

FAA Emissions Reduction Programs

Presented to:

**State of Connecticut
SIPRAC**

By:

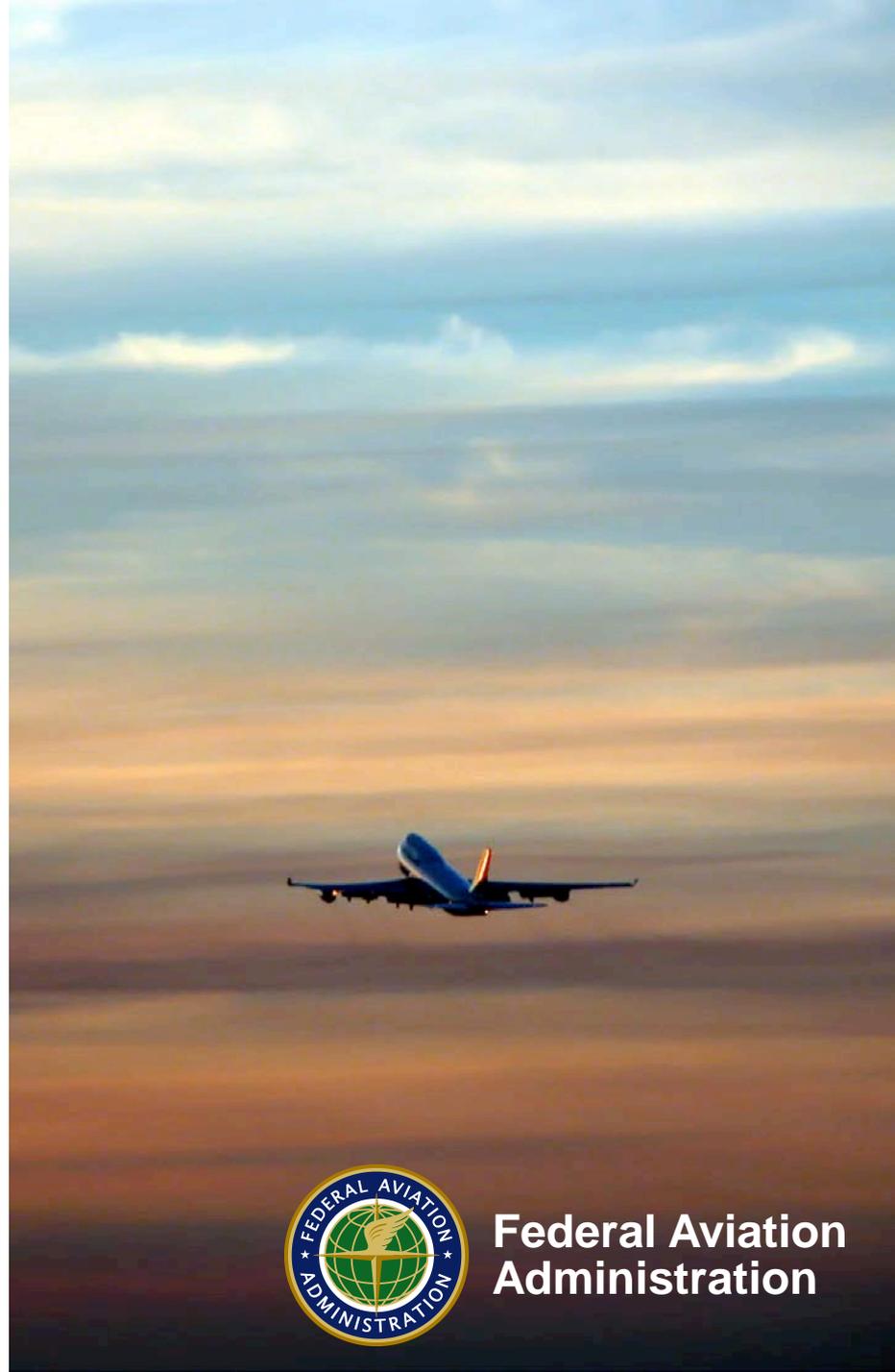
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Date:

October 10, 2019



**Federal Aviation
Administration**



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:

Grant/Action	Calendar Year of VALE Project Operations (tons per year)								
	1	2	3	4	5	6	7	8	9
CAAA <i>de minimis</i> threshold for NO _x	50	50	50	50	50	50	50	50	50
Direct and indirect NO _x emissions from airport improvement project			53	54	48	51	50		
VALE Project 1 AERCs	1	2	2	2	2	2	2	2	2
VALE Project 2 AERCs	0	0	4	4	4	4	4	4	4
Total AERCs available	1	2	6	6	6	6	6	6	6
AERCs used for General Conformity			4	5	0	2	1		
Annual balance of available AERCs after General Conformity	1	2	2	1	6	4	5	6	6
Annual NO _x emissions from construction with AERC use			49	49	48	49	49		





