ADENTATION GORHAM

2001

CLASS7 2002 | DIESEL -> PROPANE
2003

4/27/18 deg

**Section 7: Application Scoring Matrix** 

	Score Assigned	Attachment	Attachment Description
	10	А	Mitigation Action Description: Related to Maine's Beneficiary Mitigation Plan
	20 avg 917.	В	NOx Emission Reduction: NOx emission reductions estimate using EPA's Diesel Emission Quantifier
	ID	С	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.
	$\phi$	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.
REQ	. \$ 228,000 MATZH: \$57,000 TOTAL	F = \$285,000	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.
	IO	Н	Benefit Period: Sustained emission benefits over the ten-year Trust Effective Period. Maintenance plan provided.
	ID		Relevant Experience and Compliance Certification: Existing administration and programmatic structure in place to implement diesel emission reduction or offset actions.

a paint a same of the laws e julius and an experience

## Gates, Judy

From: Norm Justice <norm.justice@gorhamschools.org>

Sent: Friday, September 14, 2018 10:26 AM

To: Gates, Judy

Subject: Maine Volkswagen Environmental Mitigation Application Round 1 Gorham School

Attachments: Gorham School Maine-VW-D-2-application-062118-7 final submission 9.14.18.pdf

Judy,

Please find attached Gorham Schools Application for Maine Wolkswagen Environmental Mitigation Round 1. I have also placed a hard copy in the mail.

Please let me know if there are any questions. Thank you in advance for consideration of our grant application.

Norm Justice Facilities & Transportation Director Gorham School Department 207-222-1146



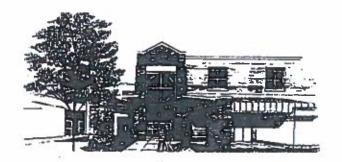
## Maine Volkswagen Environmental Mitigation Action Round 1 Application for Appendix D-2 Eligible Actions

- (1	For MaineDOT Use Only) Date Application Received
	Beneficiary's Project ID 23901.10
	Funding Request #

- All applications for Round 1 funding are due by September 15, 2018.
- A fillable application template is available at <a href="https://www.maine.gov//mdot/vw/application">www.maine.gov//mdot/vw/application</a>
- 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.htmls.
- For information on Zero Emission Vehicle Supply Equipment (ZEVSE), go to www.efficiencymaine.com.
- Submit any questions through the website at <a href="https://www.maine.gov/mdot/vw/application/fags">www.maine.gov/mdot/vw/application/fags</a>.
- Information on the current base price for Maine school buses can be found at <a href="http://www.maine.gov/doe/transportation/programs/buspurchase.html">http://www.maine.gov/doe/transportation/programs/buspurchase.html</a>

#### Section 1: General Information

Action Title: Class 4-8 School Bus	Replace D	Diesel Buses with F	Propane					
Action Location: Town/Territory: Gorham County: Cumberland								
Type of Action: Repower: Replacement:								
Action Proponent: Gorham Schoo	l Transport	ation, Norm Justic	e Facilities &	Tran	nsportation Director			
Action Proponent Mailing Address	: 75 South	St., Suite II, Gorha	am ME 0403	8				
City: Gorham	State: ME Zip: 04038 County: Cumberland							
Daytime Phone: 207-222-1146	Alternate	Phone: 207-232-5	Email: norm.justice@gorham		ail: m.justice@gorhamschools.org			
Authorized Agent (if different from	Action Pro	ponent):						
Authorized Agent Mailing Address	<b>5</b> :							
City:	Sity: Zip: County:							
Daytime Phone:	Phone:		Em	ail:				



Facilities & Transportation Departments
Norman E. Justice, Jr., Director
106 Weeks Road
Gorham, MF. 04038
Voice: 207.222.1147
Fax: 207.839.5054
normj@gorhamschools.org

September 14, 2018

Ms. Judy Gates, Director MaineDOT Environmental Office 16 State House Station 24 Child Street Augusta, ME 04333-0016

RE: Maine Volkswagen Environmental Mitigation Action Round 1 Application

Dear Ms. Gates:

Enclosed please fine our application for Maine Volkswagen Environmental Mitigation.

Sincerely,

Norman E. Justice, Jr.

