



Incentive Program Advisory Group (IPAG)

California Air Resources Board (CARB)

April 20, 2022

IPAG Advisory Group Agenda

- Welcome: Vice Chair Berg; Boardmembers Hurt & Kracov
 - Advisory Group project expectations
 - Principles to guide our group to meaningful outcomes
- Presentations: CARB & CAPCOA....*Setting the Table*
- Group Brainstorming: Moyer & Transition to Zero-Emission Trucks (ZETs)
 - Discussion: Goals and Outcome for the Advisory Group
 - Brainstorming: Key Issues for the group to address
- Kick off discussion on 2 of the Key Issues: (1) Small Fleets and (2) Infrastructure both with accelerating access to Environmental Justice (EJ) communities
- Next Steps and Timeframe

IPAG Advisory Group Expectations & Guiding Principles

**Aligned expectations opens up possibilities
beyond *what is possible*.**

Boardmembers will share their expectations and how they will show up to make our time meaningful and productive.

Participants please use the chat feature to chime in:

**What are the 2 key expectations and or outcomes that
would be meaningful to you?**

Carl Moyer Incentives for ALL Zero Emission Fleets

Setting the Table for IPAG Discussions
CARB Staff Presenting

Presentation Agenda

- Incentives Program Advisory Group (IPAG)
- Roles of Incentives
- Moyer On-Road Updates
- Voucher Incentive Program
- ZETs Time is NOW!

Incentive Program Advisory Group (IPAG)

- November 2021 Board Meeting
 - Stakeholders requested Advisory Group with Board Support
 - Board directed further accelerate zero-emission vehicles (ZEV) and equity work in Moyer, with a focus on-road vehicles.
 - Look at all tools, including Voucher Incentive Program (VIP).
- Board Member Panel - IPAG Leads
 - Vice Chair Sandra Berg
 - Board Member Davina Hurt – Bay Area Air Quality Management District (BAAQMD)
 - Board Member Gideon Kracov – South Coast Air Quality Management District (SCAQMD)

Incentives Play a Critical Role



Support the State's climate change, air quality, ZEV deployment, and petroleum reduction goals

Accelerate the transition of fleets to zero-emission



Support equitable, community-driven clean transportation and multi-sector approaches

Promote economic growth and job training and apprenticeship opportunities



Build on successes of previous investments and incorporate lessons learned

CARB's Portfolio of Incentive Programs

CARB Implementation

Low Carbon Transportation Incentives (LCTI) and Air Quality Improvement Program (AQIP) [\$1.5B Fiscal Year (FY) 21-22]

Advance technologies to provide Priority Populations benefits with criteria pollutant, air toxics, and Green House Gas (GHG) reductions

- Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) (\$569.5M)
- Clean Off-Road Equipment Voucher Incentive Project (CORE) (\$194.95M)

Volkswagen (VW) Mitigation Trust (\$223.5M*)

Mobile source incentives for nitrous oxide (NOx) mitigation and zero-emission, mainly scrap and replace projects



CARB Guidelines for Air Districts Implementation

FARMER Program (\$212.6M FY 21-22)

Grant program for equipment, including mobile equipment, used in agricultural operation

Proposition 1B Program (\$40M end of 2021)

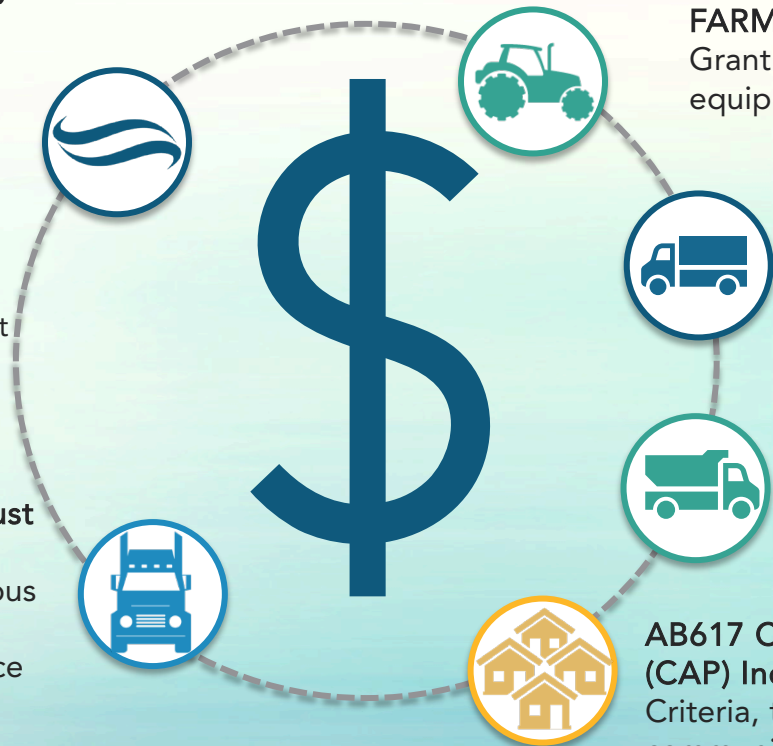
Incentives for freight movement equipment with early and extra criteria air pollutants and toxic air contaminant emission reductions

