APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

Minnesota Funding Application 4
Phase 1 Electric Vehicle Level 2 Chargers
Grant Program
February 2019

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary Minnesota

Lead Agency Authorized to Act on Behalf of the Beneficiary Minnesota Pollution Control Agency (MPCA)
(Any authorized person with delegation of such authority to direct the Trustee delivered to the Trustee pursuant to a Delegation of Authority and Certificate of Incumbency)

Action Title:	MN Phase 1 Level 2 EV Infrastructure Grants
Beneficiary's Project ID:	R323VC01
Funding Request No.	*(sequential)* 4
Request Type: (select one or more)	☐ Reimbursement ■ Advance ☐ Other (specify):
Payment to be made to: (select one or more)	■ Beneficiary ☐ Other (specify): Minnesota Pollution Control Agency
Funding Request & Direction (Attachment A)	■ Attached to this Certification ☐ To be Provided Separately

SUMMARY

Eligible Mitigation Action Action Type	■ Appendix D-2 item (specify): 9: Light Duty ZEV Supply Equipment ☐ Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal):
Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1): See Attached	
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): See Attached	
Estimate of Anticipated NOx Reductions (5.2.3): See Attached	
Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1): See Attached	
Describe how the Beneficiary will make documentation publicly available (5.2.7.2). See Attached	
Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8). See Attached	
Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9). See Attached	

If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10).
See Attached

ATTACHMENTS
(CHECK BOX IF ATTACHED)

☑	**Attachment A**	**Funding Request and Direction.**
☑	**Attachment B**	**Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4).**
☑	**Attachment C**	**Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11).**
☑	**Attachment D**	**Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding $25,000 (5.2.6). [Attach only if project involves vendor expenditures exceeding $25,000.]**
☐	**Attachment E**	**DERA Option (5.2.12). [Attach only if using DERA option.]**
☐	**Attachment F**	**Attachment specifying amount of requested funding to be debited against each beneficiary's allocation (5.2.13). [Attach only if this is a joint application involving multiple beneficiaries.]**

CERTIFICATIONS

By submitting this application, the Lead Agency makes the following certifications:

1. **This application is submitted on behalf of Beneficiary** Minnesota **, and the person executing this certification has authority to make this certification on behalf of the Lead Agency and Beneficiary, pursuant to the Certification for Beneficiary Status filed with the Court.**

2. **Beneficiary requests and directs that the Trustee make the payments described in this application and Attachment A to this Form.**

3. **This application contains all information and certifications required by Paragraph 5.2 of the Trust Agreement, and the Trustee may rely on this application, Attachment A, and related certifications in making disbursements of trust funds for the aforementioned Project ID.**

4. **Any vendors were or will be selected in accordance with a jurisdiction's public contracting law as applicable. (5.2.5)**

5. **Beneficiary will maintain and make publicly available all documentation submitted in**

support of this funding request and all records supporting all expenditures of eligible mitigation action funds subject to applicable laws governing the publication of confidential business information and personally identifiable information. (5.2.7.2)

DATED: 2/19/19

David J. Benke
Division Director

Minnesota Pollution Control Agency

[LEAD AGENCY]

for

Minnesota

[BENEFICIARY]

Appendix D-4– Supplemental Information
Beneficiary Eligible Mitigation Action Certification

Beneficiary: Minnesota
Lead Agency: Minnesota Pollution Control Agency

In support of funding request no. 4
MN Phase 1 Level 2 EV Charging Station Grant Program

Appendix D4 - Summary

Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1):

A detailed description of this project is described on pages 5-12 of Minnesota's Beneficiary Mitigation Plan (see attached excerpt). This funding request will support the Level 2 Charging stations portion of the electric vehicle charging station program.

Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):

This project will help fund the installation of 25 dual Level 2 electric vehicle (EV) charging stations. These EV charging stations will be located throughout Minnesota.

Selected grantees will oversee the installation of 25 EV Level 2 dual charging stations that the MPCA has selected through the grant evaluation process. The station locations were submitted with the applications. All stations must be built to specifications stated within the RFP, with ADA compliant accessibility and proper signage as well as be installed in a well-lit area. The 22 public dual charging stations will be accessible 24 hours a day. Once the stations are built, MPCA will inspect the stations prior to reimbursement for the installation expenditures. The EV Level 2 dual charging stations are smart chargers capable of providing usage data. This data will help MPCA determine accurate estimates of air emission reductions from the use of the EV chargers.

The Minnesota Pollution Control Agency anticipates the following emissions reductions as a result of this Level 2 electric vehicle charging facility installation project:

Pollutant	NOx	PM 2.5	GHG
Lifetime Tons of Pollution Reduced	1.72	0.08	7,411

Estimate of Anticipated NOx Reductions (5.2.3):

Lifetime NOx reductions will be 1.72 Tons

Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1):

The Minnesota Pollution Control Agency (MPCA) is responsible for all Volkswagen projects in MN.

