Cut the Commute Program

AGENDA: 15

Lisa Fasano
External Affairs Officer
Cut the Commute Program

Cut the Commute Pledge Ceremony

• Initiated, July 13, 2020

• Rod Sinks – Bay Area Air Quality Management (Air District) Board of Directors (Board) Chair

• Cindy Chavez – Santa Clara County Supervisor, and Vice Chair of the Air District Board

• Marci McCue – Flipboard Vice President, Content and Communication

• Eric Thornburg, Chief Executive Officer, San Jose Water Co.

• Carl Guardino, Silicon Valley Leadership Group
Cut the Commute Program

SPARE THE AIR
CUT THE COMMUTE PLEDGE

The shelter-in-place orders issued to protect the public from the spread of COVID-19 necessitated a major shift in how Bay Area employers operate, and many employees quickly made the adjustment to remote work.

As shelter-in-place orders are eased or lifted, let’s rethink how we conduct business and consider the substantial benefits remote work can bring to us all:

• Cleaner air and reduced climate impacts
• Reduces traffic congestion
• Saves money and time spent in traffic
• Improves employee recruitment, retention and productivity
• Saves money on commercial real estate and parking facilities
• Enhanced employee work-life balance
• Resiliency—Provides a blueprint to continue business during a crisis

The benefits of remote work are numerous. All that is needed now is leadership, vision and commitment.

Are you ready to step forward and adopt an innovative remote work policy after the shelter-in-place?
By signing this pledge, your company or organization commits to extending remote work options by at least 25% (or 1-2 days a week) for employees whose work requirements allow for that flexibility, though you can pledge more! For those employees that don’t have that flexibility, your company or organization will encourage alternatives to driving alone.

Help improve air quality and quality of life for all Bay Area residents!

Jack Broadbent  Chief Executive Officer/Air Pollution Control Officer

Bay Area Air Quality Management District

San Francisco

July 13, 2020
• Air District and Metropolitan Transportation Commission (MTC) remote work strategies work together

• MTC establishes high level goals in 2050 Plan Bay Area

• Air District develops rule through Commuter Benefits Program
  • MTC: ambitious goal for remote work implementation
  • BAAQMD: remote work policy that includes employers and transit
• Air District policy will provide “tool in the commuter benefits toolbox”

• Successful Commuter Benefits Program will:
  • Reduce traffic related air pollution and greenhouse gas (GHG’s)
  • Improve mobility on congested freeways and transit
  • Provide greater equity through commute solutions rather than Single Occupancy Vehicles (SOV)
Cut the Commute Program

• Began Air District rule development effort in August 2020
• Capitalize on what is being learned through current Work from Home status
• Amend current Commuter Benefits Rule, make telework more prominent as an option – create clear definition
• Working on generating partnerships with Bay Area employers, transit agencies, city, and county governments
• Presentations to:
  • Bay Area Regional Transportation Authority
  • Valley Transportation Authority Committee
# Cut the Commute Program

<table>
<thead>
<tr>
<th>Company</th>
<th>Name 1</th>
<th>Name 2</th>
<th>Title</th>
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<td>2pinz</td>
<td>David</td>
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<td>Orinda</td>
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<td>Bay Area Air Quality Management District</td>
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<td>Broadbent</td>
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<td>COLEMAN</td>
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<td>Cities Association of Santa Clara County</td>
<td>Andi</td>
<td>Jordan</td>
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<td>Timothy</td>
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<td>Elizabeth</td>
<td>Hughes</td>
<td>President</td>
<td>South San Francisco</td>
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Employer’s Views on Remote Work

“For the vast majority of our employees, we are committing that we’re going to be a flexible employer of the future. That means for some workers, they may never come back to an office.”

-Dan Spaulding, Zillow

“Opening offices will be our decision. When and if our employees come back, will be theirs.”

-Twitter

“[The company won’t likely] return to the way we were because we’ve found that there are some things that actually work really well virtually.”

-Tim Cook, Apple
Cut the Commute Program

Employers Reduce Costs

• A typical employer can save an average of $11,000 per half-time telecommuter per year*
  • increased productivity
  • lower real estate costs
  • reduced absenteeism and turnover
  • improved disaster preparedness

* National Average, Not Specific to Bay Area which would be higher: https://globalworkplaceanalytics.com/telecommuting-statistics
Cut the Commute Program

Percent of Bay Area Employers Working From Home*

- Working From Home
- Exterior site
- Other interior work place
- Commercial Office
- Other

*Bay Area Council Survey Bay Area Employers, May 2020

Other Interior = Retail locations, factories, distribution centers
Exterior = Construction, utility work, deliveries, etc.
Commuter Benefit Program Compliance

