FAA Emissions Reduction Programs

Presented to: State of Connecticut
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Agenda:

• VALE/ZEV Program
• The application process
• Changes by the Reauthorization Act
• Requirements
VALE – Voluntary Airport Low Emissions Program

• Available only to commercial airports
• Must be in an area determined to be “non-attainment” or “maintenance” for NAAQS
• Projects evaluation (location, 1st entry, emission reduction efficiency among others)
• Projects are eligible for Airport Emission Reduction Credits (AERCs)
• Emission reductions (on airport and tracked)
VALE – Voluntary Airport Low Emissions Program Continued

• Currently 1,192 Average annual tons of ozone reduction/year (equivalent to 66,550 cars and trucks off the road)

• Types of Projects
  – Gate Electrification
  – Ground Service Equipment (electrification)
  – Geothermal
  – Solar Hot Water
  – Zero and low emissions vehicles (differential cost only)
### How VALE’s AERCs work:

<table>
<thead>
<tr>
<th>Grant/Action</th>
<th>Calendar Year of VALE Project Operations (tons per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>CAAA <em>de minimis</em> threshold for NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td></td>
</tr>
<tr>
<td>Direct and indirect NO&lt;sub&gt;x&lt;/sub&gt; emissions from airport improvement project</td>
<td></td>
</tr>
<tr>
<td>VALE Project 1 AERCs</td>
<td>1</td>
</tr>
<tr>
<td>VALE Project 2 AERCs</td>
<td>0</td>
</tr>
<tr>
<td>Total AERCs available</td>
<td>1</td>
</tr>
<tr>
<td>AERCs used for General Conformity</td>
<td></td>
</tr>
<tr>
<td>Annual balance of available AERCs after General Conformity</td>
<td>1</td>
</tr>
<tr>
<td>Annual NO&lt;sub&gt;x&lt;/sub&gt; emissions from construction with AERC use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>49</td>
</tr>
</tbody>
</table>
ZEV – Zero Emission Vehicle Program

• Newer program
• Does not track emission reductions
• Available to any public use airport in the NPIAS
• Primary evaluation based on emission reduction efficiency
• Provides more funding match than the VALE counterpart for vehicles
ZEV Project Types

- Electrical and Fuel Cell cars and buses
- GSE/Maintenance Vehicles

Notes:
- Commercially available
- Buy American
VALE/ZEV Funding

Year: 2011 to 2019

2011: $25.0 million
2012: $10.0 million
2013: $15.0 million
2014: $20.0 million
2015: $25.0 million
2016: $30.0 million
2017: $25.0 million
2018: $15.0 million
2019: $10.0 million

ZEV: 2011-2015
VALE: 2016-2019

Federal Aviation Administration
VALE and ZEV Application Process

• Initial applications due November 1
• Initial application simple – 3 page max
  – Brief project description including benefits
  – Airports current air quality status
  – Estimate of emissions reductions/year
  – Estimate of FAA funding request
• Those approved for next stage will need more detailed final application (VALE).
VALE and ZEV Continued

• Annual project solicitation and review:
  – Airports submit project proposals to FAA’s Airport Regional and District Offices, HQ approves
  – **VALE:** AQ agencies approve Airport Emission Reduction Credits (AERCs)

• Emission Reduction Efficiencies
• VALE Small projects exemption
• Process
Reauthorization Act Changes

VALE:

• Not much change overall
• Projects must only be eligible for Airport Emission Reduction Credits
• Off airport use limits defined:
  – consolidated rental car facility or
  – an intermodal surface transportation facility adjacent to the airport
Reauthorization Act Changes

ZEV:

• Changes in federal cost share (AIP, no longer 50:50)
• Retrofitting is now allowed.
• Off airport use limits defined:
  – nearby facilities which are owned or controlled by the airport or which otherwise directly support the functions or services provided by the airport, or
  – an intermodal surface transportation facility adjacent to the airport
Reauthorization Act Changes

ZEV Continued:

- Purchase or Lease
- Vehicles tested by Federal Facility
- Flexible procurement for power source
- Combined Technical Assistance and Project Management limited to 10% of grant
VALE Tracking Details

- Sponsor is responsible for tracking all vehicles and equipment including equipment non-airport owned.
- Must keep annual usage records
  - FAA review/public review/auditing
- Timing of project implementation
  - Purchase of equipment
  - Installation of equipment
  - Type of equipment
- Applies to Airlines/Tenants
VALE and ZEV Program Requirements:

• **New Equipment**
  – Must remain on airport (slight exceptions)
  – Life span of equipment
    • Varies by type of equip (bus 10 years, preconditioned air 13 year, ground power units 20 years, tugs )
  – Replacement
    • If equipment breaks down before lifespan of equipment

• **Old VALE Equipment – Destroyed or…**

• **Only pays for portions of project that result in emission reductions.**
QUESTIONS