implement Urban Forest Master Plan
- adopt shading requirements for parking lots and sidewalks

### REDUCTION MEASURE

What are the specific, quantifiable changes that will take place?

- plant 1350 trees by 2030
- reduce ~356 metric tons of CO<sub>2</sub>e annually

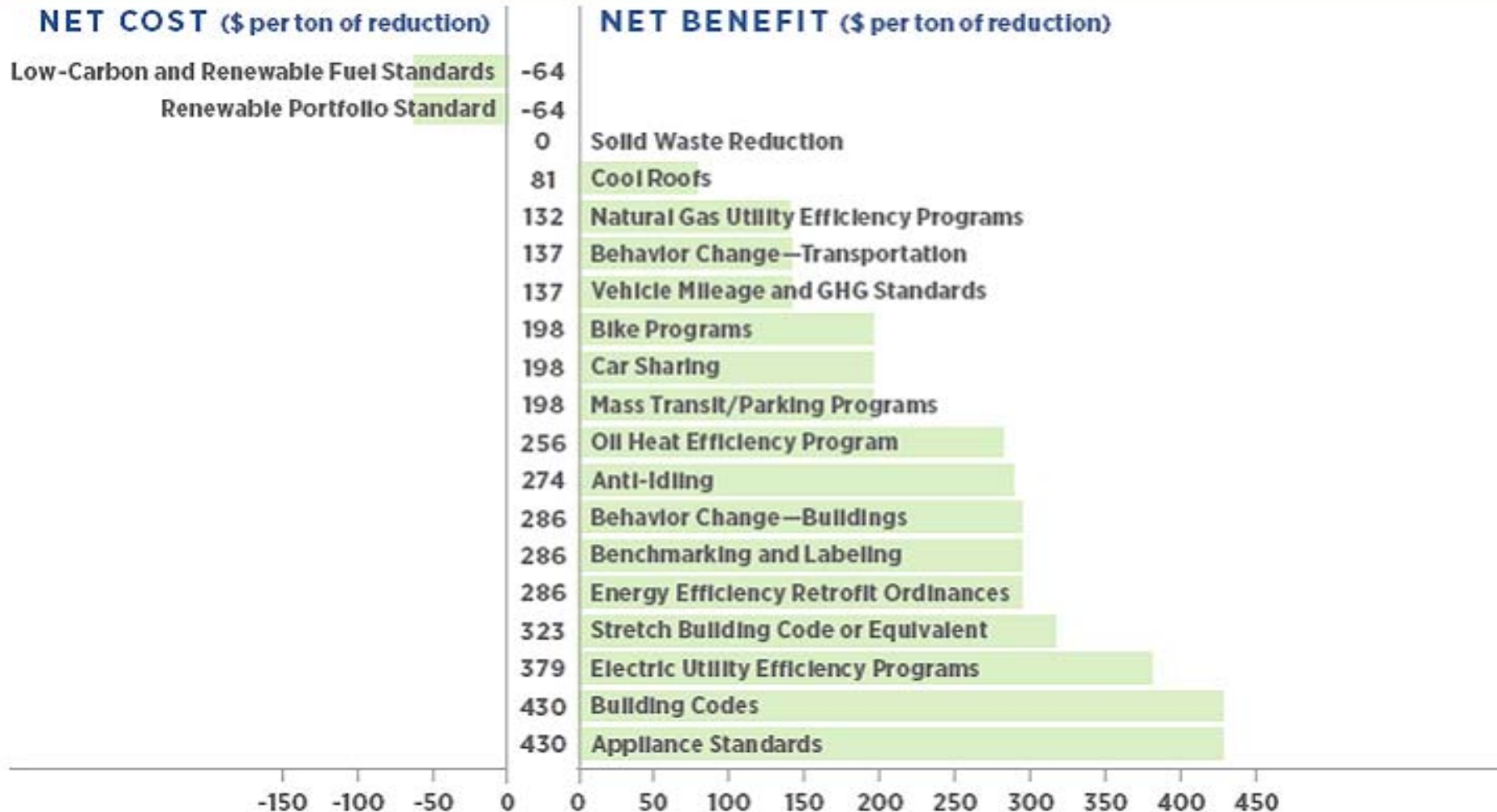
Quantifiable  
Reduction

# Quantification

- Measures are analyzed for :
  - Greenhouse gas reductions
  - Implementation cost and payback period
  - Co-benefits (ex: Improved aesthetics, decreased traffic, etc)
  - Political palatability
- Quantified in terms of GHGs (CO<sub>2</sub>e) and other measures as appropriate
  - Electricity (kWh), Natural gas (therms), Waste (tons), Traffic (VMT), Vehicle Fuel (Gallons), Water (Gallons)

# Quantification - Example

## Net Savings from Greenhouse Gas Reduction Measures



# Environmental Review



- BAAQMD Guidelines
- Attorney General's Guidance
- Tiering
  - General Plan Amendments
  - Project level review
- LUTE

# Implementation and Monitoring

- Monitor and report on the progress quarterly, annually or every five years;
- Update the GHG inventory every five years;
- Continue and expand partnerships;
- Maintain funding for implementation;
- Integrate climate action planning with the General Plan and other County activities;
- Review and update the Plan regularly, at a minimum of every 5 years

# Questions & Discussion

