Community Air Protection Program Technical Summit
Presentation Outline

✓ Overview of AB 617
  • Concept Paper Elements
  • Next Steps
Focus on Community Action

Community focused framework

- Community emissions reduction programs
- Accelerated retrofit of pollution controls on industrial facilities
- Community-level air quality monitoring
- Enhanced emissions reporting requirements
- Increased penalty provisions
- Grants to local community groups
<table>
<thead>
<tr>
<th>Date</th>
<th>Action Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2018</td>
<td><strong>CARB</strong>: Identify initial communities and adopt planning framework (Monitoring Plan and Statewide Strategy)</td>
</tr>
<tr>
<td>January 2019</td>
<td><strong>Air Districts</strong>: Adopt expedited schedule for implementation of Best Available Retrofit Control Technology (BARCT)</td>
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<tr>
<td>July 2019</td>
<td><strong>Air Districts</strong>: Deploy community air monitoring campaigns</td>
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<td>October 2019</td>
<td><strong>Air Districts</strong>: Adopt community emissions reduction programs</td>
</tr>
<tr>
<td>Fall 2019</td>
<td><strong>CARB</strong>: Select additional communities (and annually thereafter)</td>
</tr>
<tr>
<td>December 2023</td>
<td><strong>Air Districts</strong>: Implement BARCT requirements</td>
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</tbody>
</table>
Coordinated Outreach

Statewide Meetings
Discussion of:
• Development of multi-community action framework
• Process for selection of initial communities

Community Meetings
Discussion of:
• Recommendations for initial communities
• Recommendations for incentive funding investments
Community Identification

- Prioritize communities with highest exposure burdens for:
  - Development of community emissions reduction programs
  - Deployment of community air monitoring
- Focus on disadvantaged communities and sensitive receptors
Planning Framework

Monitoring Plan

• Review air monitoring technologies
• Review community air monitoring systems
• Establish criteria on best practices

Statewide Strategy

• Develop methods for assessing exposure and sources
• Identify strategies for reducing emissions
• Establish criteria for community emissions reduction programs
Presentation Outline

• Overview of AB 617
✓ Concept Paper
• Next Steps
Staff’s initial proposals:
- Process for identification and selection of communities
- Strategies for reducing emissions and exposure
- Criteria for community emissions reduction programs
- Criteria for community air monitoring
- Additional implementation elements and resources

Mechanism to seek advice and feedback
Guiding Principles for Program Development

• Expedite actions to improve public health
• Ensure community members are partners
• Ensure robust, transparent, and collaborative process
• Provide strong science-based foundation and enhance data accessibility
• Leverage resources and develop approaches to benefit communities statewide
Community Assessment and Identification Process

Proposing process that draws upon both statewide assessment and local knowledge:

1. Air district recommendations
2. Community recommendations
3. CARB criteria for statewide process
Selection of Communities

- Expect smaller set of communities in first year
- Reflect variety of air quality challenges and solutions
- Represent well-characterized sources, known monitoring needs, and established community capacity
- Serve as models for communities with similar challenges
- Maintain list of communities for future years
Strategies for Reducing Emissions and Exposure

• Suite of measures to expedite action
• Existing planning efforts provide foundational reductions
• Identify additional community-specific strategies
• Leverage existing authorities and innovative new strategies
Criteria for Community Emissions Reduction Programs

• Define clear benchmarks for program development
• Ensure consistent standard of quality
• Recognize strategies are unique to each community
• Include robust public process and community partnerships
## Proposed Community Emissions Reduction Programs Elements

### AB 617 Requirements
- Emission reduction targets
- Specific reduction strategies
- Implementation schedule
- Enforcement plan

### Additional Elements
- Air quality goals
- Metrics to track progress
- Community steering committee
- Public engagement plan

### CEQA Analysis
- CEQA analysis as applicable
Air Monitoring Components

- Assess capabilities of air monitoring technologies
- Review existing community air monitoring networks
- Criteria for community air monitoring campaigns
- Resources for community air monitoring
- Data display and communication
Criteria for Community Air Monitoring Plans

- Produce data to support decision-making and action
- Guide process of planning air monitoring campaigns
- Support air districts and communities
- Address a variety of objectives and monitoring approaches
Other 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 best practices
  - Community air monitoring resources
  - Education and outreach
Funding to Benefit Communities

$250 Million for Incentive Funding to Support Immediate Reductions

$5 M for Community Air Grants

- Funding to support:
  - Capacity building – training and support
  - Technical assistance
  - Community engagement

- Solicitation released mid-February
Presentation Outline

- Overview of AB 617 Goals
- Concept Paper Elements
- Next Steps
Framework Development Timeline

