



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Update on Key Federal & State Climate Policies

Climate Protection Committee
July 17, 2014

Henry Hilken
Director of Planning, Rules & Research



The President's Climate Action Plan

We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations.

-- President Barak Obama, June 2013

Key Actions

1. Cut carbon pollution
2. Prepare the U.S. for the impacts of climate change
3. Lead international efforts to combat climate change and prepare for its impacts



The President's Climate Action Plan

Measures to Cut Carbon Pollution

Clean Energy	
	Carbon standard for new power plants
	Carbon standards for existing power plants
	Accelerate clean energy permitting
	Expand and modernize the electric grid
	Loan guarantees for “advanced” fossil energy projects
	Federal quadrennial energy review
Transportation	
	Increase fuel economy standards
	Develop and deploy advanced transportation technologies
Waste	
	New appliance efficiency standards
	\$\$ for rural, multi-family efficiency
	Expand the Better Building Challenge
High GWP Gases	
	EPA Significant New Alternatives Policy for HFCs
	Interagency effort to increase data on methane emissions
Lead at the Federal Level	
	20% of energy use from renewable energy by 2020
	Performance contracting for energy efficiency

EPA Power Plant Standards

Proposed Rules Under Clean Air Act Section 111

111(b): Federal program

- Addresses new, modified and reconstructed sources
- Sets GHG limits for coal, oil and natural gas-fired facilities
- Rule to be finalized January, 2015

111(d): State-based program

- Addresses existing sources
- EPA sets state goals, develops guidelines
- States develop implementation plans
- Rule to be finalized June, 2015





EPA Power Plant Standards

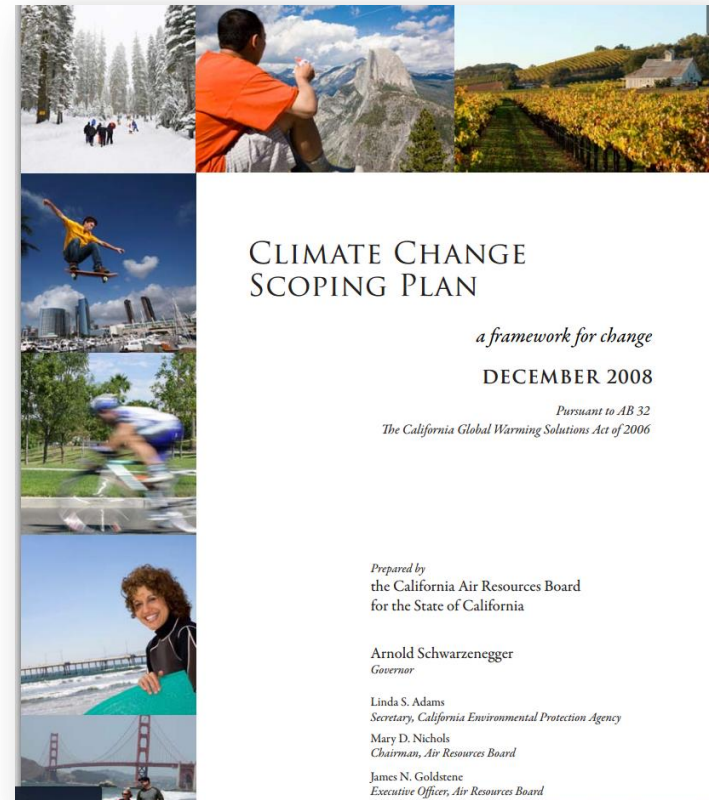
Proposed 111(d) Standards for Existing Power Plants

- Goal: reduce carbon emissions from power sector 30% below 2005 levels by 2030
- California's goal: 537 lbs/MWh
 - ⇒ Based on CA's 2012 average of 698 lbs/MWh
 - ⇒ *PG&E's average emission factor is already well under this level*
- EPA develops guidelines for implementation plans, allowing for significant flexibility
- State plans due June 30, 2016

