California’s
Air Quality Improvement Program
(AQIP)

Joe Calavita, California Air Resources Board
East Bay Clean Cities
November 2, 2010

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Air Resources Board
$500M+/year CA Investment

**Carl Moyer**
- Trucks and buses
- Off-road equipment
- Ag pumps
- Marine vessels

**Prop 1B**
- Line-haul trucks
- Locomotives
- Marine vessels
- Shore power

**School Bus**
- $200M*

**BAR**
- $30M

**ARB**
- $50M

**CEC**
- $120M

- Advanced technology vehicles and equipment
- Low carbon vehicles and fuels
- Support Infrastructure
- R & D
- Climate change goals

*SIP emission reductions

*Smog/PM in goods movement corridors

*Children’s air toxic exposure

*Criteria pollutants and toxics

*Smog from gross polluters

*School bus funds only allocated in one year.
Air Quality Improvement Program

• $30 to $50M/year for clean vehicles and equipment (thru 2015)
• Annual Funding Plan identifies projects to:
  – Spur early deployment of next generation technologies
  – Fund projects not served by other incentives
• Projects implemented via third-party Grantees
• Streamlined consumer vouchers or rebates
## AQIP Projects Thus Far…

<table>
<thead>
<tr>
<th>Project Name</th>
<th>FY 2009-10</th>
<th>FY 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hybrid Truck and Bus Voucher Incentive Project (HVIP)</td>
<td>$20M</td>
<td>$19M</td>
</tr>
<tr>
<td>Clean Vehicle Rebate Project</td>
<td>$5M</td>
<td>$5M</td>
</tr>
<tr>
<td>Lawn &amp; Garden Equipment Replacement</td>
<td>$1.6M</td>
<td>$1.1M</td>
</tr>
<tr>
<td>Ag UTV Rebate Project</td>
<td>$1.1M</td>
<td>$0.5M</td>
</tr>
<tr>
<td>Demonstration Projects</td>
<td>$2M</td>
<td>$3M</td>
</tr>
<tr>
<td>Hybrid Off-Road Equip Pilot</td>
<td>--</td>
<td>$2M</td>
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</table>
HVIP Overview

• Provides about \( \frac{1}{2} \) incremental cost
  – $15-40k per vehicle, depending on GVW
  – First-come, first-served until funds depleted

• Implemented via vehicle dealers
  – Over forty eligible hybrid trucks and buses
  – Voucher amount deducted from purchase price

• Vehicles stay in CA for three years
This Year’s Successful HVIP

- ACEEE award for top emerging program
- Implemented by Calstart and TIAX
- $20M for 650+ hybrid trucks and buses
  - Mostly private fleets, delivery vehicles
- Launched this February, now fully subscribed
- Additional funds now available for vehicles in the South Coast Air Basin
More HVIP Funds Coming

- $19-25M approved by ARB in June
- ARB now soliciting HVIP Grantee
- Vouchers available in early 2011
  - Zero-emission vehicles to be eligible
  - Possible set-aside for public fleets
## HVIP Voucher Amounts

<table>
<thead>
<tr>
<th>Gross Vehicle Weight in Pounds (lbs)</th>
<th>Base Voucher Amount&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,501 – 10,000 lbs&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Plug-in Hybrid $10,000</td>
</tr>
<tr>
<td></td>
<td>Zero-Emission $15,000</td>
</tr>
<tr>
<td>10,001 – 19,500 lbs</td>
<td></td>
</tr>
<tr>
<td>19,501 – 33,000 lbs</td>
<td>$20,000</td>
</tr>
<tr>
<td>33,001 – 38,000 lbs</td>
<td>$25,000</td>
</tr>
<tr>
<td>&gt; 38,000 lbs</td>
<td>$30,000</td>
</tr>
</tbody>
</table>

1 Add an additional $5,000 for the first HVIP voucher received by each fleet.
2 Zero-emission vehicles of this weight are eligible for $20,000.
Clean Vehicle Rebate Project (CVRP)

- Consumer rebate for zero-emission and plug-in hybrid passenger vehicles
- Implemented by California Center for Sustainable Energy
  - ~$3M still available in FY 2009-10 funds
- ARB to solicit FY 2010-11 Grantee soon
- More ZEV funds needed beyond 2011
## CVRP Rebate Amounts

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Max Rebate Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero-Emission Light-Duty Vehicle</td>
<td>$5,000</td>
</tr>
<tr>
<td>Plug-in Hybrid Light-Duty Electric Vehicle</td>
<td>$3,000</td>
</tr>
<tr>
<td>Neighborhood Electric Vehicle</td>
<td>$1,500</td>
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<tr>
<td>Zero-Emission Motorcycle</td>
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</tbody>
</table>
Off-Road Hybrid Equipment Pilot Project

$2M in FY 2010-11

• Accelerate deployment and evaluate emissions benefits of hybrid equipment
  • Fund half incremental equipment cost plus emissions testing
  • Pave way for future voucher/rebate program

• Grantee Solicitation this Fall

• Work Group meeting November 9th
<table>
<thead>
<tr>
<th>Programme</th>
<th>Contact Details</th>
<th>Current Programme</th>
<th>Webpage</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVIP</td>
<td>Joe Calavita (ARB) @ (916)445-4586</td>
<td></td>
<td><a href="http://www.californiahvip.org">www.californiahvip.org</a></td>
</tr>
<tr>
<td>CVRP</td>
<td>Meri Miles (ARB) @ (916) 322-6370</td>
<td></td>
<td>energycenter.org/</td>
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<tr>
<td>Off-Road Pilot</td>
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<tr>
<td></td>
<td>Joe Calavita</td>
<td></td>
<td>E-mail: <a href="mailto:jcalavit@arb.ca.gov">jcalavit@arb.ca.gov</a></td>
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<td>AQIP Webpage: Google ‘ARB AQIP’</td>
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<td>ARB Diesel Hotline: (866) 634-3735</td>
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