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

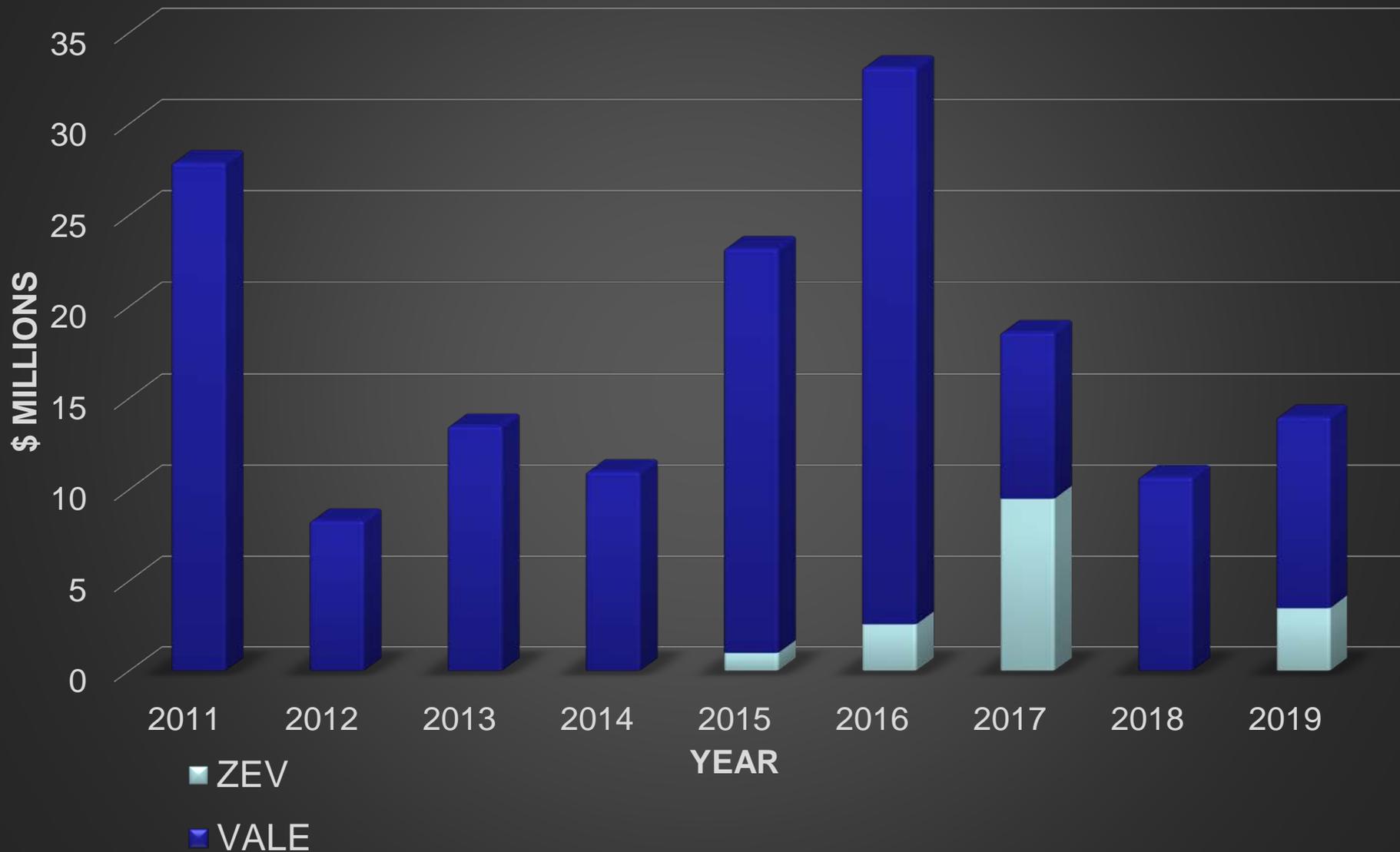
- **Electrical and Fuel Cell cars and buses**
- **GSE/Maintenance Vehicles**

Notes:

