

AGENDA

MPCA Volkswagen Settlement Technical Stakeholder Meeting – Phase 2

July 16, 2019

1:00 p.m. – 3:00 p.m. Central

MPCA Lower Level Conference Room

520 Lafayette Road North, St. Paul, MN

To access online webinar and teleconference:

For those participating remotely PLEASE be sure to mute your phone line as soon as the webinar begins to help keep things running as smoothly as possible! We'll have time for questions and input throughout the meeting.

[Join WebEx meeting](#)

Meeting number: 591 786 590

Meeting password: wH8MwhVC

Join by phone

Call-in toll-free number: 1-844-302-0362 (US)

Or Call-in number: 206-596-0378 (US)

- | | |
|----------------|--|
| 1:00 pm | Welcome and introduction
Rick Patraw, MPCA
<i>Purpose, role, and scope of the meetings</i> |
| 1:15 | Overview of Volkswagen Settlement and Minnesota's efforts
Amanda Smith, MPCA
<i>Brief overview of settlement, timeline, and Phase 1 development</i> |
| 1:30 | Phase 1 Progress
Amanda Smith, MPCA
<i>Grant results, goal progress and online data tools, lessons learned</i> |
| 2:00 | Input on Phase 2
Mike Nelson, MPCA
<i>Stakeholders discuss their thoughts on funding categories and program structure for Phase 2</i> |
| 2:50 | Next steps |
| 3:00 | Adjourn |

Next meeting (August 14): *Topics will include selection criteria and small group discussions regarding electric vehicle and diesel replacement projects*

For more information: www.pca.state.mn.us/air/vw-phase-2



Volkswagen settlement in Minnesota: Planning the next phase

- Overview of Volkswagen Settlement and Minnesota's efforts
- Phase 1 Progress
- Input on Phase 2
- Next Steps





Overview of settlement and Minnesota's efforts

7/16/2019

VW settlement

- VW violated national vehicle emissions standards for nitrogen oxides (NOx)
- June, 2016: VW settled with US Dept. of Justice to spend \$14.7 billion nationally over 10 years
- Minnesota is receiving \$47 million over 10 years



\$47 million over 10 years

Funds can only be used for 2 things:

1. Take an old diesel vehicle/engine off the road, rail or water and replace it with a new vehicle/engine
2. Electric vehicle (EV) charging stations

Goal is NOx clean up



Why replace old diesels?

One old truck can pollute more than 30 new diesel trucks

Depending on factors such as the age of the truck, how far it travels, and how much it idles, one old diesel truck can produce as much particle pollution as 25-50 modern trucks under the same operating conditions.



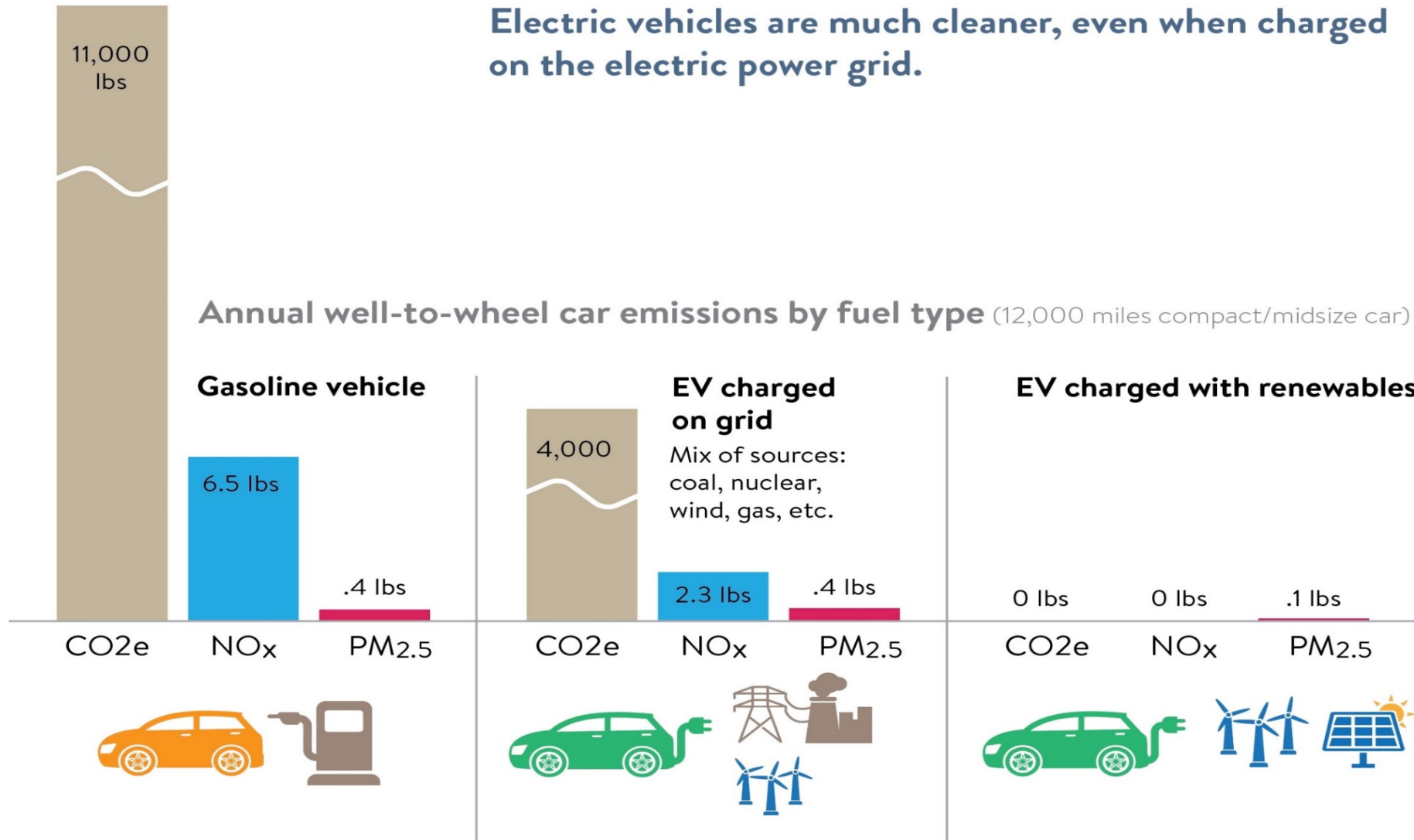
vs.



