

AOS 41 DEDHAM/ORRINGTON
2007 D → D

10/1/18
dcgk

Section 7: Application Scoring Matrix

Score Assigned	Attachment	Attachment Description
10	A	Mitigation Action Description: Related to Maine's Beneficiary Mitigation Plan
10 7990	B	NOx Emission Reduction: NOx emission reductions estimate using EPA's Diesel Emission Quantifier
10	C	Health Benefits: Maximized health benefits include: reductions in particulate matter and/or greenhouse gases; net reduction of diesel fuel use; or idle reduction strategies.
10	D	Action Location: Within an area with a disproportionate quantity of air pollution from diesel fleets, such as ports, rail yards, terminals, school depots/yards, and freight distribution areas.
5 ACADIA	E	Class 1 Areas: Benefits a designated federal Class 1 Area, specifically Acadia National Park, Roosevelt Campobello International Park, or the Moosehorn Wilderness Area located within the Moosehorn National Wildlife Refuge Area.
10	F	Verified Funding: Match or leveraged funding for cost sharing secured. Budget provided.
10	G	Action Schedule: Action implemented within two years of the award date. Schedule provided.
10	H	Benefit Period: Sustained emission benefits over the ten-year Trust Effective Period. Maintenance plan provided.
10	I	Relevant Experience and Compliance Certification: Existing administration and programmatic structure in place to implement diesel emission reduction or offset actions.

Vehicle Miles Traveled/Year (VMT)	Annual Baseline of Vehicles (NOx, short tons)	Percent Reduced (NOx, %)	Capital Cost Effectiveness (\$/short ton), Retrofitted Vehicles (NOx)
13188	0.045402424	79.10%	150,839.39

Type	Target Fleet	Class/Equipment	Model Year	Retrofit Year	Technology Description	Fuel Type
Onroad	School Bus	School Buses	2007	2019	Vehicle Replacement - Diesel	ULSD

dedham-orrington

Gates, Judy

From: Rebecca Enman <r.enman@cdsedu.org>
Sent: Tuesday, September 04, 2018 9:40 AM
To: Gates, Judy
Subject: Re: VW Application
Attachments: airlinebus.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Thank you, please see the attached.

Rebecca F. Enman
Business Manager
AOS #47
Dedham & Orrington School Dept.
Airline CSD 8
19 School Street
Orrington, ME 04474
207-825-3364 office
207-825-3393 fax
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On Tue, Sep 4, 2018 at 9:29 AM, Gates, Judy <Judy.Gates@maine.gov> wrote:

Yes, that's fine.

Judy C. Gates, Director



Environmental Office

16 State House Station

Augusta, ME 04333

Desk: (207) 624-3097

Cell: (207) 841-3791

www.mainedot.gov

From: Rebecca Enman [mailto:r.enman@cdsedu.org]

Sent: Tuesday, September 04, 2018 9:26 AM

To: Gates, Judy <Judy.Gates@maine.gov>

Subject: VW Application

Good Morning Judy, do I email, mail you the Volkswagen application?

Rebecca F. Enman

Business Manager

AOS #47

Dedham & Orrington School Dept.

Airline CSD 8

19 School Street

Orrington, ME 04474

207-825-3364 office

207-825-3393 fax

207-944-9840 cell



MaineDOT

(For MaineDOT Use Only)

Date Application

Received

9/4/2018

Beneficiary's Project ID
23901.10

Funding Request #

1

Maine Volkswagen Environmental Mitigation Action Round 1 Application for Appendix D-2 Eligible Actions

- All applications for Round 1 funding are due by **September 15, 2018**.
- A fillable application template is available at www.maine.gov/mdot/vw/application
- Use the list of attachments in Section 3 to ensure that your application is complete.
- Funding approvals for action(s) may be whole or partial.
- A timeline for Maine's Round 1 application process can be found at www.maine.gov/mdot/vw/application.
- For information on Maine's Diesel Emission Reduction Act (DERA) Program, go to <http://www.maine.gov/dep/air/mobile/cleandiesel.html>.
- For information on Zero Emission Vehicle Supply Equipment (ZEVSE), go to www.efficiencymaine.com.
- Submit any questions through the website at www.maine.gov/mdot/vw/application/faqs.
- Information on the current base price for Maine school buses can be found at <http://www.maine.gov/doe/transportation/programs/buspurchase.html>

