State of New Jersey
Department of Environmental Protection

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

CATHERINE R. McCABE
Commissioner

PROJECT SOLICITATION

OVERALL GOAL

The State of New Jersey, as a beneficiary of the Trust established pursuant to the national Volkswagen settlement, intends to use its allocation from the mitigation trust to efficiently implement projects that reduce oxides of nitrogen (NOx) emissions in a cost effective and technically feasible manner. The implemented projects must meet the criteria of the Consent Decree. New Jersey is issuing this solicitation for project ideas to ensure a broad range of project ideas are considered.

Submissions must contain all the information outlined in the "Project Proposals" section of this document.

ELIGIBLE PROJECTS

A general summary is below. Click here for comprehensive list and associated definitions.

Source Category	Emission Reduction Strategy	Allowed Expenditure Amount
1. Class 8 local freight trucks & port drayage trucks	Repower and replacement	Up to 40% for repower with diesel or alternative fuel or up to 75% (up to 100% if government owned) for repower with electric. Electric charging infrastructure costs are eligible expense. Up to 25% for replacement with diesel or alternative fuel or up to 75% (up to 100% if government owned) for electric replacement. Electric charging infrastructure costs are eligible expense.
2. Class 4-8 school bus, shuttle bus or transit bus	Repower and replacement	Same as row 1
3. Freight switching locomotives	Repower and replacement	Same as row 1
4. Ferries/Tugs	Repower	Same as row 1
5. Oceangoing vessels	Shorepower	Up to 25% for shore side infrastructure if non-government owned (up to 100% if government owned)

6. Class 4-7 local freight trucks	Repower and replacement	Same as row 1.
7. Airport ground support equipment	Repower and replacement	Up to 75% to repower or replace with electric (up to 100% if government owned). Electric charging infrastructure costs are eligible expense.
8. Forklifts and Port Cargo Handling Equipment	Repower and replacement	Up to 75% to repower or replace with electric (up to 100% if government owned). Electric charging infrastructure costs are eligible expense.
9. Electric vehicle charging stations or hydrogen fueling stations for light duty vehicles only		Up to 100% to purchase, install and maintain infrastructure if available to public at *government owned* property. Up to 80% to purchase, install and maintain infrastructure if available to public at *non-government owned* property. Up to 60% to purchase, install and maintain infrastructure at a workplace or multi-unit dwelling that is not available to the general public. Up to 33% to purchase, install and maintain infrastructure for publicly available hydrogen dispensing that is high volume or up to 25% for lower volume.

PROJECT PROPOSALS (Open with Adobe Reader)

Electronic submittals are preferred and should be sent to VWComments@dep.nj.gov however paper submittals will also be accepted and should be sent to:

NJDEP
Division of Air Quality
Mail code 401-02E
Trenton, NJ 08625-0420
Attn: VW Settlement

All proposals must contain the following information; incomplete applications will not be considered. If your project is selected, you may be contacted for additional detailed information. Send questions to VWComments@dep.nj.gov

To enter information electronically use Adobe Reader

CONTACT INFORMATION

Organization Name	Sysco Metro New York, LLC
Organization Address	20 Theodore Conrad Drive
City, State Zip Code	Jersey City, NJ 07305
Contact Person	Eddie Tantoco
Title/Position	Director, Tax & Business Incentives
Phone	(281) 584-4097
E-mail	tantoco.eddie@corp.sysco.com

PROJECT NAME	Sysco Diesel Truck Emission Reduction

PROJECT CATEGORY OR CATEGORIES (choose from 1-9 in "Eligible Projects" section above)

1 ☑ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐

PROJECT PRIORITY Priority # 1 of 1 proposals

If submitting more than one proposal, what is the sponsor's priority of this proposal?

PROJECT BUDGET $ 1,555,500.00

Provide total estimated project budget, include source and amount of cost share if applicable.

Total Project Cost = $1,555,500 - (18% ($280,000) NJDEP VW funding; 82% ($1,275,500) Sysco funding)

PROJECT DESCRIPTION (Briefly describe the project by completing the following questions)

Geographic area where emissions reductions will occur? Hudson, Bergen, Middlesex, Monmouth, etc

Estimated size of population benefitting from the emission reductions? 631,226

Estimated useful life of the project? Avg Sysco Class 8 useful life 18-20 yrs.

Number of engines/vehicles/vessels/equipment included in the project? 15

Estimated emission benefits should be expressed in tons per year (TPY) of emission reduced for NOx and for PM 2.5 over the lifetime of the project. Identify methodology used.

Estimated NOx benefits? 3.39 TPY

Methodology Used? EPA - Diesel Emissions Quantifier (DEQ) (Attached)

Particulate matter (PM 2.5) benefits? 0.21 TPY

Methodology Used? EPA - Diesel Emissions Quantifier (DEQ) (Attached)

Will the project benefit one or more communities that are disproportionately impacted by air pollution? If so, please describe.

Yes, many, please see, "Supplemental Page 1," attached.

