



# 2030 Target Scoping Plan Update

*December 7, 2015*



# CALIFORNIA CLIMATE STRATEGY

*An Integrated Plan for Addressing Climate Change*



## VISION

**Reducing Greenhouse Gas Emissions  
to 40% Below 1990 Levels by 2030**

## GOALS

**50%  
reduction  
in petroleum  
use in vehicles**



**50%  
renewable  
electricity**



**Double energy  
efficiency savings  
at existing buildings**



**Carbon  
sequestration  
in the land base**



**Reduce  
short-lived  
climate pollutants**



**Safeguard  
California**



# CALIFORNIA CLIMATE STRATEGY

## PRINCIPLES



# AB 32 Objectives

- ▣ Develop a balanced approach to address climate change
- ▣ Improve air quality and public health
- ▣ Provide a consistent policy approach to drive investment in clean technology
- ▣ Provide a model for future national and international climate change efforts
- ▣ Achieve 1990 emissions by 2020; maintain and continue reductions past 2020
- ▣ Coordinate efforts across government agencies

# 2030 Target Scoping Plan Development

- ▣ Collaborate with State Agencies
- ▣ Engagement with Legislature
- ▣ Coordination with other plans (i.e. 111(d), Cap & Trade, SIP, Freight Strategy, etc.)
- ▣ Environmental Justice Advisory Committee Engagement
- ▣ Environmental Analysis (CEQA)
- ▣ Public Process: Workshops
- ▣ Economic Analysis with Peer Reviewers
- ▣ Draft Report / Final Report (targeted measures and estimated emission reductions)

# Guiding Principles

- ▣ Reduce Greenhouse Gas Emissions to 40% Below 1990 Levels by 2030 (Executive Order B-30-15)
- ▣ Create jobs and support a robust workforce
- ▣ Save water
- ▣ Support Disadvantaged Communities
- ▣ Make California more resilient
- ▣ Transform to a clean energy economy
- ▣ Give consumers clean energy choices

# Elements of 2030 Strategy

- Focus areas
  - Energy
  - Energy Efficiency
  - Transportation
  - Industry
  - Water
  - Natural and working lands
  - Agriculture
  - Waste management
- Maximize synergies among sectors

# Environmental Justice Advisory Committee

- Environmental Justice Advisory Committee (EJAC) to advise the Board in developing the Scoping Plan
  - Representatives from communities in State with the most significant exposure to air pollution, including communities with minority populations or low-income populations, or both
- 13 members representing all regions of the State
- Committee meeting – December 7, 2015
- AB 32 directs EJAC to advise in implementation of Act
- Board engagement:
  - 2 additional Board members
  - Supervisor Serna

# Expert Reviewers

- Core group of experts in economics, modeling, and technology, with insight from additional experts as needed
- Public meetings
- Review the economic and technical assumptions and methods in the technology pathways and macroeconomic analyses
- Review metrics and tools proposed to be utilized

# Public Process to Date

- ▣ Governor's Climate Change Strategy Pillar Workshops
  - ▣ July 8, 2015: Public Symposium to Discuss Cutting Petroleum Use in Half by 2030
  - ▣ July 9, 2015: CPUC/CEC/ARB/CalSO Renewables Symposium
  - ▣ August 5, 2015: CDFA/CNRA/ARB Natural and Working Lands Symposium
- ▣ 2030 Target Scoping Plan Update Kickoff Workshop - October 1, 2015
- ▣ Multi-agency participation
- ▣ Public comments (oral and written)
  - ▣ Over 30 written comments received
- ▣ Continued opportunity for robust public process

# Next Steps: Tentative Schedule

- ▣ EJAC Meeting –December 7, 2015
- ▣ Regional workshops – Winter 2015 to Spring 2016
  - ▣ Bay Area, Los Angeles, Central Valley
- ▣ Technical and Econ Workshops – Winter 2015 to Mid 2016
  - ▣ Economic/environmental analyses
- ▣ Draft 2030 Target Scoping Plan – Spring 2016
  - ▣ 45-day informal comment period prior to Board hearing on draft
- ▣ Final 2030 Target Scoping Plan presented to Board – Fall 2016