Describe how the Beneficiary will make documentation publicly available (5.2.7.2):

- All non-private documents will be publicly available through Minnesota's public facing website: www.pca.state.mn.us/vw.

  The Minnesota Government Data Practices Act (MGDPA), found in Chapter 13 of Minnesota statutes, is a Minnesota state law that regulates the handling of all governmental data that are collected, created, disseminated, maintained, received and stored by a political subdivision, state agency or statewide system regardless of their physical form, how they are stored or how they are used. The Minnesota Pollution Control Agency (MPCA) is a state agency and, therefore, subject to the requirements of the MGDPA.

  There is a general presumption in the MGDPA that all governmental data are public unless there is a federal law, state statute or temporary classification that allows the data to be classified as not public. Some of the not public data types that may be included within the MPCA's grant application and award documentation include, but are not limited to, business data, personal information, security information, social security numbers, trade secret information etc.

  The MPCA is statutorily obligated to maintain such data types as not public and, therefore, will not provide them when requested or present them on our public facing website. The MPCA will provide requesters with notification that the not public data are not being provided and will cite the federal law, state statute or temporary classification that allows for this not public classification.

Describe any cost share requirements to be placed on each NOx source proposed to be mitigated (5.2.8):

This program is a specific grant for the highest scoring entities installing the approved dual EV charging stations. All remaining costs will be the responsibility of the charging station owner. The MPCA anticipates funding approximately 60-65% of the overall costs of the facility installation, with station owners funding the remaining costs.

Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9):

The Minnesota Pollution Control Agency contacted all necessary US Government agencies on Monday, Feb 12, 2018 as described in 4.2.8. The MPCA received replies from National Park Service and US Forest Service on Wed, Feb 14, 2018 acknowledging receipt of all necessary documents.

If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10):

The MPCA is using our Environmental Justice and Department of Health mapping tools to help choose projects in areas that have historically borne a disproportionate share of the adverse impacts of NOx emissions.

ATTACHMENT B

PROJECT MANAGEMENT PLAN
PROJECT SCHEDULE AND MILESTONES

Milestone	Date
Request for Proposals announced (EV Level 2 Chargers)	June 6, 2018
Request for Proposal Closing – Application Deadline (EV Level 2 Chargers)	September 5, 2018
MPCA selects potential grant recipients from eligible application pool	January 2019
MPCA submits Funding Request to Trustee – Appendix D-4: Beneficiary Eligible Mitigation Action Certification including Attachments	February 2019
Trustee Acknowledges Receipt of Funding Request	Receipt from Trustee
Trustee Allocates Share of State Funds	Transfer date
Grant agreements signed with selected entities	CY 2019, Q2
Grantee provides proof of installation, invoices and other documents required for reimbursement	CY 2019, Q1 – CY 2023, Q4
MPCA reviews, requests corrections if necessary, certifies project completion, and provides reimbursement	CY 2019, Q1 – CY 2023, Q4
MPCA Reports to the Trustee on the status of and expenditures with Mitigation Actions completed and underway.	Within 6 months of first disbursement: January 30 and July 30 thereafter

Budget Category	Total Project Budget	Share of Total Budget to be Funded by the Trust	Cost-Share, paid by station owners
1. Equipment Expenditure	$291,351	$195,750	$95,601
2. Contractor Support	$2,213	$2,213	$0
3. Sub recipient Support	$0	$0	$0
4. Administrative[1]	$19,537	$19,537	$0
Project Totals	$313,101	$217,500	$95,601
Percentage	100%	69.5%	30.5%

PROJECT BUDGET

[1] Subject to Appendix D-2 15% administrative cap

PROJECTED TRUST ALLOCATIONS

	CY 2018	CY 2019
1. Anticipated Annual Project Funding Request to be paid through the Trust		$217,500
2. Anticipated Annual Cost Share		$95,601
3. Anticipated Total Project Funding by Year (line 1 plus line 2)		$313,101
4. Cumulative Trustee Payments Made to Date Against Cumulative Approved Beneficiary Allocation	$2,350,000	
5. Cumulative Outstanding Trustee Payments Made to Date Against Cumulative Approved Beneficiary Allocation		$2,426,110
6. Current Beneficiary Project Funding to be paid through the Trust (line 1)		$217,500
7. Total Funding Approved (plus pending) for Beneficiary Eligible Mitigation Actions, inclusive of Current Action (sum of lines 4, 5, and 6)	$2,350,000	$2,643,610
8. Beneficiary Share of Estimated Funds Remaining in Trust (Market Value as of last statement date from Online Portfolio)	$47,133,334	$44,942,817
9. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (line 8 minus lines 5 and 6)	$44,864,077	$42,299,207

ATTACHMENT C
DETAILED PLAN FOR REPORTING ON
ELIGIBLE MITIGATION ACTION IMPLEMENTATION

The Minnesota Pollution Control Agency (MPCA) will provide detailed reporting on this Environmental Mitigation Trust project in 2 ways:

1. Timely updates to MPCA'sVolkswagen (VW) Environmental Mitigation Trust webpage (www.pca.state.mn.us/vw) ;
2. Minnesota's semiannual reporting obligation to Wilmington Trust (the "Trustee")

MPCA maintains a VW Environmental Mitigation Trust specific webpage that has been designed to support public access and limit burden for the general public. The MPCA's VW specific webpage can be found at www.pca.state.mn.us/vw. Timely updates to the webpage will inform the general public on the projects' status as well as when these projects have been completed.