Scoping Plan Update

Scoping Plan Background

- AB 32, Global Warming Solutions Act, GHG target: 1990 levels by 2020
- Adopted December, 2008
- Focused on specific, near-term measures
- AB 32 requires ARB to update Scoping Plan every five years





Scoping Plan Update

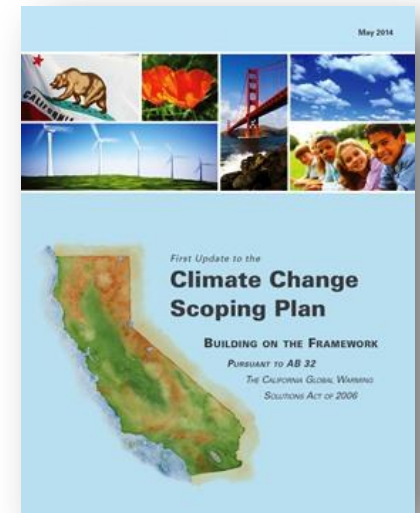
Key Scoping Plan Policies:

- Renewable Portfolio Standard
 - Requires 33% of electric generation to come from renewable sources by 2020
- Low Carbon Fuel Standard
 - 10% reduction in carbon intensity of transportation fuels by 2020
- Clean Car Standards (Pavley)
 - GHG standards for new passenger vehicles for model years 2009-2016
 - 2016 vehicles will produce 30% less GHGs than those built in 2002
- Cap & Trade
 - Market-based program to limit GHGs from stationary sources

Scoping Plan Update

Adopted by ARB May 22, 2014

- Reviews progress toward 2020 target
- Looks to long-term 2050 GHG reduction and to establish a mid-term goal
- Sector-based approach:
 - Energy
 - Enforceable GHG reduction program for electric & energy utilities
 - Transportation
 - Enhance Low Carbon Fuel Standard with aggressive long-term targets
 - Waste
 - Eliminate disposal of organic materials at landfills
 - Water
 - Implement new water efficiency standards





Scoping Plan Update

- Agriculture
 - Develop a methane capture standard
- Natural & Working Lands
 - Prepare and publish a “Forest Carbon Plan”
- Green Buildings
 - Develop strategy and targets for achieving zero net carbon buildings by 2020
- Short-lived Climate Pollutants
 - Set mitigation fee on sales of high global warming potential gases
- Cap & Trade Regulation
 - Develop a plan for a post-2020 Cap & Trade program



Scoping Plan Update

Scoping Plan Opportunities for Local Air Districts to Engage with State Agencies:

- Expand leak detection & repair rules for refineries, other industrial sources to include methane (ARB)
- Develop Sustainable Freight Initiative (ARB/CalTrans)
- Develop comprehensive strategy to mitigate short-lived climate pollutants (ARB)
- Establish target dates and pathways to zero net carbon buildings (CEC)



Cap and Trade Revenue

\$832 million in Cap and Trade Revenue in the State Budget 2014-15

Program Area	Millions
Rail Modernization	\$250
Sustainable Communities	\$130
Low Carbon Transportation	\$200
Transit Investment	\$50
Energy Efficiency Upgrades & Weatherization	\$75
Green State Buildings	\$20
Energy Efficiency in Agriculture	\$15
Wetlands & Watershed Restoration	\$25
Fire Protection & Urban Forestry	\$42
Waste Diversion	\$25



Cap and Trade Revenue

25% of \$832 Million must go to Disadvantaged Communities:

- “Disadvantaged communities” determined by CalEPA screening methodology
- Ongoing discussions between CAPCOA and CalEPA on this methodology

Phase II in 2015:

- More covered facilities (transportation fuel distribution)
- 85% of statewide GHG emissions covered under cap
- More Cap and Trade auction revenue



Next Steps

Continue Working with EPA, ARB and CAPCOA on:

