Bay Area Air Quality Management District
Mobile Source Committee

December 18, 2014

Acceptance of Funds from the National Fish and Wildlife Foundation (NFWF) for a Commercial Lawn and Garden Equipment Replacement Program

Damian Breen
Deputy Air Pollution Control Officer
Overview

- Background
- Project Description
- Recommendations
Background

- Alameda and Contra Costa County Health Department staff approached Air District in February 2014 requesting assistance administering a commercial lawn & garden equipment exchange program

- Funding from National Fish & Wildlife Foundation (NFWF)
  - Shoreline LLC’s Selby terminal plea bargain with US Attorney General
  - Plea bargain set aside funding for “the improvement of air quality in the Bay Area, and in particular, Contra Costa and Alameda Counties.”

- Air District staff worked with Health Department staff and NFWF program administrators to develop the program description
Background

- Lawn & garden equipment replacement programs reduce emissions by replacing existing gasoline equipment with zero/low-emission equipment.

- Equipment replacements are not required by regulation, so all emissions reduced by zero/low-emission equipment “change outs” are voluntary.

- Alameda and Contra Costa Counties:
  - One million pieces of lawn & garden equipment
  - Daily Emissions (tons) – 2.1 ROG, 0.7 NOx, 0.15 PM & 116 CO₂

- Air District submitted the proposal to NFWF on October 3, 2014

- NFWF presented Air District with contract on October 29, 2014
Project Description

• Project will replace conventional commercial lawn & garden equipment with zero/low emission equipment

• Equipment targeted:

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Replacement Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawn mowers</td>
<td>Chainsaws</td>
</tr>
<tr>
<td>Leaf blowers</td>
<td>Line trimmers</td>
</tr>
<tr>
<td>Sweepers</td>
<td>Hedge trimmers</td>
</tr>
</tbody>
</table>

• Equipment to be replaced will be scrapped through a contracted metal recycler

• Project will run from February to October 2015

• Air District will receive assistance from Alameda and Contra Costa County Health Department staff
Project Description

**Funding priority:**
- Schools - no funding cap
- Municipalities - $10,000 cap
- Commercial enterprises – $10,000 cap

**Funding:**
- $470,000 award from NFWF
- $423,000 split between Alameda & Contra Costa County to purchase equipment - $211,500/each
- $47,000 to Air District for administration (10%)

**Expected outcome:**
- Replace 450 pieces of equipment
- Reduce yearly emissions (tons): 0.21 ROG, 0.64 NOx, 0.13 PM & 103 CO₂
Recommendations

Request the Committee recommend the Board of Directors:

1. Accept $470,000, in funds from the NFWF to implement a commercial lawn and garden equipment replacement program in Alameda and Contra Costa Counties.

2. Authorize the Executive Officer/APCO to enter into all necessary agreements to implement the program and expend the $470,000, in funds from the NFWF for the commercial lawn and garden equipment replacement program.
Bay Area Air Quality Management District
Mobile Source Committee

December 18, 2014

Consideration of Amendments to the Fiscal Year Ending (FYE) 2015 Transportation Fund for Clean Air (TFCA) Regional Fund Policies

Damian Breen
Deputy Air Pollution Control Officer
Overview

- Background
- TFCA Regional Fund
- Public input process
- Proposed revisions
- Recommendations
Background
Transportation Fund for Clean Air (TFCA)

• Since 1991, $4 surcharge on Bay Area motor vehicles for projects that reduce on-road vehicle emissions
• 60% of TFCA funds awarded directly by the Air District:
  – Air District led projects and programs (Spare the Air, Enhanced Mobile Source Enforcement & Commuter Benefits Project); and
  – TFCA Regional Fund Program
• 40% distributed to the 9-Bay Area Congestion Management Agencies (County Program Manager Fund)
• Board adopts policies and evaluation criteria annually
• TFCA can be used to fund trip reduction and light-duty alternative fuel vehicle-based projects
Approval and Public Comment Process
FYE 2015 TFCA Regional Fund

