California Air Resources Board: Cleaning the Air for a Healthier California

TRIBAL ADVISORY COMMITTEE MEETING
DECEMBER 17, 2018
Overview

1. **Purpose**
2. **Agency Overview**
   - Structure
   - Mission and duties
   - Air pollution and Sources
   - Regulatory measures
   - Air pollution trends
3. **Climate Change**
   - Scoping Plan
   - Cap-and-Trade
   - California Climate Investments
4. **AB 617**
5. **SB 350 Barriers to Clean Transportation**
6. **Wood Smoke Program**
7. **Tribal Consultation Policy**
8. **Reference Materials**
   - Acronyms
   - Legal references
1. Purpose

California Native American Tribes
California Native American Tribes

• California has one of the largest tribal populations in the United States
• 109 federally recognized tribes and 57 non-federally recognized tribes in California
• Each tribe is different in geography, land, governing body, culture, language, history, environmental issues, and interests
• Tribes have inherent tribal authority – they are governments predating the United States
• They have their own power to exclude, punish, regulate, and tax
• Sovereignty can only be waived by the tribe or United States either through contract, agreement, or legislation
New Era in State-Tribal Relations

• State government-to-government relationships have taken on increasing awareness and importance
  ◦ Under Governor Brown’s leadership
  ◦ In light of environmental challenges
  ◦ During the current federal Administration

• California recognizes the importance of this relationship through legislation, executive orders, and state policies
Purpose

• Give tribes an overview of the agency and air pollution trends
• Inform tribes of specific CARB programs that may be of interest
• Provide contacts so tribes may obtain additional information
• Disclaimer: This is not an exhaustive list of all CARB programs. The programs contained within were selected based on interest from the Tribal Advisory Committee. This PowerPoint does not create, expand, limit, waive, or interpret any legal obligations or rights and it does not extend or impose any requirements on any person, agency, or tribe.
2. Agency Overview

Organizational Structure, Regulatory Measures, and Air Pollution Trends
The Board Directs Policies and Adopts Regulations

A DIVERSE, PROFESSIONAL STAFF

- Scientists
- Engineers
- Economists
- Lawyers & Policy Analysts
Mission Statement

To promote and protect public health, welfare and ecological resources through the effective and efficient reduction of air pollutants while recognizing and considering the effects on the economy of the state
What CARB Does

• Leads California’s fight against air pollution and climate change
• Protects public health
• Promotes clean, energy-efficient fuels and technology
Who Does What in Air Pollution?

**FEDERAL**

US EPA
Sets & enforces national air quality standards. Regulates interstate transportation.

**STATE**

CALIFORNIA AIR RESOURCES BOARD
Regulates mobile sources of air pollution, greenhouse gases & consumer products.

**LOCAL**

Local Air Districts
Regulates stationary & local sources of air pollution.
California’s Path to Clean Air

- Strong Science
- Enforcing Rules
- Engaging the Public
- Rules & Regulations
- Investments & Incentives
- Driving New Technology
What is an Air Pollutant?

• **Criteria Pollutants:** Ozone, particulate matter, nitrogen oxides, carbon monoxide, sulfur oxides, lead, hydrogen sulfide, sulfate, vinyl chloride, visibility reducing particles

• **Toxic Pollutants:** CARB has listed over 200 chemicals as toxic

• **Greenhouse Gases:** Carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride
Air Pollution Comes from a Variety of Sources

Stationary:
- Drycleaners
- Factories
- Refineries
- Power plants

Individuals:
- Cars
- Fireplaces
- Consumer products
- Planes

Mobile:
- Cars
- Trucks
- Buses
- Trains
- Planes

Natural:
- Animals
- Dust
- Wildfires
Los Angeles, 1957
Los Angeles Smog Crisis

• Unhealthy levels of lead, NO$_2$, SO$_2$, carbon monoxide, ozone, particulate matter, and air toxics

• In Los Angeles:
  • Over 100 air pollution alerts annually
  • Over 200 days with unhealthy air annually
  • Ozone peaks were five times the allowable level
Los Angeles Today

Levels of nitrogen oxide, Sulphur dioxide, and carbon dioxide: National Standards:

- Ozone: Los Angeles peak cut over 60%, hours of exposure reduced 90%
- PM10: Annual levels cut in half
- Toxics: Nearly 50% risk reduction
Clean Air Progress: Dramatic Improvement in Los Angeles

Design Value (ppb)
- 0-70
- 71-74
- 75-79
- 80-84
- 85-89
- 90-94
- 95-99
- 100-109
- 110-119
- 120+

National Ozone levels 1990
National Ozone Design Values 2015

CALIFORNIA AIR RESOURCES BOARD
Policy Changes Lead to Cleaner Air

Despite Increases Across the Southern California Region (1994-2011)...
California’s Key Air Quality and Climate Change Goals Through 2050

AIR QUALITY

- **2020**: Reduce diesel PM risk 85%
- **2023/2025**: Attainment year for ozone & PM2.5
- **2032**: Meet 75 ppb 8-hr ozone standard
- **2037**: Meet 70 ppb 8-hr ozone standard