Director of Facilities & Transportation

#### Section 2: Eligibility Criteria

The following categories are eligible mitigation actions pursuant to Appendix D-2 of the Environmental Mitigation Trust Agreement (<a href="https://www.maine.gov/mdot/vw/app/Maine\_VW\_Eligible\_Mitigation\_Actions\_1-8.pdf">https://www.maine.gov/mdot/vw/app/Maine\_VW\_Eligible\_Mitigation\_Actions\_1-8.pdf</a>) and reflect basic eligibility criteria for consideration under this program. See Maine's Beneficiary Mitigation Plan (<a href="https://www.maine.gov/mdot/vw/BMP\_final\_2-12-18.pdf">www.maine.gov/mdot/vw/BMP\_final\_2-12-18.pdf</a>) 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
	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.
	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.
	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.
	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.
	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.
	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.
	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.
	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
7		Class C INTL/B.Bird.	2001	147897	Diesel	Propane	1,258
7		Class C INTL/B.Bird.	2002	216459	Diesel	Propane	426
7		Class C INTL/B.Bird.	2003	201380	Diesel	Propane	38
						110	
				2 0.7 15			

#### **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	ible and note why an attachment is not relevant to their proposal.  Attachment Description
		Α	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".
		В	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 <a href="https://cfpub.epa.gov/quantifier/index.cfm?action=main.home">https://cfpub.epa.gov/quantifier/index.cfm?action=main.home</a> or for heavy-duty vehicles: <a href="http://afleet-web.es.anl.gov/hdv-emissions-calculator/">http://afleet-web.es.anl.gov/hdv-emissions-calculator/</a> Attach a <a href="maintenance-separate">separate</a> summary calculation worksheet generated by the Quantifier for <a href="maintenance-separate">each</a> vehicle or piece of equipment and label as "Attachment B".
		С	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.
$\boxtimes$		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.
		E	Class 1 Areas: Using the maps found at <a href="https://www.maine.gov/dep/air/meteorology/class1.">https://www.maine.gov/dep/air/meteorology/class1.</a> 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".
	-	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.
$\boxtimes$		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".
		Н	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".
$\boxtimes$		ı	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.

#### 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 <u>and</u> 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 <a href="https://www.maine.gov/mdot/vw/app/Maine\_VW\_Eligible\_Mitigation\_Actions\_1-8.pdf">https://www.maine.gov/mdot/vw/app/Maine\_VW\_Eligible\_Mitigation\_Actions\_1-8.pdf</a>. 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	285,000
2	Minimum required cost share or leverage funding for this action  Percentage: 20%  Source: Gorham School Dept. General Fund Appropriation	57,000
3	Actual cost share and cost overage committed by the Action Proponent (may include local funding, grants awarded, contributions, etc.)  Percentage: 20%	57,000
4	Funds requested from Maine's VW Environmental Mitigation Settlement	228,000.

**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	
MaineDOT Provides Written Approval of Action Proponent's Proposal	- 25
Action Proponent Enters Contract with MaineDOT	
MaineDOT verifies funding approval by incorporating Action into Maine Beneficiary Mitigation Plan	
Trustee Acknowledges Receipt of Project Certification and Funding Direction	
Action Proponent Obtains Cost Share, Notifies or Certifies to MaineDOT	
Action Installation(s)/Delivery	Within 6 Mo. of award
Submit Proof of Delivery or Work Completed to MaineDOT by providing copies of the vehicle title and receipt for vehicle, equipment, or service.	Within 6 Mo. Of award
Submit Proof of Scrapping of Replaced Vehicle or Engine to MaineDOT	Within 6 Mo. Of award
MaineDOT Remits Committed Funding to Action Proponent	
Due date of first Status Report and Maintenance Record to MaineDOT (six months after funding award)	
MaineDOT Reports Action Completion to Trustee	

No alternative dates to schedule requested, Action Proponent will comply with established guideline requirements. Delivery of new buses and scraping of buses will occur within 6 months of award.

## 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.

	Norman E. Justice Jr., Facilities & Transportation Director				
Action Proponent's Signature	C W IL				
Authorized Agent's Signature (if different from Action Prop Date	e:				
The Action Proponent certifies that the action(s) is/are action(s) comply with all requirements of the Volkswalevel of cost share funds, and a willingness to enter action Proponent to administer the project abiding	Proponent Signature  e accurately described in this application. Signature indicates that the gen Environmental Mitigation Settlement, provides the designated in agreement with the Maine Department of Transportation requiring to federal, State, and local requirements. The Action Proponent ports during the term of the project and providing future maintenance				
Action Proponent(s): Norman E. Justice Jr	Title: Facilities & Transportation Director				
Phone#: 207-222-1146	Email: norm.justice@gorhamschools.org				
Signature(s)	9-11/-18 Date				

