Spare the Air – Cool the Climate
A Blueprint for Clean Air and Climate Protection in the Bay Area

Sonoma Regional Climate Protection Authority Board of Directors Meeting

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Air District Climate Protection Team
Critical Challenges

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

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

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 toxics 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
Better Air Quality → Public Health Benefits

- Key health effects have been reduced more than three-fold since 1990
- Better air quality has increased average Bay Area life expectancy by ~ one year

![Chart showing estimated annual cases from air pollution in Bay Area]

- **Premature death**: Year 1990: 8300, Year 2015: 2600
- **Hospital admissions**: Year 1990: 2000, Year 2015: 650
- **Asthma emergency room visit**: Year 1990: 3400, Year 2015: 1000
Healthy Air for All Bay Area Residents

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
Climate Challenge in the Bay Area

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)

GHG Emissions (MMT CO₂e)

Relative to 1990
Bay Area Action is Important

The Bay Area is....

- The 21\textsuperscript{st}-largest economy in the world
- The US metropolitan region with the most purchasing power
- A major global contributor to climate change
- A leader whose example is followed

\begin{figure}
\centering
\includegraphics[width=\textwidth]{co2_emissions.png}
\caption{2013 per capita CO\textsubscript{2} emissions}
\end{figure}

\textbf{Source}: The World Bank, \textit{Indicators, Climate Change, CO\textsubscript{2} emissions}, http://data.worldbank.org/indicator/
A Bold Vision for 2050

- Reduce GHG emissions over 80%
- Eliminate disparities in health risk from air pollution

Power supply is nearly 100% renewable

Buildings are fossil-fuel free

Organics are put to use

Transportation is based on EVs and renewable diesel

Half of all trips are via transit, biking or walking

Oil companies become part of the solution
Actions the Air District will take over the next 3-5 years

Key objectives:

- Reduce criteria pollutants, toxic air contaminants from all sources
- Reduce “super-GHGs”
- Reduce fossil fuel combustion
- Increase efficiency / reduce demand for fossil fuels
- Decarbonize the energy system / increase renewable energy

Tools:

- PERMITS
- RESEARCH & SCIENCE
- RULES
- WORK W/ LOCAL GOVTS
- CLEAN AIR PLAN
- PARTNER-SHIPS
- GRANTS & INCENTIVES
### Getting There: The Control Strategy

<table>
<thead>
<tr>
<th>Economic Sector</th>
<th>No. of Measures</th>
<th>No. of Actions</th>
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<tbody>
<tr>
<td>Agriculture</td>
<td>4</td>
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<tr>
<td>Buildings</td>
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<td>Super-GHGs</td>
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<td>Stationary Sources</td>
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<td>Water</td>
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**Total:**

- No. of Measures: 85
- No. of Actions: 282
Near-term Priority: Limit GHGs, criteria pollutants and toxics from refineries and other large stationary sources

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

### Control Measures

<table>
<thead>
<tr>
<th>CM #</th>
<th>2017 Control Measures</th>
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<tbody>
<tr>
<td>SS 20</td>
<td>Toxics Risk Cap (Rule 11-18)</td>
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<tr>
<td>SS 11</td>
<td>Refinery Emissions Cap (Rule 12-16)</td>
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<td>SS 31, 35, 36, 37</td>
<td>Particulate Matter (Rule 6, 6-1, 6-6, 6-7, 6-8)</td>
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<td>SS 13</td>
<td>Oil and Gas Production (Rule 8-37)</td>
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<td>SS 12</td>
<td>Refinery Carbon Intensity Limits (Reg. 13-1)</td>
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<td>SS 9, 17</td>
<td>GHG BACT and Crude Slate in Permits (Rule 2-1, 2-2)</td>
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<td>SS 16</td>
<td>Basin-Wide Methane Strategy</td>
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<tr>
<th>CM #</th>
<th>2018 Control Measures</th>
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<tr>
<td>SS 5, 6, 7</td>
<td>Refinery Sulfur Emissions (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 19</td>
<td>Portland Cement (Rule 9-13)</td>
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<td>SS 1</td>
<td>Fluid Catalytic Cracking in Refineries (Rule 6-5 Phase 2)</td>
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<td>SS 15</td>
<td>Natural Gas Processing and Distribution</td>
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<td>SS 40</td>
<td>Odors</td>
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<td>WA 1, 2</td>
<td>Landfills and Composting Operations</td>
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Early Implementation: Funding

Launch New Funding Initiatives

• Implement $4.5 million grant program
  - Assess opportunities to fund Clean Air Plan control measure implementation
  - Develop strategic funding strategy
  - Meet with local govts, community organizations and other funders to identify needs and opportunities

• Launch Technology Implementation Office
  - Hire Technology Implementation Officer and staff
  - Create advisory group
  - Undertake comprehensive review of stationary source GHG reduction technologies
  - Host Technology Forum (4th Quarter 2017)
Sustain and Expand Existing Programs

• 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

• Reduce diesel 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 reduce diesel emissions

• Work with MTC/ABAG/local governments to reduce VMT
  - Launched $5 million 2017 Bicycle Facilities Grant Program
  - Collaborate in developing Plan Bay Area
  - Support development of strong local climate action plans
Areas of Collaboration with Local Governments

Low Carbon Buildings:
- Model ordinances
- Best practices
- Pilot new technologies

Renewable Energy:
- Support CCEs
- Model ordinances
- Finance technology

Land Use and Trip Reduction:
- Grant funding
- CEQA guidance
- Best practices

Organics:
- Best practices
- Facility siting & permitting

Climate Planning:
- GHG inventory data
- Tools & guidance
- Convenings
- Information-sharing
Many of the societal changes necessary to achieve our goals will occur at the community level.

- **Air District’s role – accelerate local implementation with early actions:**
  - Decarbonizing energy – collaboration with CCEs
    - Feasibility study for 100% renewable default product
  - Adopting ordinances and best practices
    - Model Solar Ordinance Project (with BARC, ABAG/BayREN)
    - Webinar series for local govt best practices
  - Launched VMT tool with MTC as first step to creating data portal for local govt staff
  - Updating CEQA guidance and thresholds
Partners are critical to informing and participating in the implementation process

- Local governments
- State and regional agencies
- Industry/energy providers
- Community organizations
- Business networks
- Climate protection groups
- Schools and youth organizations
- Air District resource teams
An Unprecedented Journey

We are embarking on an unprecedented journey to lead the Bay Area to a better future.

Every household, business, organization and individual has tremendous power to make a difference.
We have all the elements of success:

- Support at the State level
- Dedicated elected officials
- The most 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
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