Section 1: General Information

Action Title: Airline Bus Replacement			
Action Location: Town/Territory: Aurora		County: Hancock	
Type of Action: Repower: <input type="checkbox"/> Replacement: <input checked="" type="checkbox"/>			
Action Proponent: Rebecca Enman			
Action Proponent Mailing Address: 19 School Street			
City: Orrington	State: ME	Zip: 04474	County: Penobscot
Daytime Phone: 825-3364	Alternate Phone: 944-9840		Email: r.enman@cdsedu.org
Authorized Agent (if different from Action Proponent): James Stoneton			
Authorized Agent Mailing Address: 19 School Street			
City: Orrington	State: ME	Zip: 04474	County: Penobscot
Daytime Phone: 825-3364	Alternate Phone:		Email: j.stoneton@cdsedu.org

Section 2: Eligibility Criteria

The following categories are eligible mitigation actions pursuant to Appendix D-2 of the Environmental Mitigation Trust Agreement (https://www.maine.gov/mdot/vw/app/Maine_VW_Eligible_Mitigation_Actions_1-8.pdf) and reflect basic eligibility criteria for consideration under this program. See Maine's Beneficiary Mitigation Plan (www.maine.gov/mdot/vw/BMP_final_2-12-18.pdf) for details on eligibility. Check all that apply. Leave checkboxes blank for actions that don't apply. List individual vehicles or equipment using the table on the following page.

Check all that apply	Eligible Mitigation Actions
<input type="checkbox"/>	1992-2009 engine model year Class 8 Local Freight Trucks and Port Drayage Trucks repowered with any new diesel or alternate fueled engine or all-electric engine, or replaced with any new diesel or alternate fueled or all-electric vehicle, with the engine model year in which the eligible large trucks mitigation action occurs or one engine model year prior.
<input checked="" type="checkbox"/>	2009 engine model year or older Class 4-8 school buses, shuttle buses, or transit buses repowered with any new diesel or alternate fueled or all-electric engine, or replaced with any new diesel or all-electric vehicle, with the engine model year in which the eligible bus mitigation action occurs or one engine model year prior.
<input type="checkbox"/>	Pre-Tier 4 freight switcher locomotives that operate 1000 or more hours per year repowered with any new diesel or alternate fueled or all-electric freight switcher certified to meet the applicable EPA emissions standards or other more stringent equivalent state standard.
<input type="checkbox"/>	Unregulated, Tier 1 or Tier 2 marine engines on ferries or tugs repowered with Tier 3, Tier 4, alternate fueled, or all-electric engine, or upgraded with an EPA certified remanufacture system or an EPA verified engine upgrade.
<input type="checkbox"/>	Marine shore power systems or components of such systems that enable a compatible vessel's main and auxiliary engines to remain off while the vessel is at berth. Components eligible for reimbursement are limited to: cables, cable management systems, shore power coupler systems, distribution control systems, and power distribution. Subject marine shore power systems comply with international shore power design standards (ISO/IEC/IEEE 80005-1-2012 high voltage shore connection systems or the IEC/PAS 80005-3:2014 low voltage shore connection systems) and are supplied with power sourced from the local utility grid.
<input type="checkbox"/>	1992-2009 engine model year Class 4-7 local freight trucks repowered with a new diesel, alternate fueled, or all-electric engine, or replaced with any new diesel, alternate fueled, or all-electric vehicle, with the engine model year in which the eligible medium trucks mitigation action occurs or one engine model year prior.
<input type="checkbox"/>	Tier 0, Tier 1, or Tier 2 diesel powered airport ground support equipment; and uncertified or certified to 3 g/bhp-hr or higher emissions spark ignition engine powered airport ground support equipment repowered with an all-electric engine, or replaced with the same airport ground support equipment in an all-electric form.
<input type="checkbox"/>	Forklifts with greater than 8000 pounds of lift capacity and port cargo handling equipment repowered with an all-electric engine, or replaced with the same equipment in an all-electric form.

**Vehicles & equipment proposed for replacement or repower
under this Eligible Mitigation Action.
(Leave fields blank that do not apply)**

Current Vehicle Class	Current Tier (if applicable)	Current Model	Current Model Year	Mileage	Current Fuel Type	Proposed Fuel Type	Associated equipment
		Freightliner	2007	145,074	Diesel	Diesel	N/A 79% 9

Section 3: Action Overview and Instructions

The following information provides the reviewers with background on the proposed action and will be considered as part of final decisions on what actions are funded in any given year. If an attachment is not applicable to the proposed action, that action is not disqualified from funding; however, Action Proponents are encouraged to provide accurate and concise answers to as many questions as possible and note why an attachment is not relevant to their proposal.

