

<p>Please summarize the accomplishments that occurred during the grant period.</p>	<p>A Royal Flush (ARF) Replacement of Diesel Truck with CNG Truck: ARF proposed to use DERA funds for the early replacement of a 2002 MY diesel-powered tank truck with a new, CNG-powered tank truck. ARF uses the tank trucks to service its portable restrooms and to pump out septic systems in Fairfield County. The award was for \$22,500.00, representing approximately 25% of the cost of the new CNG truck. The new truck did not arrive in time for trial runs ahead of scrappage of the replaced truck, which was still in regular service. This project was not completed by the contractual deadline of September 1, 2014 and ARF made no subsequent attempt to contact DEEP. After consulting with its EPA project officer, DEEP terminated the contract by a letter signed on September 11, 2014.</p> <p>CT Department of Corrections (DOC) Refrigerated Box Truck Replacement: The Connecticut Department of Corrections (CT DOC) was awarded a grant of \$27,246.00 toward early replacement of a 1998 MY refrigerated box truck that is used to deliver food from a central supply point in Wethersfield to prisons across the state, from Enfield to Bridgeport, along major highways. The original refrigerated box truck, a 24-foot, class 7 vehicle, was replaced by a 28-foot, class 8 truck serving the same purpose. While the replacement truck is larger than the replaced unit, it has reduced the number of trips by one third annually, resulting in a decrease in vehicle miles travelled (VMT). The new truck has a state-of-the-art refrigeration unit, adding a further emission reduction to the new, cleaner engine and reduced VMT. The award for CT DOC was less than 25% of the cost of the new truck. This project was completed in the seventh quarter, well ahead of schedule. Funds were drawn down in the 8th quarter, on August 21, 2014.</p> <p>Town of Wethersfield Maintenance Truck Replacement: DEEP selected the Town of Wethersfield's proposal for early replacement of a 2003 model year (MY) dump truck, which was used, year-round, for maintenance, including hauling, sanding and snowplowing. With over 60,000 annual miles, the emission reductions and accompanying health benefits associated with replacing this pre-2007 MY truck were significant. The award for the Town of Wethersfield was \$27,246.00, less than 25% of the cost of the new truck. Wethersfield's new truck was delivered, the old truck was scrapped and the required documents were submitted in the eighth quarter. The project was completed, payment was approved, and the funds for this project were drawn down in the eighth quarter, on September 22, 2014.</p>
<p>Provide a comparison of the actual accomplishments with the anticipated outputs/outcomes and timelines/milestones specified in the original project annual Work Plans.</p>	<p>CT DOT Selden III Engine Replacement: The only issue that arose with this project was a reduction in the horsepower of the engines; the boat was too small to accommodate new 160 horsepower engines so 140 horsepower replacements were installed. The Work Plan timeline was not impacted.</p> <p>The Plant Group Irrigation Pumping Unit Replacement: In the course of seeking competitive bids for the pump, The Plant Group was made aware of the possibility of replacing its diesel pump with an electric unit. While DERA funds could have been used, The Plant Group did not have the funds to cover the infrastructure for the electric pump in that year's budget. They requested termination of the contract.</p> <p>ARF Replacement of Diesel Truck with CNG Truck: While it was reported that ARF was late in submitting documentation of competitive procurement, the truck had been ordered within the time frame specified in the work plan. Nevertheless, the new truck did not arrive in time for trial runs ahead of scrappage of the replaced truck, which was still in regular service. This project was not completed by the contractual deadline of September 1, 2014.</p> <p>CT Department of Corrections (DOC) Refrigerated Box Truck Replacement: This project was completed in the seventh quarter, well ahead of schedule. Funds were drawn down in the 8th quarter, on August 21, 2014.</p> <p>Town of Wethersfield Maintenance Truck Replacement: Wethersfield's project was completed on schedule and the funds for this project were drawn down in the eighth quarter, on September 22, 2014.</p>
<p>If the anticipated outputs/outcomes and/or timelines/milestones from the original submitted proposal were not met, please explain why not. Did you encounter any problems during the grant period which may have precluded your from meeting the project objectives?</p>	<p>The Plant Group Irrigation Pumping Unit Replacement: In the course of seeking competitive bids for the pump, The Plant Group was made aware of the possibility of replacing its diesel pump with an electric unit. While DERA funds could have been used, The Plant Group did not have the funds to cover the infrastructure for the electric pump in that year's budget. They requested termination of the contract.</p> <p>ARF Replacement of Diesel Truck with CNG Truck: The dealer did not deliver the new truck in time for trial runs ahead of scrappage of the replaced truck, which was still in regular service. After consulting with its EPA project officer, DEEP terminated the contract by a letter signed on September 11, 2014.</p>