Project partners, if any?

Not Applicable (N/A)

Explain how the project will provide cost effective and technically feasible emission reductions. Cost effectiveness should be expressed in dollars per ton per year of emissions reduced for NOx and for PM 2.5.

Sysco has thoroughly examined its fleet and selected the highest-emissions producing trucks for replacement. We would replace these trucks with the latest diesel technology. The lifetime results show that our project will eliminate 13.1 NOx tons (91.3% reduction) and 0.89 PM2.5 tons (97.2% reduction) emissions. The total cost effectiveness is $21,353 per ton of NOx & $317,030 per ton of PM2.5.

Estimated timeframe for implementation? Include a project timeline that identifies start and end dates, as well as the timeframe for key milestones.

Sysco is flexible regarding the desired replacement timeframe by NJDEP. Completing the project on time is not an issue due to our available capital, new truck and destruction vendor relationships, and refined internal processes and policies.

Estimated Milestones:
NJDEP provides written approval to enter contract: 3/31/2019
Action proponent submits proof of delivery and other supporting documents: 3/31/2020
Submit proof of scrapping: 6/30/2020
Completion of Project: 12/31/2020

Demonstrated success in implementing similar projects?

Sysco has 16 years of experience participating in emissions reduction programs to reduce hundreds of tons of NOx and greenhouse gas emissions in highly populated areas. Sysco currently has a large amount of on-going emissions reduction projects in other states. Our annual process includes identifying and targeting high emissions vehicles and coordinating activities between Sysco operations, internal departments, public entities, new truck vendors, and destruction vendors to meet all deadlines.

If your proposed project involves alternative fuels, provide a demonstration of current or future plans to provide adequate refueling infrastructure.

Not Applicable (N/A)

Has your organization been approved to receive and expend any other grant funds related to this project? If so, please provide details.

None

Please provide any additional information that supports this project.

Please see, "Supplemental Page 2," attached.

Two additional pages have been provided as supplemental space to answer any of the questions above.

Sysco Metro New York is adjacent to sensitive receptors such as neighborhoods, schools, national parks, and medical facilities which are disproportionately burdened by diesel pollution and emissions which cause harm to health, the environment, and damage to property. In using the EPA Environmental Justice screening (EJSCREEN) tool for Sysco's distribution center in New Jersey, we were able to make the following observations: 30% low income, 58% minority, 11% senior citizens. PM2.5 levels at our facility is in the 71st percentile, and Ozone air levels is in the 70th percentile. These statistics demonstrate that Sysco Metro New York is located within high population and environmental justice areas. EJSCREEN standard report states a population of approximately 631,226 (attached).

Sysco trucks in New Jersey normally operate through high traffic density areas to deliver food within various counties, including Bergen, Essex, Hudson, Middlesex, Monmouth, etc. These metropolitan New Jersey counties are heavily traveled by diesel trucks and are predominantly low-income areas where Hispanic/Latino and African American minorities account for over 45% of the population. Because of the close proximity to neighborhoods, diesel particulate matter (PM2.5) which forms in the atmosphere when NOx combines with ammonia, is a major health concern for young children, seniors and other sensitive populations in these communities.

Sysco's project to replace older engine model vehicles with newer generations of diesel technology would provide benefits to the communities across the state of New Jersey. These new generation trucks would deliver important benefits in the form of cleaner air, fewer greenhouse gases, and carbon dioxide emissions.

Sysco recognizes that New Jersey Department of Environmental Protection (NJDEP) has been provided a unique opportunity to accelerate emissions reduction within New Jersey. We believe our project meets some significant criteria that align with your goal:

Cost-Effectiveness:
In addition to being a low-cost eligible equipment type, we are proposing a cost share of 18%, thereby stretching limited Mitigation Plan funds. For comparison purposes, using the EPA Quantifier calculator and default values for a replacement project, a Sysco Short Haul truck project (25% cost-share) provides a 12:1 better Total Cost Effectiveness than a Public Transit Bus (100% cost-share). For example, given $1,000,000 of mitigation trust funds, a Sysco Short Haul truck project could produce a reduction of 65 tons of NOx emissions compared to 5 tons for a Public Transit Bus. Included with this application are the detailed EPA Quantifier reports that supports these findings.

Significant NOx Emission Reduction:
Due to the size, age, and operations of our fleet, our project could provide greater than 13 tons of NOx emissions reduction. In addition to the 91.3% reduction in NOx emissions, this replacement will also result in a 97.2 % reduction of secondary nitrate particulate matter (PM2.5). Reducing NOx emissions with our latest technology in diesel trucking in New Jersey would bring substantial long term benefits to both public health and the environment.

Experience, Confidence, Commitment:
Sysco has extensive experience, since 2002, participating in emissions reduction programs similar to NJDEP. Sysco will be easy to partner with and will provide your team with confidence that we will meet all project commitment requirements and timelines.

