2018 Air Quality and Health Workshop
The Future of Air Quality Management for Improved Public Health

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Regional air pollution control agency
- Jurisdiction: 9 SF Bay Area counties
- Regulate stationary sources of pollution
- 24-member Board of Directors, locally elected officials

Large, complex region
- 9 counties / 101 cities
- 7 million people, 2.6 million households
- 5 million vehicles, 160 million daily vehicle miles travelled

Anticipated growth by 2040
- 9 million people
- 3.4 million households
- 20% increase in driving
Critical Challenges in the Bay Area

Health Inequities
• Equal access to healthy air is a fundamental right that still eludes many Bay Area residents

Climate Change
• The greatest common global challenge
• The biggest threat to our environment, economy, health and quality of life

This Plan focuses on strategies that will help us meet both of these challenges
What Is This Plan?

Multi-pollutant plan to update 2010 Clean Air Plan

A comprehensive strategy of 85 measures to:

• reduce ozone and fine particles throughout the region
• reduce air pollution in impacted communities
• reduce GHGs toward long-range targets
  → 40% below 1990 levels by 2030
  → 80% below 1990 levels by 2050

This Plan lays out a Bold Vision for a future Bay Area with a thriving economy, truly equitable access to healthy air, and a healthy, secure environment
Bay Area GHG Projections to 2050 with Key State Programs

State's 2020 AB32 target (return to 1990 level)

State's 2030 interim target (40% below 1990 level)

State and Air District's 2050 long-term target (80% below 1990 level)
Healthy Air for All Bay Area Residents

Community Air Risk Evaluation (CARE) Program identifies Bay Area communities most impacted by air pollution

Regionally: reduce ozone and PM emissions to assure long-term compliance with air quality standards

Locally: eliminate disparities in local exposure to air pollution
A Bold Vision for 2050

- Reduce GHG emissions over 80%
- Eliminate disparities in health risk from air pollution
- Eliminate fossil fuel combustion, keep fossil fuels in the ground

- Power supply is nearly 100% renewable
- Buildings are fossil-fuel free
- Half of all trips are via transit, biking or walking
- Transportation is based on EVs and renewable diesel
- Organics are put to use
- Oil companies become part of the solution, produce renewable fuels
How Does This Plan Get Us There?

The Plan sets us on a path to 2050 by laying out specific actions the Air District will take over the next 3-5 years

Using all available tools: rules, grants & incentives, partnerships, local gov’t collaboration, community engagement, research

Priorities in the Plan:

• Reduce emissions of criteria pollutants and toxic air contaminants from all sources, especially in most impacted communities
• Reduce emissions of “super-GHGs” such as methane
• Reduce fossil fuel combustion
• Improve energy efficiency/reduce demand for fossil fuels
• Decarbonize the energy system/increase renewable energy
• Reduce transportation emissions via technology, reduced VMT
### Implementation: 2018-2020

**Rule Development**

### Near-term Priority:

Limit GHGs, criteria pollutants and toxics from refineries and other stationary sources

### Innovation:

Develop region-wide rule-making approach to reduce risk and emissions from many sources comprehensively

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<thead>
<tr>
<th>CM #</th>
<th>2018 Control Measures</th>
<th>Pollutant(s) Reduced</th>
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<td>SS 31, 35, 36</td>
<td>Particulate Matter (Rule 6, 6-1, 6-6, 6-7, 6-8)</td>
<td>PM</td>
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<td>SS 6</td>
<td>Refinery Fuel Gas (Rule 9-1)</td>
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<td>SS 22</td>
<td>Stationary Gas Turbines (Rule 9-9)</td>
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<td>SS 16</td>
<td>Basin-Wide Methane Strategy</td>
<td>CH₄</td>
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<td>SS 13</td>
<td>Natural Gas and Crude Oil Production, Processing, and Storage</td>
<td>TAC, ROG, CH₄</td>
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<td>WA 2</td>
<td>Composting Operations</td>
<td>ROG, PM, CH₄</td>
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<td>Landfills</td>
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<td>Commercial Cooking</td>
<td>PM₁₀, TAC</td>
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<td>SS 34</td>
<td>Wood Smoke</td>
<td>BC, PM₂,₅</td>
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<td>SS 15</td>
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<td>Emergency Back-up Generators</td>
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<td>Sulfur Recovery Units (Rule 9-1)</td>
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<td>SS 19</td>
<td>Cement Kiln (Rule 9-13)</td>
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<td>Natural Gas Processing and Distribution</td>
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<td>SS 4</td>
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Implementation: Grants & Incentives for Transportation