<p>How did you remedy any problems? Please detail how and the date you had to address any problems that changed the original work plan and or work plan schedule.</p>	<p>The Plant Group Irrigation Pumping Unit Replacement: The Plant Group project was terminated in the third quarter. A contract termination letter was signed on April 2, 2013. The funds were added to the CT DOC project.</p> <p>ARF Replacement of Diesel Truck with CNG Truck: This project was not completed by the contractual deadline of September 1, 2014. After consulting with its EPA project officer, DEEP terminated the contract by a letter signed on September 11, 2014. The residual funds were returned to EPA.</p>
<p>Please identify the source of any cost-share or additional leveraged funds are reported for this grant period in Table 1 above.</p>	<p>CT DOT Selden III Engine Replacement: Over the course of the project, CT DOT expended \$186,580.75 from its state budget as its cost share for the installation of the engines for the <i>Selden III</i> and for sea trials.</p> <p>DOC Refrigerated Box Truck Replacement: During the seventh quarter, DOC expended \$122,146.00 from its state budget, as its cost share for the new box truck.</p> <p>Town of Wethersfield Maintenance Truck Replacement: During the eighth quarter, Wethersfield expended \$162,754.00 from its municipal budget, as its cost share for the new snow plow dump truck.</p>
<p>Was any program income generated during the grant period? Identify amount of program income, how it was generated, and how the program income was used.</p>	<p>There was no project income associated with this grant.</p>
<p>Did any public relations events regarding this grant take place during the grant period?</p>	<p>Several events associated with the State DERA2 project solicitation took place in the summer before the grant period began. On July 20, 2012, DEEP issued a request for proposals for the 2012 State DERA2 funds to its Clean Diesel Stakeholders in Connecticut, by e-mail. The funding opportunity was announced at the monthly SIPRAC meeting on August 9¹ and in EPA's August 2012 SmartWay New England e-Update. DEEP's "Diesel Grants and Funding" website was updated to include the announcement and application form. The announcement was also featured in the July edition of DEEP's new e-newsletter, "Your Environmental Connection,"² whose subscribers include municipalities and businesses in the state. In addition DEEP conducted an outreach to the agricultural sector through the CT Farm Bureau and similar organizations, including an announcement featured in the Department of Agriculture's "Weekly Agricultural Report" on September 12, 2012.³ Links to those editions of both newsletters are provided below. On August 6 and September 22, 2014, DEEP shared information on the National Clean Diesel Ports Grant Program with its Clean Diesel Stakeholders who are associated with port activities.</p> <p>In the third quarter, DEEP reached out to its clean diesel stakeholders with information about the 2013 National DERA2 funding opportunity and the webinar conducted by EPA. On August 1, 2013, ahead of the issuance of the Grant Agreement for Year 2, DEEP initiated an open competition for clean diesel proposals for funding under this grant. A deadline reminder was issued on August 20. The solicitation letter and application form were posted on the DEEP website.</p> <p>In the fifth quarter, on November 21, 2013, DEEP's Clean Diesel Stakeholders were alerted to the National Clean Diesel Construction Rebate Program. On December 17, 2013, DEEP sent out an e-mail to all of its clean diesel stakeholders, alerting them to the National Clean Diesel Ports Grant and to the December 18 informational Webinar. A press release announcing the EPA Construction Rebate was issued on December 2, 2013 and posted on the DEEP website.⁴</p>

In the sixth quarter, on March 20, 2014, DEEP alerted its Clean Diesel Stakeholders that the Connecticut Department of Transportation had issued an RFP for clean fuel vehicle projects through a CMAQ-funded program. An announcement for that program was also posted on DEEP's electric vehicle (EVConnecticut) website.⁵

In the seventh quarter, on May 1, 2014, DEEP alerted its Clean Diesel Stakeholders that the the National Clean Diesel program had issued an RFP for clean diesel projects. On June 9, 2014, DEEP also shared information on the Tribal Grant Program with tribal representatives.