CLIMATE

- **2020**: Reduce GHG emissions to 1990 levels
- **2025**: Vehicles emit 50% less GHGs
- **2030**: Reduce GHG emissions to 40% below 1990 levels
- **2035**: Meet SB375 regional GHG targets
- **2050**: Reduce GHG emissions to 80% below 1990 levels

Meet 2020 5B375 regional GHG targets
Meet 2025 20% GHG targets
Meet 2030 35% GHG targets
Meet 2035 50% SLCP targets
Meet 2050 80% GHG targets

**GHG**: Greenhouse Gas
**SLCP**: Short-lived Climate Forcers

**California's Key Air Quality and Climate Change Goals Through 2050**

**CALIFORNIA AIR RESOURCES BOARD**
How CARB Meets its Goals

• Regulations
  o Mobile sources: Cars, trucks, buses, construction equipment, ships, locomotives, engines, and more
  o Stationary sources: industrial facilities and electricity generation
  o Fuels
  o Consumer products
• Incentives and voluntary programs
Car, Truck, and Equipment Measures

ON-ROAD

- Emission standards for cars and trucks
- Zero emission vehicles
- Fleet clean-up requirements
- Idling prohibitions
- Smoke limits
- Smog check
- Accreditation of air pollution control devices

OFF-ROAD

- Construction equipment
- Off-highway rec vehicles
- Large spark ignition engines
- Small off-road engines and equipment
- Spark-ignition marine engines
- Portable engines and equipment
Sustainable Freight Strategy

- Locomotives
- At-Berth Ship Requirements
- Cargo Handling Equipment
- Drayage Trucks
- Transportation Refrigeration Equipment
- Ground Support Equipment
- Harborcraft
Cleaner Fuels

- Eliminated lead from gasoline
- Cleaner formulations for gasoline
- Cleaner, low-sulfur formulations for diesel
- Clean fuel requirements for ships
- Gasoline vapor recovery at gas stations
- Cap and Trade regulation
- Low-Carbon Fuel Standard
Industrial and Electricity Measures

- Cap-and-Trade Regulation
- Oil and Gas Regulation
- Landfill Methane
- Refrigerant Management
- Chrome Platers
Consumer Product Measures

• Composite Wood Products
• Personal care products
  o Hairsprays
  o Antiperspirants and deodorants
• Adhesives
• Automotive products
• Cleaners
• Sealants
Incentives and Voluntary Programs

- Carl Moyer Program
- AB 617 Community Air Grants
- Clean Vehicle Rebates
- Hybrid and Zero Emission Truck Vouchers
- FARMER agricultural incentives
Clean Air Progress: Cleaner Cars

SMOG FORMING EMISSIONS (grams/mile)

- 1975: 12.17
- 1991: 3.66
- 2006: 0.38
- 2012: 0.09

CARS ARE 99% CLEANER
Vehicle Rules Cut Ozone-Forming Emissions

![Diagram showing the reduction of g/mile HC + NOx over time](image)

- **Positive Crankcase Ventilation**
- **Exhaust standards**
- **EGR**
- **Oxidation catalyst**
- **3-way catalyst, On-board computer**
- **Advanced computer fuel injection, oxygen sensor**
Clean Air Progress: Reduced Risk

Cancer Risk per Million Residents

CANCER RISK DECREASED 68%
Clean Air Progress: Peak Ozone Levels Decline
Clean Air Progress: Annual Average PM10 Levels Drop

<table>
<thead>
<tr>
<th>Annual Average PM10 Level (µg/m³)</th>
<th>120</th>
<th>100</th>
<th>80</th>
<th>60</th>
<th>40</th>
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<td>California Annual PM10 Standard</td>
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Clean Air Progress: Annual Average PM2.5 Levels Drop

![Graph showing annual average PM2.5 levels drop over time for different regions in California. The graph illustrates the progress in reducing PM2.5 levels from 1999 to 2014. Notably, the San Joaquin Valley region shows the greatest improvement, while the Los Angeles region has seen moderate reductions. The Bay Area and Sacramento Valley have shown less improvement. The Annual PM2.5 NAAQS is indicated by the dashed line, which is consistently below the actual levels in all regions for the past two decades.]
Californians now breathe the cleanest air since the first air pollution monitors were installed more than 50 years ago.
...But Work Still Remains

Most Polluted Cities in U.S.
As of April 2018

<table>
<thead>
<tr>
<th>BY OZONE POLLUTION</th>
<th>BY YEAR ROUND PARTICLE POLLUTION</th>
<th>BY SHORT-TERM PARTICLE POLLUTION</th>
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<td>10 Pittsburgh</td>
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* A tie

Source: American Lung Association
Information

CARB Website: https://ww2.arb.ca.gov/our-work

Rulemaking Documents: https://ww2.arb.ca.gov/rulemaking

Board Meetings: https://ww2.arb.ca.gov/our-work/programs/board-meetings

Contact Person: Shannon Dilley, (916) 322-3940, shannon.dilley@arb.ca.gov
3. Climate Change

ASSEMBLY BILL 32, THE SCOPING PLAN, CAP-AND-TRADE, AND CALIFORNIA CLIMATE INVESTMENTS
AB 32 and the Scoping Plan

PATH TO 2030
CLIMATE CHANGE is caused by a build up of GREENHOUSE GASES in the atmosphere generated primarily by BURNING FOSSIL FUELS and other human activities.