Subparagraph 5.3 of the Environmental Mitigation Trust Agreement for State Beneficiaries details Minnesota's Reporting Obligations: "For each Eligible Mitigation Action, no later than six months after receiving its first disbursement of Trust Assets, and thereafter no later than January 30 (for the preceding six-month period of July 1 to December 31) and July 30 (for the preceding six-month period of January 1 to June 30) of each year, each Beneficiary shall submit to the Trustee a semiannual report describing the progress implementing each Eligible Mitigation Action during the six-month period leading up to the reporting date (including a summary of all costs expended on the Eligible Mitigation Action through the reporting date). Such reports shall include a complete description of the status (including actual or projected termination date), development, implementation, and any modification of each approved Eligible Mitigation Action. Beneficiaries may group multiple Eligible Mitigation Actions and multiple sub-beneficiaries into a single report. These reports shall be signed by an official with the authority to submit the report for the Beneficiary and must contain an attestation that the information is true and correct and that the submission is made under penalty of perjury. To the extent a Beneficiary avails itself of the DERA Option described in Appendix D-2, that Beneficiary may submit its DERA Quarterly Programmatic Reports in satisfaction of its obligations under this Paragraph as to those Eligible Mitigation Actions funded through the DERA Option. The Trustee shall post each semiannual report on the State Trust's public-facing website upon receipt."

MPCA shall, in the next semiannual report following the Trustee's approval of this project, describe the progress implementing this Eligible Mitigation Action that will include a summary of all costs expended on the Eligible Mitigation Action through the reporting date. The report will also include a complete description of the status, development, implementation (including project schedule and milestone updates), and any modification to this Eligible Mitigation Action.

Attachment D
DETAILED COST ESTIMATES FROM SELECTED OR POTENTIAL VENDORS FOR EACH PROPOSED EXPENDITURE EXCEEDING $25,000

EV Level 2 Charging Station grant applicants were asked to submit the total cost for each new charging station in their grant application.

There are a total of 9 grant recipients.

Only 1 recipient will receive a grant in excess of $25,000:

Grant Amount	Number of dual EV charging stations
$33,020	4

The total number and average cost for all Level 2 dual EV charging stations to be funded with this grant are listed below.

New Facility Type	Number of dual EV Charging stations	Total Grant Amount	Total cost for dual charging station installation	Total Grant % (total grant $/total charger cost x 100)
Publically Accessible	22	$172,335	$252,177	68%
Non-Public Accessible	3	$23,415	$39,174	60%
Grand Totals	25	$195,750	$291,351	67%

Minnesota will be funding 60% to 68% of the cost for each new dual charging station. While the individual costs for each facility do not exceed the $25,000 expenditure limit, the overall project cost of $217,500 does.

Minnesota's Plan

Minnesota's Beneficiary Mitigation Plan for submission to the Wilmington Trust of Wilmington, Delaware as required by the Environmental Mitigation Trust Agreement for State Beneficiaries as part of the Volkswagen Environmental Settlement.

Introduction

Volkswagen's tampered diesel vehicles have emitted an estimated 600 tons of excess air pollution in Minnesota. The Minnesota Pollution Control Agency (MPCA) is committed to ensuring that Minnesota's funding from the Volkswagen settlement – $47 million over 10 years – is used to improve air quality in our state, especially for those most vulnerable to its effects. Our goals are to mitigate the pollution from VW vehicles and reduce air pollution emissions, while moving Minnesota towards a cleaner transportation future.

Purpose

This document is Minnesota's Beneficiary Mitigation Plan, a required step in the federal court settlement. To use settlement funds, states must specify how they plan to spend them in a plan submitted to the Trustee managing the funds for states. The federal settlement specifies the project types on which states can spend funds. However, within that structure, we can prioritize projects and initiatives that make the most sense for Minnesotans and reflect our state's priorities and goals. The plan must include:

- Minnesota's goals for the funds
- The types of vehicles and equipment Minnesota plans to replace with the funds
- How Minnesota will use the funds to benefit communities disproportionately impacted by air pollution
- Estimates of the emissions reductions that Minnesota expects to achieve with these funds

This document our plan for these funds, focusing on overall goals for the 10 years of the program and projected investments for the first two years (2018-2019). The MPCA intends to seek further input and revise the plan after the first two years of the program.