In the eighth quarter, on August 6 and September 22, 2014, DEEP shared information on the National Clean Diesel Ports Grant Program with its Clean Diesel Stakeholders who are associated with port activities.

The footnoted websites are linked below.

Footnote 1: http://www.ct.gov/deep/lib/deep/air/siprac/2012/august_2012_siprac_agenda.pdf

Footnote 2: <http://archive.constantcontact.com/fs031/1104335014923/archive/1110058457565.html>

Footnote 3: http://www.ct.gov/doag/lib/doag/Sept_12_2012_EMAIL.pdf

Footnote 4: <http://www.ct.gov/deep/cwp/view.asp?A=4380&Q=536136>

Footnote 5: http://www.ct.gov/deep/cwp/view.asp?a=2684&q=527866&deepNav_GID=1619

Are you using websites or other tools used to relay information about this grant to the public?

Information about this and other diesel grant programs administered by DEEP's Bureau of Air Management can be found on the DEEP website at:

http://www.ct.gov/deep/cwp/view.asp?a=2684&q=322100&depNav_GID=161

Table 3: Innovative Finance Projects

Project/Program Name	Number of Loans/Rebates	Interest Rates	Length of Loans	EPA Funds Expended on Loans/Rebates	Non-EPA Funds Leveraged	Total Net Loss/Default	EPA Funds Expended on Non-Loan Activities

Table 4: Summary of Total Emissions Reduction per Fiscal Year (Emission Reductions Created)

Fiscal Year Funding	Project Name	Entity	EPA Funding Expended	Emission Reductions (tons/yr)	
				Emission Reductions (tons/yr)	Emission Reductions (lifetime tons)
Fiscal Year 2012	CT DOT <i>Selden III</i> Engine Replacement ¹	CT DOT	\$130,892.00	HC: 0 ²	HC: 0 ²
				CO: 0.1006	CO: 1.9106
				NOx: 1.9564	NOx: 37.1710
				PM: 0.0078	PM: 0.1480
				CO ₂ : see footnote ³	CO ₂ : see footnote ³
Fiscal Year 2013	CT DOC Refrigerated Box Truck Replacement ⁴	CT DOC	\$27,246.00	HC: 0.0088	HC: 0.1143
				CO: 0.0422	CO: 0.5482
				NOx: 0.1078	NOx: 1.4015
				PM: 0.0036	PM: 0.0474
				CO ₂ : 4.1847	CO ₂ : 54.4011
Fiscal Year 2013	Town of Wethersfield Maintenance Truck Replacement	Town of Wethersfield	\$27,246.00	HC: 0.0469	HC: 0.8440
				CO: 0.2004	CO: 3.6068
				NOx: 0.5523	NOx: 9.9414
				PM: 0.0439	PM: 0.7902
				CO ₂ : see footnote ³	CO ₂ : see footnote ³
				HC:	HC:
				CO:	CO:
				NOx:	NOx:
				PM:	PM:
				CO ₂ :	CO ₂ :

¹Due to configuration issues in the vessel, 160 hp engines are the only new engines suitable to replace the existing 140 hp engines; therefore the reductions were hand-calculated by subtracting the DEQ-generated baseline emissions data for 2013 MY 160 hp engines from the DEQ-generated baseline data for the existing 1987 MY 140 hp engines.

²The DEQ does not calculate HC emissions for marine engines.

³The DEQ default values do not take into account the decreased CO₂ emissions resulting from greater fuel efficiency due to features such as electronic ignition systems in the new engines; unless manufacturers' data for fuel savings or CO₂ emissions for the new engines are available to input, the DEQ cannot calculate the emission reductions for CO₂.

⁴Because the new truck is a different class from the old truck, benefits were calculated by manually subtracting the DEQ-generated baseline for the 2014 Class 8 truck from the DEQ-generated baseline for the 1998 Class 7 truck.

DEQ does not provide a way to include the emission reduction from state-of-the-art refrigeration unit on new truck.

New truck lifetime baseline was adjusted to the DEQ-projected 13-year remaining life for the old truck by multiplying the annual emissions reductions for the new truck by 13.