Check if attached	Scoring (for MaineDOT use)	Attachment	Attachment Description
<input checked="" type="checkbox"/>		A	Mitigation Action Description: Attach a no more than two-page narrative describing the action and how it relates to Maine's Beneficiary Mitigation Plan and label as "Attachment A".
<input checked="" type="checkbox"/>		B	NOx Emission Reduction: Estimate the NOx emission reductions from the action in terms of dollar per ton of NOx using EPA's Diesel Emission Quantifier found at https://cfpub.epa.gov/quantifier/index.cfm?action=main.home or for heavy-duty vehicles: http://afleet-web.es.anl.gov/hdv-emissions-calculator/ . Attach a <u>separate</u> summary calculation worksheet generated by the Quantifier for <u>each</u> vehicle or piece of equipment and label as "Attachment B".
<input checked="" type="checkbox"/>		C	Health Benefits: Describe any health benefits <u>maximized</u> by the action <u>beyond</u> calculated NOx emission reductions as "Attachment C". Examples of maximized health benefits include: reductions in particulate matter and/or greenhouse gases; net reduction of diesel fuel use; or idle reduction strategies.
<input type="checkbox"/>		D	Action Location: As "Attachment D", indicate whether the action will occur in an area with a disproportionate quantity of air pollution from diesel fleets, such as ports, rail yards, terminals, school depots/yards, and freight distribution areas.
<input checked="" type="checkbox"/>		E	Class 1 Areas: Using the maps found at https://www.maine.gov/dep/air/meteorology/class1 , note the location of the proposed action to indicate whether it will benefit a designated federal Class 1 Area, specifically Acadia National Park, Roosevelt Campobello International Park, or the Moosehorn Wilderness Area located within the Moosehorn National Wildlife Refuge Area. Include the map as "Attachment E".
<input checked="" type="checkbox"/>		F	Verified Funding: As "Attachment F", verify that the action has secured funding for cost sharing or leveraging by providing a commitment letter or signed agreement from a financial institution or budget committee for cost share or leveraged funding. Also, using the template in Section 4 of this application, include a general project budget indicating the amount of match to be provided by the Action Proponent.
<input checked="" type="checkbox"/>		G	Action Schedule: The action must be implemented within two years of the award date. Using the template provided in Section 4 of this application, provide schedule and major milestones, labeled as "Attachment G".
<input checked="" type="checkbox"/>		H	Benefit Period: The action must result in sustained emission benefits over the ten-year Trust Effective Period. Provide a concise description of how benefits will persist through 2027 and a maintenance plan for eligible vehicles/equipment funded under this program as "Attachment H".

Check if attached	Scoring (for MaineDOT use)	Attachment	Attachment Description
<input checked="" type="checkbox"/>		I	Relevant Experience and Compliance Certification: By signing provisions in "Attachment I", the Action Proponent and Authorized Agent (if applicable) verify that there is existing administration and programmatic structure in place to implement diesel emission reduction or offset actions.

Appendix A

The Airline Community School covers several towns all of which are greatly spread out. They also have school of choice for their secondary education. All of this means a lot of mileage and idle hours for our buses. Being a small school funds are not easily attainable to replace these outdated buses. Our main bus runs approximately 27,500 miles a year. We would be able to use our newer bus for over half these miles which will bring down the NOx even more.

Replacing our 2007 bus with a 2018 would reduce NOx roughly by 79.1%. Since Airline is located in Hancock County but also travels to Penobscot County for high school this would have an effect on two counties.

Attachment B

Rebecca Enman	8/27/2018	Detailed Report from the Diesel Emissions Quantifier				
AOS 47						
Rebecca	Enman					
r.enman@cdsedu.org						
000-000-0000						
Type	Target Fleet	Class/Equipment	Number of Vehicles	Model Year	Retrofit Year	
Onroad	School Bus	School Buses	1	2007	2018	

Attachment B

Technology Description	Fuel Type	Fuel Volume	Calculated Fuel Volume	Vehicle Miles Traveled/Year (VMT)	Idling Hours/Year	Horsepower
Vehicle Replacement - Diesel	ULSD	1360	1360	2700	107	

Attachment B

Usage Rate/Year	Number of Vehicles Retrofitted	New Model Year	Diesel Fuel Reduced (gallons)	Reduced Idling (hours)	Installation Cost
	1	2018	0	0	\$0