Why encourage electric vehicles?

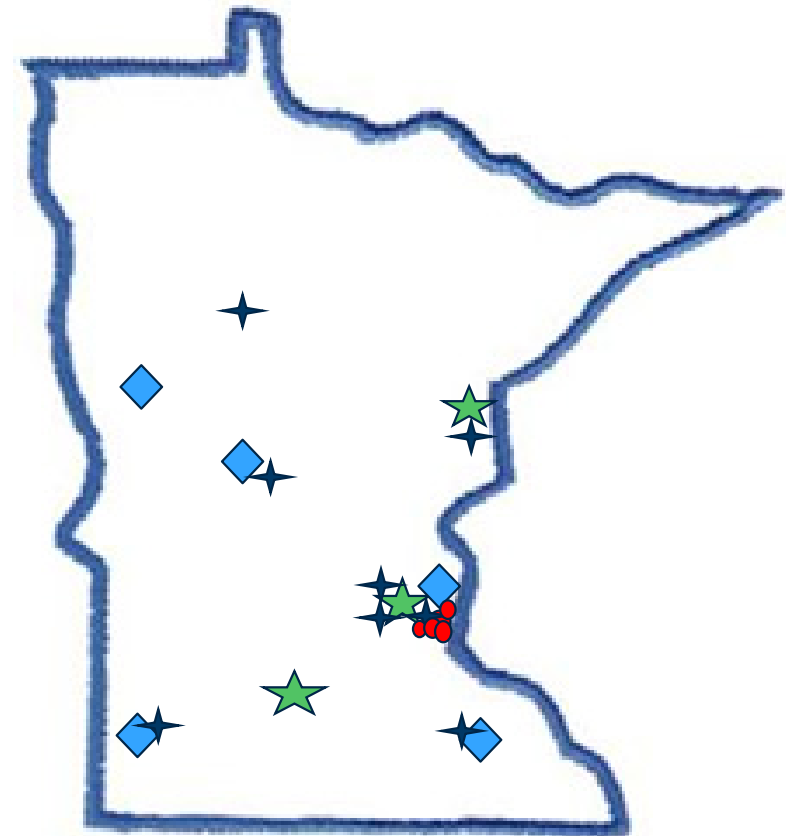
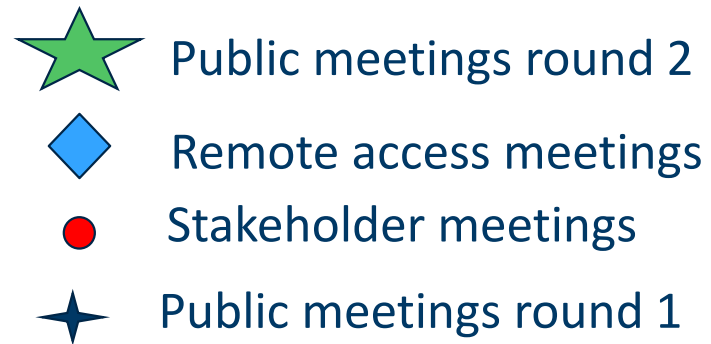
Electric vehicles are much cleaner, even when charged on the electric power grid.