Goals and targets

The MPCA solicited input from Minnesotans across the state on how the VW settlement funds should be spent, and used the feedback to set goals for the funds to guide us over the 10 years of the program. The MPCA will use the funds to achieve significant emissions reductions across the state, especially in areas that have been most impacted by vehicle pollution. Based on the number of violating VW vehicles registered in different parts of the state, we plan to target investing 60% of the settlement funds in the Twin Cities metropolitan area and 40% in Greater Minnesota. We will also maximize emissions reductions in areas disproportionately impacted by air pollution, both in the Twin Cities and across the state. We will prioritize bringing health benefits to Minnesotans by reducing their exposures to vehicle-related air pollution. We will balance these priorities with cost-effective management of the funds. (To learn more about Minnesota's goals and targets for its settlement funds, see page 13.)

EXCERPT

Grant program plan

The federal Volkswagen settlement outlines 10 specific activities on which states can use settlement funds. Most of these allowable projects involve replacing old heavy-duty diesel vehicles or equipment with new, cleaner vehicles or equipment. The new vehicles can use diesel or alternative fuels such as propane, compressed natural gas, or electricity. The old vehicles must be destroyed. States can also spend up to 15% of their settlement funds on electric vehicle charging stations. (See Appendix 1 for a summary of the settlement and Appendix 9 for the settlement language describing the types of vehicles and equipment replacements that can be funded.)

Using the input of Minnesotans, the analysis of project benefits, and MPCA staff expertise, the agency has developed this plan for the first phase of funding (2018-2019) from Minnesota's $47 million allocation from the VW settlement. (See Appendix 4 for details of the input we have received through our engagement process and Appendix 5 for a summary of input we received on our draft plan.) All funds must be spent or committed to projects by October 2, 2027.

Phased funding

Minnesota's $47 million allocation will be invested over three phases. The phased plan will allow the agency to:

- Build in transparency and involve the public in reviewing and revising the plan between phases
- Learn which projects work best in Minnesota, and modify our requests for proposals in subsequent phases to focus the most effective projects
- Identify areas in need of additional assistance as we seek out proposals
- Track constantly changing vehicle technology and invest in the most effective at the time

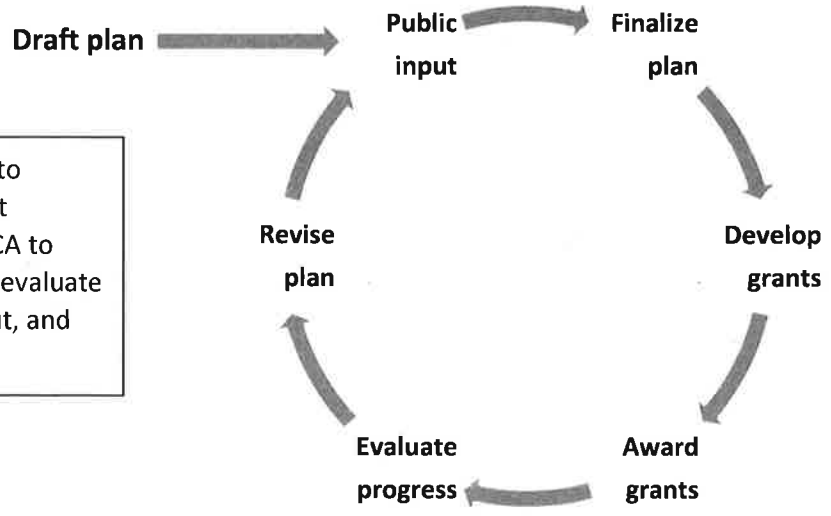
The first phase of funding will be a first step in achieving our 10-year goals for the program. The three phases of funding are:

Phase 1: $11.75 million (25% of overall funds) – 2018-2019 – Smaller amount of money to learn and ramp up. Phase 1 is the period addressed in this plan. We will solicit input and review and revise the plan after Phase 1.

Phase 2: $23.5 million (50% of overall funds) – 2020-2023 – Most of the funds will be spent during this period. We will develop the spending plan for Phase 2 after further public input. We will solicit input on spending priorities for Phase 3 and review and revise the plan after Phase 2.

Phase 3: $11.75 million (25% of overall funds) – 2024-2027 – Remaining funds allocated.