Attachment B

Unit Cost	Annual Baseline of Vehicles (NOx, short tons)	Lifetime Baseline of Vehicles (NOx, short tons)	Percent Reduced (NOx, %)
\$48,000	0.011463931	0.091711448	79.10%

Attachment B

Baseline of Vehicles Retrofitted per year (NOx, short tons/year)	Amount Reduced per Year(NOx, short tons)	Lifetime Baseline of Vehicles Retrofitted (NOx, short tons)
0.0115	0.0091	0.0917

Lifetime Amount Reduced (NOx, short tons)	Lifetime Amount Emitted After Retrofit, Retrofitted Vehicles (NOx, short tons)	Capital Cost Effectiveness (\$/short ton), Retrofitted Vehicles (NOx)
0.0725	0.0192	661,669.64

Attachment B

Annual Baseline of Vehicles (PM2.5, short tons)	Lifetime Baseline of Vehicles (PM2.5, short tons)	Percent Reduced (PM2.5, %)
9.14E-05	0.000731097	47.40%

Baseline of Vehicles Retrofitted per year (PM2.5, short tons/year)	Amount Reduced per Year(PM2.5, short tons)	Lifetime Baseline of Vehicles Retrofitted (PM2.5, short tons)
0.0001	0	0.0007

Attachment B

Lifetime Amount Reduced (PM2.5, short tons)	Lifetime Amount Emitted After Retrofit, Retrofitted Vehicles (PM2.5, short tons)	Capital Cost Effectiveness (\$/short ton), Retrofitted Vehicles (PM2.5)
0.0003	0.0004	138,512,227.24

Annual Baseline of Vehicles (HC, short tons)	Lifetime Baseline of Vehicles (HC, short tons)	Percent Reduced (HC, %)	Baseline of Vehicles Retrofitted per year (HC, short tons/year)
0.000715772	0.005726177	55.40%	0.0007

Attachment B

Amount Reduced per Year(HC, short tons)	Lifetime Baseline of Vehicles Retrofitted (HC, short tons)	Lifetime Amount Reduced (HC, short tons)
0.0004	0.0057	0.0032

Lifetime Amount Emitted After Retrofit, Retrofitted Vehicles (HC, short tons)	Capital Cost Effectiveness (\$/short ton), Retrofitted Vehicles (HC)	Annual Baseline of Vehicles (CO, short tons)
0.0026	15,130,967.58	0.002562883

Attachment B

Lifetime Baseline of Vehicles (CO, short tons)	Percent Reduced (CO, %)	Baseline of Vehicles Retrofitted per year (CO, short tons/year)	Amount Reduced per Year(CO, short tons)
0.020503064	55.40%	0.0026	0.0014

Lifetime Baseline of Vehicles Retrofitted (CO, short tons)	Lifetime Amount Reduced (CO, short tons)	Lifetime Amount Emitted After Retrofit, Retrofitted Vehicles (CO, short tons)
0.0205	0.0114	0.0091

Attachment B

Capital Cost Effectiveness (\$/short ton), Retrofitted Vehicles (CO)	Annual Baseline of Vehicles (CO2, short tons)	Lifetime Baseline of Vehicles (CO2, short tons)
4,225,836.58	15.3	122.4

Percent Reduced (CO ₂ , %)	Baseline of Vehicles Retrofitted per year (CO ₂ , short tons/year)	Amount Reduced per Year(CO ₂ , short tons)
0.00%	15.3	0

Attachment B

Lifetime Baseline of Vehicles Retrofitted (CO ₂ , short tons)	Lifetime Amount Reduced (CO ₂ , short tons)	Lifetime Amount Emitted After Retrofit, Retrofitted Vehicles (CO ₂ , short tons)
122.4	0	122.4

Capital Cost Effectiveness (\$/short ton), Retrofitted Vehicles (CO2)
0

Update Project Information

Project Name	Airline Bus Replacement
Total Project Funding \$	48,000

Group Name: Airline

Onroad									
School Bus									
School Buses									
1									
2007									
2018									
8									

Upgrades to Airline

Upgrade	New Model Year	Annual Gallons Reduced	Cost per Unit		Percent Reduction				
			Upgrade	Labor	NO _x	PM2.5	HC	CO	CO ₂
Vehicle Replacement - Diesel	2018	0	\$48,000	\$0	79.1	47.4	55.4	55.4	-

Emission Results and Health Benefits for Project: Airline Bus Replacement

Emission Results ☐

Here are the combined results for all groups and upgrades entered for your project.¹

