Projects and Contracts with Proposed Grant Awards Over $100,000

July 25, 2019

Betty Kwan
Staff Specialist
Overview

- **Background**
- **Proposed projects with awards over $100,000**
- **Overview of Fiscal Year Ending (FYE) 2019 funds**
  - Awards by project type and county
  - Status of funding
- **Recommended Action**
Carl Moyer Program and Mobile Source Incentive Fund

❖ Carl Moyer Program (CMP)
  • Created in 1998 to reduce emissions from heavy-duty engines
  • Voluntary program that funds surplus emission reductions

❖ Mobile Source Incentive Fund (MSIF)
  • Assembly Bill (AB) 923 allowed for additional $2 motor vehicle registration fee surcharge (12/04)
  • CMP and Lower Emission School Bus Program (LESBP) projects eligible for MSIF funding
Community Health Protection Grant Program (CHP)

- Created by AB 134 appropriation of $250 Million (M) from the Greenhouse Gas Reduction Fund (GGRF) to reduce mobile source emissions including criteria pollutants, toxic air contaminants, and greenhouse gases in AB 617 communities.

- Bay Area Air Quality Management District (Air District) allocated $50M of these funds for emission reduction projects under the CMP, and optionally under the Proposition 1B Goods Movement Emission Reduction Program.
On 2/21/18 Air District Board of Directors

- Approved participation in CMP Year 20
- Authorized the Executive Officer/APCO to execute contracts and amendments with grant awards up to $100,000

On 12/20/17 Air District Board of Directors

- Approved acceptance of $50M in AB 134 funding for the Community Health Protection Grant Program (CHP)
$3,342,059 in total awards for six (6) projects to replace:
- Six (6) pieces of off-road agricultural equipment
- Two (2) off-road loaders
- One (1) excavator
- Seven (7) forklifts
- Nine (9) transit buses
- Five (5) school buses

**Emission reductions**
- Over 4.9 tons per year (TPY) of criteria pollutants
Transportation Fund for Clean Air (TFCA)

- Statutory authority set forth in California Health and Safety Code Sections 44241 and 44242

- Funding provided by a $4 surcharge on motor vehicles:
  - 60% of TFCA funds awarded directly by the Air District (Regional Fund & Air District-Sponsored)
  - Remaining 40% is distributed to the 9-Bay Area Congestion Management Agencies (County Program Manager Fund)
For FYE 2019, Air District Board

- Allocated $20.44M and authorized the Executive Officer/APCO to execute contracts & amendments with grant awards up to $100,000 (5/2/18)
- Adopted TFCA Regional Fund program policies & evaluation criteria (6/6/18)

For FYE 2020, Air District Board

- Allocated $32.30M and authorized the Executive Officer/APCO to execute contracts & amendments with grant awards up to $100,000 (4/3/19)
- Adopted TFCA Regional Fund program policies & evaluation criteria (6/5/19)
TFCA Project Recommendation Over $100k

- $700,000 in total awards for one (1) project
  - Construct 3.03 miles of Class I and IV bikeways in the City of Vallejo along the San Francisco Bay Trail & the Napa Valley Vine Trail to close the gap between the Vallejo Ferry Terminal and the City of American Canyon

- Emission reductions
  - Over 0.1 TPY of criteria pollutants
Commercial Lawn & Garden (CLG) Equipment Exchange Program

- Carbon Offset Fund established by a settlement agreement
  - To achieve greenhouse gas emissions reductions in the Bay Area with funding prioritized for projects located in cities of Rodeo, Hercules, Crockett, & Pinole, then Alameda and Contra Costa counties, then the entire Air District area
  - $4.4M received by Air District in 2009 for eligible grant projects
  - $171K available in FYE 2019

- On 2/17/16 Air District Board of Directors authorized
  - Allocation of Carbon Offset Fund balance to implement CLG Program that provides full cost-recovery for eligible replacement of diesel equipment for zero emission
  - Executive Officer/APCO to enter into funding agreements and contracts up to $100,000
CLG Project Recommendation Over $100k

- $103,115* in total awards for one (1) project in City of Berkeley to replace
  - 13 leaf blowers
  - 18 grass and hedge trimmers
  - Three (3) lawn mowers
  - Three (3) chainsaws
  - One (1) edger

* The award amount for this project consists of $99,972.90 that was previously awarded and the proposed additional award of $3,141.10

- Emissions reductions (TPY):
  - Approximately 86 TPY of CO₂
Transportation Fund for Clean Air
Mobile Source Incentive Fund
Carl Moyer Program
AB 617 / 134
VW NOx Mitigation*

$25
$7
$13
$12
$50
$30

Total Volkswagen (VW) funding is $423M statewide, which will be dispersed over ~5 year period. Staff projects that as much as 33% of funding could go to projects located in the Bay Area.