Figure 1: Plan revision process



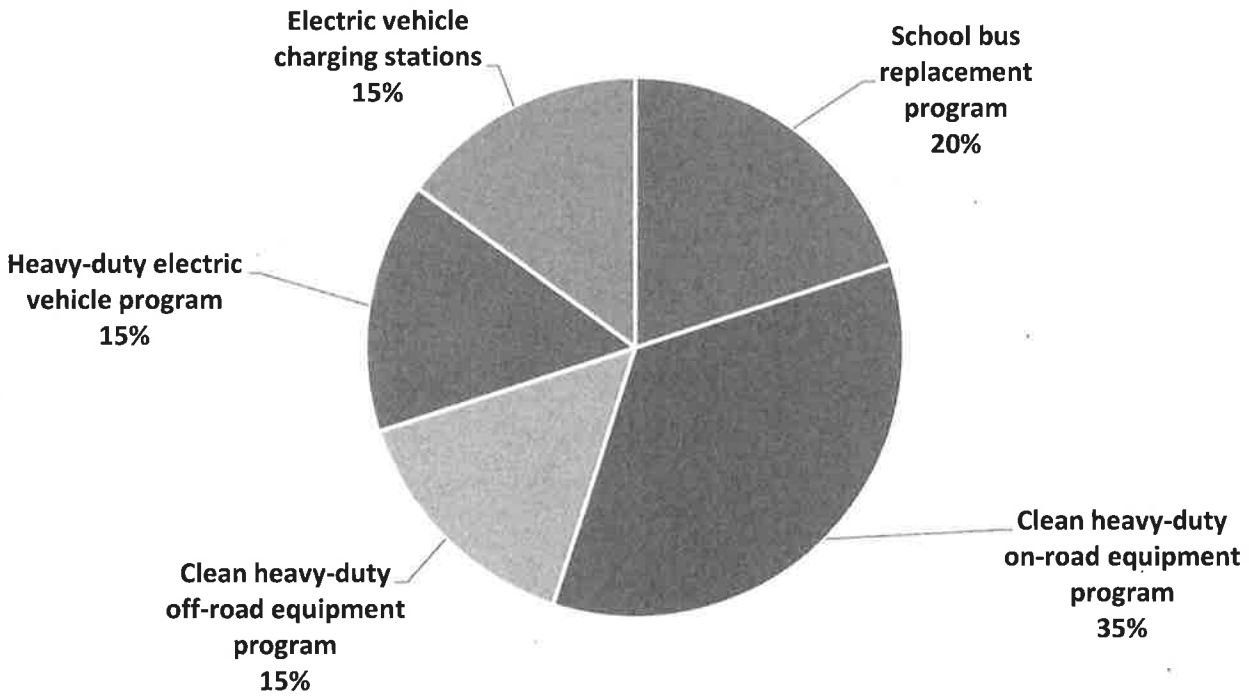
The three-phase approach to Minnesota's VW settlement program will allow the MPCA to write a plan, award grants, evaluate the process, get public input, and revise the plan.

EXCERPT

Phase 1 of grants (2018-2019)

During the initial 2018-2019 period, the MPCA will allocate 25% of Minnesota's overall funding, or $11.75 million. The state's ability to fund projects in each category at the target levels will depend on the applications received and interest by vehicle and equipment owners. The exact percentages may shift with demand. Table 1 reflects our preferred investment scenario, but if we do not receive sufficient applications in a category, the MPCA would shift funds between programs in Phase 1 or move funds into the next funding phase (2020-2023).

Figure 2: Grant program funding allocations (2018-2019, Phase 1)



EXCERPT

Table 1: Summary of grant programs for 2018-2019 (Phase 1)