<u>Annual Results (short tons)²</u>	NO _x	PM2.5	HC	CO	CO ₂	Fuel ³
Baseline for Upgraded Vehicles	0.011	0.000	0.001	0.003	15.3	1,360
Amount Reduced After Upgrades	0.009	0.000	0.000	0.001	0.0	0
Percent Reduced After Upgrades	79.1%	47.4%	55.4%	55.4%	0.0%	0.0%

<u>Lifetime Results (short tons)²</u>						
Baseline for Upgraded Vehicles	0.092	0.001	0.006	0.021	122.4	10,880
Amount Reduced After Upgrades	0.073	0.000	0.003	0.011	0.0	0
Percent Reduced After Upgrades	79.1%	47.4%	55.4%	55.4%	0.0%	0.0%

Lifetime Cost Effectiveness (\$/short ton reduced)

Capital Cost Effectiveness ⁴ (unit & labor costs only)	\$661,670	\$138,512,227	\$15,130,968	\$4,225,837	\$0
Total Cost Effectiveness ⁴ (includes all project costs)	\$661,670	\$138,512,227	\$15,130,968	\$4,225,837	\$0

¹ Emissions from the electrical grid are not included in the results.

² 1 short ton = 2000 lbs.

³ In gallons; fuels other than ULSD have been converted to ULSD-equivalent gallons.

⁴ Cost effectiveness estimates include only the costs which you have entered.

Remaining Life

Airline: School Bus | School Buses

8 years

Attachment C

Fleet Information

Vehicle Class Number	Model Year	Sector	Vehicle/Equipment Code	Technology	Number of Vehicles Retrofitted
1	2007	School Bus	School Buses	Vehicle Replacement - Diesel	1

Health Impacts Allocation

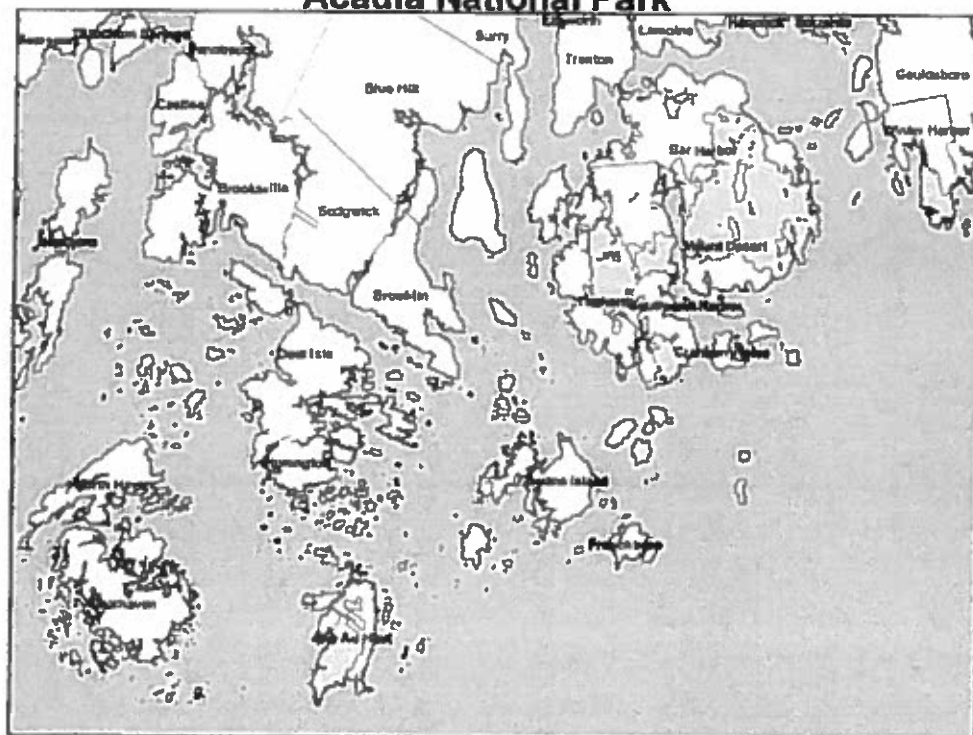
County and State	Percent Reduction
Hancock, Maine	75%
Penobscot, Maine	25%

Health Impacts Estimation Tool Results

County and State	Annual Diesel PM2.5 Reduction (short tons)	Annual Cost	Annual Benefits
Hancock, Maine	0	-	\$3
Penobscot, Maine	0	-	\$2
Total	0	\$6,800	\$5

Attachment E

Acadia National Park



Section 4: Templates for use in Attachments F, G and I.