Carl Moyer Category Includes Funding From:
CMP Year 20
CMP Statewide Funds
FARMER (agriculture only)
LCFS - Low Carbon Fuel Standard

Other Funding Sources:
EFMP – Enhanced Fleet Modernization Program
RFG – Reformulated Gasoline Settlement Fund
DERA – Diesel Emissions Reduction Act
Zero-Emission Hydrogen Ferry Demonstration Project
Carbon Offset Fund

July 25, 2019
Funds Recommended & Awarded by Project Category Since July 2018

Total = ~$69M

List of projects is shown in Attachments 2 and 3

<table>
<thead>
<tr>
<th>Project Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light-duty Cars &amp; Infrastructure</td>
<td>$8.9M</td>
</tr>
<tr>
<td>On-road Trucks &amp; Buses</td>
<td>$4.6M</td>
</tr>
<tr>
<td>School Buses</td>
<td>$18.0M</td>
</tr>
<tr>
<td>Off-road Ag:</td>
<td>$4.4M</td>
</tr>
<tr>
<td>Non-Ag:</td>
<td>$5.9M</td>
</tr>
<tr>
<td>Off-road Marine &amp; Locomotive</td>
<td>$16.1M</td>
</tr>
<tr>
<td>Trip Reduction</td>
<td>$11.3M</td>
</tr>
</tbody>
</table>
Funds Recommended & Awarded by County Since July 2018

List of projects is shown in Attachments 2 and 3

Total = $~69M

San Francisco
$2.4M, 3%

Alameda
$22.9M, 33%

Contra Costa
$8.0M, 12%

Marin
$1.4M, 2%

Napa
$4.8M, 7%

Solano
$7.6M, 11%

San Mateo
$4.0M, 6%

Santa Clara
$13.7M, 20%

Sonoma
$4.1M, 6%

Solano
$7.6M, 11%

Contra Costa
$8.0M, 12%

Sonoma
$4.1M, 6%

San Francisco
$2.4M, 3%

Marin
$1.4M, 2%

Napa
$4.8M, 7%

Alameda
$22.9M, 33%

San Mateo
$4.0M, 6%

Santa Clara
$13.7M, 20%
Status of Incentive Funding Awarded
Since July 2018, by Funding Source

Previously Awarded
Available
Recommended
Awarded to date (since July 1, 2018)

CMP/MSIF/CHP/FARMER ($76.5M)*
TFC A FYE 2019 ($20.4M)
TFC A FYE 2020 ($32.3M)
Other ($1.34M)**

* Includes awards from FYE 2018
** Other includes RFG and Carbon Offset Fund

$76.5M
$11.8M
$700k
$1.34M

$8.6M carry-over, available in FYE 2020

July 25, 2019
<table>
<thead>
<tr>
<th>Program Name, Description, and Website</th>
<th>Status</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carl Moyer</td>
<td>Open</td>
<td>CMP, MSIF, CHP, FARMER</td>
</tr>
<tr>
<td>Funding to replace heavy-duty on- &amp; off-road vehicles and equipment, marine engines, and locomotives</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.baaqmd.gov/moyer">www.baaqmd.gov/moyer</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle Buy Back</td>
<td>Open</td>
<td>MSIF</td>
</tr>
<tr>
<td>Funding to scrap 1996 or older light-duty cars</td>
<td></td>
<td></td>
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<tr>
<td><a href="http://www.baaqmd.gov/vbb">www.baaqmd.gov/vbb</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean Cars for All</td>
<td>Open</td>
<td>California Climate Investments</td>
</tr>
<tr>
<td>Funding for low-income owners to retire and replace their vehicles with a cleaner option</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.baaqmd.gov/cleancarsforall">www.baaqmd.gov/cleancarsforall</a></td>
<td></td>
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</tr>
<tr>
<td>Single-Vehicle Trip Reduction</td>
<td>Scheduled to open in mid-2019</td>
<td>TFCA</td>
</tr>
<tr>
<td>Funding for service and bicycle infrastructure projects to reduce single-occupancy vehicle trips</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.baaqmd.gov/grants">www.baaqmd.gov/grants</a></td>
<td></td>
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</tbody>
</table>