Registration Compliance Rate by Employer Size

- 1000+ employees: 86%
- 500-999 employees: 80%
- 100-499 employees: 45%
- 50-99 employees: 31%
- Total: 40%
Equity in Commuter Benefits

- Equity in commuting major issue
- Reduce SOV
- Focus on transit, bicycles, carpools, walking, remote work
- Improved air quality around congested freeways improves health for residents
- Remote work reduces single occupancy driving, gridlock, and commute time for all
Next Steps

• Stay Flexible – Upcoming Analysis and Survey Data
• Develop Program Brand Identity
• Evaluate Inequality and Remote Work
• Compliance Advisory promoting Remote Work
• Develop draft language for Commuter Benefits Program
  • Clear definition
  • Options to provide flexibility
• Engage Employer and Employer Organizations to Develop Model Program of Options
• Develop Informational Roadshow
Overview of Governor’s Executive Order

Board of Directors Meeting
October 7, 2020

Damian Breen, Deputy Air Pollution Control Officer
Technology
Overview

• Governor’s Executive Order N-79-20 Highlights

• Intersection with Air District Programs

• Market and Technology Status

• Challenges and Opportunities
Executive Order Highlights

Zero Emissions Vehicles (ZEV) and Infrastructure

Transit and Infrastructure

Workforce Transition

Transition Away from Fossil Fuels
Executive Order Highlights

- Passenger car and light duty truck sales will be 100% zero-emission by 2035
- Drayage trucks operations will be 100% zero-emission by 2035 where feasible
- Off-road vehicles and equipment will be 100% zero-emission by 2035 where feasible
- Medium- and Heavy-Duty truck and bus operations will be 100% zero-emission by 2045 where feasible
- California Air Resources Board (CARB) will develop rules consistent with State and Federal law, considering technological feasibility and cost effectiveness
Executive Order Highlights

- Develop a ZEV Market Development Strategy by January 31, 2021
- Ensure new and used ZEVs are available to all Californians
- Accelerate deployment of affordable fueling infrastructure, focusing on low-income and disadvantaged areas
- Perform biannual assessments of infrastructure to support ZEV adoption

Zero Emissions Vehicles (ZEV) and Infrastructure
Executive Order Highlights

- Where feasible, build towards an integrated statewide rail and transit network to provide seamless and multimodal transportation for all, including:
  - Bicycle, Pedestrian, and Micro transit improvements
  - Focus on disadvantaged communities

- Consider ZEV and other infrastructure as part of building projects where appropriate
Executive Order Highlights

• Develop a “Just Transition Roadmap” by July 15, 2021, which will focus on a transition away from fossil fuels to achieve carbon neutrality by 2045
Executive Order Highlights

- Expedite regulations to repurpose and transition upstream and downstream oil production facilities
- As part of regulatory action, take into consideration community and labor participation, and protect public health, safety and the environment
- Develop an action plan by July 15, 2021
- CARB to propose strategies to continue to reduce carbon intensity of fuels beyond 2030
Executive Order Highlights

Transition Away from Fossil Fuels

- Develop strategies to remediate and expedite closure of oil extraction sites by July 15, 2021
- Enforce requirements, so oil extractors are responsible for site clean up
- Propose strengthened health and safety rules that protect the public and workers from the impacts of oil extraction activities
Other Commitments Worldwide

Legend:

- Country/regional, ban sales of gasoline/diesel vehicles
  - By 2025
  - By 2040
  - By 2030
  - TBD
- Country/regional, all zero emission vehicles
  - By 2050
- State, reduce petroleum consumption by 50%
  - By 2030
- City, diesel vehicle ban
  - 2018-2025
- C40 cities with pledges for zero emissions
  - By 2030
Intersection with Air District Programs

• Climate Strategy
• Equity and Assembly Bill (AB) 617 Programs
• Grants and Incentives
• Technology Implementation Office
• Permitting and Enforcement
• Strategic Partnerships
Climate Strategy
Bay Area GHG Emissions

### Major Source Categories of Methane

- **Refineries**
- **Natural gas distribution**
- **Livestock**
- **Wastewater treatment**
- **Landfills**
- **Composting**
- **Others**

### Major Source Categories of CO₂

- **Stationary Sources:**
  - Not subject to Cap-and-Trade
  - Subject to Cap-and-Trade
- **Transportation:**
  - Diesel
  - Non-diesel
- **Area sources:**
  - Residential, industrial and commercial buildings
  - All others
Equity & AB 617 Programs

- Disproportionate health impacts along transportation corridors and near high emission sources
- Diesel PM is a contributing factor to health impacts in every community
- Mobile sources account for 45 percent of exposure disparity for the Black populations, and 37 percent of exposure disparity for people in disadvantaged communities
- West Oakland Community Emissions Reductions Plan identifies suite of strategies to deploy ZEVs
- AB 617 Grant funds currently targeted at Diesel PM reductions
Grants & Incentives