# *Short Lived Climate Pollutant Reduction Strategy*

*Environmental Justice Advisory Committee Meeting  
December 7, 2015*

California Environmental Protection Agency

 **Air Resources Board**

# Development of a SLCP Strategy

- Recommended action in the 2014 Scoping Plan Update
- Required by Senate Bill 605
- One of Governor's five pillars to meet 2030 GHG emissions goal of 40 percent below 1990 levels
- Concept Paper released in May 2015
- Draft Strategy released in September 2015

# Approach to Strategy

- Includes 2030 emission targets for methane, black carbon, and fluorinated refrigerants
- Targets methane emission reductions from dairy manure management; diverting organics; and oil and gas processing, production, and pipeline system
- Targets black carbon reductions from biomass combustion, including forestry related
- Targets reductions from high GWP refrigerants.

# Timeline and Next Steps

February 2016:	Release Proposed Strategy and draft EA
March 2015:	Present Proposed Strategy to Board
Summer 2016:	Present final Strategy and responses to EA comments to Board for approval
March 2015	Present Proposed Strategy to Board
Summer 2016	Present final Strategy and responses to EA comments to Board for approval



# *Update on Cap-and-Trade Regulation & 2016 Amendments*

*Environmental Justice Advisory Committee Meeting  
December 7, 2015*

California Environmental Protection Agency

 **Air Resources Board**

# Cap-and-Trade Program Overview

- One of a suite of measures adopted under AB 32
- The “cap” limits total greenhouse gas (GHG) emissions from all regulated sources- covers 85 percent of state’s emissions
- Cap declines over time and acts as a backstop to other measures to ensure GHG emissions reductions occur
- Participants are allowed to “trade” State-issued GHG emission allowances
  - Creates flexibility, allows covered entities to find most cost-effective reductions
  - Spurs innovation in lower emissions and efficient technologies
- Complements existing programs (including command-and-control measures) to reduce smog and air toxics

# Cap-and-Trade Program Update

- Program began January 2012
- Linked with Québec January 2014
- First annual compliance event November 2014
  - 100% of covered entities surrendered sufficient compliance instruments
- 13 auctions to date
  - \$2.87 million in state proceeds (from first 12 auctions)
  - $\geq 25\%$  for investments to benefit disadvantaged communities
- Phased in transportation fuel and natural gas suppliers in January 2015
- First compliance period compliance event Nov. 2, 2015
  - Compliance instruments surrendered to meet 99.8% of 2013-2014 covered emissions
  - Compliance status of each entity will be published later this month

# Rulemaking objectives

- Reflect latest data and information
- Improve program efficiency where possible
  - Streamline regulation requirements and implementation
  - Remove unnecessary requirements
- Maintain environmental and market integrity

# Potential Scope of 2016 Amendments for Third Compliance Period

- Streamlining Cap-and-Trade Program elements
  - Management of information
  - Auctions
  - Compliance offset program
- Incorporate sector-based offset credits into Program
  - Initial public workshop on this topic held October 28, 2015
  - ARB staff interest in EJAC feedback on white paper
- Incorporate results of leakages studies for third compliance period allowance allocation
- Linkage with Ontario, Canada

# Potential Scope of Cap-and-Trade Amendments for Post-2020 Program

- Continuation of program post-2020
- Post-2020 cap on emissions
- Program scope
- Revised or additional cost-containment provisions
- Market oversight
- Program role for compliance with U.S. EPA Clean Power Plan
- Allowance allocation
- Continue linkage with Québec and Ontario

# Tentative Schedule for Cap-and-Trade Amendment Process

Date	Event
October 2015 to May 2016	Public workshops on specific topics
May 2016	45-day Regulation and Initial Statement of Reasons published
June 2016	First Board hearing
April 2017	Second Board hearing
July 2017	Final Regulation and Final Statement of Reasons to Office of Administrative Law
October 2017	Adopted Regulation becomes effective