SOME SUNLIGHT THAT HITS THE EARTH IS REFLECTED; SOME BECOMES HEAT

CO₂ AND OTHER GASES IN THE ATMOSPHERE TRAP MORE HEAT FROM THE SUN, RAISING GLOBAL TEMPERATURES
CALIFORNIA is already experiencing the impacts of CLIMATE CHANGE.

IN 2015 THE DROUGHT COST THE AGRICULTURE INDUSTRY IN THE CENTRAL VALLEY AN ESTIMATED $2.7 BILLION & 20,000 JOBS.
California’s Greenhouse Gas Emissions

2016 Total CA Emissions: 429.4 MMTCO2e
Growing Economy and Cleaner Energy

California is ON TRACK to achieve the goals of AB 32

GDP
Population
GHG Emissions
GHG Emissions per Capita
GHG Emissions per GDP

Percent Change since 2000
California’s Climate Policy Portfolio

- Double building efficiency
- 50% renewable power
- More clean, renewable fuels
- Cleaner zero or near-zero emission cars, trucks, and buses
- Walkable/bikeable communities with transit
- Cleaner freight and goods movement
- Slash potent “super-pollutants” from dairies, landfills and refrigerants
- Cap emissions from transportation, industry, natural gas, and electricity
- Invest in communities to reduce emissions
- Protect and manage natural and working lands
Scoping Plan Alternatives Considered

- No Cap-and-Trade (Prescriptive Regulations)
  - Need new statutory authority
  - Fewer options to minimize leakage and higher cost than Scoping Plan
- Carbon Tax
  - No firm emissions limit and difficulty in setting right price to incent reductions
  - Difficult to make up unrealized reductions
- All Cap-and-Trade
  - No enhancement to LCFS may impede transportation fuel diversification
- Cap and Tax
  - Highest direct costs resulting in loss of industry, jobs, and GDP
Climate Plan Provides Health Benefits in 2030

**AVOIED PREMATURE DEATHS**

~ 3,300

**VALUE OF AVOIDED HEALTH IMPACTS**

$1.2-1.8 billion

**VALUE OF AVOIDED DAMAGES USING SOCIAL COST OF CARBON**

$1.9-11.2 billion
California’s Climate Strategy

Vision for 2030

REDUCING GREENHOUSE GAS EMISSIONS TO 40% LEVELS 1990

Greenhouse Gas Emissions MmtCO₂/year

- 20%↓ 2020 Target
- 40%↓ 2030 Goal
- 80%↓ 2050 Goal

REFERENCE SCENARIO

1990 2000 2010 2020 2030 2040 2050
Growing Energy Innovation

Increasing Renewable Electricity Generation

(In-State and Out-of State)

GWh vs. Year


SOLAR
WIND
GEOTHERMAL
SMALL HYDRO
BIOMASS

CALIFORNIA AIR RESOURCES BOARD
California’s Clean Car Future

Required to average 60% eVMT to meet targets

2025: 0.7M ZEVs, 1.7M ZEVs+PHEVs
2030: 1.8M ZEVs, 4.3M ZEVs+PHEVs
2050: 16M ZEVs, 25M ZEVs+PHEVs
Key Points Summary

- This plan provides an achievable path for reaching the State’s 2030 GHG target.
- 2030 target is a milestone on the way to achieve greater reductions needed to stave off the catastrophic impacts of climate change.
- We need to continue to evaluate and incorporate additional opportunities to reduce GHGs, criteria, and air toxics emissions as they become cost-effective and technologically feasible.
- Implementation of the SP measures must not disproportionately impact low-income communities.
- Continue to monitor, adjust, and enforce existing air quality programs, in addition to implementing AB 617.
California’s Subnational Climate Leadership

- AB 32 already having national and international impact
- Lessons learned
  - Co-benefits
  - Public participation and transparency
California’s Subnational Climate Leadership

UNDER2 MOU

U.S. CLIMATE ALLIANCE

CALIFORNIA AIR RESOURCES BOARD
California Agreements with States and Regions throughout the World

North America
United States
U.S. Climate Alliance
Pacific Coast Collaborative
British Columbia
Oregon
Washington
Quebec and California
Cap-and-Trade Linkage
Quebec
Canada
Various Ministries/entities at the federal and Provincial level
Mexico
Various Ministries/entities at the federal, State and local level

South America
Brazil
State of Acre
Chile
Peru

Europe
France
Germany
Netherlands
Norway
Spain
Catalonia
Sweden

Middle East
Israel

Asia
China
Various Ministries/entities at the federal, Provincial and local level
India
Forum of Regulators
Japan
Osaka
Malaysia
South Korea

As of January 2019
Information

CARB Website: https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm

California’s 2017 Climate Change Scoping Plan:
https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

Contact Person: Rajinder Sahota, (916) 323-8503, Rajinder.Sahota@arb.ca.gov
Cap-and-Trade Program

