Proposed Fiscal Year 2021-22 Funding Plan
For Clean Transportation Incentives

Accompanied By

Proposed Carl Moyer Program Changes, Agricultural Burning Incentives for Combustion Equipment, and the Climate Heat Impact Response Program

Board Presentation
November 19, 2021
Today’s Presentation

- Funding Plan for Clean Transportation Incentives
- Revisions to Carl Moyer Program
- Agricultural Burning Incentives for Combustion Equipment
- Climate Heat Impact Response Program
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

Community Air Protection Program (AB 617)
Criteria, toxics and GHG reductions for community goals

FARMER Program
Criteria, toxics and GHG reductions for the ag sector

Air Quality Improvement Program (AQIP)
Criteria pollutant and toxics reductions

Low Carbon Transportation
Advance technologies to provide GHG reductions and Priority Populations benefits

Carl Moyer Program
Cost-effective, SIP creditable criteria pollutant emission reductions

VW Mitigation Trust
NOx mitigation and zero-emission

Climate Heat Impact Response Program (CHIRP)
New community focused program to mitigate emissions above permit levels emitted during CAISO grid events caused by extreme weather conditions
Highlights of Proposals

• Increased focus on equity
• Support meeting federal air quality standards and climate goals
• Flexibility to address community specific needs
• Broader approach to consider transportation systems as a whole
Largest Budget for Incentives

• FY 2021-22 State budget included:
  • $1.5 billion ZEV Acceleration Package, including Low Carbon Transportation
  • $28.64 million for AQIP
  • $180 million for incentives for alternatives to agricultural burning
  • $45 million to replace vehicles to certified 0.02 gram per brake horsepower-hour NOx standard or cleaner through the Carl Moyer Program
The Funding Plan for Clean Transportation Incentives
Incentives drive development of cleaner, more affordable technologies

Conventional Hybrids
- Hybrid cars and trucks

Cleaner Combustion and Plug-in Hybrids
- Cleaner diesel and natural gas trucks, and plug-in hybrid vehicles

Zero-Emission
- Zero-emission cars, delivery trucks, transit, and school buses

Wider Variety of Zero-Emission Offerings
- Zero-emission drayage trucks, off-road equipment, vans, SUVs and pick-up trucks

Clean Transportation Systems
- Expanded clean mobility options including bicycling, transit and walking
Truck Technology Advancement

- State incentives for natural gas trucks since 2005
- Zero-emission trucks are commercially available
- Underserved communities are asking for zero-emission now

California has provided over $1 Billion for natural gas.
$3.9 Billion Investment for ZEV Deployment

- First installment in proposed multi-year ZEV Package
  - Totals $3.9 billion across three budget years
  - Includes appropriations to CEC, GO-Biz, and CalSTA
- For FY 2021-22 the appropriation to CARB includes:
  - $595 million from GGRF for Low Carbon Transportation
  - $838 million from the General Fund
  - $86.5 million from the Air Pollution Control Fund
  - $28.64 million for the Air Quality Improvement Program (AQIP)
Extensive Public Process

January
Governor’s
Proposed
Budget

March 30
Workshop

May
Revise

July
Final
Budget

August 8
Workshop and
Discussion
Document

November
Board Meeting

October 8
Proposed Plan
Released Begin 30-day
public comment period

18 public work groups
Funding Plan Highlights

• Focus on allocating funds to projects that can support economic stimulus and recovery efforts
• Continue to take steps to transition from broad purchase incentives to more targeted strategies
• Targets 60% of Low Carbon Transportation funds to benefit priority populations
• Proposes enhanced metrics and evaluation methodology, in response to State Audit
Benefits to Overburdened Communities

- Zero-emission drayage trucks in Oakland
- Clean mobility projects at schools in Stockton
- Electric car sharing in San Joaquin Valley
- Hydrogen buses and infrastructure in the Coachella Valley
- Bike lanes, urban greening, and supporting projects in Commerce
- Zero-emission cargo handling equipment at the Port of Los Angeles
- Expanding Clean Cars 4 All to San Diego
$1.5 Billion for FY 2021-22 Across Light-Duty and Heavy-Duty Sectors

<table>
<thead>
<tr>
<th>Category</th>
<th>FY 2021-22 Investment (millions)</th>
</tr>
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<tbody>
<tr>
<td>CVRP</td>
<td>$525</td>
</tr>
<tr>
<td>Clean Transportation Equity Investments</td>
<td>$150</td>
</tr>
<tr>
<td>Clean Trucks, Buses, and Off-Road Equipment</td>
<td>$873</td>
</tr>
<tr>
<td>Total</td>
<td>$1,548</td>
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</table>
Light-Duty and Clean Transportation Equity Investment Goals