In addition, Sysco's proposed project provides dramatic benefits in three geographic areas that suffer from a disproportionate amount of air pollution; 1) at our distribution facility in Jersey City where trucks and diesel transport refrigeration units operate; 2) on roadways where our trucks accrue over 3,500,000 miles each year; and 3) at each of our customer locations where people eat, while unloading products with the equipment idling, at an average 12 different customers per truck each day.

Sysco is open to alternative project proposals when it comes to final project selections. We are also eager to begin our relationship with NJDEP in achieving large, measurable, and cost-effective emissions reduction projects. Thank you.

Good things come from Sysco

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Sysco Metro New York, LLC
Diesel Emission Mitigation Program

Diesel Emission Mitigation Program Proposal Form's Attachments

1: Sysco Metro New York Vehicle Information

2: Environmental Protection Agency (EPA) Diesel Emission Quantifier Calculation Summary

3: EJSCREEN Standard Report

4: Short Haul Trucks - EPA Quantifier Calculation

5: Transit Bus - EPA Quantifier Calculation

New Jersey Volkswagen Environmental Mitigation Trust Program Vehicle information Sheet

Recipient Information

Organization Name	First Name	Last Name	Job Title	Address	Office Phone	Fax
Sysco Metor New York, LLC	Eddie	Tantoco	Director, Tax & Business Incentives	1390 Enclave Parkway, Houston TX 77077	281-584-4097	281-584-4126

Project Information

Project Name	Target Fleet	Number of Vehicles	Requested Funding Amount	Total Estimated NOx Emission Reductions	Total Estimated PM (2.5) Emission Reductions	Total Estimated CO2 Emission Reductions
Sysco Diesel Truck Emission Reduction	Class 8 heavy duty trucks	15	$280,000	91.3% & 13.1 tons	97.2% & 0.88 tons	14.8% & 237.4 tons

Current Vehicle Information							
Eligible Mitigation Action	Class/ Equipment	Engine Make	Engine Model	Engine Model Year	Vehicle Model	Vehicle Make	Vehicle VIN
Class 8 local freight/port drayage trucks	Class 8	CAT	C13	2005	A9500	STERLING	2FWBA3DE16AU93598
Class 8 local freight/port drayage trucks	Class 8	CAT	C13	2005	A9500	STERLING	2FWBA3DE36AU93599
Class 8 local freight/port drayage trucks	Class 8	CAT	C13	2005	A9500	STERLING	2FWBA3DE36AV86994
Class 8 local freight/port drayage trucks	Class 8	CAT	C13	2005	A9500	STERLING	2FWBA3DE56AV86995
Class 8 local freight/port drayage trucks	Class 8	CAT	C13	2005	A9500	STERLING	2FWBA3DE56AV87001
Class 8 local freight/port drayage trucks	Class 8	CAT	C13	2005	A9500	STERLING	2FWBA3DE76AV87002
Class 8 local freight/port drayage trucks	Class 8	CAT	C13	2005	A9500	STERLING	2FWBA3DE76AV86996
Class 8 local freight/port drayage trucks	Class 8	CUMMINS	ISC	2002	M7500	STERLING	2FWBBYBS72AJ49853
Class 8 local freight/port drayage trucks	Class 8	CUMMINS	ISC	2002	M7500	STERLING	2FWBBYBS73AK88852
Class 8 local freight/port drayage trucks	Class 8	CUMMINS	ISC	2002	M7500	STERLING	2FWBBYBS82AJ49845
Class 8 local freight/port drayage trucks	Class 8	CUMMINS	ISC	2002	M7500	STERLING	2FWBBYBS92AJ49840
Class 8 local freight/port drayage trucks	Class 8	CUMMINS	ISM	2002	AT9500	STERLING	2FWJA3A813AK88854
Class 8 local freight/port drayage trucks	Class 8	CUMMINS	ISM	1999	A9500	STERLING	2FWWHMCB3YAA95020
Class 8 local freight/port drayage trucks	Class 8	CUMMINS	ISM	1999	A9500	STERLING	2FWWHMCB3YAF27458
Class 8 local freight/port drayage trucks	Class 8	CAT	C13	2005	A9500	STERLING	2FWBA3DEXGAU93597

Emission Results and Health Benefits for Project: 2018 Sysco NJ Emission Reduction

Emission Results

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

Annual Results (short tons)[2]	NO_x	PM2.5	HC	CO	CO_2	Fuel[3]
Baseline for Upgraded Vehicles	3.692	0.217	0.226	1.165	380.6	33,834
Amount Reduced After Upgrades	3.399	0.211	0.205	1.080	58.4	5,190
Percent Reduced After Upgrades	92.1%	97.2%	90.9%	92.6%	15.3%	15.3%

Lifetime Results (short tons)[2]						
Baseline for Upgraded Vehicles	14.355	0.909	0.923	4.508	1,600.3	142,250
Amount Reduced After Upgrades	13.113	0.883	0.836	4.144	237.4	21,106
Percent Reduced After Upgrades	91.3%	97.2%	90.5%	91.9%	14.8%	14.8%