Carl Moyer Program (\$247M FY 21-22)

Mobile source and infrastructure incentives that are cost-effective and State Implementation Plan (SIP) creditable for air pollutant and toxic air contaminant emission reductions

AB617 Community Air Protection Program (CAP) Incentives (\$260M FY 21-22)

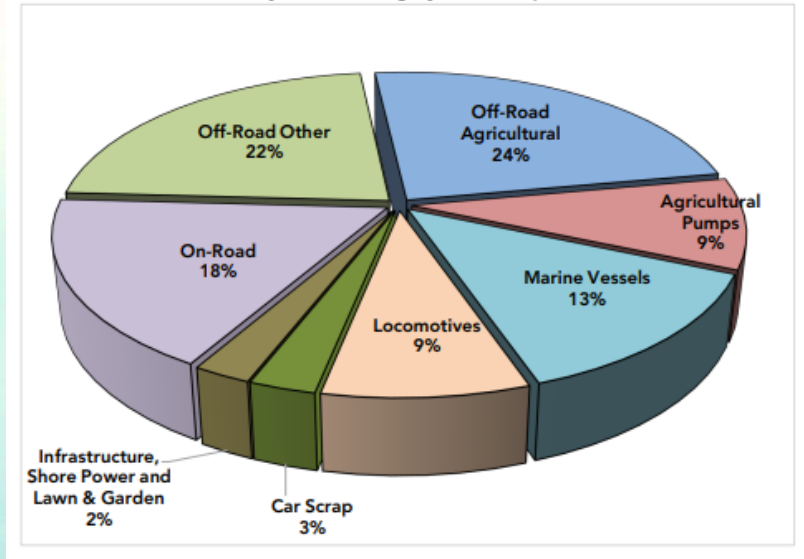
Criteria, toxics and GHG reductions for community goals



Carl Moyer Program Overview

- Statewide emission reduction program supporting multiple categories
- By statute, emission reductions must be
 - SIP Creditable – Surplus, Permanent, Quantifiable, and Enforceable
 - Cost-Effectiveness Limit – Board approved limit increase in November 2021
- Partnership between State and Air Districts

Chart 1: Percent of Funds by Source Category since Inception in 1998



Source: 2020 Carl Moyer Statistics ([PDF](#))

Current Moyer ZET Incentives

- Maximum funding amounts:
 - Light Heavy-Duty (LHD) (class 4 & 5 trucks) up to \$170K
 - Medium Heavy-Duty (MHD) (class 6 & 7 trucks) up to \$180K
 - Heavy Heavy-Duty (HHD) (class 8 trucks) up to \$410K
- 50% Battery charging station and alt fuel stations
 - Higher funding percentages available for;
 - Publicly accessible – 60%
 - Solar/wind power systems – 65%
 - Disadvantaged community (CAP) incentives - +10%

Moyer On-Road Updates

- Available now!
 - Under Executive Officer's (EO) authority; chapter 4 published April 7, 2022
- Summary of updates:
 - Increased Cost-Effectiveness thresholds
 - Increased State Funding caps for LHD, MHD, and HHD
 - Updated engine model year eligibility
 - Increased flexibility for required minimum annual usage
 - Increased flexibilities on air districts, dealership and dismantler requirements.

Voucher Incentive Program (VIP)

- Funding option for districts to address smaller fleets
- Streamline, Simple, and Speedy
 - Complements Moyer On-Road Contract
 - Easy for dealership to implement
 - Pre-determined funding amounts
- Participating Air Districts – Bay Area, North Coast, San Diego, South Coast, San Joaquin Valley, and Siskiyou
- ZETs eligible in 2022 VIP



ZETs Time is NOW!