**U. S. Environmental Protection Agency
Project Fleet Description Spreadsheet**



Grant #:	#DS 96159401
Report Date:	Final

Recipient Information

OrganizationName	FirstName	LastName	JobTitle	Address	City	State	EmailAddress	ZipCode	OfficePhone	OfficePhoneExt
CT DEEP	Ellen	Pierce	Supervisory Environmental Analyst	79 Elm Street	Hartford	CT	ellen.pierce@ct.gov	06106	860-424-3412	

Project A was Terminated April 2, 2013

Project A Information

ProjectName	Entity	TargetFleet	Number of Vehicles	City	County	State	Region	Funding Amount	Additional Funding Source	Additional Funding Amount	Public Benefit
Irrigation Pumping Unit Replacement	The Plant Group, Inc.	Agriculture	1	Franklin	New London	CT	1	\$6,512.50	The Plant Group	\$19,537.50	no

Fleet A Information:

Current Vehicle Information												New Vehicle/Technology Information										
Fiscal Year Funding Used	VehicleType	TargetFleet	Class/Equipment	VehicleCount	Engine Make	Engine Model	Engine Model Year	Horsepower	Current Fuel Type	Amount of Fuel Used	Annual Miles	Annual Usage Rate Hours	Annual Idling Hours	Serial and/or VIN # of scrapped engine and/or vehicle	Retrofit Year	Technology Type	Technology Make	Technology Model	Technology Model Year	Annual Idling Hours Reduced	Technology Unit Cost	Technology Unit Installation Cost

Copy and paste additional lines as necessary to capture project fleet information.

Project B Information

ProjectName	Entity	TargetFleet	Number of Vehicles	City	County	State	Region	Funding Amount	Additional Funding Source	Additional Funding Amount	Public Benefit
Early Replacement of Refrigerated Box Truck	CT Dept. of Corrections (CT DOC)	Delivery Truck	1	statewide	statewide	CT	1	\$27,246	CT DOC	\$122,146	yes

Fleet B Information:

Current Vehicle Information												New Vehicle/Technology Information										
Fiscal Year Funding Used	VehicleType	TargetFleet	Class/Equipment	VehicleCount	Engine Make	Engine Model	Engine Model Year	Horsepower	Current Fuel Type	Amount of Fuel Used	Annual Miles	Annual Usage Rate Hours	Annual Idling Hours	Serial and/or VIN # of scrapped engine and/or vehicle	Retrofit Year	Technology Type	Technology Make	Technology Model	Technology Model Year	Annual Idling Hours Reduced	Technology Unit Cost	Technology Unit Installation Cost
Year 2	On Highway	Delivery Truck	Class 8A	1	International	ELECT T 444E	1998	190	Diesel (ULSD), 15 ppm	1130	6147		200	1HTSDAANX WH553264	2014	Vehicle/Equipment Replacement	International	7500SBA	2015		\$149,392	NA
							Rebuilt in 2010															

Copy and paste additional lines as necessary to capture project fleet information.

Project C Information

ProjectName	Entity	TargetFleet	Number of Vehicles	City	County	State	Region	Funding Amount	Additional Funding Source	Additional Funding Amount	Public Benefit
Diesel Truck Replacement: Truck #16	Town of Wethersfield	Short Haul	1	Wethersfield	Hartford	CT		\$27,246	Town of Wethersfield	\$162,754	yes

Fleet C Information:

Current Vehicle Information													New Vehicle/Technology Information									
Fiscal Year Funding Used	VehicleType	TargetFleet	Class/Equipment	VehicleCount	Engine Make	Engine Model	Engine Model Year	Horsepower	Current Fuel Type	Amount of Fuel Used	Annual Miles	Annual Usage Rate Hours	Annual Idling Hours	Serial and/or VIN # of scrapped engine and/or vehicle	Retrofit Year	Technology Type	Technology Make	Technology Model	Technology Model Year	Annual Idling Hours Reduced	Technology Unit Cost	Technology Unit Installation Cost
Year 2	On Highway	Short Haul	Class 8A	1	Caterpillar	3126	2003	300	Diesel (ULSD), 15 ppm	6,013	60,136		200	2FZAATAK33AL79543	2014	Vehicle/Equipment Replacement	Freightliner	114SD	2015		\$190,000	N/A

Copy and paste additional lines as necessary to capture project fleet information.