February 2018
- Concept Paper released; workshops and community meetings

March 2018
- CARB Board Meeting–AB 617 Implementation Update

May 2018
- Initial Draft Program Framework & resource center released

June 2018
- Workshops and community meetings

August 2018
- Final Draft Program Framework, community recommendations, & resource center released
Environmental Analysis

- Environmental Analysis (EA) being prepared analyzing potentially significant adverse impacts caused by reasonably foreseeable actions.
- Meets requirements of CARB’s certified program under the California Environmental Quality Act (CEQA).
- The CEQA Environmental Checklist (CEQA Guidelines Appendix G) is used to identify and evaluate potential indirect impacts.
- The EA will be an appendix to the Framework Document.
Environmental Analysis to be Prepared

- The EA will include:
  - Description of reasonably foreseeable actions taken in response to the proposal
  - Programmatic level analysis of potential adverse impacts caused by reasonably foreseeable actions
  - Beneficial impacts
  - Feasible mitigation measures to reduce/avoid significant impacts
  - Alternatives analysis
- Input invited on appropriate scope and content of the EA
- Draft EA will be released for 45 day public comment period
Breakout Sessions

1. Strategies and Community Emissions Reduction Programs
2. Community Air Monitoring
3. Emissions Reporting, Technology Clearinghouse, and Assessment Tools
Strategies and Community Emissions Reduction Programs - Breakout Session

February 2018
Strategies for Reducing Emissions and Exposure

• Criteria for Community Emissions Reduction Programs
Strategies for Reducing Emissions and Exposure

- Suite of measures to expedite action
- Existing planning efforts provide foundational reductions
- Identify additional community-specific strategies
- Leverage existing authorities and innovative new strategies
Comprehensive Suite of Strategies

• Each community will require individual mix of strategies:
  • Regulatory actions and targeted enforcement
  • Incentive funding to accelerate deployment of cleaner technologies
  • Land use and transportation planning tools
  • Mitigation strategies
• Accelerated implementation of BARCT
• Identification of new statewide measures
New Statewide Measures

- CARB will identify new statewide measures
- Measures may include:
  - Airborne Toxic Control Measures
  - Mobile source measures
## Resources for Outreach, Land Use, and Transportation Strategies

Provide tools and resources on best practices

<table>
<thead>
<tr>
<th>By October 2018</th>
<th>After October 2018</th>
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<tr>
<td>- List of existing best practices and strategies</td>
<td>- Develop new best practices, model ordinances, and tool kits</td>
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<tr>
<td>- Links to existing tool kits and resources</td>
<td>- Incorporate into Technology Clearinghouse</td>
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CARB
Breakout Session Presentation Outline

• Strategies for Reducing Emissions and Exposure
  ✓ Criteria for Community Emissions Reduction Programs
Criteria for Community Emissions Reduction Programs

- Define clear benchmarks for program development
- Ensure consistent standard of quality
- Recognize strategies are unique to each community
- Include robust public process and community partnerships
## Proposed Community Emissions Reduction Programs Elements

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<td>• Community steering committee</td>
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<td>• Enforcement plan</td>
<td>• Public engagement plan</td>
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CARB
Proposed Air Quality Goals

- Address disproportionate exposure burdens
- Considering health-based air quality goals:
  - Air quality standards
  - Toxics risk reduction
- Further health studies and data needed to track community-level health impacts
Emission Reduction Targets

• Quantitative emission reduction targets
• Based on technical assessment:
  • Pollutants that are key drivers of health risk and exposure
  • Contributing sources
  • Regional versus local contributions
Technical Assessment

Technical assessment should include:

• Best available measurement, inventory, and modeling data
• Community-level emissions inventory
• Evaluation of existing rule compliance
• Assessment of benefits of new regulations
• Sensitive receptor locations and sources of concern
Specific Reduction Strategies

- Evaluate and ensure compliance with existing strategies
- Implement expedited BARCT schedule
- Select strategies from statewide strategy
- Review and update risk reduction audits
- Consideration of feasibility, authority, and cost-effectiveness
Implementation Schedule

- Dates for district board/implementing agency consideration and implementation timeframe
- Immediate, 3-year, 5-year, and 10-year milestones
- Encourage implementation of measures in parallel with program development to expedite reductions
Proposed Metrics to Track Progress

- Annual metrics on implementation elements:
  - Emissions of criteria pollutants & air toxics
  - Implementation of regulations and strategies
  - Dollars invested and projects implemented

- Multi-year metrics on exposure and co-benefits:
  - Measured concentrations of applicable pollutants
  - Local economic impacts
  - Other community benefits
Enforcement Plan

- Joint effort of air districts and CARB
- Tailored to address specific community issues
- May involve advanced measurement techniques
- Could include training and/or new reporting tools
Community Engagement