Program Overview and Tribal Engagement
Cap-and-Trade: Program Goals

- Ensure AB 32 and SB 32 GHG goals are realized through a strict limit
- Provide compliance flexibility to achieve cost-effective reductions
- Allow price signal to motivate long-term investment in cleaner fuels and energy efficiency
- Complement existing programs to reduce smog and air toxics
- Facilitate integration of regional, national, and international GHG reduction programs
- First adopted in 2012, with compliance obligations starting in 2013
Cap-and-Trade: Overview

- Program Coverage (~80% of statewide emissions)
  - Stationary sources with emissions ≥ 25,000 metric tons of carbon dioxide equivalent (MTCO$_2$e) per year
  - Generators and importers of electricity
  - Emissions from the combustion of supplied fuels and natural gas
- Allowance Budget (Cap)
  - 358.3 MMTCO$_2$e (2018); 334.2 MMTCO$_2$e (2020); 200.5 MMTCO$_2$e (2030)
- Compliance Obligation
  - Calculated annually based on actual reported and verified emissions
  - Covered entities must acquire and surrender compliance instruments that match emissions at the end of multiyear compliance periods
Cap-and-Trade: Allowances

- Allowance: A limited tradable authorization to emit up to one MTCO$_2$e
- Distribution of State-owned allowances
  - Direct allocation (free allowances)
    - Industrial producers: Transition assistance/Leakage prevention
    - Electric utilities and natural gas suppliers: Ratepayer benefits
- Allowance Price Containment Reserve
- State-held quarterly auctions
  - 2019 Reserve (floor) price: $15.62
  - 25 auctions to date (17 were joint auctions)
  - $9.47 billion placed in Greenhouse Gas Reduction Fund
Cap-and-Trade: Offset Credits

- Offset credits: A tradable compliance instruments that represent verified GHG emission reductions or removal enhancements made in sources outside of the Program.

- Usage limits
  - Up to 8% of entity’s compliance obligation 2013-2020

- AB 32 criteria: Real, permanent, quantifiable, verifiable, enforceable, and additional
  - 6 adopted protocols (U.S. Forests, Urban Forests, Dairy Digesters, Ozone Depleting Substances, Mine Methane Capture, Rice Cultivation)

- Offset credit issuance
  - Issued directly by CARB or a linked jurisdiction
  - ~141 million issued to date (>112 million for forest projects)
CARB-Tribal Engagement

- Cap-and-Trade Program and Forest Offsets
  - 2009-2010 – Regulatory Design Phase
  - 2010 – CalEPA Tribal Advisory Committee; Yurok Tribe Advocacy and Consultation; participation in public workshops and Board hearings
  - 2011 – Developed regulatory language that ensures tribal projects are eligible, recognizing unique sovereign nature and needs of CARB implementation of the offsets program
  - 2014 – Yurok project is first to receive forest offset credits under the Program
    - 7 tribes and 2 Alaska Native Corporations have projects to date
    - ~58% of forest offset credits have gone to these projects
  - Building on government-to-government relationship with tribes interested in participating in Program
Tribal and Alaska Native Projects by State

- 11 Tribal Lands/AK Native Corp. projects
- 3 in California
- 9 projects > 1 million credits each
- 3 largest projects (per credits issued)
Cap-and-Trade: Recent updates

- In 2017, Legislature passed AB 398 and AB 617
  - AB 398 provides direction on a post-2020 Cap-and-Trade Program
  - AB 617 focuses on reducing exposure to criteria and toxic pollutants in California’s disadvantaged communities
- Last week, our Board adopted amendments to the Cap-and-Trade Program pursuant to AB 398, including:
  - Instituting a price ceiling and restructured strategic reserve to commence in 2021
  - Reducing the offset credit usage limit
  - Requiring that no more than ½ of offsets limit comes from projects that do not provide direct environmental benefits in the State
Next Steps

- New amendments set to take effect April 1, 2019
- Commence public process to update existing Compliance Offset Protocols
- Annual progress reports to Board on Program implementation
- Continuing collaboration with tribes through the Cap-and-Trade Compliance Offset Program
- Expand engagement to opportunities in other CARB programs
Information

CARB Website: https://www.arb.ca.gov/cc/capandtrade/capandtrade.htm

Offset Listing Requirements for Tribes: https://www.arb.ca.gov/cc/capandtrade/offsets/offset-tribes.htm

Contact Person: Jason Gray, (916) 324-3507, Jason.Gray@arb.ca.gov
California Climate Investments

OVERVIEW AND FUNDING OPPORTUNITIES FOR TRIBES
What is California Climate Investments?

A statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy and improving public health and the environment — particularly in disadvantaged communities.
Overview of California Climate Investments using Cap-and-Trade Auction Proceeds

Cap and Trade Dollars at Work

Firm limit on 80% of emissions

PROCEEDS

Cap and Trade Dollars at Work

INVESTMENTS
Funding Flow

Cap and Trade Dollars at Work

Legislature

Cap-and-Trade Auctions

FUNDING

Greenhouse Gas Reduction Fund (GGRF)

State Agencies

PROGRAM DESIGN & IMPLEMENTATION
Funding Priorities

$8.4B appropriated to date to:

- Facilitate greenhouse gas emission reductions
- Invest in disadvantaged and low-income communities
- Provide other community benefits
Program Types

- Sustainable Communities & Clean Transportation
- Energy Efficiency & Clean Energy
- Natural Resources & Waste Diversion

CALIFORNIA AIR RESOURCES BOARD
Administering Agencies
CARB Dual Role

- Assistance on overall administration
  - Guidance for 19+ agencies, across 35+ programs
  - Transparency and accountability
  - Program development & quantification
- Administer Funding Programs
  - e.g. Low Carbon Transportation
CARB Climate Investment Programs

- Community Air Protection Funds
- Community Air Grants
- Low Carbon Transportation Program
- Woodsmoke Reduction Program
- Agricultural Replacement Measures for Emission Reductions (FARMER)
Outcomes

• Climate Investments Website: www.caclimateinvestments.ca.gov

• Annual Report
  • Summary of programmatic investments and cumulative data

• Project Map
  • Project-level information
Cumulative Project Outcomes

- 68,000 projects installing efficiency measures in homes
- 180,000+ rebates issued for zero-emission and plug-in hybrid vehicles
- 258,000+ acres of land preserved or restored
- 20,000+ trees planted in urban areas
- 1.5 million trees planted to restore forests damaged by wildfire
- 330+ transit agency projects funded, adding or expanding transit options
- 2,600+ affordable housing units under contract
- 215,000+ individual projects implemented

As of May 2018
CCI Resources

info@caclimateinvestments.ca.gov

1-800-757-2907 • Hablamos Español

Website Includes:

- Funding Wizard
- Contacts
- Calendar of Events
- Program Links
- Social Media
- Map of Projects
Information

CARB Website: https://ww2.arb.ca.gov/our-work/programs/california-climate-investments


Contact Person: Matthew Botill, (916) 445-0266, ggrfprogram@arb.ca.gov
4. AB 617

UPDATE ON COMMUNITY AIR PROTECTION PROGRAM
Motivation for AB 617

• Historical focus on regional air quality
• Significant improvement, but disproportionate burdens remain
• Need for community-level focus
• Address cumulative exposure
• Take advantage of advances in monitoring technologies
Building a Community-Focused Framework

- **Partnerships with Communities**
- **New Statewide Strategies to Reduce Emissions**
- **Targeted Community Clean Air Plans**
- **Metrics to Track & Report Progress**
- **Collaborations with Land Use & Transportation Agencies**
- **Clean Technology Incentive Investments**
- **Expanded Air Monitoring**
- **Improved Data Accessibility**
# AB 617 Community Air Grant Recipients

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<tr>
<th>Organization Name</th>
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<td>Valley LEAP</td>
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<td>Community Focus</td>
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<td>Special Service for Groups, Inc.</td>
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<td>Physicians for Social Responsibility</td>
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<td>Charitable Ventures of Orange County</td>
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<td>Communities for a Better Environment</td>
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<td>The Regents of the University of California</td>
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<td>Twenty-Nine Palms Band of Mission Indians</td>
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<td>Legacy LA Youth Development Corporation</td>
</tr>
<tr>
<td>Leadership Counsel for Justice and Accountability</td>
</tr>
<tr>
<td>Physicians, Scientists &amp; Engineers for Healthy Energy</td>
</tr>
</tbody>
</table>

**Initial $10 million supports:**

- Community-operated air monitoring
- Technical training and education
- Action plans to reduce local toxic air pollution
- Increasing residents’ engagement

**Additional $5 million for second round of grants in 2019**
Blueprint for Program Implementation

Defines statewide strategies and sets requirements for:

• Public engagement and community partnerships
• Selecting communities
• Conducting community air monitoring
• Developing community emissions reduction programs
Community Air Grants Program Consultation Group

- Provides opportunity for discussion about the program
- Complements other outreach and consultation efforts, including public workshops, community meetings, CalEPA TAC meetings, and discussions with individual organizations, stakeholders, and tribes
- Includes the following representation:
  - Tribal member – Jana Ganion, Blue Lake Rancheria Tribe
  - Environmental justice
  - Air districts
  - Industry
  - Academia
  - Public health
  - Local government
New Regulations for Key Sources Impacting Communities

• Comprehensive portfolio of statewide actions

• Many coming to the Board in next few years

• BARCT – cleaner control technologies
Investing in Clean Technologies in Burdened Communities

2017-2018 State Budget
◦ $250 million in funding for early reductions from mobile sources

2018-2019 State Budget
◦ Additional $245 million in funding for both mobile and stationary sources
◦ Focus on zero emission technologies
◦ Projects must reflect community priorities
The set of 10 initial communities serve as statewide models.
Additional Action in Initial Set of Communities

Air districts will work with communities to implement:

• Community emissions reduction programs
• Community air monitoring
Additional Implementation Elements

**TECHNOLOGY CLEARINGHOUSE**
- Best available control technologies
- Stationary, area wide, and mobile sources

**EMISSIONS REPORTING**
- Annual reporting for specified facilities
- Development of uniform methodologies

**RESOURCE CENTER**
- Land use and transportation strategies
- Community air monitoring resources
- Health, education, and outreach
Information