Clean Air Vehicles & Equipment

- Light-duty fleet vehicles & infrastructure
- Med- & heavy-duty trucks & buses
- Shorepower & freight handling equipment
- Caltrain electrification

Alternative Transportation

- Shuttle & Rideshare
- Shared Autonomous Vehicles
- Bikeways
- Bicycle parking

Board of Directors Meeting
October 7, 2020

Bay Area Air Quality Management District
Grants & Incentives – Clean Cars for All

Low-income residents* in communities disproportionately burdened by pollution** who turn in older vehicle

Advanced Technology
- Purchase or lease
- Hybrid, plug-in hybrid, electric vehicle, fuel cell electric vehicle
- Home charger or portable charger & public charging for plug-in and electric vehicles

Mobility Options
- Public Transit Card (PEX Visa)
  - Clipper, bike sharing
- Electric bicycles and carsharing (future options)

* ≤400% Federal Poverty Level
** CalEnviroScreen 3.0
<table>
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<tr>
<th>Technology Implementation Office</th>
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<tr>
<td><strong>4,000 residential battery systems</strong></td>
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<tr>
<td><strong>100 battery-boosted EV fast chargers</strong></td>
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<tr>
<td><strong>10 all-hydrogen fuel cell ferries</strong></td>
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<tr>
<td><strong>150 renewable microgrids on municipal buildings</strong></td>
</tr>
<tr>
<td><strong>60 road plates generating electricity</strong></td>
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<tr>
<td><strong>2,600,000 tons of aggregate in concrete</strong></td>
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| Total Greenhouse Gas Reductions | 500,000 MTCO$_2$ |
Permitting & Enforcement

• Off Road Equipment?
• Changes to Oil Production Facilities
• Changes to Petroleum Refineries
• Enforcement of ARB Regulations
Strategic Partnerships

- State Agencies
- Regional Partners
- Transit Agencies
- Communities
- Industry Groups
• Airport Shuttles – 100% ZEV by 2035

• Trucks – ZEV sales by 2035:
  o 55% of Class 2b – 3, 75% of Class 4 – 8, and 40% of tractors

• Shorepower – Ocean Going Vessels at Berth
  o Container, reefer and cruise vessels: 2023, Auto carrier: 2025; Tanker vessels: 2025 (Los Angeles and Long Beach) and 2027 (Northern California)

• Transit buses – 100% new purchases ZEV by 2029

• Passenger Cars and Light Duty Trucks – ZEV “Credits” – 8% of Sales by 2025
Market & Technology Status
Battery Costs

"Between 2020 and 2030, EVs will become cheaper to own than ICE cars on an unsubsidized basis."

-Bloomberg
Market & Technology Status
Light Duty Vehicles

Number of EVs Registered in Bay Area by Year (Cumulative)

- **2019 Bay Area Vehicle Statistics**
  - EVs: 203,260
  - All Cars: 5,465,494
The 9,500 public charging ports are located across a total of 1,923 charging station locations.
Market & Technology Status
Trucks and Buses

• Four (4) largest Truck Manufactures in USA bringing ZEV to market in 2022 timeframe

• Both Battery and Hydrogen Drive trains being explored

• 149 different vehicle types eligible for State Heavy Duty Voucher

• Commitments by delivery companies to go “carbon neutral”
Market & Technology Status
Off-road Vehicles and Equipment

• Most challenging
  o Construction and grading
  o Cargo handling
  o Agriculture
  o Backup Power?
  o Water Pumps?
  o Rail?
  o Aviation?

• New Technologies emerging but significantly more work needed
<table>
<thead>
<tr>
<th>Light-Duty Cars &amp; Fueling Stations</th>
<th>Shared &amp; Connected Vehicles</th>
<th>On-Road Trucks and Buses</th>
<th>Off-Road &amp; Rail</th>
<th>Shore Power</th>
<th>Wood Smoke</th>
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<tr>
<td>&gt;1,600 cars</td>
<td>Bike Sharing</td>
<td>&gt;300 Medium &amp; Heavy-Duty Vehicles</td>
<td>~160 cargo handling &amp; airport ground support equipment Caltrain &gt;250 Lawn &amp; Garden</td>
<td>14 Berths at Port of Oakland</td>
<td>&gt;50 residential electric heat pumps</td>
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<td>&gt;5,000 charging stations</td>
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<td>Shared autonomous vehicles</td>
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Bay Area Air Quality Management District
Challenges and Opportunities

Challenges
• California’s Legal Standing
• Cost - $15 to $30 billion over next five (5) years
• Grid and Power Issues

Opportunities
• Technology Coming into Market Quickly
• Green Jobs and Economy
• Possibility of Federal stimulus