Annual well-to-wheel car emissions by fuel type (12,000 miles compact/midsize car)



Developing Minnesota's Phase I plan

- 19 meetings around Minnesota, throughout 2017-2018
 - Including 5 technical meetings
- 759 written comments
- 955 survey responses



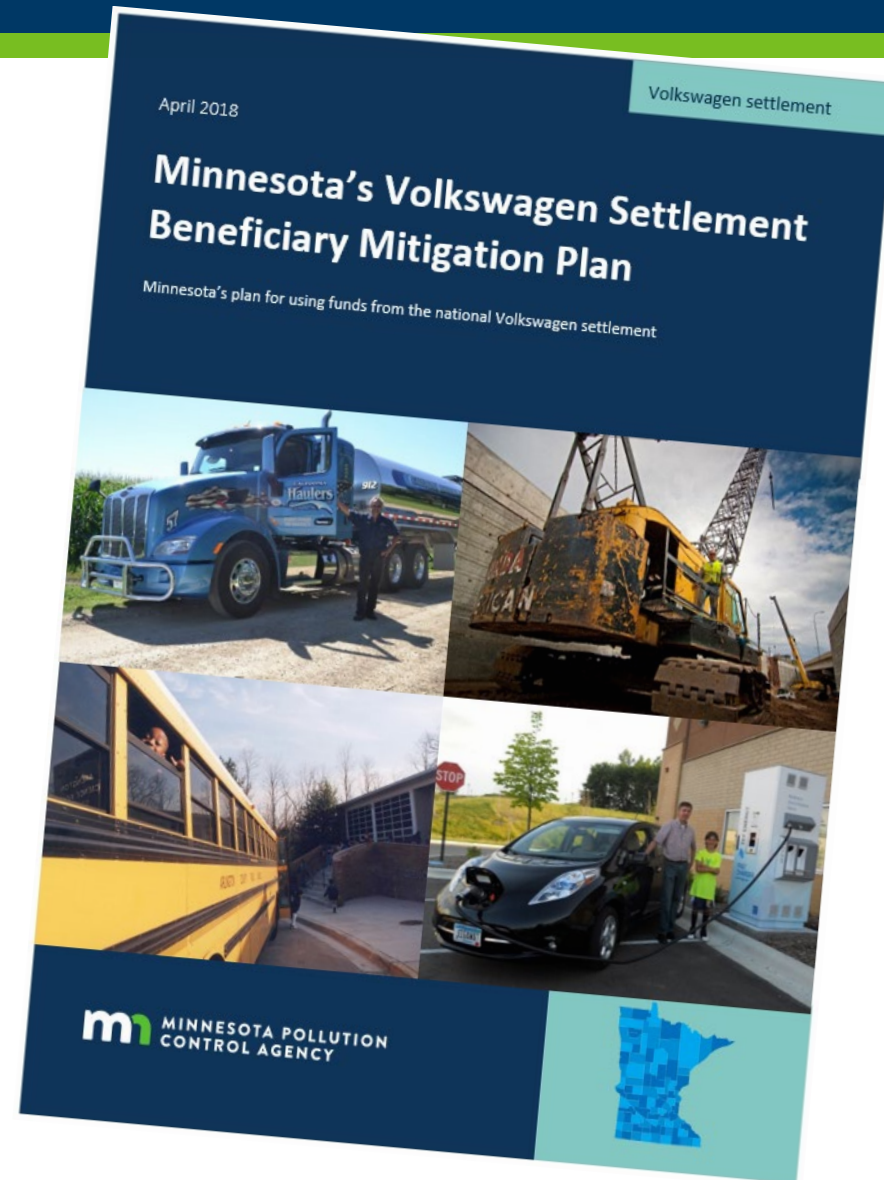
What we heard: key themes

- Significant emissions reductions
- Include greater Minnesota
- Public health and environmental justice
- Electric vehicle infrastructure
- Long-term future of transportation system
- Measureable results