• **District Board Actions:**
  - **June 5, 2013:** FYE 2014 Alternative Fuel Program and Electric Vehicle project funding allocation;
  - **May 21, 2014:** FYE 2015 Plug-in Electric Vehicle (PEV) and Infrastructure Program and authorized Executive Officer/APCO to execute contracts and amendments with grant awards up to $100,000;

• **October 16 - November 10, 2014:** Open for public comment

• **October 29, 2014:** Public workshop held at BAAQMD and online webinar

• Open call for projects in early 2016 - *Pending approval*
Funding available for projects that:

- Purchase/lease three or more new (2014 or newer) light-duty vehicles to a single owner
- Vehicles must be maintained for three years and meet minimum vehicle mileage requirements

Maximum funding amounts:

<table>
<thead>
<tr>
<th>GVWR</th>
<th>Vehicle Type</th>
<th>15,000 – 24,999 miles per year</th>
<th>25,000 – 34,999 miles per year</th>
<th>35,000 – 44,999 miles per year</th>
<th>45,000 or more miles per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,500 or lighter</td>
<td>SULEV</td>
<td>$1,250</td>
<td>$2,500</td>
<td>$3,500</td>
<td>$4,500</td>
</tr>
<tr>
<td></td>
<td>ZEV</td>
<td>$4,000</td>
<td>$6,500</td>
<td>$8,500</td>
<td>$10,500</td>
</tr>
<tr>
<td>8,501 – 14,000</td>
<td>SULEV</td>
<td>$6,000</td>
<td>$8,000</td>
<td>$10,000</td>
<td>$12,000</td>
</tr>
<tr>
<td></td>
<td>ZEV</td>
<td>$10,000</td>
<td>$12,000</td>
<td>$14,000</td>
<td>$16,000</td>
</tr>
</tbody>
</table>
• Funding available for projects that:
  - Purchase/lease 2014 or newer heavy-duty vehicles
  - Vehicles must be maintained for **three years** and meet minimum vehicle mileage requirements

• Maximum funding amounts:

<table>
<thead>
<tr>
<th>GVWR/Intended Service Class</th>
<th>Average Annual Mileage/Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15,000 – 29,999 miles per year</td>
</tr>
<tr>
<td>14,001 – 33,000</td>
<td>$12,500</td>
</tr>
<tr>
<td>33,000+</td>
<td>$20,000</td>
</tr>
<tr>
<td>URBAN BUS</td>
<td>$15,000</td>
</tr>
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</table>
Proposed Update to FYE 2015 TFCA Policies and Evaluation Criteria

Policy #24 - Alternative Fuel Infrastructure

- CNG and Hydrogen station requirements:
  - Open to the public
  - Operate for three years & adhere to existing standards
  - Funding for new dispensing facilities and upgrade & improvements that expand existing sites
  - State or Federal Agency has funded or given passing score (For Hydrogen projects only)

- Award limited to $300,000, or 35% of total project cost

- $1.25 million max. grant amount per non-public entity (increased from $500k, Policy #7)
Recommendations

Request the Committee recommend the Board of Directors:

1. Approve changes to the FYE 2015, Transportation Fund for Clean Air (TFCA) Regional Fund Policies to include light-duty zero and partial zero emissions vehicles for fleets, heavy-duty zero emissions vehicles, and alternative fuel infrastructure (hydrogen and CNG) projects as eligible project types.

2. Authorize the Executive Officer/APCO to enter into contracts for eligible projects.
Transportation Fund for Clean Air (TFCA) Cost-Effectiveness Report

Damian Breen
Deputy Air Pollution Control Officer
Overview

• TFCA background

• Key highlights
  ➢ Expenditures
  ➢ Emissions reductions
  ➢ Cost-effectiveness

• Recommendation
• **Transportation Fund for Clean Air (TFCA)**
  - Funded by $4 motor vehicle registration fee surcharge
  - 60% to Regional Fund projects and Air District Programs
  - 40% to County Program Manager Fund