CARB Website: https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program

Community Air Program Protection Blueprint: https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program/community-air-protection-blueprint

Contact Person: Trish Johnson, (916) 445-3365, trish.johnson@arb.ca.gov
5. SB 350 Barrier Study & Education and Outreach Strategic Roadmap

EQUITABLE ACCESS TO CLEAN TRANSPORTATION AND MOBILITY OPTIONS
SB 350 Background

• Clean Energy and Pollution Reduction Act of 2015

• Prioritizes reducing GHGs through various clean energy and clean air policies, including:
  ◦ Widespread transportation electrification
  ◦ Procuring energy from renewable sources
  ◦ Energy efficiency and conservation

• Requires CEC and CARB to identify barriers to clean energy and transportation access for low-income residents
SB 350 Goals – Equity Focus

- **Expand access** to clean transportation and energy efficiency
- **Reduce** petroleum use to meet air quality and climate goals
- Increase **awareness** and understanding of key challenges to increasing access programs/investments
- **Maximize benefits** - environmental, economic, and social equity
Developing the SB 350 Guidance Document

• Engaged Low-Income Residents and Disadvantaged Communities
  ◦ Public Roundtables
  ◦ Community-based Events
  ◦ Environmental Justice Meetings
  ◦ One-on-One Interactions
  ◦ State and Local Agency Coordination

• Analyzed various barriers to accessing clean transportation
  ◦ Case study and literature communities reviewed in depth to understand barriers
Case Study Communities

• Selected four communities based on stakeholder input and represent different geographic regions, demographic characteristics and community types
  ◦ Huntington Park
  ◦ Huron
  ◦ North Richmond
  ◦ Redwood Valley

• Community recommendations for tribal lands in Redwood Valley
  ◦ Address safety to improve active transportation and follow-through with proposed bike and trail projects
  ◦ Subsidized vanpooling or shared car services
  ◦ Transportation planners seek more input from tribal groups on needs and barriers
  ◦ Increased outreach and education to better inform of available programs/services
Guidance Document Highlights: Barriers and Opportunities

- 5 main barrier categories identified for analysis
- Characteristics identified to inform potential opportunities to increase access
- Importance of understanding community needs and increasing education and awareness

Accessibility & Convenience ➔ Reliability & Affordability ➔ Community-based Needs ➔ Education & Outreach ➔ Planning, Infrastructure & Investment
### CARB Priority Recommendations and Key Actions

<table>
<thead>
<tr>
<th></th>
<th>Expand Community Needs Assessments</th>
<th>Develop an Outreach Plan Roadmap</th>
</tr>
</thead>
<tbody>
<tr>
<td>2*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Develop Regional One-Stop-Shops</td>
<td>Develop Grant/Solicitation Guiding Principles</td>
</tr>
<tr>
<td>5</td>
<td>Maximize Economic Opportunities and Benefits</td>
<td>Expand Funding and Financing Opportunities</td>
</tr>
</tbody>
</table>
# Outreach Plan Roadmap – Key Elements

<table>
<thead>
<tr>
<th><strong>AUDIENCE</strong></th>
<th>• Statewide outreach partners</th>
</tr>
</thead>
</table>
| **PURPOSE**  | • Better understand outreach resource needs  
• Increase participation in clean transportation programs |
| **GOALS**    | • Improve **coordination**, content development, tailoring and delivery of information  
• Increase **awareness** of clean transportation and mobility options  
• Allow for **flexibility** to adapt statewide strategies to meet community needs |
Strategy 1: Build Understanding of the Current State of Outreach Efforts and Gaps

- Improve awareness of existing programs
- Identify how outreach differs for target audience
- Assess outreach gaps
- Develop strategies to align/coordinate outreach

- Matrix of Existing Marketing Education and Outreach Activities
- Matrix of Transportation Programs
- Outreach Coverage Map
- Coordination, Alignment and Outreach Best Practices
Strategy 2: Build and Maintain Partnerships

- Develop partnership networks to facilitate collaboration/coordination
- Maximize outreach effectiveness
- Streamline outreach and expand the reach of program awareness and participation

- Coalition of State and Local Level Outreach Providers
- Regional Networks and Support System
- Stakeholder and Community Organization Directory
- Sharing Platform
Strategy 3: Engage Community and Identify Outreach Needs

**MISSION**
- Leverage existing transportation needs assessments
- How best to engage low-income communities
- Identify priority areas for targeted outreach
- Criteria for identifying community outreach needs

**VISION**
- Identify and Evaluate Existing Assessments
- Identify Target Regions
- Framework for Community Engagement
- Community Outreach Needs Assessment Checklist
Strategy 4: Dynamically Develop Targeted Outreach

- Develop statewide and regional/community specific strategies and outreach materials

- Statewide Outreach Material Development
- Outreach Campaign Toolkit
- Regional Training Support
- Regional Outreach Pilot Projects
- Expand Education Opportunities
Strategy 5: Measure Outreach and Education Efficacy

- Develop qualitative and quantitative outreach metrics to set reasonable goals and track progress toward these goals
- Support flexibility in altering efforts based on lessons

- Community Engagement Evaluation
- Marketing Education and Outreach Metrics
- Outreach Outcomes Mapping Tool
Next Steps