- CARB light-duty vehicle investments
  - Vehicle purchase incentives
  - Clean mobility investments
  - Community capacity building investments
- Support long-term transformation of the State’s fleet and accelerate ZEV deployment
- Bring zero-emission and clean mobility options to priority populations
- Expand transportation choices and reduce VMT
Vehicle Purchase Incentives Allocations

$75 Million to Clean Cars 4 All
For incentives to replace old vehicles with clean vehicles in certain air districts, and prepare for expansion statewide

$23.5 million proposed for Financing Assistance
To support loans and grants to help lower-income Californians purchase clean vehicles and shift the program to a needs-based approach

$515 Million to CVRP
To support rebates for clean vehicles

$10 Million to the Electric Bicycle Incentive Project
A new project to support incentives for electric bicycles

CARB
CVRP

- $515 million intended to last three years
  - Updated Three-Year Plan for CVRP and the ZEV Market includes plan to ramp down the program and focus on lower-income consumers

- Phased approach to changes
  - Phase 1: 1 million EVs sold in California
    - Decrease income cap for standard rebates and reduce MSRP cap for smaller vehicles
  - Phase 2: 1.25 million EVs sold in California
    - Further decrease income cap for standard rebates, remove PHEVs, reduce rebate amounts
Clean Cars 4 All

• Preparing for expansion statewide by proposing changes to the regulation through a separate public process
  • Request Executive Officer be granted authority to implement changes after regulation is approved
  • Allow districts flexibility to remove conventional hybrids from eligibility and lower income eligibility
  • Give the Executive Officer discretion to increase incentive amounts
Clean Mobility Investments Support New Transportation Systems

$10 Million to Clean Mobility Options
To support statewide Clean Mobility Options Voucher Pilot and open a new funding window and expand clean transportation options for low-income and overburdened communities

$25 Million to the Sustainable Transportation Equity Project (STEP)
To support community-based mobility solutions for priority populations and overburdened communities

$10 Million to Clean Mobility in Schools
To support bold zero-emission transformations at schools in overburdened communities
Proposed Capacity Building Project Allocations for Priority Populations

$5 million to Access Clean California and Community Organizations
For outreach, community needs assessments, and technical assistance

$1.5 Million for Workforce Training and Development
New project to support zero-emission training for dealerships and partnerships with vocational schools
Proposed Heavy-Duty Project Allocations

$28.64 million for Truck Loan Assistance
To help small-business fleet owners to secure financing for upgrading their fleets to comply with regulations and adopt zero-emission trucks

$194.95 million for CORE
For vouchers for zero-emission off-road equipment

$80 million for Heavy-Duty Demos and Pilots
To support the drayage truck and infrastructure pilot and off-road demonstration projects

$569.5 million for HVIP
For zero-emission truck and bus vouchers
Clean Truck and Bus Vouchers (HVIP)

- Proposed policy changes help enhance equity, support small fleets with more economic need, and strengthen the ZEV market
  - Introduce fleet size limits starting in 2023
  - Require ZEPCert for vehicle eligibility starting in 2023
  - Revise disadvantaged community voucher enhancement
- Introduce Set-Asides
  - Support deployment of 1,000 zero-emission drayage trucks, 1,000 zero-emission transit buses, and 1,000 zero-emission school buses
  - Innovative Small e-Fleets set-aside to support small fleets
Clean Off-Road Equipment Vouchers (CORE)

• Greatly expand investment in the off-road sector with proposed $194.95 million allocation

• Expand eligible equipment
  • Zero-emission small off-road equipment
    • $30 million dedicated to incentives for California small business and sole-proprietor landscaping companies
  • Zero-emission construction equipment
Funding Plan Contingencies

• To minimize disruptions and consistent with past practice, Staff proposes that the Board grant the Executive Officer authority to:
  • Allocate a portion of future years funding in the event of a waitlist or funding shortfall for first-come, first-served projects
• Will use a transparent, public work group process to:
  • Add or scale back funding levels
  • Make technical or administrative changes
Proposed Changes to the Carl Moyer Program Guidelines
Carl Moyer Program

- Statewide emission reduction program eligible for SIP credit, supports multiple categories
- SB129 provided $45 million for severe or extreme non-attainment air districts to replace medium- and heavy-duty vehicles with:
  - Certified 0.02 NOx standard or lower, by end of fiscal year 2022-23
  - Zero-emission vehicles

### Proposed Funding Allocation

<table>
<thead>
<tr>
<th>Air District</th>
<th>Heavy-Duty Vehicle Population</th>
<th>Relative Percentage</th>
<th>Proposed Allocation</th>
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</thead>
<tbody>
<tr>
<td>South Coast Air Quality Management District</td>
<td>159,600</td>
<td>71%</td>
<td>$32,100,000</td>
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<tr>
<td>San Joaquin Valley Air Pollution Control District</td>
<td>64,300</td>
<td>29%</td>
<td>$12,900,000</td>
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<tr>
<td>Total</td>
<td>223,900</td>
<td>100%</td>
<td>$45,000,000</td>
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Proposed Cost-Effectiveness Adjustments