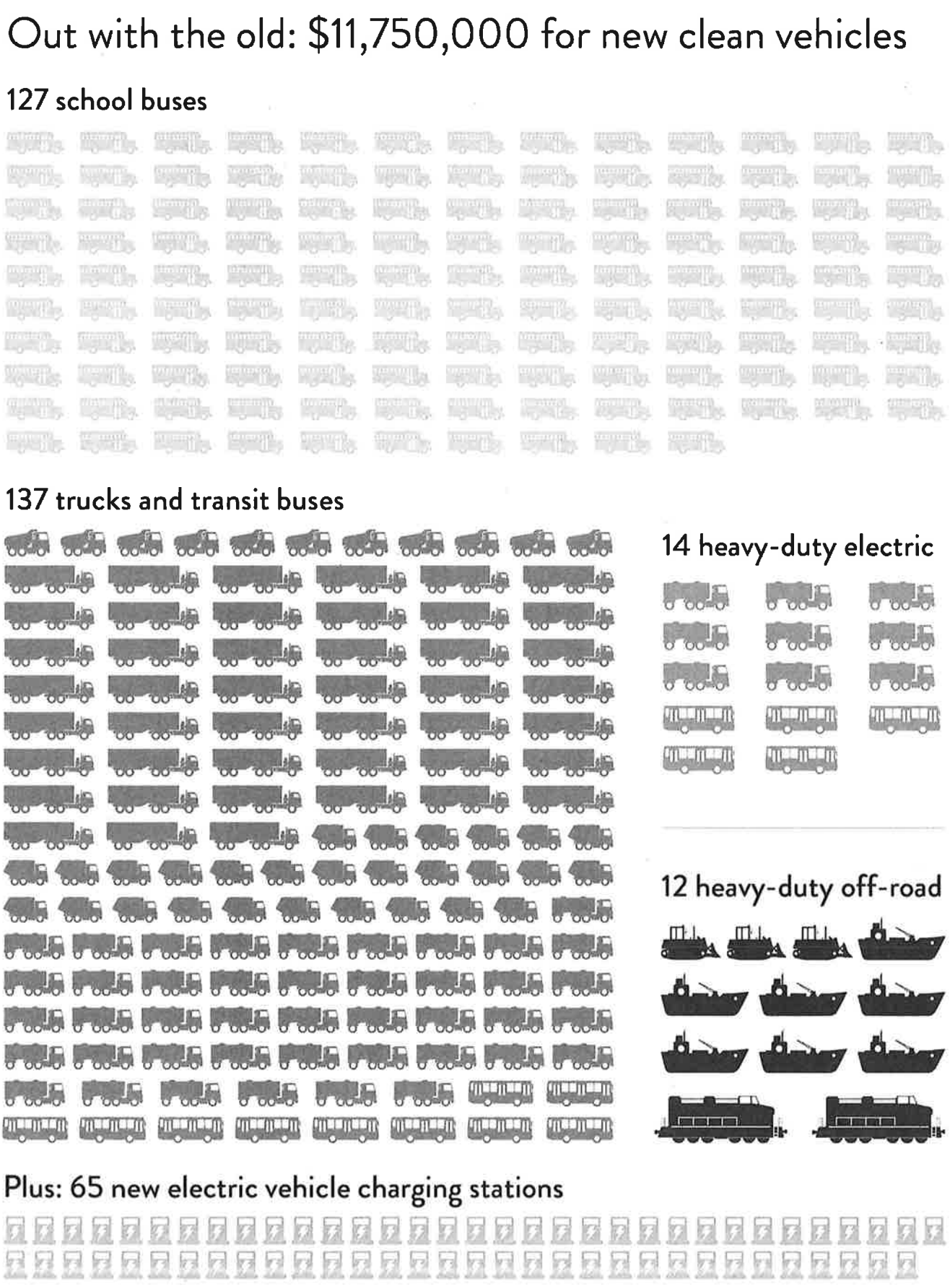
Grant program (2018-2019)	Settlement category	Eligible fuels	2018-2019 grants (Phase 1)			
			Targeted percent*	Targeted dollar amount	Approx. number purchased**	Estimated emissions reductions (tons)***
School bus replacement program	School buses	All (diesel, propane, natural gas, electric)	20%	$2,350,000	127	NO_X: 23-28 $PM_{2.5}$: 1.0-1.7 GHGs: 292-585
Clean heavy-duty on-road vehicles program	Transit buses, class 4-8 trucks	All (diesel, propane, natural gas, electric)	35%	$4,112,500	137	NO_X: 494-564 $PM_{2.5}$: 17-34 GHGs: 12,543-23,160
Clean heavy-duty off-road equipment program	Switcher locomotives, ferries, tugs, port cargo handling equipment, ocean-going vessel shore power, Diesel Emission Reduction Act (DERA)	All (diesel, propane, natural gas, electric)	15%	$1,762,500	12	NO_X: 619 $PM_{2.5}$: 23 GHGs: 1,866
Heavy-duty electric vehicle program	School buses, transit buses, trucks, airport ground support equipment, forklifts	Electric	15%	$1,762,500	14	NO_X: 15-16 $PM_{2.5}$: 0.5-1.0 GHGs: 1,855-4,508
Electric vehicle charging station program	Zero-emission vehicle infrastructure	Not applicable	15%	$1,762,500	Fast chargers: 20 Level-2 chargers: 45	NO_X: 1.1 $PM_{2.5}$: 0.05 GHGs: 4,632
	Total:			**$11,750,000**		**NO_X: 1,152-1,228** **$PM_{2.5}$: 41-60** **GHGs: 21,188-34,751**

*Percentage of available settlement funds targeted at these activities for 2018-2019.

**Each category includes an estimated mix of eligible vehicles and equipment types. These estimates provide an idea of how many vehicles of each type could be funded in Phase 1 in order to make emissions calculations, but do not reflect a preference for any vehicle or fuel type or funding targets or allocations within each grant program. (See Appendix 7 for methods.)

***Emission benefits for projects funded in Phase 1 compared to emissions expected if the old vehicles were to continue to operate for their remaining useful life. Calculated for nitrogen oxides (NO_X), fine particles ($PM_{2.5}$), and greenhouse gases (GHGs). NO_X and $PM_{2.5}$ emissions are calculated for tailpipe emissions only. GHG emissions benefits are calculated from well to wheel. (See Appendix 7 for calculation methods.)

Figure 3: Grants from Phase 1 will replace hundreds of vehicles across the state.



Funding process

Projects will be funded through a competitive grant application process. The MPCA will develop a set of criteria for scoring projects and selecting those that best align with the plan goals.