- Regulatory Landscape
 - Governor's Executive Order N-79-20
- ZETs commercially available now
 - Significant fleet demand for ZETs (as seen in HVIP)
- Small Fleet Turnover
 - Underserved communities asking for zero-emission (ZE) now
- SIP Attainment Goals
 - Since 2005, over \$1 billion provided in State incentives for Natural Gas (NG)
 - NG investment alone will not achieve SIP attainment
- Moyer/VIP increased funding incentives for early ZE adoption

CAPCOA *Making the Magic Happen*

What does Moyer do well and what are the obstacles as we head towards ZE fleet?

California Air Pollution Control Officers Association

CAPCOA is a non-profit association of the air pollution control officers from all 35 local air quality districts throughout California.



District Collaboration

Legislative Advocacy

Share Outreach Materials
and Conduct Trainings

Information Exchange

What Does
CAPCOA
Do?



Carl Moyer Program

Replaced over 68,000 engines

Reduced over 194,000 tons of ozone-forming pollutants

Reduced over 7,100 tons of diesel particulate matter

Word Cloud

10 Minute Break

CARB IPAG: Key Issues

- **Overarching Issue to Operationalizing EJ into all discussions and outcomes. For example:**
 - Integrate EJ to improve the incentive programs EJ performance
 - Consider uniform definition across districts and metrics used to measure outcomes
- 1. Infrastructure**
 - More effective partnering fleet adoption with infrastructure deployment
- 2. Small Fleets**
 - Support and extend incentives program use by small fleets and businesses statewide as electrification accelerates

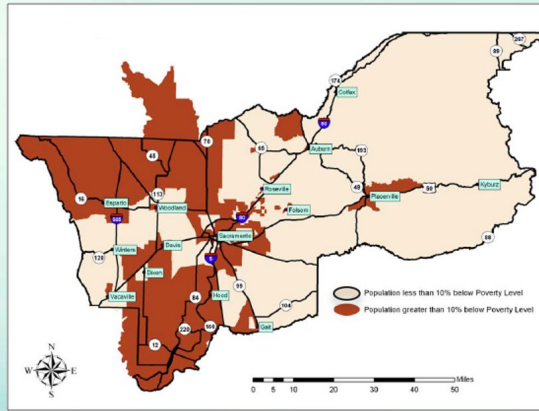
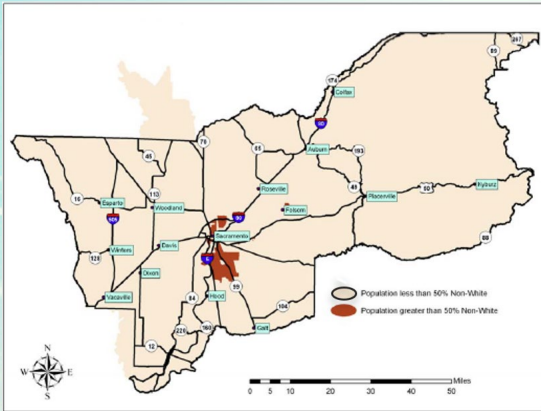
Operationalizing Environmental Justice

- We are looking for tools to focus funds appropriately in EJ communities within the various aspect of the program
- VIP currently does not have specific EJ requirements
 - Health and Safety Code (H&SC) § 43023.5 applies to the entire Carl Moyer program
 - Large opportunity for VIP to fund on-road projects in EJ areas
- Independent approaches to EJ consideration
 - BAAQMD, SCAQMD, San Joaquin Valley Air Pollution Control District (SJVAPCD), and CARB, each have independent EJ advisory group(s), community equity committees, or community partnerships

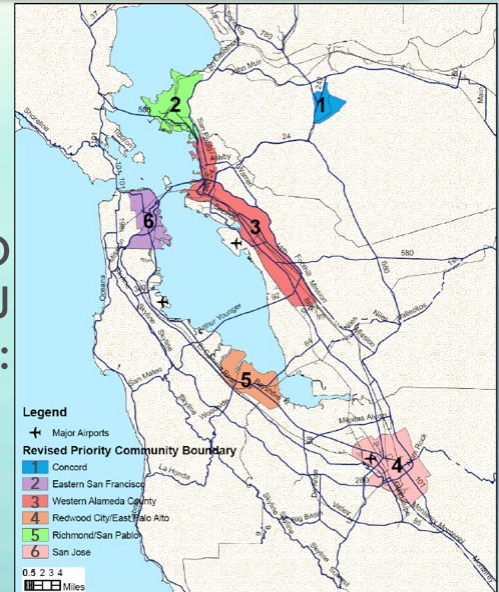
Environmental Justice... Continued

Districts define their EJ boundaries according to H&SC §43023.5:
"...communities with the most significant exposure to air contaminants or localized air contaminants, or both, including, but not limited to, communities of minority populations or low-income populations, or both."

