

Local Action: Part of the Climate Change Solution

December 6, 2007



California Air Resources Board

California Environmental Protection Agency

Overview

- Important role of local entities in addressing climate change
- Examples of local leadership on climate change
- Roadmap for achieving further local reductions
 - Strategies and Goals
 - Challenges

Importance of Local Action

- Cities and residents impacted by climate change
- Local governments have authority
- Can achieve substantial co-benefits
- Serves as a model for residents and other cities



**Los Angeles City Hall
lit in green lights
to raise awareness of the
climate change crisis**

US Conference of Mayors Climate Protection Agreement

Alameda, Albany, Aliso Viejo, Arcata, Atascadero, Atherton, Avalon, Berkeley, Beverly Hills, Burbank, Burlingame, Campbell, Capitola, Chico, Chino, Chula Vista, Claremont, Cloverdale, Cotati, Culver City, Cupertino, Del Mar, Dublin, El Cerrito, Fairfax, Fremont, Fresno, Hayward, Healdsburg, Hemet, Hermosa Beach, Imperial Beach, Irvine, La Mesa, Laguna Beach, Laguna Hills, Laguna Woods, Lakewood, Lemoore, Long Beach, Los Altos Hills, Los Angeles, Los Gatos, Mammoth Lakes, Manhattan Beach, Menlo Park, Mill Valley, Millbrae, Monterey, Monterey Park, Moorpark, Moraga, Morgan Hill, Morro Bay, Newark, Novato, Oakland, Pacific Grove, Palo Alto, Pasadena, Petaluma, Pleasanton, Portola Valley, Rancho Palos Verdes, Redwood City, Richmond, Riverside, Rohnert Park, Rolling Hills Estates, Sacramento, San Bernardino, San Bruno, San Diego, San Fernando, San Francisco, San Jose, San Leandro, San Luis Obispo, San Mateo, San Rafael, Santa Ana, Santa Barbara, Santa Clara, Santa Cruz, Santa Monica, Santa Rosa, Sausalito, Sebastopol, Solana Beach, Sonoma, South San Francisco, Stockton, Sunnyvale, Thousand Oaks, Torrance, Tulare, Vallejo, Visalia, Vista, West Hollywood, West Sacramento, Windsor, Yountville, Yucaipa

108 California cities have committed to meet or beat the Kyoto Protocol targets!

ICLEI's Cities for Climate Protection Campaign

- **Assists cities to implement quantifiable measures, improve air quality, and enhance urban livability and sustainability**
- **82 of California's local governments participate**
- **Represents 40% of California Citizens**

ARB's Roadmap for Achieving Additional Local GHG Reductions

- **Work collaboratively with stakeholders**
 - Identify and endorse tools to quantify GHG emission reductions
 - Assess and promote best practices
 - Identify opportunities for meeting 2050 target
 - Present “Local Action” guidance to Board in September 2008



State Efforts on AB 32 Local Government Action



Working collaboratively with:

- California Air Pollution Control Officers Association
- California Climate Action Registry
- California Green Business Program
- California State Association of Counties
- Environmental non-governmental organizations
- ICLEI – Local Governments for Sustainability
- Institute for Local Government
- League of Cities
- Small Business California

ARB's Roadmap for Achieving Additional Local GHG Reductions

- Work collaboratively with stakeholders
- Identify and endorse tools to quantify GHG emission reductions
- Assess and promote best practices
- Identify opportunities for meeting 2050 target
- Present “Local Action” guidance to Board in September 2008



Tools to quantify GHG emission reductions

- California Climate Action Registry (CCAR)
 - Over 300 CA governments and businesses report direct and indirect emissions of GHG to CCAR
 - ARB will contract with CCAR for specific protocol development
- GIS-based local-state-federal transportation and land-use planning open access tool (UPLAN)
 - Used by ~15 CA counties (available in all CA counties)
 - Estimates energy use and GHG emissions for buildings and on-road vehicles



Tools to quantify GHG emission reductions (cont'd)

- Benchmarking
 - Cal-Arch
 - CA building energy reference tool
 - EnergyIQ
 - Non-residential energy benchmarking and decision-support tool

- Consumer Calculators
 - Home Energy Saver
 - Unified carbon calculator for California
 - Partners: ARB, UCB, LBNL, Next10
 - Initial version (January 2008)
 - Fully integrated (mid-2008)



ARB's Roadmap for Achieving Additional Local GHG Reductions

- Work collaboratively with stakeholders
- Identify and endorse tools to quantify GHG emission reductions
- **Assess and promote best practices**
- Identify opportunities for meeting 2050 target
- Present “Local Action” guidance to Board in September 2008



Climate Action Plans

- Components of a climate action plan
 - Conduct a baseline emissions inventory and forecast
 - Adopt an emissions reduction target for the forecast year
 - Develop a local action plan
 - Implement policies and measures
 - Monitor and verify emission reductions

Green Buildings

- Leadership in Energy and Environmental Design (LEED) Green Building Rating System provides standards for environmentally sustainable construction
- Cost-effective*
 - No significant difference in average construction cost
 - Reduces operating costs (30-40% in energy savings)