Community partnerships
• Form community steering committee

Robust public process
• Regional workshops
• Community-level informational meetings
• Translate materials and interpretation services
• Designated contact person
• Dedicated website
• Air district board hearings
CARB Review Process

- CARB staff will work to expedite review
- Staff evaluation will be based on:
  - Program criteria check-list
  - Appropriateness and adequacy of strategies and timelines
  - Public process and community partnerships
Annual Reporting Requirements

- Status of all program strategies
- Updates on metrics for tracking progress
- Lessons learned to support similar communities
- Planned changes based on progress to-date
Community Air Protection Program Summit: Community Air Monitoring - Breakout Session

February 2018
Criteria for Community Air Monitoring

- Air Monitoring Data Display
- Resources for Community Air Monitoring
Air Monitoring Components

- Assess capabilities of air monitoring technologies
- Review existing community air monitoring networks
- Criteria for community air monitoring campaigns
- Resources for community air monitoring
- Data display and communication
Learning from Successful Programs

Air District and community-led activities provide successful models

- IVAN Air Network
- South Coast STAR Grant, MATES, Paramount
- Bay Area CARE program
- West Oakland Environmental Indicators Project
- San Ysidro border traffic study
- Sacramento wood smoke study

CARB
Community Air Monitoring Objectives

- Identify Emissions Sources
- Track Progress
- Inform the Public
- Screen for Problems
Air Monitoring Methods

- Traditional Methods
- Air Sensors
- Mobile
- Fence-line
- Remote Sensing
Community Engagement

Community partnerships
• Form community steering committee

Focus of steering committee
• Understand community issues
• Develop community air monitoring plans
• Determine data display and interpretation needs
Criteria for Community Air Monitoring Plans

- Produce data to support decision-making and action
- Guide process of planning air monitoring campaigns
- Support air districts and communities
- Address a variety of objectives and monitoring approaches
Community Air Monitoring Plan Elements

1. Engage Community Members
2. Develop Problem Statement
3. Define Air Monitoring Objectives
4. Define Data Quality Objectives
5. Establish Roles and Responsibilities
6. Select Equipment and Methods
7. Determine Locations and Frequency

8. Develop Quality Control Procedures
9. Provide Work Plan
10. Manage and Validate Data
11. Evaluate Effectiveness
12. Analyze and Interpret Data
13. Communicate Results
Air districts & community groups collect data

Data Reporting Requirements

Air districts & communities may provide their own websites

Air districts report data to CARB

CARB publishes data on statewide data portal

• Data must be publicly stored and accessible
Breakout Session Presentation Outline

- Criteria for Community Air Monitoring
  ✔ Air Monitoring Data Display
- Resources for Community Air Monitoring
### Existing Monitoring and Web Portals

**Breathe Well**
- PM2.5: 2.0 μg/m³
- Ozone: 17 ppb

**San Ysidro Air Monitoring Study**
- Particulate Matter (PM) 2.5 levels

**IVAN**
- Current Community Air-Quality Level (CAL) reading for this monitor (updated every 5 min)
- PM2.5: 30
- PM10: 22

**CARE**
- Map showing impacted communities
- Air quality data for impacted areas
Goals of New Web Portal

Availability
- Provide access to data across the State

Timeliness
- Maximize timeliness of data availability

Flexibility
- Support display of different types of monitoring data

Transparent
- Provide information on data collection and processing
Example Map Tool

Map Display Controls and Relevant Links

At-a-glance display

Colored chart with most recent day of data
Breakout Session Presentation Outline

- Criteria for Community Air Monitoring
- Air Monitoring Data Display
✓ Resources for Community Air Monitoring

CARB
Community Air Monitoring Resource Center

- Data Interpretation Tools
- Links to Resources, Best Practices
- Criteria for Air Monitoring Plans
- Air Monitoring Updates & News

How To:
- Engage
- Plan
- Deploy
- Analyze
- Report

CARB
Assess Air Monitoring Technologies

• Review air monitoring methods
• Evaluate performance of technologies
• Collaborate with air sensor evaluation programs
• Make reports publicly available
Improve Monitoring Technologies

- Assess commercially available technologies
- Identify limitations of current technologies
- Sponsor technical meetings and technology challenges

Air Sensors International Conference
https://sehall4.wixsite.com/asic/home-landing
Emissions Inventory, Technology Clearinghouse, Assessment Tools - Breakout Session

February 2018
Breakout Session Presentation Outline

- Emissions Inventory
  - Technology Clearinghouse
  - Assessment Tools
    - Criteria for Identifying Impacted Communities
    - Methodologies for Assessing Contributing Sources
Enhanced Emission Reporting

- Annual data for larger stationary sources
- Other relevant facility-level data
- Uniform, statewide reporting methodologies
- Allows for certification or verification
Sources Subject to New Reporting Requirements