Lifetime Cost Effectiveness ($/short ton reduced)						
Capital Cost Effectiveness[4] (unit & labor costs only)	$118,622	$1,761,200	$1,861,325	$375,348	$6,551	
Total Cost Effectiveness[4] (includes all project costs)	$21,353	$317,030	$335,054	$67,566	$1,179	

[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	**2001 Short Haul Truck:** Short Haul - Combination | Class 8	3 years
	2005 Short Haul Truck: Short Haul - Combination | Class 8	5 years
	2005 Short Haul Truck: Short Haul - Combination | Class 8	5 years
	2005 Short Haul Truck: Short Haul - Combination | Class 8	5 years
	2005 Short Haul Truck : Short Haul - Combination | Class 8	5 years
	2002 Short Haul Truck : Short Haul - Combination | Class 8	3 years
	2002 Short Haul Truck : Short Haul - Combination | Class 8	3 years
	2005 Short Haul Truck: Short Haul - Combination | Class 8	5 years
	2001 Short Haul Truck : Short Haul - Combination | Class 8	3 years
	2005 Short Haul Truck : Short Haul - Combination | Class 8	5 years
	2001 Short Haul Truck : Short Haul - Combination | Class 8	3 years
	2005 Short Haul Truck : Short Haul - Combination | Class 8	5 years
	2005 Short Haul Truck: Short Haul - Combination | Class 8	5 years
	1999 Short Haul Truck : Short Haul - Combination | Class 8	3 years
	1999 Short Haul Truck : Short Haul - Combination | Class 8	3 years

Sysco Metro New York	12/4/2018	Detailed Report from the Diesel Emissions Quantifier

United States Environmental Protection Agency (EPA)

Emission Results Details

Target Fleet	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination
Class/Equipment	**Class 8**	**Class 8**	**Class 8**	**Class 8**	**Class 8**	**Class 8**	**Class 8**	**Class 8**	**Class 8**	**Class 8**	**Class 8**	**Class 8**	**Class 8**	**Class 8**	**Class 8**
Number of Vehicles	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Model Year	**2001**	**2005**	**2005**	**2005**	**2005**	**2002**	**2002**	**2005**	**2001**	**2005**	**2001**	**2005**	**2005**	**1999**	**1999**
Retrofit Year	**2019**	**2019**	**2019**	**2019**	**2019**	**2019**	**2019**	**2019**	**2019**	**2019**	**2019**	**2019**	**2019**	**2019**	**2019**
Technology Description	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel	Vehicle Replacement - Diesel
Fuel Type	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD
Fuel Volume	2012	1841	2061	4258	1723	1920	2681	2305	2447	1925	2382	3189	3072	965	1053
Calculated Fuel Volume	2012	1841	2061	4258	1723	1920	2681	2305	2447	1925	2382	3189	3072	965	1053
Vehicle Miles Traveled/Year (VMT)	10675	15010	14094	29645	16635	20490	16255	13163	15980	30266	13526	14728	19326	7583	7807
Idling Hours/Year	67	127	127	169	59	121	128	89	99	256	115	41	85	141	68
Number of Vehicles Retrofitted	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
New Model Year	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
Unit Cost	$103,699	$103,699	$103,699	$103,699	$103,699	$103,699	$103,699	$103,699	$103,699	$103,699	$103,699	$103,699	$103,699	$103,699	$103,699
Annual Baseline of Vehicles (NOx, short tons)	0.234120108	0.163119183	0.153656214	0.316973469	0.175593964	0.448067824	0.360977086	0.141628249	0.350243935	0.328906575	0.301837847	0.154751624	0.20504299	0.182411728	0.17449598
Lifetime Baseline of Vehicles (NOx, short tons)	0.702360325	0.815595915	0.768281068	1.584867346	0.877969822	1.344203473	1.082931259	0.708141247	1.050731805	1.644532876	0.90551354	0.773758121	1.025214951	0.547235183	0.523487941
Percent Reduced (NOx, %)	94.60%	88.90%	88.90%	88.90%	88.90%	94.60%	94.60%	88.90%	94.60%	88.90%	94.60%	88.90%	88.90%	94.70%	94.60%
Baseline of Vehicles Retrofitted per year (NOx, short tons/year)	0.2341	0.1631	0.1537	0.317	0.1756	0.4481	0.361	0.1416	0.3502	0.3289	0.3018	0.1548	0.205	0.1824	0.1745
Amount Reduced per Year(NOx, short tons)	0.2215	0.145	0.1366	0.2818	0.1561	0.4239	0.3415	0.1259	0.3313	0.2924	0.2855	0.1376	0.1823	0.1727	0.1651
Lifetime Baseline of Vehicles Retrofitted (NOx, short tons)	0.7024	0.8156	0.7683	1.5849	0.878	1.3442	1.0829	0.7081	1.0507	1.6445	0.9055	0.7738	1.0252	0.5472	0.5235
Lifetime Amount Reduced (NOx, short tons)	0.6644	0.7251	0.683	1.4089	0.7805	1.2716	1.0245	0.6295	0.994	1.462	0.8566	0.6879	0.9114	0.5182	0.4952
Lifetime Amount Emitted After Retrofit, Retrofitted Vehicles (NOx, short tons)	0.0379	0.0905	0.0853	0.1759	0.0975	0.0726	0.0585	0.0786	0.0567	0.1825	0.0489	0.0859	0.1138	0.029	0.0283
Capital Cost Effectiveness ($/short ton), Retrofitted Vehicles (NOx)	156,071.45	143,020.33	151,828.28	73,600.35	132,859.69	81,548.96	101,223.78	164,722.50	104,325.76	70,930.05	121,056.60	150,753.56	113,777.89	200,101.61	209,400.04
Annual Baseline of Vehicles (PM2.5, short tons)	0.00996855	0.013001381	0.012286898	0.024844513	0.013576288	0.019048333	0.015472053	0.011173674	0.014907869	0.026215014	0.01297018	0.011905486	0.015940094	0.008133899	0.007504503
Lifetime Baseline of Vehicles (PM2.5, short tons)	0.02990565	0.065006907	0.061434491	0.124222564	0.067881439	0.057144998	0.046416159	0.055868372	0.044723607	0.13107507	0.03891054	0.059527432	0.079700471	0.024401697	0.02251351
Percent Reduced (PM2.5, %)	97.40%	97.10%	97.10%	97.10%	97.10%	97.40%	97.40%	97.10%	97.40%	97.10%	97.40%	97.10%	97.10%	97.50%	97.40%
Baseline of Vehicles Retrofitted per year (PM2.5, short tons/year)	0.01	0.013	0.0123	0.0248	0.0136	0.019	0.0155	0.0112	0.0149	0.0262	0.013	0.0119	0.0159	0.0081	0.0075