Minnesota's Phase 1 Plan

- Define 10-year goals
- Structure plan in 3 phases
- Grant programs



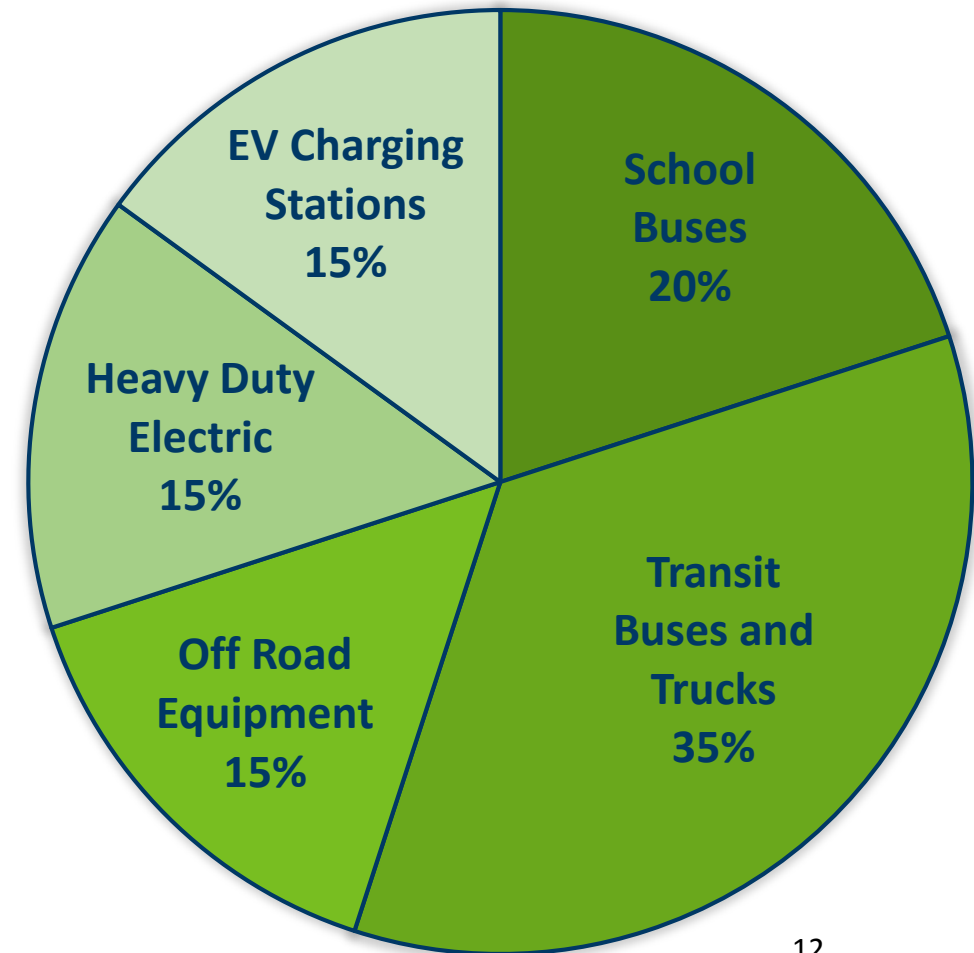
- Significant emissions reductions
- Statewide benefits (60/40)
- Help people disproportionately affected (40%)
- Reduce exposure, maximize health benefits
- Balance cost effectiveness with other goals

Phase 1 (2018-2019) grant programs

\$11.75 million over two years

5 categories

- School buses
- Transit buses and trucks
- Off-road equipment
- Heavy-duty electric vehicles
- Electric vehicle charging stations