**Cal/EPA Headquarters
Sacramento, CA**
Energy savings add up to
~ \$1.5 million a year
(LEED EB platinum certified)



**West Valley Branch
Library, San Jose**

Climate-friendly Operations

- Green Purchasing
 - CA government is required to practice Environmentally Preferable Purchasing
- Reliance on renewable energy
 - e.g. Google
 - Constructing the largest solar installation on a US corporate campus
 - e.g. Whole Foods
 - Purchases renewable energy credits to offset 100% of electricity used
- Green business practices
 - e.g. Wal-Mart
 - Plans to double new truck efficiency by 2015 to reduce 26 billion pounds of CO₂



**Mountain View, CA
Google's solar installation**

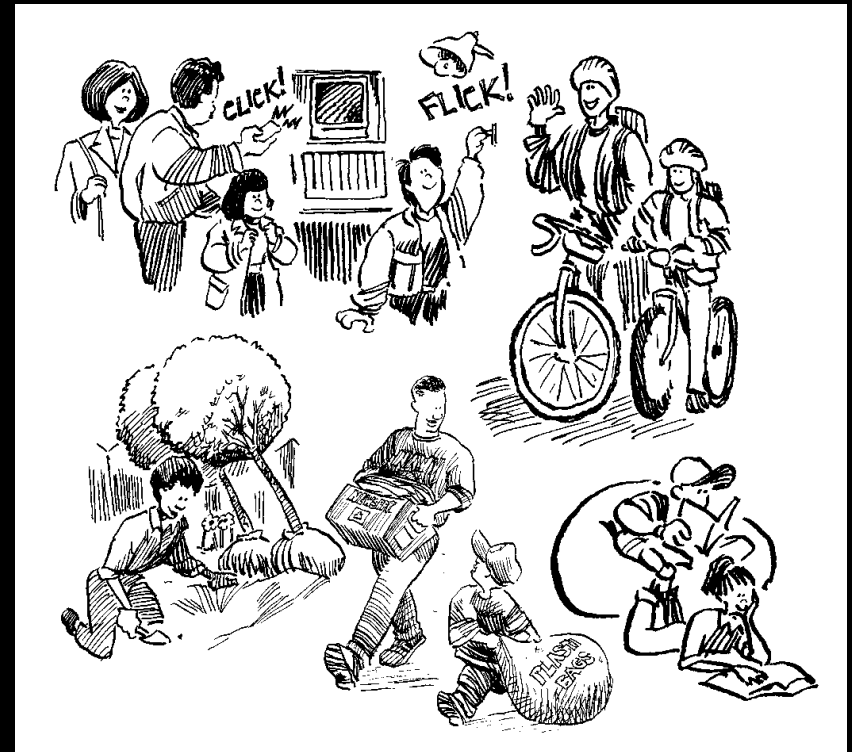
Climate-friendly Transportation Choices

- Alternative fuel vehicle fleets
 - >80% of the municipal fleet in Santa Monica, CA runs on cleaner and more sustainable fuel alternatives
- Supporting carpool and alternative modes of transportation
 - Los Angeles developed a *Rideshare Trust Fund* that rewards ride-sharing and penalizes solo drivers



Community Outreach and Education

- Developing list of 12 actions individuals can take to reduce their carbon footprint
- Constructing a web-based GHG emission reduction clearinghouse
- Developing a school competition program that fosters GHG reductions



ARB's Roadmap for Achieving Additional Local GHG Reductions

- Work collaboratively with stakeholders
- Identify and endorse tools to quantify GHG emission reductions
- Assess and promote best practices
- Identify opportunities for meeting 2050 target
- Present “Local Action” guidance to Board in September 2008



Learning from International Efforts

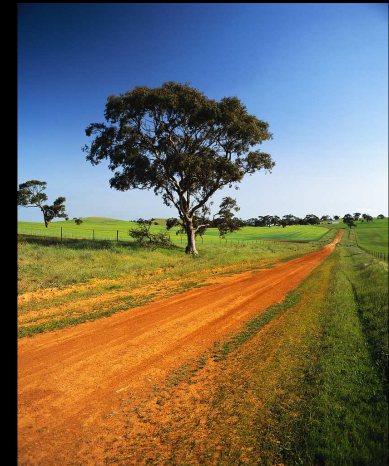
- Denmark
 - Changed fuel mix, improved energy efficiency
 - Achieved 15% CO₂ emissions reduction (1990-2003)
- Vaxjo, Sweden
 - Increased reliance on renewable energy, increased number of environmental vehicles
 - Achieved 30% per capita CO₂ emissions reduction (1993-2006)
- Woking, UK
 - Use of combined heat and power (CHP) stations, sustainable energy 200kWh fuel cell
 - Achieved 77% reduction of CO₂ emissions (1990-2004)



Woking town centre demonstrating combined heat and power

ARB's Roadmap for Achieving Additional Local GHG Reductions

- Work collaboratively with stakeholders
- Identify and endorse tools to quantify GHG emission reductions
- Assess and promote best practices
- Identify opportunities for meeting 2050 target
- Present “Local Action” guidance to Board in September 2008



ARB's Way Forward

- Further engage the public and stakeholders
 - Workshop 1: Scheduled for February 2008
 - Workshop 2: Tentatively scheduled for May 2008

- Synthesize components of the road map to present “Local Action” guidance to Board in September 2008
 - Will include recommendations for:
 - Local Governments
 - Small Businesses
 - Individuals

- Implement the roadmap to work towards achieving the 2050 target

The Challenges

- Coordinating a state-wide effort
 - Identifying ways to incentivize actions
 - Rewarding and recognizing voluntary efforts
 - Verifying emissions reductions and tracking progress
-
- ❖ Facilitating better land use and transportation decisions

Thank you.