Project D was Terminated September 11, 2014

Project D Information

ProjectName	Entity	TargetFleet	Number of Vehicles	City	County	State	Region	Funding Amount	Additional Funding Source	Additional Funding Amount	Public Benefit
A Royal Flush Diesel Emissions Reduction Project	A Royal Flush, Inc. (ARF)	Short Haul	1	Bridgeport	Fairfield	CT		\$22,500	ARF	\$67,500	no

Fleet D Information:

Current Vehicle Information													New Vehicle/Technology Information									
Fiscal Year Funding Used	VehicleType	TargetFleet	Class/Equipment	VehicleCount	Engine Make	Engine Model	Engine Model Year	Horsepower	Current Fuel Type	Amount of Fuel Used	Annual Miles	Annual Usage Rate Hours	Annual Idling Hours	Serial and/or VIN # of scrapped engine and/or vehicle	Retrofit Year	Technology Type	Technology Make	Technology Model	Technology Model Year	Annual Idling Hours Reduced	Technology Unit Cost	Technology Unit Installation Cost

Copy and paste additional lines as necessary to capture project fleet information.

Grant #:	#DS 96159401
Report Date:	Final

Recipient Information

Organization Name	FirstName	LastName	JobTitle	Address	City	State	Email Address	ZipCode	Office Phone	OfficePhone Ext
CT DEEP	Ellen	Pierce	Supervisory Environmental Analyst	79 Elm Street	Hartford	CT	ellen.pierce@ct.gov	06106	860-424-3412	

Project 1 Information

ProjectName	Entity	TargetFleet	Number of Vehicles	City	County	State	Region	Funding Amount	Additional Funding Source	Additional Funding Amount	Public Benefit
Selden III Repower	CT DOT	Marine	1	Newington	Hartford	CT		\$130,892.00	CT DOT	\$186,580.75	yes

Fleet 1 Information for MARINE VESSELS ONLY

Current Vessel Information														New Vessel/Technology Information									
Fiscal Year Funding Used	Sector	Application	Total Number of Engines per Vessel (1-5)	Engine Type	Number of Engines	Engine Model Year	Activity Level (Hours per Year)	Horsepower	Displacement per cylinder	Current Fuel Type	Amount of Fuel Used (gallons/year)	Retrofit Year	Serial or VIN # of scrapped/ replaced engine or vessel	Technology Type	Technology Make	Technology Model	Technology Model Year	Activity Level (Hours per Year)	Horsepower	Technology Unit Cost	Technology Installation Cost		
2012	Marine	Ferry/Excursion	2	propulsion	2	1987	2769	140	5.0<= size <15.0	Diesel (ULSD), 15 ppm	3875	2013	PE6068T846852 PE6068T873443	Engine Repower	John Deere	6068TFM75	2013	2800	160	\$77,417.50	\$232,481.50		
	Marine																						
	Marine																						
	Marine																						
	Marine																						

Copy and paste additional lines as necessary to capture project fleet information.

Project 2 Information

ProjectName	Entity	TargetFleet	Number of Vehicles	City	County	State	Region	Funding Amount	Additional Funding Source	Additional Funding Amount	Public Benefit
		Marine									

Fleet 2 Information for MARINE VESSELS ONLY

Current Vessel Information														New Vessel/Technology Information									
Fiscal Year Funding Used	Sector	Application	Total Number of Engines per Vessel (1-5)	Engine Type	Number of Engines	Engine Model Year	Activity Level (Hours per Year)	Horsepower	Displacement per cylinder	Current Fuel Type	Amount of Fuel Used (gallons/year)	Retrofit Year	Serial or VIN # of scrapped/ replaced engine or vessel	Technology Type	Technology Make	Technology Model	Technology Model Year	Activity Level (Hours per Year)	Horsepower	Technology Unit Cost	Technology Installation Cost		
	Marine																						
	Marine																						
	Marine																						
	Marine																						
	Marine																						

Copy and paste additional lines as necessary to capture project fleet information.

Please replicate the Project and Fleet Information Tables as necessary for additional Projects/Fleets.