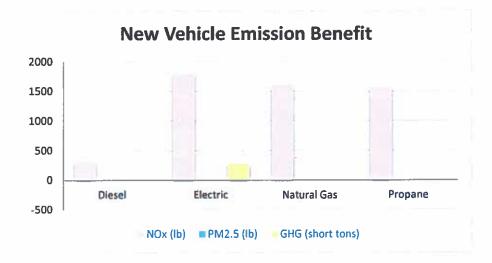
## Attachment A

# **Mitigation Action Description**

- The Mitigation Action Proposal is to eliminate 3 diesel school buses that will be replaced with 3 Blue Bird Propane buses with a .02 NOx level.
- The replacement of diesel buses with propane buses will allow the Gorham School to reduce its diesel fuel consumption by 2,400 gallons per bus annually for a total reduction of 7,200 gallons (3 buses).
- Propane Buses will also reduce idle time

#### Gorham School- Attachment 2 note calculation is per bus savings will be times 3

# **Environmental Mitigation with Scrappage**



. New Vehicle Emission Benefits							
Pollutant Diesel Electric Natural Gas Propane							
NOx (lb)	302.39	1782.7	1597.66	1558.8			
PM2.5 (lb)	1.32	6.7	1.32	0.98			
GHG (short tons)	0	271.24	18.6	-18.38			

New Vehicle Cost Effectiveness					
Pollutant	Diesel	Electric	Natural Gas	Propane	
NOx (lb)	N/A	N/A	N/A	\$49	
PM2.5 (lb)	N/A	N/A	N/A	\$77,551	
GHG (short tons)	N/A	N/A	N/A	N/A	

#### Gorham School- Attachment 2 note calculation is per bus savings will be times 3

NOx Emissions						
Fuel	Year	Remaining Years	Scrappage Years	Emission Rate (g/mi)		
Diesel	2011	N/A	8	4.172		
Diesel	2017	N/A	8	3.029		
Diesel	2017	7	N/A	2.933142857		
Electric	2017	N/A	8	0		
Electric	2017	7	N/A	0		
Natural Gas	2017	N/A	8	0.378625		
Natural Gas	2017	7	N/A	0.366642857		
Propane	2017	N/A	8	0.456540741		
Propane	2017	7	N/A	0.44549418		

PM2.5 Emissions					
Fuel	Year	Remaining Years	Scrappage Years	Emission Rate (g/mi)	
Diesel	2011	N/A	8	0.016	
Diesel	2017	N/A	8	0.011025	
Diesel	2017	7	N/A	0.010671429	
Electric	2017	N/A	8	0	
Electric	2017	7	N/A	0	
Natural Gas	2017	N/A	8	0.011025	
Natural Gas	2017	7	N/A	0.010671429	
Propane	2017	N/A	8	0.01175	
Propane	2017	7	N/A	0.011285714	

GHG Emissions						
Fuel	Year	Remaining Years	Scrappage Years	Emission Rate (g/mi)		
Diesel	2011	N/A	8	1673.965663		
Diesel	2017	N/A	8	1673.965663		
Diesel	2017	7	N/A	1673.965663		
Electric	2017	N/A	8	580.3509843		
Electric	2017	7	N/A	580.3509843		
Natural Gas	2017	N/A	8	1598.955124		
Natural Gas _	2017	7	N/A	1598.955124		
Propane	2017	N/A	8	1748.064074		
Propane	2017	7	N/A	1748.064074		

Gorham School- Attachment 2 note calculation is per bus savings will be times 3

	Project Options		
State	ME		
Project Type	Environmental Mitigation with Scrappage		
***	Vehicle Options		
Туре	School Bus		
Number of Vehicles	1		
Model Year of Scrapped Vehicle	2011		
Years for Early Retirement of Scrapped Vehicle	8		
Lifetime of New Vehicle (Years) After Scrappage	7		
Annual Miles of Scrapped Vehicle	15000		
Annual Miles of New Vehicle	15000		
Use Diesel In-Use Multiplier?	Yes		
Use Low NOx Engines?	Yes		
	Funding Options (\$)		
Diesel Vehicle Funding	\$0.00		
Electric Vehicle Funding	\$0.00		
Natural Gas Vehicle Funding	\$0.00		
Propane Vehicle Funding	\$76,000.00		
	Fuel Options		
Natural Gas (NG) Feedstock Source	North American NG		
Source of Electricity	NPCC		
	Source of Electricity Percentages		
Residual Oil	0.8%		
Natural Gas	48.8%		
Coal	2.6%		
Nuclear	29.8%		
Biomass	0.6%		
Renewable (e.g Wind, Solar)	17.3%		

	Fuel Economy	
Old Diesel (MPDGE)	7.7	
New Diesel (MPDGE)	7.7	
Electric (MPDGE)	19.6	
Natural Gas (MPDGE)	6.5	
Propane (MPDGE)	6.4	