## *Cap-and-Trade*

# Adaptive Management

*Environmental Justice Advisory Committee Meeting  
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California Environmental Protection Agency

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# Background

- Process for tracking and responding to emission trends under Cap-and-Trade Program
- ARB concluded that Cap-and Trade is unlikely to contribute to increased localized emission impacts
- Board approved Adaptive Management (AM) Plan in 2011; AM process under development would implement the Plan

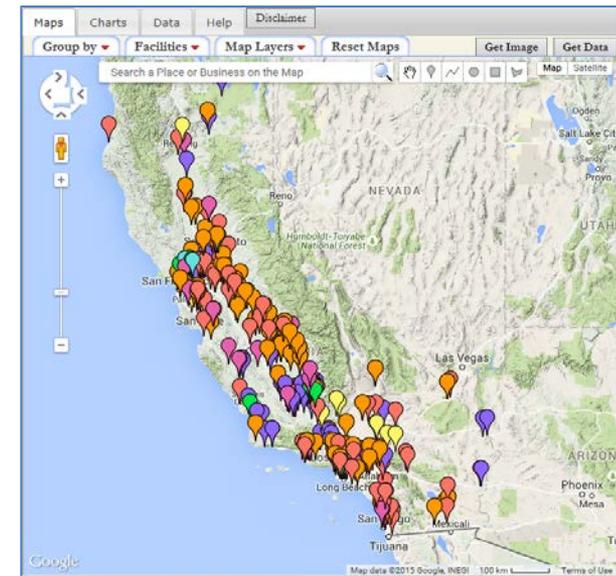
# Systematic & Transparent Process

- Emissions tracking, analytics, and decision-making for responses to address emission changes
- Draft adaptive management process released for public comment



# GHG Emissions Mapping Tool

- Publicly available tool \*
- Stakeholders can replicate staff's analyses
- Track GHG emissions and trends in California communities
- Mapping tool is a first-order screening
  - GHG increases may suggest potential increase in criteria or toxic emissions
  - GHG changes may trigger more detailed analysis

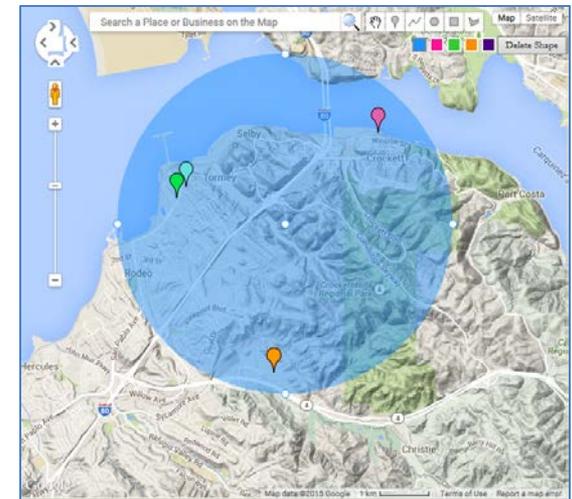


\*<http://www.arb.ca.gov/ei/tools/ghgfacilities/>



# Opportunities for Continuing Public Participation

- Interactive Greenhouse Gas Emissions Mapping Tool allows stakeholders to:
  - Track greenhouse gas changes at individual facilities, in California communities, and across industrial sectors
  - Follow and replicate staff's analysis
- On annual basis, ARB will:
  - Post Results from Analysis
  - Consider Public Comments Received
  - Present Results at Public Board Meeting



Data Collection & Screening

Data Analysis

Review

Decision Making

# Next Steps

- Revise draft Adaptive Management Process, release early 2016
- Additional statewide public meetings in 2016
- Present final Adaptive Management Process to Board in 2016



# *Overview of* U.S. EPA's Clean Power Plan Rules

*Environmental Justice Advisory Committee Meeting  
December 7, 2015*

California Environmental Protection Agency

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# Clean Power Plan Overview

- Central component of President Obama's "Climate Action Plan."
- Rules issued this August under Section 111 of the federal Clean Air Act create GHG emission limits for power plants.
- Today's focus is on the section 111(d) emission guidelines for existing power plants– the "Clean Power Plan" or "CPP."
- The CPP would yield 32% reductions from 2005 levels of CO<sub>2</sub> from covered plants by 2030 nationally.
- According to U.S. EPA, the CPP generates up to \$45 billion in net climate and public health benefits by 2030.