Additional grant programs for other project categories scheduled to open later this year
Recommended Actions

Recommend the Board of Directors:

1. Approve recommended projects with proposed grant awards over $100,000 as shown in Attachment 1; and

2. Authorize the Executive Officer/APCO to enter into all necessary agreements with applicants for the recommended projects.
Senate Bill 1
Truck and Bus Regulation
Enforcement through Department of Motor Vehicles Registration

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
JULY 25, 2019
Overview

- Truck and Bus Regulation overview
- The New law
- Scale of Impact
- Enforcement Activities
- Outreach Efforts
- Funding Opportunities
On-Road Heavy-Duty Vehicle Health Impacts

• On-road, Heavy-duty diesel vehicles above 14,000 lbs. Gross Vehicle Weight Rating (GVWR) are responsible for:
  • 1/3 of the NOx emitted by all sources in California
  • 90% of the diesel PM emitted from all diesel powered equipment
• Impacts residences, schools, businesses, etc. near roadways with diesel vehicle traffic
Diesel exhaust harms health

• Contains more than 40 toxic air contaminants
• Causes immediate irritation and aggravates asthma
• Long term exposure increases risk of cancer
• Children, the elderly and people with emphysema, asthma, and chronic heart and lung disease at most risk

70% of airborne cancer risk stems from diesel exhaust particles
Truck and Bus Regulation

<table>
<thead>
<tr>
<th>Applies to the 1M Trucks operating in California</th>
</tr>
</thead>
<tbody>
<tr>
<td>400k registered in CA</td>
</tr>
</tbody>
</table>

Adopted in 2008 to protect health by reducing exposure to harmful PM and NOx emissions from trucks and buses

- Critical component of CARB’s Diesel Risk Reduction Plan
- Centerpiece of 2023 SIP strategy
- Amended in 2010 and 2014 to provide additional compliance flexibility and time
Truck and Bus Regulation Requirements

• Requires replacement or repower of most medium- and heavy-duty diesel trucks and buses with engines older than 2010 by 2023

• Only two ongoing alternate compliance options
  • Low-Use: <1,000 miles per year
  • NOx exempt areas: For vehicles that operate only in areas that attain both the federal and State NOx standards
    • No engine turn-over requirement
    • Must have PM filter on all trucks in fleet to protect and exposure to toxic diesel PM
    • Can not operate outside of NOx exempt areas
Compliance is critical, but has been a challenge

- Prior to 2018, compliance rate 70-75%
- Past enforcement consisted of fleet audits and roadside check points
- Protect communities, especially the most vulnerable members
- All business compete fairly
- Meet federal and State clean air requirements

Significant health impacts, impacting disadvantaged communities
Uneven playing field for businesses that have paid to comply
Full compliance needed to reach goals

Diesel PM Emissions (tpd)

- 2010
- Today
- 2023

Excess emissions due to non-compliance

Emissions prior to implementation of Truck and Bus Rule

NOx Emissions (tpd)

- 2010
- Today
- 2023

Excess emissions due to non-compliance

Emissions prior to implementation of Truck and Bus Rule

with no further action

Full Compliance w/ Truck and Bus Rule
New law requires CARB Truck & Bus Regulation compliance for DMV registration

- Requires compliance demonstration prior to registration
- Phases in verification starting January 1, 2020
- Allows for temporary permits to operate while issues are resolved
Over 200,000 trucks and buses affected

• 2023 is the final deadline for engine replacement
• Many fleets need to take action from 2020-2023 to stay in compliance
Heavy-Duty Vehicles >14,000 lbs. Registered in the BAAQMD

49,500
Registered heavy-duty diesel vehicles >14,000 lbs. GVWR

22,500 HHD
> 26,000 GVWR

27,000 MHHD
14,001-26,000 GVWR

33,000
Must act to comply by 2023

13,500 HHD
> 26,000 GVWR

19,500 MHHD
14,001-26,000 GVWR

7/18/2019 CARB TRUCK AND BUS REGULATION
Enforcement efforts have been upgraded

• Goal is to level playing field while improving air quality
• 82,000 California registered trucks not compliant today
• Implemented Streamlined Truck Enforcement Process
  • Uses registration, reporting and inspection data to identify compliance status
  • Notices of Non-Compliance followed by Notice of Violation
  • Over 15,000 Notices of Non-Compliance sent addressing nearly 30,000 trucks
  • Over 15,000 DMV registration holds placed
Compliance Assistance