Cost sharing

VW funds
via the
MPCA



Vehicle
owner
funds



Three funding phases





Phase 1 implementation

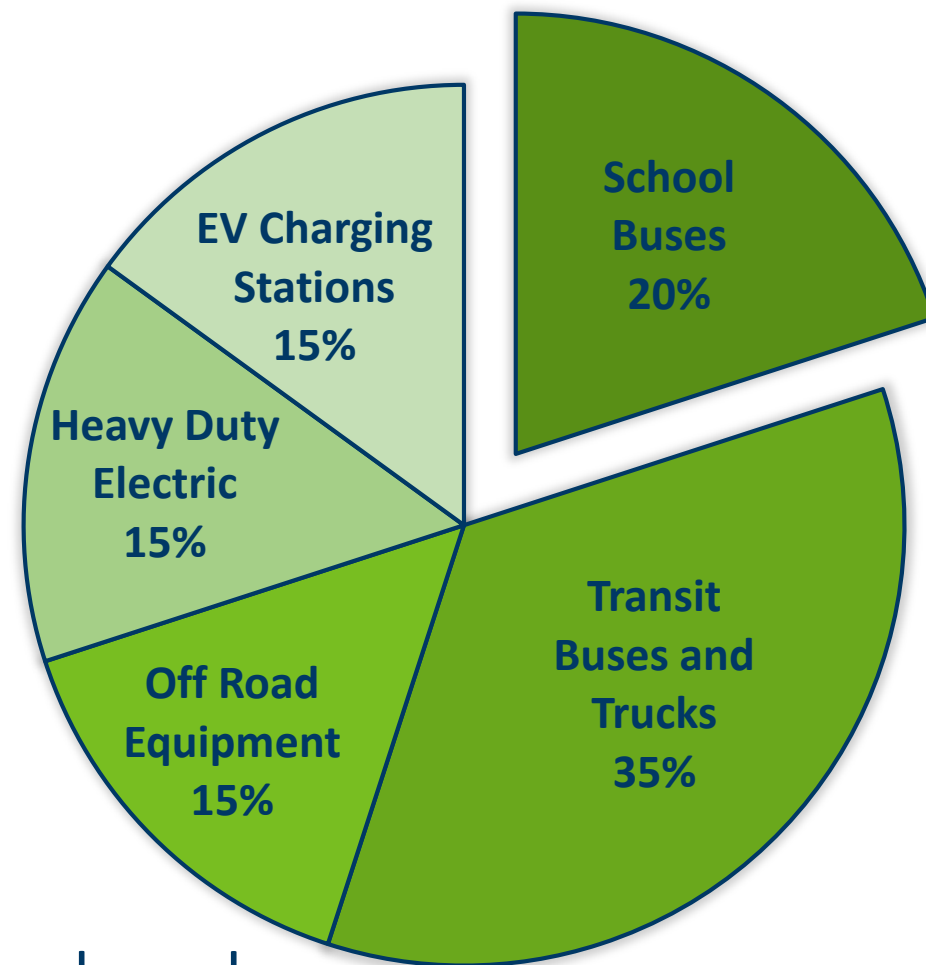
Timeline of Phase 1 grants

Grant category	RFP issued
School Bus Replacements	July 2018
Electric Vehicle (EV) – Fast Chargers	July 2018
EV Level 2 Chargers	July 2018
Non-Road Diesel Emission Reduction Act (DERA) grants	September 2018
Diesel On-road Truck and Transit Bus Replacements	May 2019
Greater Minnesota School Bus Replacement	June 2019
Heavy-duty Electric Vehicle grants	(Summer 2019)
Off-Road DERA grants – Year 2	(Summer 2019)

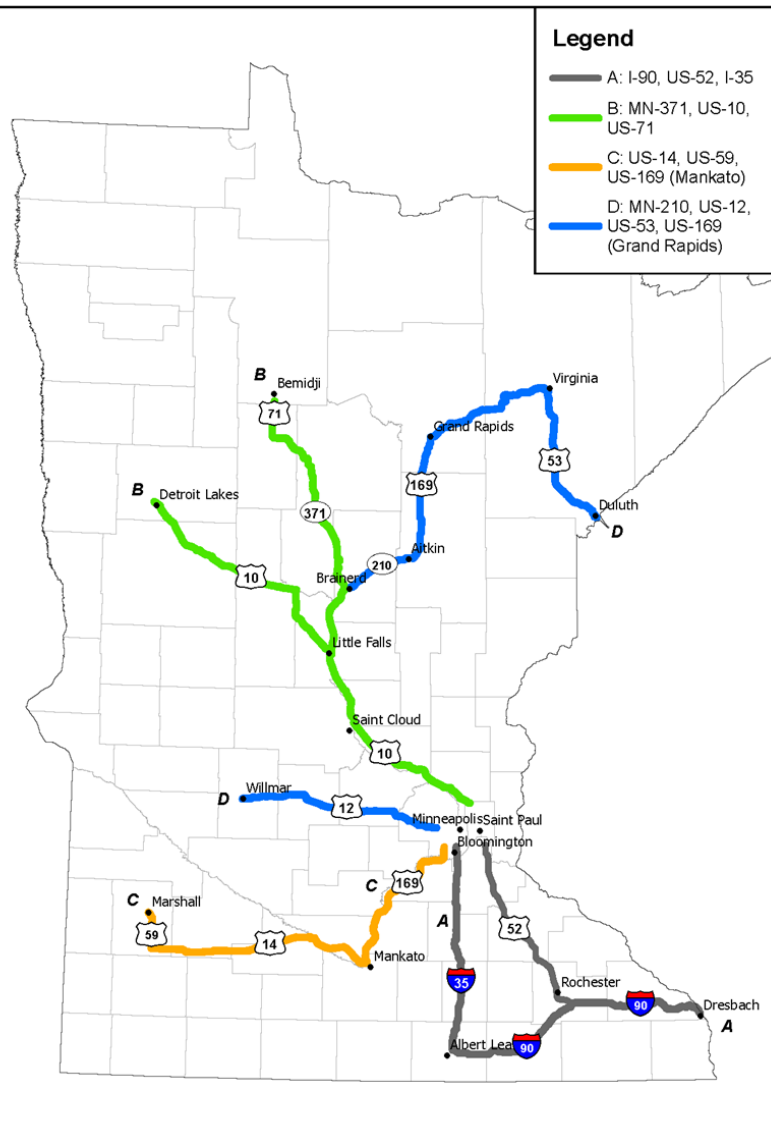
School bus replacements



- \$2,115,000 funded 111 new buses, 21 owners
- More than 4X more interest than funds available
- Status: All contracts signed and vehicles being purchased