# Implications for California

- Federal targets are well above emissions level California power sector is likely to achieve by 2030 under state programs.
- CPP is likely to reinforce progress towards cleaner energy throughout the West.
- State programs, including the Cap-and-Trade Regulation, are likely to be used to assure compliance through a “State Measures”-based compliance plan.
- Option of pursuing the “Clean Energy Incentive Program” for further disadvantaged community investments.

# Timeline and Next Steps

- Compliance plans are due in September 2016, with an optional extension to 2018.
- California's compliance plan will be coordinated with the Cap-and-Trade Regulation, Scoping Plan, and post-2020 planning. We are planning on a June 2016 Board meeting on these items.
- ARB is participating in regional discussions as other western states prepare compliance plans. There is significant interest in carbon pricing and trading. As these discussions mature, we will consider regional options.

# Affected Units

- As of 12/3/15 there are::
  - 96 facilities (251 units)
  - 69 separate different companies
  - Representing 37,486 MWs of generation capacity (ARB)
  - 100.5 Million MWhs (U.S. EPA)
  - 43.6 million MTCO<sub>2</sub> (U.S. EPA)
  
  - 12 facilities (20 units) have not responded
  - ARB is considering them “affected units” for this exercise

# Affected Units

- Located in 15 different air districts
- Most facilities located in:
  - SCAQMD - 73 Units; 24 facilities
  - SJVAPCD - 46 units facilities; 22 facilities
  - BAAQMD - 36 Units; 13 Facilities
  - MDAQMD - 24 units; 12 facilities
  - SDAPCD - 20 Units; 7 facilities



# Engaging Disadvantaged and EJ Communities

- Plans for engagement include:
  - Continued consultation with the EJAC.
  - Invitations to community groups in affected communities to participate in the process, with translation services.
  - Outreach to tribal representatives.
  - Regional workshops as appropriate.

# Identifying EJ Groups for engagement

- Organizations represented by EJAC Members

Region	Organization
Bay Area	<ul style="list-style-type: none"><li>• APEN</li><li>• GAIA</li><li>• Greenlining Institute</li><li>• Urban Releaf</li></ul>
Imperial Valley	<ul style="list-style-type: none"><li>• Comite Civico Del Valle</li></ul>
Inland Empire	<ul style="list-style-type: none"><li>• Incredible Edible Community Garden</li></ul>
Los Angeles	<ul style="list-style-type: none"><li>• End Oil</li><li>• PSR-LA</li></ul>
Sacramento	<ul style="list-style-type: none"><li>• Environmental Justice Coalition for Water</li><li>• Oak Park Neighborhood Association</li></ul>
San Joaquin Valley	<ul style="list-style-type: none"><li>• Association of Irrigated Residents</li><li>• Clinica Sierra Vista</li><li>• Valley LEAP</li></ul>



# Suggested Questions & Topics for Focused Review

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# Focus Questions for EJAC

- Additional resources or EJ organizations ARB should consider to further engage individuals in vulnerable communities?
- Increase involvement of disadvantaged communities in refining Adaptive Management tool and process?
- Are there specific EJ concerns with potential SLCP Strategy measures
  - e.g., increased deployment of digesters at dairies, landfills, wastewater treatment;
  - accelerated high-GWP refrigerant replacement at supermarkets serving EJ communities)?
- For the Scoping Plan, how do we address EJ concerns in large sectors of energy and transportation?

# Contact Information

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