## Attachment C

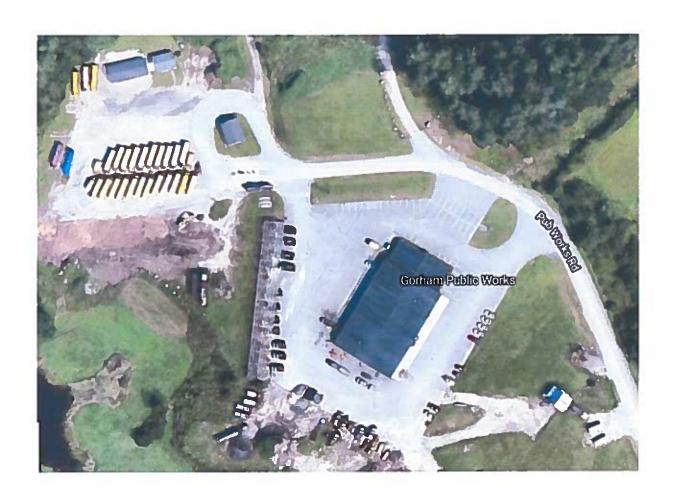
## **Health Benefits**

- The replace of diesel buses with propane buses will allow the Gorham School to reduce its diesel fuel consumption by 2,400 gallons per bus annually for a total reduction of 7,200 gallons (3 buses).
- Diesel Buses will be replaced with Blue Bird Propane buses with a .02 NOx level.
- We have found the propane buses require considerable less warm up time thereby reducing idle time significantly.
- Propane buses do not require bus warmers thereby eliminating additional energy.
- Avoids potential of diesel spills
- Propane Buses are much quieter thereby reducing noise impact to riders and neighborhoods

## Attachment D

## **Action Location**

- Buses operate out of Gorham School & Public Works Depot; addition of additional propane buses will eliminate diesel emissions significantly in this area.
- Bus load in bus loops at High School, Middle School and Elementary schools twice a day,
   NOx emissions are reduced significantly at these locations with the addition of propane buses.



Attachment F

#### **GORHAM SCHOOL DEPARTMENT**

Office of the Superintendent
75 SOUTH STREET, SUITE #2, GORHAM, MAINE 04038

Hollis S. Cobb Business Manager (207) 222-1000 FAX 839-5003 Heather J. Perry
Superintendent of Schools
(207) 222-1012
FAX 839-8885

Christopher B. Record

Assistant Superintendent
(207) 222-1025

FAX 839-8885

Maine Department of Transportation 16 State House Station 24 Child Street Augusta, ME 04333-0016

Re: ME Volkswagen Environmental Mitigation Action Application

September 11, 2018

To whom it may concern,

Please accept this letter as the Gorham School Department's financial commitment to our share of funds requested from Maine's VW Environmental Mitigation Settlement. The total of funds requested is \$285,000. Gorham's 20% or \$57,000 share will be funded through our approved general fund budget for Fiscal Year 2019.

Thank you.

Respectfully submitted,

Hoeers S. Colob

Hollis S. Cobb

Business Manager

#### **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	
MaineDOT Provides Written Approval of Action Proponent's Proposal	
Action Proponent Enters Contract with MaineDOT	
MaineDOT verifies funding approval by incorporating Action into Maine Beneficiary Mitigation Plan	#15/A
Trustee Acknowledges Receipt of Project Certification and Funding Direction	
Action Proponent Obtains Cost Share, Notifies or Certifies to MaineDOT	
Action Installation(s)/Delivery	Within 6 Mo. of award
Submit Proof of Delivery or Work Completed to MaineDOT by providing copies of the vehicle title and receipt for vehicle, equipment, or service.	Within 6 Mo. Of award
Submit Proof of Scrapping of Replaced Vehicle or Engine to MaineDOT	Within 6 Mo. Of award
MaineDOT Remits Committed Funding to Action Proponent	
Due date of first Status Report and Maintenance Record to MaineDOT (six months after funding award)	
MaineDOT Reports Action Completion to Trustee	

No alternative dates to schedule requested, Action Proponent will comply with established guideline requirements. Delivery of new buses and scraping of buses will occur within 6 months of award.

# Attachment H

# **Benefit Period**

• The new Propane Buses have an anticipated life expectancy of 18 years

## Attachment I

# **Relevant Experience and Compliance Certification**

- The Gorham School Department invested \$40,000.00 in a propane fueling station 4
  years ago. We have trained mechanics to service our propane vehicles. Our long term
  goal has been to transition our diesel buses to propane. Award of this grant will
  accelerate our transition
- The Gorham School Department operates a \$40 million dollar annual budget with a Superintendents Office, Business Office and Facilities and Transportation Department with adequate staffing to implement the grant requirements if awarded