- Responding to proposed EPA rules 111 (b) and (d)
- Cap and Trade revenue allocation
- Various Scoping Plan working groups

Continue Working with Regional Agency Partners, Local Governments and Stakeholders on:

- Implementing 10-Point Climate Work Program
- Developing the Regional Climate Protection Strategy
- Developing the next Plan Bay Area



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Regional Climate Protection Work Program Update

Climate Protection Committee
July 17, 2014

Abby Young
Principal Environmental Planner



The Resolution

Climate Protection Resolution

- Set a regional GHG reduction goal*
- Initiate a regional climate protection planning process
- Develop a work program to inform Air District climate protection activities

** Reduce regional GHGs 80% below 1990 levels by 2050*

Regional Climate Protection Planning Process

Within the 2015 Clean Air Plan Development Process and will....



- Describe Bay Area GHGs
 - Inventories and forecasts
- Identify policy gaps
 - Sector-based gap analysis
- Clarify best role for Air District
- Lay out first steps in moving toward 2050
 - Control measures, policy initiatives, etc.

17.5

27.6



Air District Work Program

Policy Approaches

- GHG Reduction Goals
- Regional Climate Strategy
- Rule Development
- Climate Change & Public Health
- Bay Area's Energy Future

Assist Local Governments

- Support & Enhance Local Action
- Report Progress to the Public

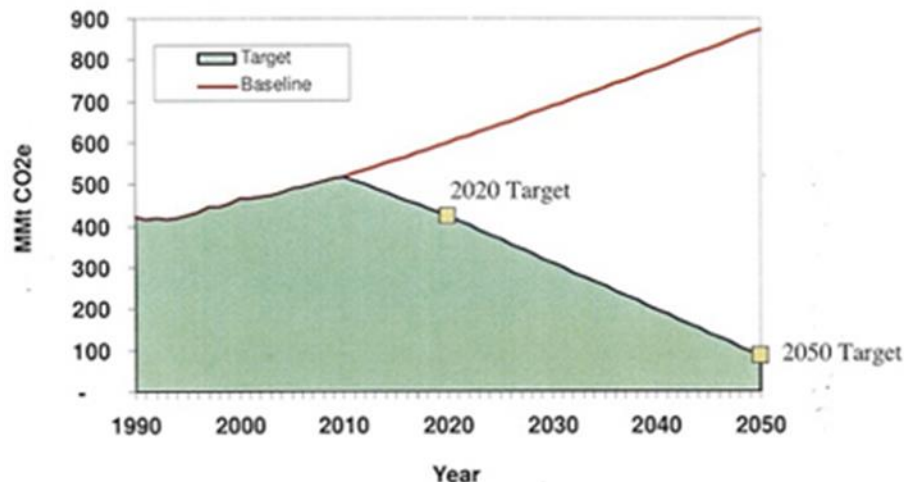
Technical Program

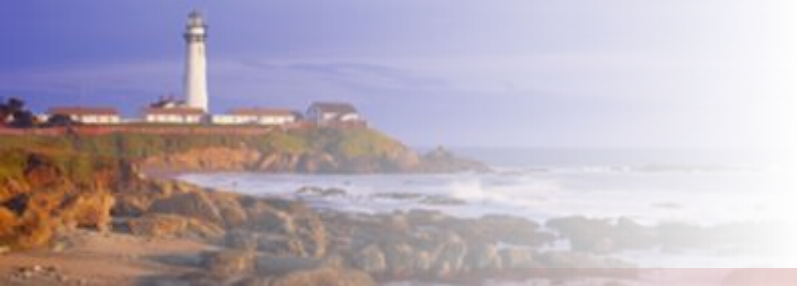
- Update Inventory and Forecast
- Implement GHG Emissions Monitoring
- Expand Enforcement

Policy Approaches

Set GHG Reduction Goal and Interim Targets:

- ✓ 2050 goal set
- ✓ Ongoing discussions with local governments, regional agencies and other stakeholders on useful interim targets





Policy Approaches

Develop Regional Climate Action Strategy:

1. Conduct a sector-based gap analysis

Who's doing what...

in each sector?