• Outreach to the regulated community
• Financial Assistance
Outreach efforts are varied

**BROAD OUTREACH**

- **DMV Outlets** – videos, posters, booklets, FAQ sheets
- **Industry Coordination** – magazines, newsletters, events
- **TruckStop Website Redesign** – streamlined and intuitive
- **Contracted Media Campaign** – billboards, pump toppers, publication ads, interviews, radio ads, social media, digital ads

**DIRECT OUTREACH**

- **CARB/DMV deadline reminders** sent based on vehicle model years
- **Mailers sent to exempt/otherwise compliant fleets**
- **More operators allocated to CARB’s diesel hotline**
Local outreach efforts

• Training Classes (began in 2011)
  • 33 classes with total of 956 attendees (1/1/17-present)

• One-Stop Events (one-on-one assistance, presentations, trucking industry related vendors, CHP, etc.)
  • 6 events since 2014 (4 in Alameda, 1 in Gilroy,)
  • Livermore upcoming on 8/28/19
  • Typical attendance: 100-200

• Various Local Events
  • CHP Trucker Appreciations Days
  • Presentations upon request
CARB rules impact truck and bus DMV registration
Don’t put the brakes on your business!
arb.ca.gov/truckstop
Incentive Programs

- Fleets must be compliant to be eligible
- Must go beyond what is required by regulations
- Cost effectiveness for diesel to diesel often limits amount of grant
- Total funding is limited
- Some programs are targeted to a turnover to near-zero and zero emission technology
- Funding types
  - Hybrid and Zero-Emission vehicle vouchers
  - Low NOx Engine incentives
  - AB 617 Funds
Truck Loan Assistance Program

- Small fleet are eligible for Truck Loan Assistance Program
  - Fleets of 10 or fewer vehicles
  - Loans to small fleets so far
    - Over 60% to fleets with 2 or fewer vehicles
    - Over 40% to fleets with 1 vehicle
  - Low interest loans
  - $103 million from CARB and counting
  - Over 20,000 loans issued
New law means healthier communities

- Today the Regulation compliance rate is over 80%
- In 2020, DMV compliance verification will ensure a near 100% compliance
- CARB enforcement can then prioritize border crossings to further clean-up the fleet
- Full compliance allows CARB to meet PM and NOx reduction goals for rule
- Reduction of pollutants will reduce health risks and lead to safer communities
Resources are available

- **The TruckStop Webpage**
- **Staff Resource Toolkit**
- **Diesel Hotline: 1-866-634-3735** (Spanish and Punjabi assistance)
- **Upcoming One-Stop Truck Events**
  Compliance assistance and clean technology information
  - August 28th – Livermore
  - October 15th – Red Bluff
  - December 4th – Moreno Valley
Approval of Contract for Clean Cars for All Program Case Managers

Tin Le
Staff Lead for Clean Cars For All Technology Implementation Office

Mobile Source Committee Meeting
July 25, 2019
Benefits from Electric Vehicle (EV) Equity

For Consumers

• Benefit from fuel savings, lower maintenance, ride quality
• Improve air quality in disadvantaged communities and across the Bay Area, aligned with Assembly Bill (AB) 617

For Region & Climate

• Expand EV usage across the Bay Area, including expanded charging network
• Scale-up of EV market beyond early adopters
• Reduce demand and use of fossil fuels
Clean Cars for All Program

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

Advanced Technology
- Purchase or lease
- Hybrid, plug-in, or electric vehicle

Alternative Transportation
- Clipper card
- Card for bike sharing, car-sharing, vanpooling (future option)

http://www.baaqmd.gov/cleancarsforall

*CalEnviroScreen 3.0  ** ≤400% Federal Poverty Level
Status of Clean Cars For All Program
(July 16, 2019)

10 Community events organized or attended

151 Applications in progress

$257,500 awarded

10 Press mentions

- Battery electric vehicle
- Battery electric vehicle with home charging station
- Hybrid
- Plug-in hybrid electric vehicle
New Funding Available to Expand Program