• Release Public Draft of Outreach Roadmap in early 2019 for review and comment
• Conduct Ongoing stakeholder and community engagement
• Finalize Roadmap and begin implementation
Information

CARB Website https://ww2.arb.ca.gov/our-work/programs.accessible-clean-transportation-options-sb-350


Contact Person: Violet Martin, (916) 322-6366, violet.martin@arb.ca.gov
6. Woodsmoke Reduction Program

PROGRAM OVERVIEW AND FRAMEWORK, LEGISLATION, KEY COMPONENTS, AND ELIGIBILITY CRITERIA
Program Overview

• The Woodsmoke Reduction Program offers financial incentives for homeowners to replace old, inefficient, and highly polluting wood stoves, wood inserts, or fireplaces with cleaner burning and more efficient home heating devices.

• California residents (including tribal residents) using uncertified wood stoves/inserts or fireplaces as their primary heat source may be eligible for incentives towards the purchase and installation of qualifying devices.

• The incentive amounts vary depending on the location of the residence and the household income, with some households qualifying for the full replacement cost.

• CARB administers the program to promote the voluntary replacement of old wood-burning stoves with cleaner and more efficient alternatives.

• The Program is implemented by the California Air Pollution Control Officers Association (CAPCOA) in coordination with local air pollution control districts or air quality management districts (Districts). CAPCOA will determine how much funding will be available to each District participating in the Program.
Program Structure

CARB
- Administer Program
- Develop statewide Program guidelines

CAPCOA
- Distribute funds to districts
- Oversee Program implementation

District
- Develop district specific guidelines
- Implement program in their district
Why Retire Uncertified Wood Stoves?

- Residential wood stoves produce GHGs, fine particulate matter, black carbon, carbon monoxide, volatile organic compounds, and hazardous air pollutants.
- Residential wood stoves are forecasted to be the largest individual source of anthropogenic black carbon in 2030 absent implementation programs.
- These emissions have serious health and climate impacts.
- Reduction in black carbon is necessary to meet California’s climate and goals and ambient air quality standards for fine particulate matter.

### Relative Emissions of Fine Particles

<table>
<thead>
<tr>
<th>Heating Source</th>
<th>Relative Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fireplace</td>
<td>28</td>
</tr>
<tr>
<td>Uncertified Woodstove</td>
<td>4.6</td>
</tr>
<tr>
<td>EPA Certified Woodstove</td>
<td>1.4</td>
</tr>
<tr>
<td>Pellet Stove</td>
<td>0.49</td>
</tr>
<tr>
<td>Oil Furnace</td>
<td>0.013</td>
</tr>
<tr>
<td>Gas Furnace</td>
<td>0.0083</td>
</tr>
</tbody>
</table>

*Average emissions (lbs/MMBtu of heat output) for heat source type. Data from US EPA.

Legislative Framework

Senate Bill 563
- Established the Woodsmoke Reduction Program
- Authorized monies from the Greenhouse Gas Reduction Fund to be allocated for incentives

$5 million in 2016-2017 budget
$3 million in 2018-2019 budget
Districts Participating in the Program

- 24 districts participate in the program
- Allocations range from $50 K to $425K between 2016-2017
Key Elements

• Provide incentives for a voluntary replacement of uncertified wood burning devices used as a primary source of heat
  ◦ Enhanced vs. standard incentives
  ◦ Vouchers vs. rebates

• Maximize benefits to priority populations

• Achieve greenhouse gas emission reduction as well as important co-benefits

Households considered ‘Priority Population’ may be able to replace their old device at no cost.
Co-Benefits

• Improve indoor and outdoor air quality
• Improve visibility
• Reduce heating cost
• Increase safety
• Improve comfort
How to Qualify for the Program?

Contact your local air district
- Check if the district participates in the program
- Obtain an application from the air district

Check if your existing home heating device qualifies for the program
- Is your primary source of heat an uncertified wood stove/insert or a fireplace?

Submit an application to your local air district
- Applicant must agree to:
  - Select an eligible replacement device
  - Have it professionally installed
  - Surrender the old wood stove or insert for recycling
  - Get trained on proper device operation and maintenance
Identifying Uncertified Stoves

• Installation date (all stoves installed prior to July 1, 1988 are uncertified)

• Check the stove model against the lists of U.S. EPA certified stoves
  • Current list: https://www.epa.gov/compliance/list-epa-certified-wood-stoves
  • Historical list: https://www.epa.gov/compliance/historical-list-epa-certified-wood-heaters

• Check the back of the stove for a certification label
Eligibility Criteria

Do you use an uncertified wood stove, insert, or fireplace as a primary source of heat?

- **Yes**: You qualify for participation in the Program.
- **No**: You do not qualify for the Program.

Do you reside in a disadvantaged or low-income community?¹

- **Yes**: You qualify for an Enhanced Incentive. No income verification is required.
- **No**: You may qualify for an Enhanced Incentive upon presenting evidence of participation in a low-income program.