In most cases, the settlement requires that most of the funds for vehicle and equipment replacement be provided by equipment owners; the smaller portion of the total cost of the new vehicle will be covered by VW settlement funds (see next section for allowable matches). Eligible applicants are people and organizations who either own heavy-duty diesel vehicles and equipment or install electric vehicle charging infrastructure. Applicants may include, but are not limited to, local governments, school districts, state government agencies, metropolitan planning organizations, transit authorities, tribes, private businesses, and non-profit organizations. Vehicle owners can also work with third parties to submit aggregated applications for multiple vehicles owned by different organizations.

Selected applicants will receive their funding as a reimbursement after their new equipment has been delivered and the MPCA has received confirmation that their old equipment has been destroyed. VW funds cannot be used for vehicles, engines, or electric vehicle charging stations that are purchased before a grant agreement is signed between the owner and the MPCA.

Phase 1 Grant programs

Below are descriptions of the five grant programs the MPCA will administer during Phase 1.

School bus grant program – 20% ($2,350,000)

Estimated emissions reductions: nitrogen oxides (NO_X): 23-28 tons; fine particles ($PM_{2.5}$): 1.0-1.7 tons; greenhouse gases (GHGs): 292-585 tons

This program will provide grants for the replacement of school buses up to $15,000 each, or $20,000 each for operators serving school districts where 40% of students are eligible for free or reduced-cost lunch. The MPCA will provide a list of districts eligible for additional funding.

Eligibility: All Minnesota school bus operators, both public and private. Groups of vehicle owners may work with third parties to submit aggregated applications. All fuel types, including diesel, propane, natural gas, and electric. Gasoline vehicles are not eligible for funding under the terms of the national settlement.

Why school buses? During the MPCA public engagement effort, a main theme was prioritizing projects that reduce pollution exposures for children and replacing aging school buses. Minnesota previously invested more than $3 million in Project Green Fleet, retrofitting 3,500 diesel school buses with diesel oxidation catalysts, which reduced fine particle emissions by 20% on buses model years 2006 and older. But replacing even those buses with new ones now would provide a 95% reduction in emissions.

After receiving feedback from fleet owners, school districts, and school bus vendors on Minnesota's draft plan, we believe a $15,000 grant would be enough incentive to replace outdated school buses. A $15,000 grant level will allow Minnesota to replace a large number of buses and bring benefits to many school districts and children across the state. The $15,000/$20,000 grant amounts also improve the cost-effectiveness of these replacements (see Appendix 6 for more data on cost effectiveness).

Clean heavy-duty on-road vehicles grant program – 35% ($4,112,500)

Estimated emissions reductions: NO_X: 494-564 tons; $PM_{2.5}$: 17-34 tons; GHGs 12,543-23,160 tons

This program will fund the replacement of transit buses and large and medium-sized (class 4-8) trucks up to $40,000, or 25% of the overall cost of the vehicle, whichever is less. The funding cap reflects that vehicles in this category vary greatly in size and cost, from step vans to garbage trucks, and aligns with caps the MPCA has used for Minnesota's Diesel Emission Reduction Act program for many years.

Eligibility: Public and private organizations around the state. Groups of fleet owners may work with third parties to submit aggregated applications. All fuel types, including diesel, propane, natural gas, and electric. Gasoline vehicles are not eligible for funding under the terms of the national settlement.

Why heavy-duty on-road vehicles? This category represents the largest opportunity for emissions reductions. The heavy-duty on-road category contains diesel equipment that emits the most nitrogen oxides in Minnesota, including the approximately 46,000 on-road diesel trucks in the state eligible for funding (see Appendix 6 for data). These are also some of the most cost-effective vehicle replacements (see Appendix 6). Additionally, the majority of survey respondents cited trucks and buses as some of the vehicles they are most concerned about emitting diesel pollution in their neighborhoods (see Appendix 4).

Clean heavy-duty off-road equipment grant program – 15% ($1,762,500)

Estimated emissions reductions: NO_X: 619 tons; $PM_{2.5}$: 23 tons; GHGs: 1,866 tons

This program will fund the replacement of heavy-duty off-road equipment, including switcher locomotives, ferries, tug boats, and construction equipment eligible under the Diesel Emission Reduction Act (DERA). Based on the matching levels allowed by the settlement (see Appendix 9 for details), this program will fund projects up to the following levels:

- Ferries/tug boats/towboats: up to 40% to repower (replace the engine only)
- Switcher locomotives: up to 40% to repower and up to 25% for a new vehicle
- Ocean-going vessel shorepower: up to 25%
- Construction equipment through the DERA: up to 25% for replacement or up to 40% to repower to Tier 4.

Eligibility: Public and private organizations across the state. Groups of equipment owners may work with third parties to submit aggregated applications. All fuel types, including diesel, propane, natural gas, and electric. Gasoline equipment is not eligible for funding under the terms of the national settlement.

Why heavy-duty off-road equipment? Among the equipment types eligible for VW settlement funding, heavy-duty off-road equipment can be some of the largest emitters of air pollution (see Appendix 6 for data). Through MPCA's experience with DERA and conversations with equipment owners, we know that many of these engines are rarely upgraded without financial incentive. There are many old diesels in this category in Minnesota that have no pollution controls at all.