Build upon successful Air District grants & incentives to target largest source of GHGs, ozone precursor, PM, TAC emissions: TRANSPORTATION

• Continue to incentivize electric vehicles (EVs) & EV infrastructure
  - $17 million awarded since 2010 for on-road vehicles and charging
  - $42 million awarded since 2010 for off-road electrification (CalTrain, shore power)
  - $5 million currently available through the 2017 Charge! Program
  - Bay Area goals: 110,000 EVs by 2020; 247,000 EVs by 2025

• Continue to reduce diesel PM and black carbon emissions
  - ~$150 million awarded since 2012 to reduce emissions from trucks, school buses, marine vessels, locomotives and off-road equipment
  - Over $20 million anticipated annually to further reduce diesel emissions

• Continue supporting regional and local land use and transportation strategies to reduce vehicle trips
  - Continue funding for shuttle, rideshare and bike programs
  - Collaborate in implementing Plan Bay Area
  - Support development/implementation of strong local climate action plans
Implementation: Supporting Local Governments

Support local gov’t efforts to achieve low carbon buildings, renewable energy, trip reduction and zero waste goals through:

• Policy assistance and technical assistance:
  • Model PV solar ordinance toolkit
  • Technical guidance and Best Practices
  • Climate Action Plan database

• Quantification tools:
  • Vehicle miles traveled data web portal
  • Consumption based GHG inventory

• Environmental review / CEQA recommendations:
  • Recommended thresholds of significance for GHG emissions

• Support for Community Choice Energy programs:
  • Strategies and technical assistance for zero carbon electricity

• $4.5 million grant program to support local climate protection activities:
  • Focus on innovation, replicability, co-benefits and leadership

• Technology Implementation Office to support innovative technologies:
  • Creation of $4 million reserve as seed funding for a revolving loan fund
Implementation: Community Engagement

- Idle Free Bay Area
  - Signs posted at school sites
  - Individuals take the idle free pledge
  - Social media/webpage/email
  - Promotional materials
- Annual Youth for Environment and Sustainability (YES) conference for middle and high school students (next: Feb. 24)
- Community Grant Program – local capacity-building grants to support local, community-based AQ, health, climate initiatives
Consumption-Based GHG Inventory: Comparison of Bay Area and US Households

US Average Household GHG Footprint
US median household income in 2013: $52,250

SF Bay Area Average Household GHG Footprint
Bay Area median household income in 2013: $79,650

Average 49.8 metric tons CO₂e per household

Average 44.3 metric tons CO₂e per household

- **Blue** = direct emissions
- **Green** = indirect emissions

Transportation 31% 33%
Housing 26% 14%
Food 18% 19%
Goods 12% 17%
Services 12% 17%

• Bay Area GHG footprint is 11% less than US average, despite the fact that Bay Area household income is 52% higher
• Clean electricity is a key factor
• Highlights additional opportunities, e.g., food
AB 617: A New Framework for Air Quality Planning

• Cap & Trade reauthorization (2017) included companion bill with enhanced focus on community health
• State and regions historically focused on regional air quality
• Significant AQ improvements, but disproportionate impacts remain
• Increasing community-level focus
• Address cumulative exposure
• Program elements
  • Community identification and mapping
  • Emission reduction action plans
  • Incentives
  • Enhanced community monitoring
  • Emissions inventory
  • BARCT update/clearinghouse
AB 617: Focus on Communities

- Establishes community focused framework
- Emphasis on community participation
- Community-specific emission reduction programs, monitoring
- Focus on early actions – grants & incentives
- Aggressive schedule
  - July 2018 – regions submit communities for monitoring and plans
  - October 2018 – state adopts statewide monitoring plan and reduction strategy
  - July 2019 – Air District deploys community monitors
  - October 2019 – Air District adopts community action plan(s)
- In Bay Area, will build off of Community Air Risk Evaluation (CARE) Program
We are embarking on an unprecedented journey to lead the Bay Area to a better future

We have all the elements of success:
- Support at the State level
- Dedicated elected officials
- Highly committed populace
- A culture of innovation
- A progressive business community
- A vast network of dedicated community organizations

Our Plan provides the blueprint for the first steps in this journey
Contact

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www.baaqmd.gov/cleanairplan