Sysco Metro New York	12/4/2018	Detailed Report from the Diesel Emissions Quantifier

United States Environmental Protection Agency (EPA)

Emission Results Details

Target Fleet	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination
Class/Equipment	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8
Number of Vehicles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Model Year	2001	2005	2005	2005	2005	2002	2002	2005	2001	2005	2001	2005	2005	1999	1999
Retrofit Year	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
Amount Reduced per Year(PM2.5, short tons)	0.0097	0.0126	0.0119	0.0241	0.0132	0.0186	0.0151	0.0108	0.0145	0.0255	0.0126	0.0116	0.0155	0.0079	0.0073
Lifetime Baseline of Vehicles Retrofitted (PM2.5, short tons)	0.0299	0.065	0.0614	0.1242	0.0679	0.0571	0.0464	0.0559	0.0447	0.1311	0.0389	0.0595	0.0797	0.0244	0.0225
Lifetime Amount Reduced (PM2.5, short tons)	0.0291	0.0631	0.0597	0.1206	0.0659	0.0557	0.0452	0.0542	0.0436	0.1273	0.0379	0.0578	0.0774	0.0238	0.0219
Lifetime Amount Emitted After Retrofit, Retrofitted Vehicles (PM2.5, short tons)	0.0008	0.0019	0.0018	0.0036	0.002	0.0015	0.0012	0.0016	0.0012	0.0038	0.001	0.0017	0.0023	0.0006	0.0006
Capital Cost Effectiveness ($/short ton), Retrofitted Vehicles (PM2.5)	3,560,101.44	1,642,842.15	1,738,373.42	859,715.69	1,573,273.74	1,863,105.26	2,293,751.72	1,911,566.10	2,380,558.11	814,770.39	2,736,203.26	1,794,065.07	1,339,968.07	4,358,629.18	4,729,033.52
Annual Baseline of Vehicles (HC, short tons)	0.011605744	0.012434403	0.011764819	0.023615987	0.012839298	0.022142592	0.018129885	0.010646734	0.017350451	0.025071656	0.015235663	0.011238053	0.01510575	0.009889608	0.008822422
Lifetime Baseline of Vehicles (HC, short tons)	0.034817231	0.062172013	0.058824093	0.118079937	0.064196491	0.066427775	0.054389655	0.053233672	0.052051354	0.12535828	0.045706989	0.056190263	0.075528751	0.029668824	0.026467265
Percent Reduced (HC, %)	92.40%	89.60%	89.60%	89.60%	89.60%	92.30%	92.40%	89.60%	92.30%	89.60%	92.40%	89.60%	89.60%	92.50%	92.40%
Baseline of Vehicles Retrofitted per year (HC, short tons/year)	0.0116	0.0124	0.0118	0.0236	0.0128	0.0221	0.0181	0.0106	0.0174	0.0251	0.0152	0.0112	0.0151	0.0099	0.0088
Amount Reduced per Year(HC, short tons)	0.0107	0.0111	0.0105	0.0212	0.0115	0.0204	0.0168	0.0095	0.016	0.0225	0.0141	0.0101	0.0135	0.0091	0.0082
Lifetime Baseline of Vehicles Retrofitted (HC, short tons)	0.0348	0.0622	0.0588	0.1181	0.0642	0.0664	0.0544	0.0532	0.0521	0.1254	0.0457	0.0562	0.0755	0.0297	0.0265
Lifetime Amount Reduced (HC, short tons)	0.0322	0.0557	0.0527	0.1058	0.0575	0.0613	0.0503	0.0477	0.048	0.1123	0.0422	0.0503	0.0677	0.0274	0.0245
Lifetime Amount Emitted After Retrofit, Retrofitted Vehicles (HC, short tons)	0.0026	0.0065	0.0061	0.0123	0.0067	0.0051	0.0041	0.0055	0.004	0.013	0.0035	0.0058	0.0079	0.0022	0.002
Capital Cost Effectiveness ($/short ton), Retrofitted Vehicles (HC)	3,223,356.73	1,861,536.83	1,967,484.51	980,145.27	1,802,832.05	1,691,309.78	2,063,413.62	2,174,103.11	2,158,444.26	923,237.71	2,455,387.21	2,059,707.25	1,532,336.89	3,778,613.80	4,240,270.25
Annual Baseline of Vehicles (CO, short tons)	0.075508503	0.050860383	0.04803401	0.097521	0.053440274	0.144615824	0.116064417	0.043801096	0.112978666	0.102551406	0.096933863	0.046911778	0.062674219	0.057544064	0.056016675
Lifetime Baseline of Vehicles (CO, short tons)	0.226525508	0.254301914	0.240170048	0.487604999	0.267201368	0.433847472	0.348193252	0.219005479	0.338935998	0.51275703	0.290801588	0.234558889	0.313371094	0.172632193	0.168050024
Percent Reduced (CO, %)	95.10%	89.50%	89.50%	89.50%	89.50%	95.10%	95.00%	89.50%	95.10%	89.50%	95.00%	89.50%	89.50%	94.80%	95.00%
Baseline of Vehicles Retrofitted per year (CO, short tons/year)	0.0755	0.0509	0.048	0.0975	0.0534	0.1446	0.1161	0.0438	0.113	0.1026	0.0969	0.0469	0.0627	0.0575	0.056