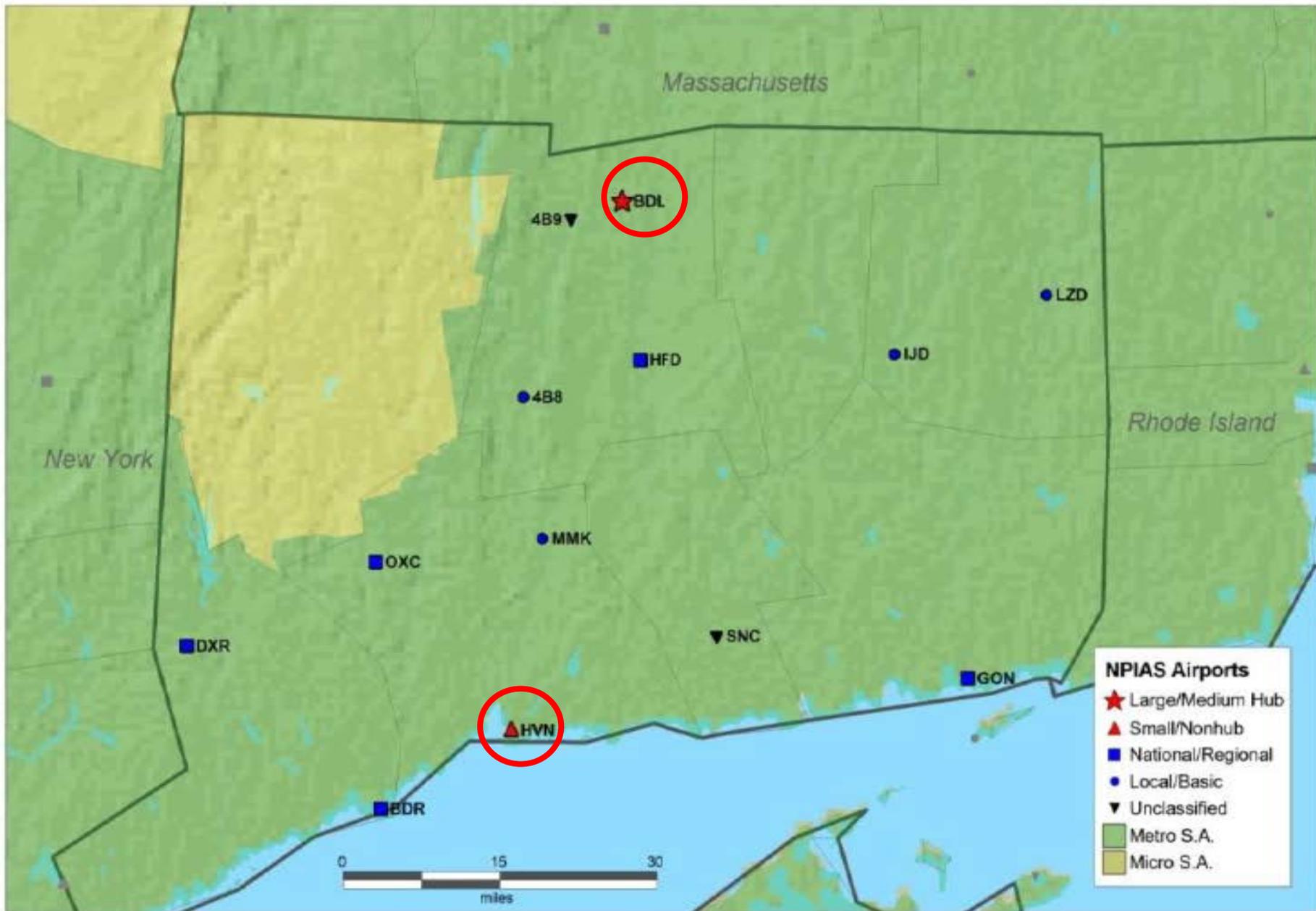
- **Commercially available**
- **Buy American**



VALE/ZEV Funding



Connecticut



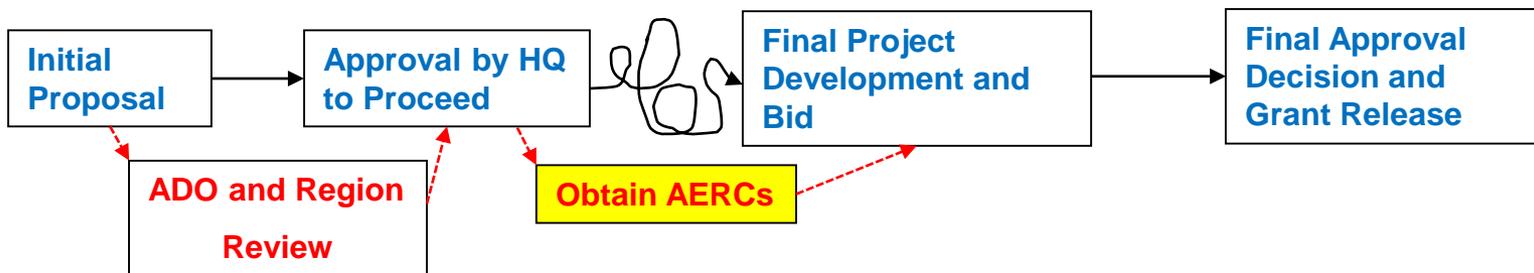
VALE and ZEV Application Process

- 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