Under this program, there is a minimum **cost share or leverage funding** requirement for non-government and government Action Proponents. Cost shares may consist of municipal, state, federal, or non-VW Environmental Mitigation Settlement private funds. Cost shares for non-government Project Proponents were established by the U.S. District Court in the Environmental Mitigation Settlement and vary per the scope and category of the proposed action. A summary of cost share requirements for non-government Action Proponents can be found in Maine's Beneficiary Mitigation Plan and at https://www.maine.gov/mdot/vw/app/Maine_VW_Eligible_Mitigation_Actions_1-8.pdf. Government Action Proponents for Maine's VW Environmental Mitigation Settlement funds are required to provide a 20% cost share. However, Action Proponents may choose to contribute more than the minimum amount required as a demonstration of the local commitment to the proposed action. Bonus consideration may be given to applications that offer additional cost sharing or leverage funding beyond any required.

ATTACHMENT F

As part of Attachment F, include a letter of commitment for balance of base price of vehicle or equipment from a financial institution or authorized financial administrator. Also, complete the following table.

Budget Summary		
1	Total Estimated Cost of the Proposed Action	\$48,000
2	Minimum required cost share or leverage funding for this action Percentage: 20% Source: Local Budget	\$9,600
3	Actual cost share and cost overage committed by the Action Proponent (may include local funding, grants awarded, contributions, etc.) Percentage: 21%	\$10,080
4	Funds requested from Maine's VW Environmental Mitigation Settlement	\$37,920

Note: The total of the funds requested from Maine's VW Environmental Mitigation Settlement funds plus the actual non-VW cost share or leveraged funding committed by the Action Proponent must equal the total estimated cost of the proposed project identified on line F-1.

Note: The standard fund distribution for selected actions will consist of the cost share or leveraged funding delivered prior to transfer of committed Maine VW Environmental Mitigation Settlement funds, which will be paid upon proof of completion of the action or vehicle delivery.

ATTACHMENT G

The milestones included in this template are provided as guidance. Action Proponents may substitute other milestones that suit their purpose.

Projected Action Schedule	
Milestone	Estimated Date
MaineDOT Requests Round 1 Proposals for Actions to be funded by VW Environmental Mitigation Settlement	
Action Proponent or Agent Submits Proposal to MaineDOT	9/10/18
MaineDOT Provides Written Approval of Action Proponent's Proposal	10/31/18
Action Proponent Enters Contract with MaineDOT	11/30/18
MaineDOT verifies funding approval by incorporating Action into Maine Beneficiary Mitigation Plan	12/15/18
Trustee Acknowledges Receipt of Project Certification and Funding Direction	
Action Proponent Obtains Cost Share, Notifies or Certifies to MaineDOT	12/15/18
Action Installation(s)/Delivery	1/19
Submit Proof of Delivery or Work Completed to MaineDOT by providing copies of the vehicle title and receipt for vehicle, equipment, or service.	1/19
Submit Proof of Scrapping of Replaced Vehicle or Engine to MaineDOT	3/19
MaineDOT Remits Committed Funding to Action Proponent	
Due date of first Status Report and Maintenance Record to MaineDOT (six months after funding award)	6/19
MaineDOT Reports Action Completion to Trustee	6/19

Attachment H

Currently Airline bus maintenance is contracted with RSU 63's Garage. Following 220 hours or 7,500 miles buses are brought in for service. This will continue to be the case going forward.

ATTACHMENT I

Authorized Agent Certification

The Authorized Agent certifies that they have been authorized by the Project Proponent to submit this application, that the Project Proponent agrees to all the program requirements, and that the information provided is an accurate representation of the project.

Action Proponent's Signature:

Rebecca Enman

Date:

Sept. 4, 18

Authorized Agent's Signature:
(if different from Action Proponent)

[Signature]

Date:

9/4/18

Action Proponent Signature

The Action Proponent certifies that the action(s) is/are accurately described in this application. Signature indicates that the action(s) comply with all requirements of the Volkswagen Environmental Mitigation Settlement, provides the designated level of cost share funds, and a willingness to enter an agreement with the Maine Department of Transportation requiring the Action Proponent to administer the project abiding to federal, State, and local requirements. The Action Proponent also accepts responsibility for submitting progress reports during the term of the project and providing future maintenance of the completed action through 2027.

Action Proponent(s): Rebecca Enman

Title: Business Manager

Phone#: 207-825-3364

Email: r.enman@cdsdedu.org

Rebecca Enman
Signature(s)

Sept. 4, 18
Date