• **Health and Safety Code (HSC) Requirements**
  - Section 44241: requires annual public hearing to review TFCA expenditures to determine effectiveness in improving air quality
Total expenditures for 25 Projects $8.84 million:

- $4.46 million for 22 Regional Fund projects
- $3.58 million for 3 Air District-sponsored programs
- $803,192 in administrative and indirect costs
Emissions Reductions of Programs and Projects Closing in FYE 2014

**Lifetime Emission Reductions:**

- **Criteria pollutant emissions:** 229.57 tons
  - 72.83 tons of reactive organic gases
  - 92.30 tons of nitrogen oxides
  - 64.45 tons of particulate matter
- **Greenhouse gas emissions:** 116,327 tons
### Table 1: Emission Reductions and Cost-Effectiveness (C/E) by Program Category

<table>
<thead>
<tr>
<th>Category</th>
<th># of Projects</th>
<th>TFCA $ Expended</th>
<th>% of TFCA $ Expended</th>
<th>Emissions Reduced (tons)(^a)</th>
<th>% of Emissions Reduced</th>
<th>C/E - Weighted ($/tons)(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle Facilities</td>
<td>3</td>
<td>$140,045</td>
<td>1.74%</td>
<td>1.75(^c)</td>
<td>0.76%</td>
<td>$90,000</td>
</tr>
<tr>
<td>Shuttles</td>
<td>7</td>
<td>$1,664,782</td>
<td>20.71%</td>
<td>15.70</td>
<td>6.84%</td>
<td>$80,104(^d)</td>
</tr>
<tr>
<td>Ridesharing</td>
<td>3</td>
<td>$1,463,880</td>
<td>18.21%</td>
<td>59.91</td>
<td>26.10%</td>
<td>$19,100</td>
</tr>
<tr>
<td>Arterial Management/Smart Growth</td>
<td>5</td>
<td>$970,422</td>
<td>12.07%</td>
<td>16.24</td>
<td>7.07%</td>
<td>$26,721(^e)</td>
</tr>
<tr>
<td>Transit Buses</td>
<td>1</td>
<td>$36,626</td>
<td>0.46%</td>
<td>0.44</td>
<td>0.19%</td>
<td>$78,220</td>
</tr>
<tr>
<td>Electric Vehicle Charging</td>
<td>3</td>
<td>$181,008</td>
<td>2.25%</td>
<td>0.54</td>
<td>0.23%</td>
<td>$78,312</td>
</tr>
<tr>
<td>Enhanced Mobile Source Inspections/Smoking Vehicle Program</td>
<td>1</td>
<td>$2,091,236</td>
<td>26.01%</td>
<td>4.89</td>
<td>2.13%</td>
<td>$277,346(^f)</td>
</tr>
<tr>
<td>Spare the Air Program</td>
<td>1</td>
<td>$1,351,460</td>
<td>16.81%</td>
<td>122.72</td>
<td>53.46%</td>
<td>$37,813(^g)</td>
</tr>
<tr>
<td>Vehicle Buy-Back Program</td>
<td>1</td>
<td>$140,333(^h)</td>
<td>1.75%</td>
<td>7.38(^i)</td>
<td>3.22%</td>
<td>$6,089</td>
</tr>
<tr>
<td><strong>Total for Projects and Programs</strong>(^j)</td>
<td>25</td>
<td>$8,039,794</td>
<td>100%</td>
<td>229.57</td>
<td>100%</td>
<td>$39,332</td>
</tr>
<tr>
<td>Administration</td>
<td></td>
<td>$803,192</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• TFCA funds were allocated to eligible recipients for eligible projects and programs, consistent with the legislation that authorizes the TFCA.

• Average cost-effectiveness was $39,332/ton of emissions reduced.

• Staff is exploring options for streamlining survey process and for updating pre- and post-project evaluation methodology to ensure all emissions reductions are captured.
Recommendation

Request the Committee recommend the Board of Directors:

Receive and file the TFCA Report on Expenditures and Effectiveness of Regional Fund and Air District-Sponsored Programs and Projects Closing in Fiscal Year Ending (FYE) 2014 (Attachment 1).