• “Stationary sources” subject to requirements:
  • Subject to Mandatory Reporting Rule for GHG emissions
  or
  • Authorized to emit 250 tons per year or more of a nonattainment pollutant or its precursors
  or
  • Receives an elevated Hot Spots prioritization score
Emissions Reporting Methodologies

- Develop statewide regulation with phased approach
- Increase accessibility, be user friendly, support air district program needs

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
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</thead>
<tbody>
<tr>
<td>• Establish annual reporting requirements for stationary sources</td>
<td>• Phase-in uniform, statewide methodologies for stationary sources</td>
</tr>
</tbody>
</table>
Development of Community Inventories

- Support community emissions reduction programs
- Develop guidelines for consistent methodologies
- Provide granular accounting of all sources within a community
Breakout Session Presentation Outline

• Emissions Inventory

✓ Technology Clearinghouse

• Assessment Tools
  • Criteria for Identifying Impacted Communities
  • Methodologies for Assessing Contributing Sources
Stationary Source Control Requirements

• Best Available Control Technology (BACT):
  • New facilities or equipment modifications
  • Requirements based on attainment designation
  • Lowest achievable emissions rate for each equipment type (by pollutant)
  • Established through facility permit

• Best Available Retrofit Control Technology (BARCT):
  • Existing facilities and equipment
  • Maximum degree of reduction achievable
  • Must consider energy, environmental, and economic impacts
  • Established through prohibitory rules
Technology Clearinghouse

• Resource to help identify most stringent controls available
• Proposed clearinghouse:
  • Control technology determinations (BACT and T-BACT)
  • Existing rules and measures
  • Emerging control technologies

• Ability to visualize data and compare controls statewide
• Clearinghouse will identify advanced technologies becoming available
Proposed Clearinghouse Phases

**Phase IA (Mid 2018)**
- District BACT and T-BACT determinations
- District BARCT rules
- Enhance current clearinghouse system

**Phase IB (Late 2018)**
- Additional measures:
  - Mobile and area-wide sources
  - Airborne Toxic Control Measures
- Tools to compare technologies
- Highlight most stringent technologies/rules

**Phase II (Mid 2020)**
- Develop new system
- User friendly design
- Identify next generation technologies
- Link to Pollution Mapping Tool
Anticipated User Groups

**PUBLIC**
- Identify emissions from sources within community
- Determine availability of cleaner technology

**AGENCIES**
- Compare control requirements
- Support development of emissions reduction programs

**MANUFACTURERS**
- Identify areas to deploy clean technology
- Detect opportunities to develop new technologies

**FACILITY OWNERS**
- Determine cost-effective technologies
- Recognize potential future equipment requirements
Breakout Session Presentation Outline

- Emissions Inventory
- Technology Clearinghouse

✓ Assessment Tools
  - Criteria for Identifying Impacted Communities
  - Methodologies for Assessing Contributing Sources
Assessing Impacted Communities

Based on compilation of factors:

• Measured/modeled concentrations of criteria pollutants and air toxics
• Sensitive receptors, exposed population, and proximity to sources
• Density of sources and magnitude of emissions
• Public health indicators for incidence or exacerbation of disease
• Modeled cancer risk estimates
• Socio-economic factors

CARB
## Tools and Data Sources

CalEnviroScreen and additional data sources:

<table>
<thead>
<tr>
<th>Emissions Data</th>
<th>Monitoring/ Special Studies</th>
<th>Health Data</th>
<th>Other Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>• CARB Pollution Mapping Tool</td>
<td>• Monitoring data</td>
<td>• Health risk assessments</td>
<td>• Notices of violation</td>
</tr>
<tr>
<td>• Mobile, area, stationary emissions</td>
<td>• Regional studies (MATES and CARE)</td>
<td>• National Air Toxics Assessment</td>
<td>• Enforcement actions or complaints</td>
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<td>• Air quality modeling</td>
<td>• Health indicators</td>
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Assessing Source Contributions

Develop methodologies to:

- Assess and identify contributing sources or categories of sources
- Estimate relative contribution of source categories to elevated exposure burden
Source Apportionment Methodologies

- Informs emissions reduction programs
- Apply appropriate tools for each community
- Joint effort between CARB and local air districts

Tools are complementary and should be selected based on community specific parameters and best available data.
Wrap-up Session

CALIFORNIA AIR RESOURCES BOARD
1. Strategies and Community Emissions Reduction Programs
2. Community Air Monitoring
3. Emissions Reporting, Technology Clearinghouse, and Assessment Tools
## Next Steps

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Contact Us

CARB Office of Community Air Protection

- Website:
  - https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program-ab617

- Email
  - CommunityAir@arb.ca.gov
  - AireComunitario@arb.ca.gov

- Click “Subscribe” for listserve:
  - Community Air (or) airecomunitario