CalEnviroScreen 3.0 Communities

Hybrid
$5,000 - $7,000

Plug-In Hybrid
$5,500 - $9,500

Battery Electric
$5,500 - $9,500

Transit
$2,500 - $4,500

Optional
$2,000 rebate for home charger

Volkswagen Settlement Funds
$4.25M newly available (June 2019)

Entire Bay Area

$4.25 Million (M) available for program launch

Optional

Optional
Outreach and Support for Applicants

Targeted Outreach

- Events and mailers targeting low-income residents in disadvantaged communities
- Education about vehicles, charging, recalls, battery warranties, and vehicle maintenance

Consumer Protection

- Connect applicants with organizations that offer low cost loans and credit counseling support
- Strict guidelines with dealerships who partner with the program
- Systems to protect applicant data

Transaction Assistance

- Provide support for application submission, vehicle selection, financial literacy
- Streamlined program website and application that allows applicants to track progress
Case Managers for Applicant Support

- Non-profit based in Oakland providing clean energy solutions to low-income families
- >10 years providing multilingual and multicultural support in the Bay Area
- Leading or partnering on other Bay Area and California EV incentive and awareness programs

- Selected through Request For Proposal (RFP) #2018-004
- Current scope of work includes one-on-one assistance to applicants and organizing outreach events
- As eligibility and available funding increase, need to expand applicant support
Recommend the Board of Directors:

Authorize the Executive Officer/APCO to amend the Air District’s contract with GRID Alternatives to include an additional $300,000 in funds to perform case management services for the Clean Cars for All Program as it expands to all residents of the Bay Area.

Funding sources:

• Up to $250,000 from the California Air Resources Board grant can be used for contracts to support participation of low-income consumers in disadvantaged communities.
• Up to $50,000 from grants from Federal Highway Administration and CalTrans.
Thank you
Update on the 32nd International Electric Vehicles Symposium EVS32

July 25, 2019

Karen M. Schkolnick
Director, Strategic Incentives
May 19 – 22, 2019 at Eurexpo Convention and Exhibition Centre near Lyon, France
EVS32 -- A world of E-MOTION

Key Messages

• Sustainable mobility is a core shared value
• Barriers and challenges are universal
• Information exchanges, cooperation, and partnerships are essential
Takeaway #1: EVS32

Sustainable mobility is a core shared value

Air quality and climate protection are primary drivers for e-mobility
Takeaway #1: EVS32

Sustainable mobility is a core shared value
Takeaway #2: EVS32

Barriers and challenges are universal

Pre-2010

- lack of options and high costs of cars & infrastructure
- lack of stakeholder involvement and low consumer awareness
- limited battery range, slow charging speed, and lack of standards

2011-2019

- lack of cars and infrastructure
- lack of stakeholder involvement and low consumer awareness
- infrastructure network doesn’t keep up with demand
- need for charging etiquette
- Nascent secondary used car market

2020 - 2030

- insufficient cars and vehicles
- stranded assets & need to upgrade legacy chargers
- confusion and loss of HOV and other incentives
- constrained grid & energy supply and its reliability
Takeaway #2: EVS32

Barriers and challenges are universal

5 biggest barriers - in Norway

- Lack of range: 21%
- Do not believe EVs are more environmentally friendly than other cars: 14%
- Want to wait and see how the car technology develops: 13%
- Other: 7%
- Price/Too expensive: 6%

Have you experienced fast chargers being out of order when trying to charge?

- Experienced charger being out of order: 87%
- Occasionally or often: 56%

Source: Norwegian EV owner survey 2023

Hva tror du skjer med en elbil i 40 kuldegrader?

(Translation: What do you think happens to an electric car in 40 cold degrees?)
Takeaway #3: EVS32

Information exchanges, cooperation, and partnerships are essential

Consensus that E-mobility IS coming—the questions is, WHEN?

Information exchanges, cooperation, and partnerships are key to the successful adoption of EVs world-wide
If E-mobility is coming, how to accelerate the transition?

Continue efforts that support solutions to barriers and effectively address next generation issues.

Beyond electric vehicles
The 33rd International Electric Vehicles Symposium & Exposition, featuring Forth Roadmap 13, will be held June 14 - 17, 2020 and hosted in the City of Portland.