1.3



17.5

25.6

2. Identify strategies to address the gaps

Policy Approaches

Initiate Rule Development:

- ✓ Reviewing current rules to identify opportunities to reduce GHGs
- ✓ Tracking development of key state and federal policies and participating in working groups as appropriate
- ✓ Moving forward with hiring new Rule Development staff



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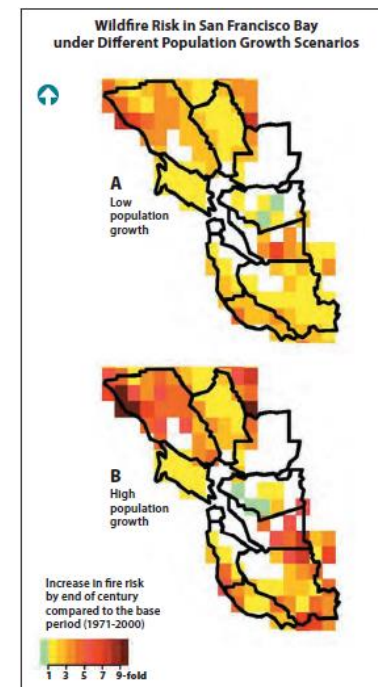
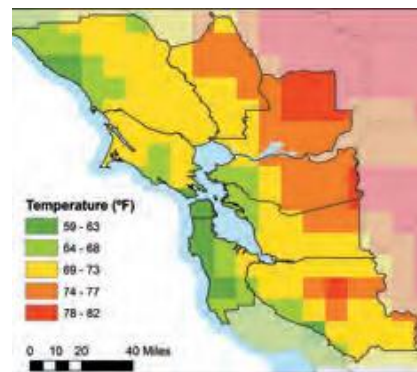
California Environmental Protection Agency

 **Air Resources Board**

Policy Approaches

Launch Climate Change & Public Health Initiative:

- ✓ Attended Public Health Institute statewide conference on climate change and public health
- ✓ Researching reports and impact studies

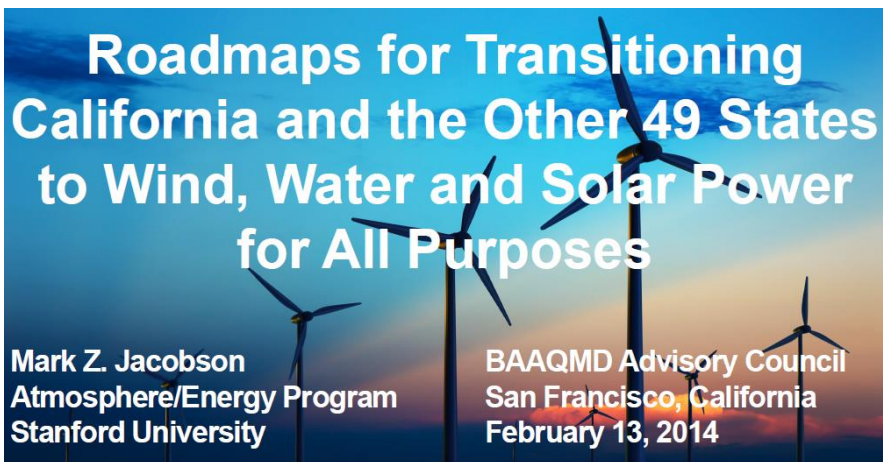




Policy Approaches

Explore the Bay Area's Energy Future:

- ✓ Advisory Council is studying this issue and will submit report(s) to the Board this year