Sysco Metro New York	12/4/2018	Detailed Report from the Diesel Emissions Quantifier

United States Environmental Protection Agency (EPA)

Emission Results Details

Target Fleet	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination	Short Haul - Combination
Class/Equipment	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8	Class 8
Number of Vehicles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Model Year	2001	2005	2005	2005	2005	2002	2002	2005	2001	2005	2001	2005	2005	1999	1999
Retrofit Year	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
Amount Reduced per Year(CO, short tons)	0.0718	0.0455	0.043	0.0873	0.0478	0.1375	0.1103	0.0392	0.1074	0.0918	0.0921	0.042	0.0561	0.0546	0.0532
Lifetime Baseline of Vehicles Retrofitted (CO, short tons)	0.2265	0.2543	0.2402	0.4876	0.2672	0.4338	0.3482	0.219	0.3389	0.5128	0.2908	0.2346	0.3134	0.1726	0.1681
Lifetime Amount Reduced (CO, short tons)	0.2154	0.2276	0.215	0.4364	0.2391	0.4126	0.3308	0.196	0.3223	0.4589	0.2763	0.2099	0.2805	0.1637	0.1596
Lifetime Amount Emitted After Retrofit, Retrofitted Vehicles (CO, short tons)	0.0111	0.0267	0.0252	0.0512	0.0281	0.0213	0.0174	0.023	0.0166	0.0538	0.0145	0.0246	0.0329	0.009	0.0084
Capital Cost Effectiveness ($/short ton), Retrofitted Vehicles (CO)	481,367.69	455,619.08	482,428.20	237,620.21	433,623.54	251,337.32	313,495.00	529,049.80	321,718.74	225,964.34	375,365.36	493,968.93	369,736.73	633,642.71	649,549.69
Annual Baseline of Vehicles (CO2, short tons)	22.635	20.71125	23.18625	47.9025	19.38375	21.6	30.16125	25.93125	27.52875	21.65625	26.7975	35.87625	34.56	10.85625	11.84625
Lifetime Baseline of Vehicles (CO2, short tons)	67.905	103.55625	115.93125	239.5125	96.91875	64.8	90.48375	129.65625	82.58625	108.28125	80.3925	179.38125	172.8	32.56875	35.53875
Percent Reduced (CO2, %)	17.20%	18.80%	16.80%	8.10%	20.10%	18.00%	12.90%	15.00%	14.10%	18.00%	14.50%	10.80%	11.30%	35.90%	32.90%
Baseline of Vehicles Retrofitted per year (CO2, short tons/year)	22.635	20.7113	23.1862	47.9025	19.3838	21.6	30.1613	25.9313	27.5287	21.6563	26.7975	35.8763	34.56	10.8563	11.8462
Amount Reduced per Year(CO2, short tons)	3.8925	3.8925	3.8925	3.8925	3.8925	3.8925	3.8925	3.8925	3.8925	3.8925	3.8925	3.8925	3.8925	3.8925	3.8925
Lifetime Baseline of Vehicles Retrofitted (CO2, short tons)	67.905	103.5563	115.9312	239.5125	96.9188	64.8	90.4838	129.6563	82.5862	108.2813	80.3925	179.3813	172.8	32.5687	35.5387
Lifetime Amount Reduced (CO2, short tons)	11.6775	19.4625	19.4625	19.4625	19.4625	11.6775	11.6775	19.4625	11.6775	19.4625	11.6775	19.4625	19.4625	11.6775	11.6775
Lifetime Amount Emitted After Retrofit, Retrofitted Vehicles (CO2, short tons)	56.2275	84.0938	96.4688	220.05	77.4563	53.1225	78.8063	110.1938	70.9087	88.8188	68.715	159.9188	153.3375	20.8912	23.8612
Capital Cost Effectiveness ($/short ton), Retrofitted Vehicles (CO2)	8,880.24	5,328.14	5,328.14	5,328.14	5,328.14	8,880.24	8,880.24	5,328.14	8,880.24	5,328.14	8,880.24	5,328.14	5,328.14	8,880.24	8,880.24