Sacramento Metropolitan AQMD EJ boundaries
(communities of color and low-income) communities:



BAAQMD
EJ
Boundaries:



Partnering ZETs with Infrastructure Programs

- Transitioning to ZETs requires new fueling
 - Many considerations and decisions - Fuel type (electricity or hydrogen),
On site, public or contracted fueling
- Opportunities to enhance VIP for ZETs and Infrastructure
 - California Energy Commission and utilities infrastructure investments
 - Other California Climate Investments and transportation agency programs
 - Local air district and port programs
 - VW Electrify America ZEV investments

Infrastructure

- **Introduction**

- **Analisa Bevan, Zero Emission Infrastructure Specialist**

- Coordination of CARB zero emission infrastructure activities across sectors
 - Coordination with partner state, local and federal agencies

- **Infrastructure lead partner**

- **California Energy Commission, Elizabeth John**

- Infrastructure grant programs
 - Planning and analysis

Infrastructure Needs

- Both electricity and hydrogen
- Equitable access
- Public fueling network
- Large scale, rapid deployment



Infrastructure Considerations in the Community

- Changes in fleet traffic patterns
- Need for site upgrades (site control)
- Opportunities for multi-modal fueling
- Need for utility upgrades
- No increase in emissions

California Energy Commission: ZEV Infrastructure Incentives

- Download a copy of the California Energy Commission (CEC) Presentation for IPAG here: [CEC Presentation for Incentives Program Advisory Group \(IPAG\) led by California Air Resources Board](#)

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5 Minute Break

Small Fleets

- **Introduction**

- Board member: Gideon Kracov
- Teeing up Small Fleets including Accelerating access for EJ communities
- CARB staff lead: Sondra Wynne

- **Increasing small fleet program participation statewide**

- Outreach and Feedback: how to better serve small fleet owners?
- ZEV technology adoption: what tools/resources are helpful?

- **Environmental Justice: How can the program...**

- Better promote prioritizing funds for small fleets in EJ communities?
- Modernize its approach to defining EJ communities, particularly in relation to AB 617?

ZET Small Fleet Opportunities

- Moyer/VIP and CAP incentives
 - Looking for a range of Moyer tools – VIP is one key tool
 - VIP – Exclusive funding option for small fleets (10 vehicles or less)
 - Funding Cap and Percentages:
 - Moyer/VIP - 80% for small fleets; up to \$410K for ZETs (Class 8)
 - CAP - 90% to 95% for small fleets; no funding cap
- HVIP
 - Up to \$120K for ZETs (Class 8)
 - Disadvantaged Community (DAC)/Small Fleet up to \$138K (15%)

Current Small Fleet Status

- What is the definition of small fleets?
 - Currently, 10 trucks or less
- TRUCRS reported data (120K fleets)
 - 84% reported as fleets of 10 vehicles or less
- Total Carl Moyer funded engines – over 900 vehicles
 - Over 1/3 ZE engines
 - 18% ZE engines funded for small fleets
 - 15% ZE engines funded for small fleets in EJ areas

Clean Air Reporting Log (CARL) Data July 1, 2017 to June 30 2020

IPAG: Goals & Outcomes

- Goal: Building Consensus and Producing an Advisory Memo to the CARB Board outlining AG work:
 - Taking Moyer policy to next level: ZET transition
 - Identifying high-level Moyer policy revisions with 100% ZET focus
 - Accelerating equitable access to ZET & infrastructure
 - Identifying what changes will produce access results and benchmarks to assure accountability.

IPAG: Goals & Outcomes

- Outcomes:
 - Board Memo by November 2022
 - Draft/Final 2023 VIP Guidelines
 - Feed back for Assemblymember Garcia on Moyer - what works and what doesn't – legislative guardrails.

2022 Next Steps

- June – August: Additional meeting(s)
- September: 45-Day Notice
- November: Final IPAG Meeting

Contact Information

Incentive Program Advisory Group website
<https://ww2.arb.ca.gov/our-work/programs/ipag>

Incentive Program Advisory Group email
IPAG2022@arb.ca.gov