- Propose to adjust cost-effectiveness limits for advanced and zero-emission on-road projects, including funding amount thresholds
  - Provides increased funding amounts to facilitate the transition to advanced and zero-emission technology which further reduces emissions statewide and in impacted communities

**Proposed On-Road Advanced Technology Cost-Effectiveness Limits**

<table>
<thead>
<tr>
<th>Cost-Effectiveness Limit Types</th>
<th>Current Limits ($/ton)</th>
<th>Proposed Adjustment ($/ton)</th>
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<tbody>
<tr>
<td>On-road Optional Advanced Technology Limit</td>
<td>$100,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>On-road Zero Emission Technology Limit</td>
<td>$100,000</td>
<td>$500,000</td>
</tr>
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- Also propose to adjust for inflation the cost-effectiveness limits for other categories
- Staff will continue to work with CAPCOA, air districts, and stakeholders in a public process to make additional administrative changes to further streamline the program for on-road projects.
Proposed Agricultural Burning Incentives for Combustion Equipment
Progress Phasing Out Agricultural Burning in San Joaquin Valley

- Near-zero burning in San Joaquin Valley by 2025
- SJVAPCD Alternatives to Agricultural Open Burning Incentive Program successful and oversubscribed
- $180 million in State 2021-22 Budget for transition to alternative disposal methods for agricultural material
  - For non-combustion, unless CARB finds alternatives are not available
Need for Combustion Alternatives in Limited Applications

**Progress**
- Incentive Program improved access to alternatives
- SJVAPCD has already received $40+ million worth of applications for new alternative equipment
- Significant interest on non-combustion alternatives
- Technology suitable for wire-grown crops

**Remaining Challenges**
- Growing but limited availability of non-combustion alternatives; equipment delivery delays
- Wire-grown crop materials
- Equipment size appropriate to farm size
- Still inadequate access to services, especially with increased demand due to rapid phase-out
- Small growers impacted

**2025**
- Successful Phase Out of Agricultural Burning in San Joaquin Valley
Prioritization of Alternatives

Chipping, shredding, soil incorporation, spreading, and other non-combustion alternatives

Additional on-field alternatives, including air curtain burners, where non-combustion alternatives not feasible (e.g., wire-embedded vineyards), with justification

Additional alternatives when other on-field alternatives not feasible (e.g., landfilling)
Technology Suitability for Wire-Grown Crops

• Wire-grown crop material, e.g., from cordon-pruned vineyards, cannot easily be chipped
• Shortage of specialty equipment needed to chip wire-embedded agricultural material
• Only projects with these types of concerns should be eligible for State funding
Staff Recommendation

• Staff recommends the Board find:
  • There is clear and convincing evidence that non-combustion alternatives are not available in the numbers needed to meet the increasing demand
  • The District can use funds granted via the Budget Act of 2021 for non-stationary combustion alternatives, as a second priority option if non-combustion alternatives are not available
• Report back to the Board in 2022
Proposed Climate Heat Impact Response Program
Climate Heat Impact Response Program (CHIRP)

• Emergency Proclamation on July 30, 2021

• The State can take actions to:
  ✓ Reduce the demand on the grid
  ✓ Increase energy capacity to the grid

• By November 2021, CARB is to develop a mitigation plan to mitigate emissions associated with California Independent System Operator (CAISO) declared events

• These events are uncommon, none occurred during the window of the Proclamation
Proposed CHIRP Mitigation Goals

• **Mitigate** excess emissions generated and reduce exposure during CAISO events
• **Consult** affected communities
• **Focus** on projects to mitigate current and future emission impacts, build grid resilience
• **Complement** other incentive programs, avoiding redundancy with other incentive programs
• **Provide** transparency through regular updates on project progress, outcomes
Proposed Mitigation Plan

*Note that triggering events are rare*
Potential Community Projects

• With impacted communities, identify potential projects to mitigate and reduce current and future emission impacts and build grid resiliency

• Potential projects include:
  ✓ Emission mitigation measures currently supported through existing programs
  ✓ New mitigation projects allowed after a public meeting with CARB Executive Officer approval
Conclusion & Recommendation
Staff’s Proposal Advances Clean Transportation and Improves Air Quality

• The proposals:
  • Advance climate goals and air quality goals
  • Provide benefits to low-income and disadvantaged communities
  • Build significant momentum for expanding the market for clean vehicles and transportation options
Staff’s Recommendation

• Approve proposed Funding Plan,
• Approve the proposed Carl Moyer changes
• Approve the CHIRP Mitigation Plan
• Find that funds granted via the Budget Act of 2021 can be used for combustion alternatives