Save as PDF

EJSCREEN Report (Version 2018)

4 mile Ring Centered at 40.697744,-74.058657

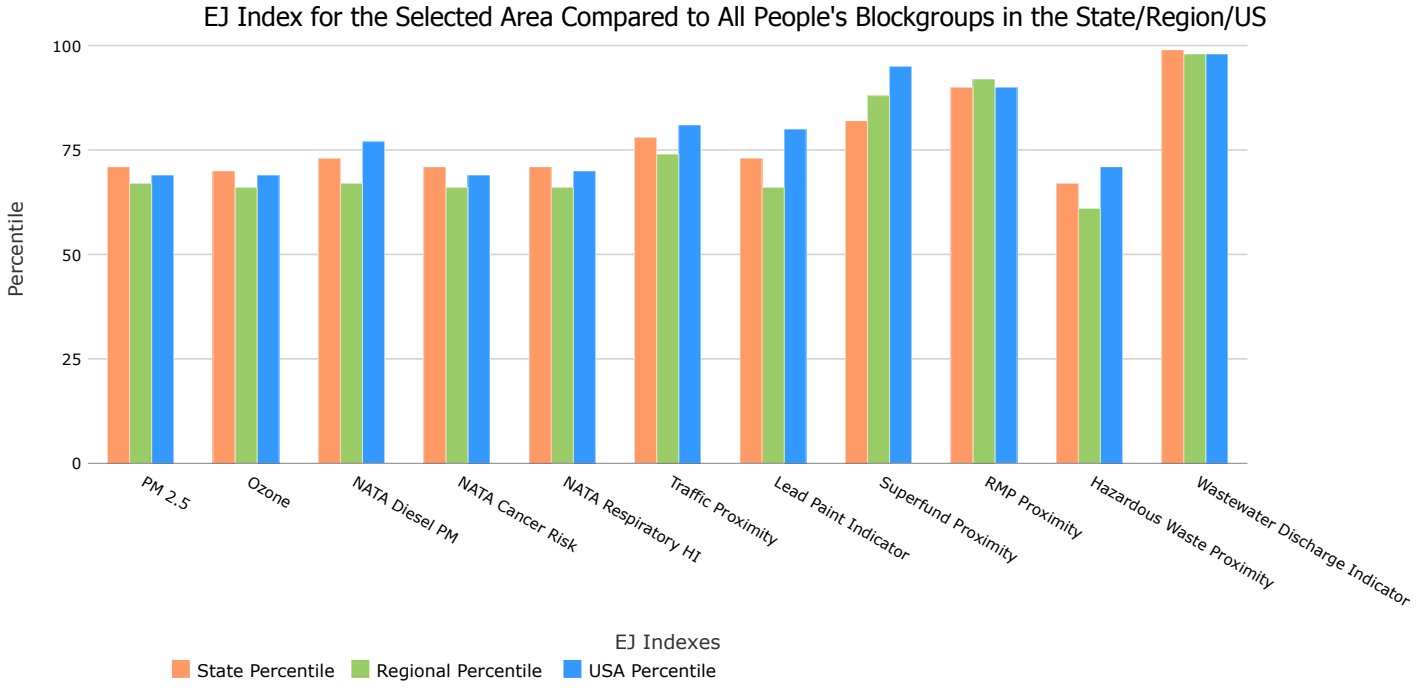
NEW JERSEY, EPA Region 2

Approximate Population: 631,226

Input Area (sq. miles): 50.26

(The study area contains 33 blockgroup(s) with zero population.)