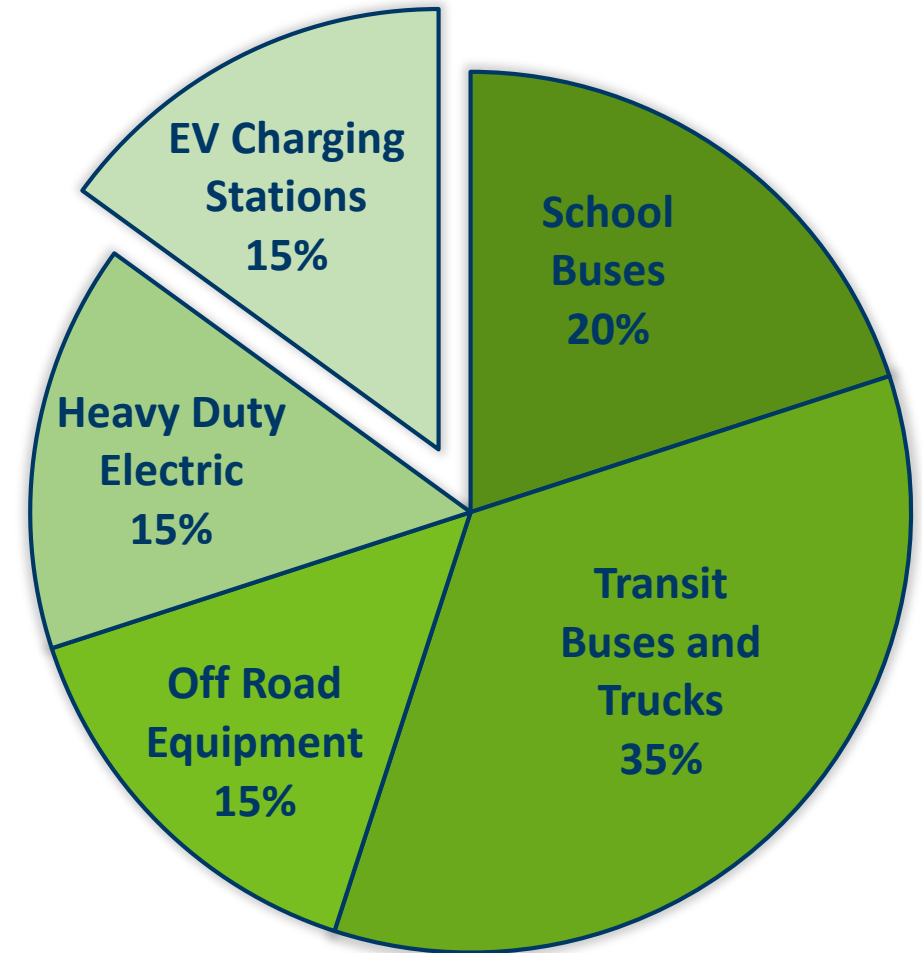


EV charging stations – Fast chargers



Fast charging stations:

- \$1.4 million
- 4 Fast charging highway corridors, 22 chargers
- Applications from multiple parties
- Status: Contracts signed and locations being identified