**Roadmaps for Transitioning
California and the Other 49 States
to Wind, Water and Solar Power
for All Purposes**

Mark Z. Jacobson
Atmosphere/Energy Program
Stanford University

BAAQMD Advisory Council
San Francisco, California
February 13, 2014



 Energy-Environmental Economics

**California's Transition to a
Low Carbon Economy**

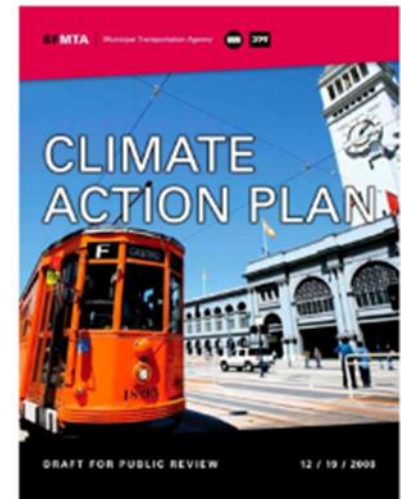
Bay Area Air Quality Management District
San Francisco, CA
February 13, 2014

Dr. Jim Williams
Chief Scientist, E3

Assist Local Governments

Support & Enhance Local Action:

- ✓ Working with partners to develop methodologies for off-site mitigation under CEQA
- ✓ Working with MTC to develop web-based delivery of standardized VMT data to streamline climate action plan development and updating





Assist Local Governments

Report Progress to the Public:

- ✓ Working with JPC to convene webinar for local governments on indicators
- ✓ Exploring opportunities to work with Climate Readiness Institute on regional indicators



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Technical Program

Update Inventorying & Forecasting:

- ✓ Updated baseline GHG inventory
- ✓ Backcasts for 1990, 2000 and 2010
- ✓ Business-as-usual forecasts for 2015, 2020 and 2030

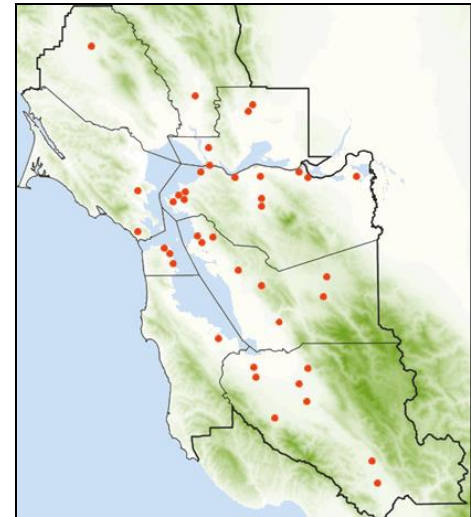
In the Works:

- ✓ Forecasts for 2035 and 2050
- ✓ Adding new elements to inventory and forecast
 - additional pollutant: black carbon
 - consider natural GHG “sinks”: forests
 - impacts from local cap & trade offsets
- ✓ Forecast scenarios incorporating federal, state, regional & local GHG policy impacts
- ✓ Consumption-based inventory

Technical Program

Implement GHG Emissions Monitoring:

- ✓ Collaborating with UC Berkeley on CO₂ and air pollutant measurements
- ✓ Preparing for regional methane monitoring
- ✓ Planning local, source-based methane measurements

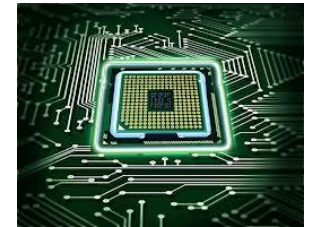


Technical Program

Expand Enforcement:

- ✓ Continuing to work with ARB to enforce original Scoping Plan rules limiting GHG emissions from:
 - landfills
 - Semi-conductor manufacturing
 - Refrigerants from non-motorized sources

- ✓ Tracking opportunities to work with ARB on new initiatives under the Scoping Plan Update



Next Steps

Develop the Regional Climate Protection Strategy

- ✓ Complete sector-based gap analysis
- ✓ Continue developing control measures
- ✓ Collaborate with regional agency partners
- ✓ Invite input from stakeholders and the public