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	71	67	69
EJ Index for Ozone	70	66	69
EJ Index for NATA* Diesel PM	73	67	77
EJ Index for NATA* Air Toxics Cancer Risk	71	66	69
EJ Index for NATA* Respiratory Hazard Index	71	66	70
EJ Index for Traffic Proximity and Volume	78	74	81
EJ Index for Lead Paint Indicator	73	66	80
EJ Index for Superfund Proximity	82	88	95
EJ Index for RMP Proximity	90	92	90
EJ Index for Hazardous Waste Proximity	67	61	71
EJ Index for Wastewater Discharge Indicator	99	98	98



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

Sites reporting to EPA	
Superfund NPL	2
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	217

Selected Variables	Value	State Average	Percentile in State	EPA Region Average	Percentile in EPA Region	USA Average	Percentile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	10	9.43	86	9.21	87	9.53	59
Ozone (ppb)	41.4	43.6	7	41.9	34	42.5	40
NATA* Diesel PM (µg/m^3)	4.87	1.31	99	1.88	90-95th	0.938	95-100th
NATA* Air Toxics Cancer Risk (risk per MM)	63	42	99	44	80-90th	40	95-100th
NATA* Respiratory Hazard Index	3.8	2.1	95	2.4	80-90th	1.8	95-100th
Traffic Proximity and Volume (daily traffic count/distance to road)	3600	660	96	1800	88	600	96
Lead Paint Indicator (% pre-1960s housing)	0.59	0.41	68	0.51	55	0.29	81
Superfund Proximity (site count/km distance)	0.58	0.43	76	0.28	86	0.12	96
RMP Proximity (facility count/km distance)	1.7	0.71	87	0.57	92	0.72	87
Hazardous Waste Proximity (facility count/km distance)	110	4.9	100	34	89	4.3	99
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	3.2	0.66	99	1.1	95	30	97
Demographic Indicators							
Demographic Index	44%	34%	69	37%	64	36%	67
Minority Population	58%	43%	67	44%	65	38%	72
Low Income Population	30%	25%	68	30%	58	34%	49
Linguistically Isolated Population	11%	7%	78	8%	74	4%	85
Population with Less Than High School Education	13%	11%	69	13%	60	13%	60
Population under Age 5	7%	6%	63	6%	62	6%	58
Population over Age 64	11%	15%	36	15%	35	14%	38

*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not

provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

Attached is the EPA Quantifier detail in reference to "additional information supports our project" regarding Short Haul Truck projects producing 12 times greater emissions reduction than Public Transit Buses

Emission Results and Health Benefits for Project: Short Haul Truck Default

Emission Results

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

Annual Results (short tons)[2]	NO_x	PM2.5	HC	CO	CO_2	Fuel[3]
Baseline for Upgraded Vehicles	0.239	0.001	0.005	0.020	60.9	5,415
Amount Reduced After Upgrades	0.203	0.001	0.002	0.009	8.7	774
Percent Reduced After Upgrades	84.7%	42.9%	46.3%	46.7%	14.3%	14.3%

Lifetime Results (short tons)[2]						
Baseline for Upgraded Vehicles	1.914	0.010	0.037	0.158	487.4	43,320
Amount Reduced After Upgrades	1.621	0.004	0.017	0.074	69.7	6,192
Percent Reduced After Upgrades	84.7%	42.9%	46.3%	46.7%	14.3%	14.3%

Lifetime Cost Effectiveness ($/short ton reduced)						
Capital Cost Effectiveness[4] (unit & labor costs only)	$61,325	$22,284,693	$5,855,558	$1,350,564	$1,427	
Total Cost Effectiveness[4] (includes all project costs)	$15,331	$5,571,117	$1,463,875	$337,638	$357	

[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	**Short Haul Combo:** Short Haul - Combination | Class 8	8 years

Emission Results and Health Benefits for Project: Public Transit Bus Default

Emission Results

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

Annual Results (short tons)[2]	NO_x	PM2.5	HC	CO	CO_2	Fuel[3]
Baseline for Upgraded Vehicles	0.243	0.002	0.009	0.034	69.0	6,131
Amount Reduced After Upgrades	0.194	0.001	0.005	0.020	11.5	1,022
Percent Reduced After Upgrades	79.7%	48.8%	58.3%	58.3%	16.7%	16.7%

Lifetime Results (short tons)[2]						
Baseline for Upgraded Vehicles	1.944	0.013	0.068	0.271	551.8	49,048
Amount Reduced After Upgrades	1.549	0.006	0.040	0.158	92.0	8,176
Percent Reduced After Upgrades	79.7%	48.8%	58.3%	58.3%	16.7%	16.7%

Lifetime Cost Effectiveness ($/short ton reduced)						
Capital Cost Effectiveness[4] (unit & labor costs only)	$193,644	$48,006,646	$7,565,344	$1,899,689	$3,262	
Total Cost Effectiveness[4] (includes all project costs)	$193,644	$48,006,646	$7,565,344	$1,899,689	$3,262	

[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	**Transit Bus:** Transit Bus | Transit Buses	8 years