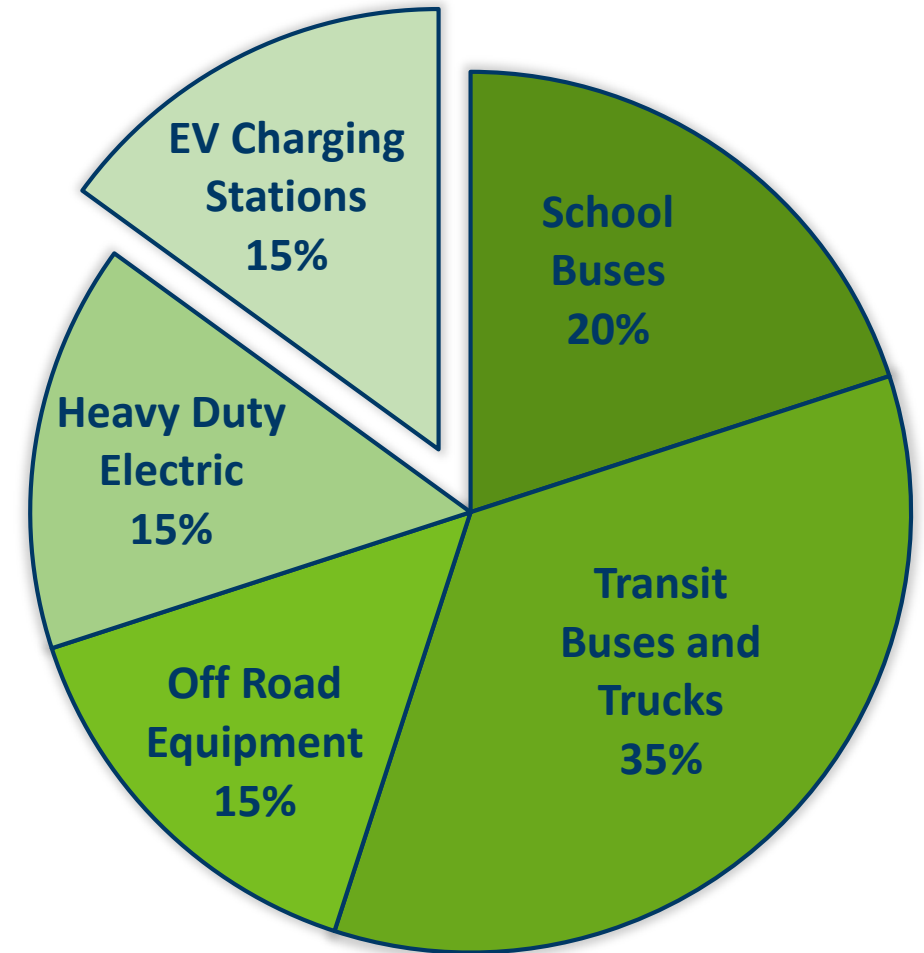


EV charging stations – Level 2 chargers



Level 2 charging stations:

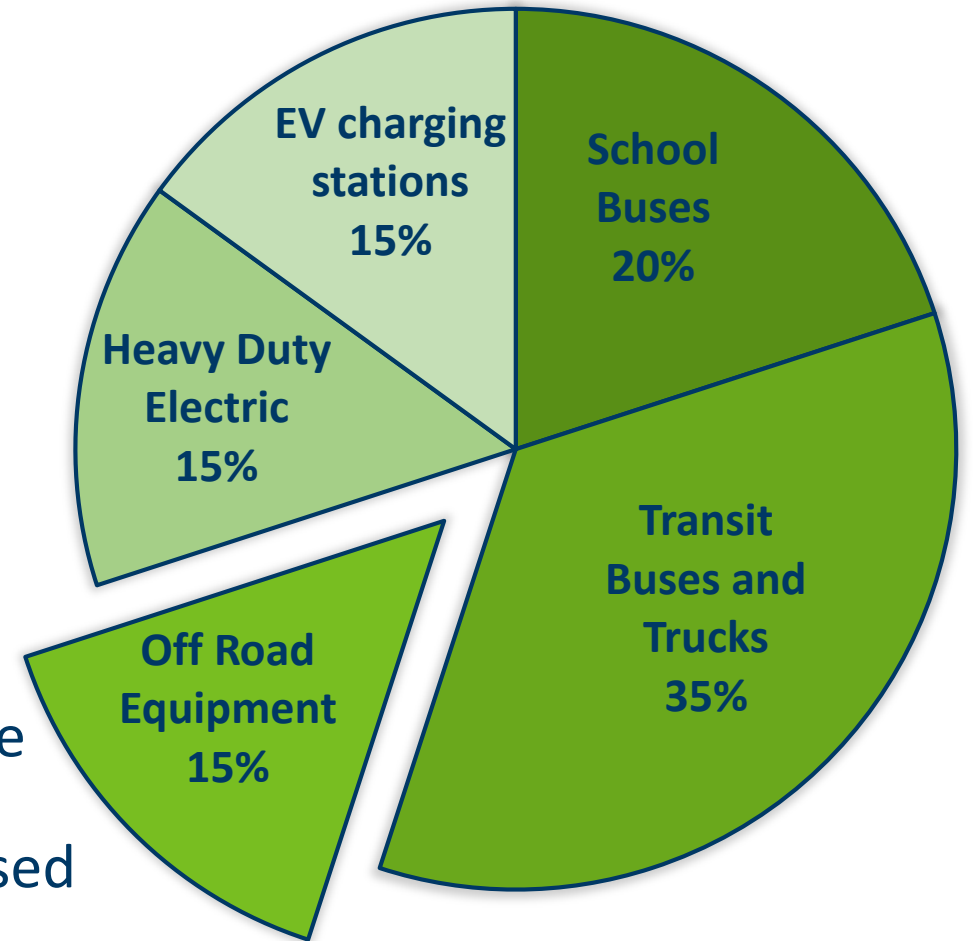
- \$158,625
- Anticipate 45 Level 2 chargers throughout MN
- Interest level: 3.5X more interest than funds available
- Status: Some contracts signed