Do you participate in a low-income program, for example LIHEAP, WIC, etc.?²

- **Yes**: You will need to provide evidence of household income.
- **No**: Not to exceed 80% MHI or HCD low-income limits

Higher than 80% MHI and HCD low-income limits

Quality for an Enhanced Incentive

Quality for a Standard Incentive

¹Please refer to explanation in Section I of these Guidelines on identifying disadvantaged or low-income communities.

²In cases where an Applicant chooses to demonstrate eligibility through participation in an existing low-income program, Districts will work with CARB staff to verify that income limits do not exceed Program income limits for their area.
## Eligible Replacement Devices

<table>
<thead>
<tr>
<th>2016 - 2017</th>
<th>2018 - 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood stoves or inserts with emission rates not to exceed 4.5 grams/hour</td>
<td>Wood stoves or inserts with emission rates not to exceed 2 grams/hour</td>
</tr>
<tr>
<td>Electric, natural gas, or propane heating devices</td>
<td>Electric, natural gas, or propane heating devices</td>
</tr>
<tr>
<td></td>
<td>Pellet stoves or inserts with emission limits not to exceed 2 grams/hour</td>
</tr>
<tr>
<td></td>
<td>Ductless mini-split heat pump</td>
</tr>
</tbody>
</table>
Information

CARB Website: https://www.arb.ca.gov/planning/sip/woodsmoke/reduction_program.htm

CAPCOA Website: http://www.capcoa.org/woodsmoke-reduction-program/


Contact Person: Kasia Turkiewicz, (916) 445-6497, kasia.turkiewicz@arb.ca.gov
7. Tribal Consultation Policy

GOVERNMENT-TO-GOVERNMENT RELATIONS
Purpose

• Basic policy framework committing CARB to engage in government-to-government consultations

• Educates CARB staff on basic tribal concepts

• Directs CARB staff on what to do if staff receives a tribal consultation request

• Fulfills intent of Executive Order B-10-11 and Assembly Bill 52

• Identifies guiding principles

• Provides a list of action items
History

• Governor Brown signed Executive Order B-10-11 in 2011
  ◦ Directed all state agencies to consult with California Native American Tribes

• Legislature signed Assembly Bill 52 in 2014
  ◦ Amended CEQA to include consultation requirements
  ◦ Added cultural resources to the list of potential significant effect on the environment
  ◦ Created statutory requirements for notifying and consulting with tribes when a lead agency is engaging in an environmental analysis

• CalEPA adopted a Tribal Consultation Policy in 2009 committing to consultation with California Native American Tribes
  • Updated it in 2015
  • Instructed each BDO to implement a Tribal Consultation Policy unique to the work of that agency
2018 Activities

• The Board heard the Tribal Consultation Policy in October 2018 and the Executive Officer signed it in November 2018

• CARB created a both a tribal relations website and a tribal listserv so tribes could receive pertinent information related to air pollution and climate change
Information

CARB Website: https://ww2.arb.ca.gov/tribal-relations


Contact Person: Shannon Dilley, (916) 322-3940, shannon.dilley@arb.ca.gov
8. Reference Materials

ACRONYMS AND LEGAL REFERENCES
Acronyms

• CARB: California Air Resources Board
• CalEPA: California Environmental Protection Agency
• CCI: California Climate Investments
• CDFA: California Department of Food and Agriculture
• CEC: California Energy Commission
• CO2: Carbon dioxide
• CNRA: California Natural Resources Agency
• BDO: Boards, Departments, Offices
• BEV: Battery electric vehicle
• FCEV: Fuel cell electric vehicle
• GDP: Gross domestic product
• GHG: Greenhouse gas
• GWh: Gigawatt hour
• GWP: Global warming potential
• HEV: Hybrid electric vehicle
• LCFS: Low carbon fuel standard
• MTCO2e: Metric ton of carbon dioxide equivalent
• MMTCO2e: Million metric tons of carbon dioxide equivalent
• PHEV: Plug-in hybrid electric vehicle
• SLCP: Short lived climate pollutant
• SGC: Strategic Growth Council
• TAC: Tribal Advisory Committee
• VMT: Vehicle miles travelled
• ZEV: Zero emission vehicle
Legal References

- **Assembly Bill 32 (AB 32):** California Global Warming Solutions Act of 2006 (Nunez, Stat. 2006, Ch. 488)
- **Assembly Bill 52 (AB 52):** Native Americans: California Environmental Quality Act (Gatto, Stat. 2014, Ch. 532)
- **Senate Bill 350 (SB 350):** Clean Energy and Pollution Reduction Act of 2015 (De Leon, Stat. 2015, Ch. 547)
- **Senate Bill 32 (SB 32):** California Global Warming Solutions Act of 2006: emissions limit (Pavely, Stat. 2016, Ch. 249)
- **Assembly Bill 398 (AB 398):** California Global Warming Solutions Act of 2006: market based compliance mechanisms: fire prevention, fees: sales and use tax manufacturing exemption (Garcia, Stat. 2017, Ch. 135)
- **Assembly Bill 617 (AB 617):** Nonvehicular Air Pollution: criteria air pollutants and toxic air contaminants (Garcia, Stat. 2017, Ch. 136)
- **Senate Bill 563 (SB 563):** Residential Wood Smoke (Lara, Stat. 2017, Ch. 671)
The End