Heavy-duty electric vehicle grant program – 15% ($1,762,500)

Estimated emissions reductions: NO_X: 15-16 tons; $PM_{2.5}$: 0.5-1.0 tons; GHGs: 1,855-4,508 tons

This program provides funds for electric alternatives to heavy-duty vehicles and equipment. We anticipate particular interest in replacing transit buses, school buses, and airport ground support equipment. Heavy-duty electric vehicles are newer technology and significantly more expensive than other alternatives; organizations may therefore need more financial assistance to begin to adopt it. This grant program will provide an opportunity for our state to begin to adopt and learn about this technology.

Eligibility: Public and private organizations across the state. Groups of fleet owners may work with third parties to submit aggregated applications. All heavy-duty vehicles and equipment eligible for replacement by electric alternatives are eligible to apply for funding in this category. Airport ground support equipment and forklifts, which are only eligible for electric replacements under the terms of the national settlement will be considered in this category. Must replace diesel vehicle with all-electric vehicle.

Why heavy-duty electric vehicles? Support for more electric vehicles was the most common comment the MPCA received during its public engagement efforts. Public transit providers, school bus operators, airports, and utilities across the state all said the state should invest in this technology. Electric vehicles have no tailpipe emissions, and putting more of them on the road supports Minnesota's Next Generation Energy Act goals for reducing greenhouse gas emissions.

Electric vehicle charging station grant program – 15% ($1,762,500)

Estimated emissions reductions: NO_X: 1.1 tons; $PM_{2.5}$: 0.05 tons; GHGs: 4,632 tons

Minnesota will spend the bulk of the funds in this grant program on fast electric vehicle charging stations along highway corridors in Greater Minnesota. Ten percent ($176,250) will fund level 2 (slower-charging) stations at public locations, workplaces, and multi-unit dwellings. As allowed by the settlement, the program will fund up to 80% of the cost of charging stations in public locations and up to 60% of the cost of charging stations in workplaces and multi-unit dwellings.

Eligibility: The MPCA will identify target highway corridors for funding. Applicants building fast charging stations must install them at 30- to 70-mile increments along identified highways approximately two miles or less from the exit. Fast charging stations must be a minimum of 50 kilowatts and include adequate conduit size at each station for future upgrades as well as space for extending the parking pad. To maximize emission reductions, we will encourage charging stations be powered by electricity generated from renewable sources (wind and solar) through either a utility renewable energy program or by purchasing renewable energy credits. Groups of applicants can come together to submit proposals for multiple station locations.

Why electric vehicle charging stations? Support for more electric vehicles was by far the most common comment the MPCA received during its public engagement efforts. Minnesotans made a strong call to use as much of the VW settlement funds as possible for electric vehicle charging stations. Survey and comment data indicate support for a fast charging network around the state to make it possible for all Minnesotans to travel by electric vehicle. In Greater Minnesota, participants asked for electric vehicle charging corridors so owners could travel beyond their immediate communities. Based on public comments on Minnesota's draft state plan, the MPCA plans to focus on installing 50kW chargers with necessary conduits for future upgrades along highway corridors in Phase 1. Funding 50kW chargers will allow Minnesota to extend our fast charging network more rapidly than if we were to require higher-cost 150kW chargers. 50kW charging also aligns with current vehicle technology.

Stakeholders also stated that fast charging currently is hard to finance without subsidy; slower level-2 chargers are lower cost and easier to fund. Many municipalities, counties, universities, and others have expressed interest in installing this lower-cost option. Level-2 chargers in multiunit housing are especially important for supporting access to electric vehicles for lower-income Minnesotans as the cost of purchasing the vehicles continues to decrease. Electric vehicles have no tailpipe emissions, and putting more of them on the road supports Minnesota's Next Generation Energy Act goals for reducing greenhouse gas emissions.

Core application criteria

The MPCA's goals (see page 13) will guide the application and project selection process. The process will consider the location of each replacement to meet our 60% Twin Cities metropolitan area and 40% Greater Minnesota investment goals, as well as our goals to invest in vulnerable communities. Each program's application process may have specific criteria based on the purpose of the program, but the MPCA plans to include core criteria in all applications. The core criteria for diesel replacement projects are:

- Emissions reduction – Reducing nitrogen oxides, fine particles, and greenhouse gases.
- Cost-per-ton – Cost effectiveness based on cost paid with VW funds (not total project cost).
- Vulnerable populations – Vehicles and equipment operating in areas of concern for vulnerable populations based on the MPCA's mapping tool.
- Exposure – Reducing emissions in areas of high diesel exposure as identified using MPCA's risk modeling tool or other tool as developed in conjunction with the Minnesota Department of Health.

Most of the electric vehicle charging stations will be installed along highway corridors throughout Greater Minnesota. For electric vehicle charging infrastructure, other core criteria are:

- Cost effectiveness