Heavy-duty off-road replacements



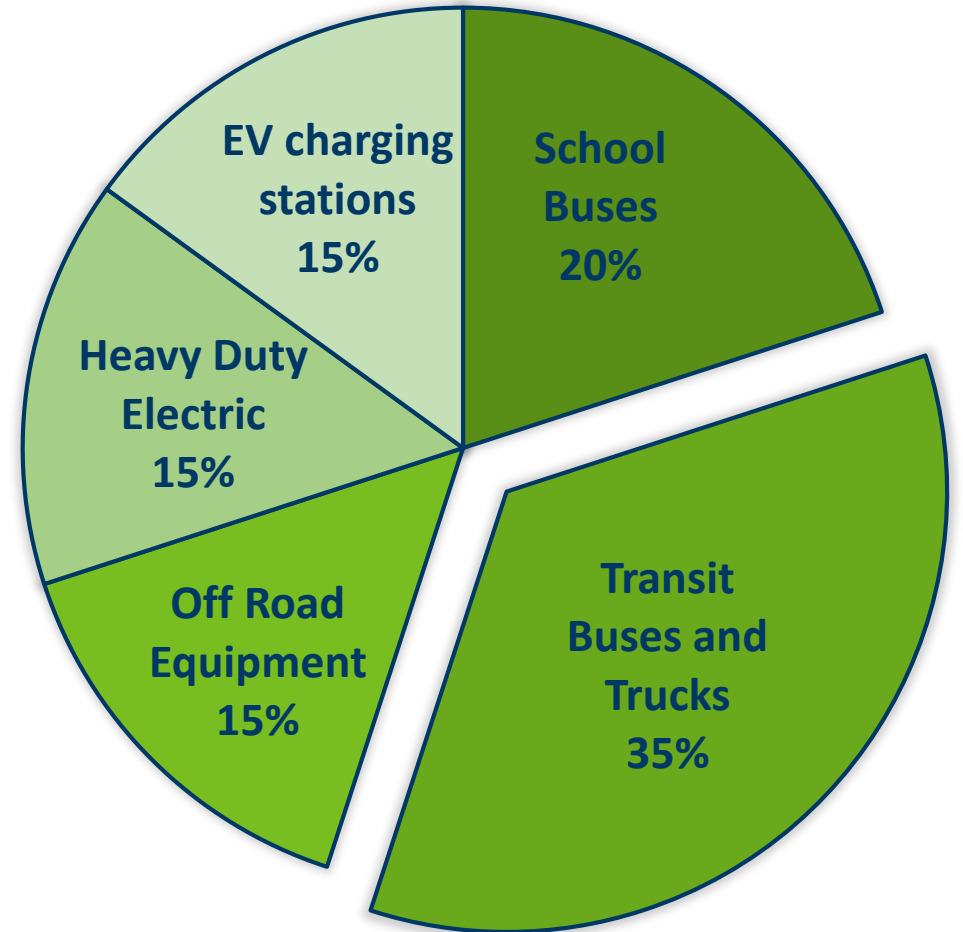
- \$1,100,000 funded 17 new projects
- Interest level: 1.25X more interest than funds available
- Status: All contracts signed, equipment being purchased



Heavy-duty transit bus and truck replacements



- \$3,700,000
- Interest level: 2X more interest than funds available
- Status: Applications received and being reviewed



Additional Grants

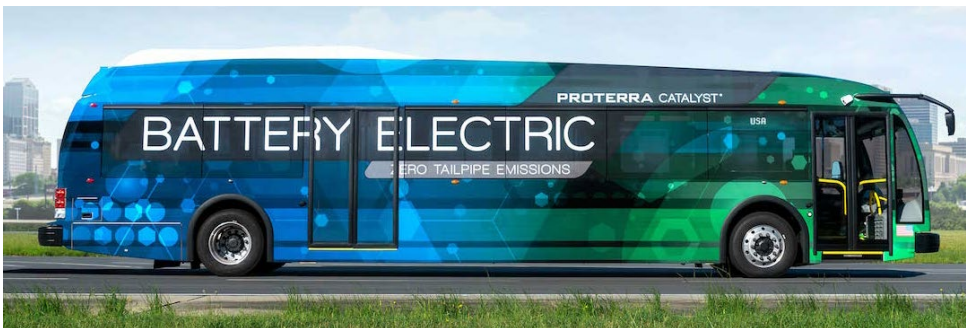
Currently Open: Greater Minnesota School Buses

www.pca.state.mn.us/vwgrants



Coming soon

Heavy-duty electric



Heavy-duty off-road



Level of interest compared to available funds

Application Summary Table:

Grant Program	Dollars available	Dollars requested	% more than available
School buses	\$2.115 M	\$8.5 M	400%
EV fast chargers	\$1.4 M	\$3.2 M	225%
EV Level 2 chargers	\$158 K	\$538 K	350%
DERA off-road (year 1)	\$1.1 M (DERA + VW)	\$1.4 M	125%
Heavy Duty On-Road	\$3.7 M	\$7.3 M*	200%

* Preliminary - applications currently being processed

Phase 1 - Emission Reductions

Grant Program	Number of Projects	NOx reduced (tons)	PM2.5 reduced (tons)	GHG reduced (tons)
School Bus Replacements	111	27	2	2,748
Electric Vehicle Fast-Chargers	22	<1	<1	1,060
Heavy-Duty Off-road	17	2,176	153	10,767
Heavy-Duty On-Road Vehicles	137*	494*	17*	12,543*
Heavy-Duty Electric	14*	15*	<1*	1,855*

*Estimates as provided in Phase 1 plan

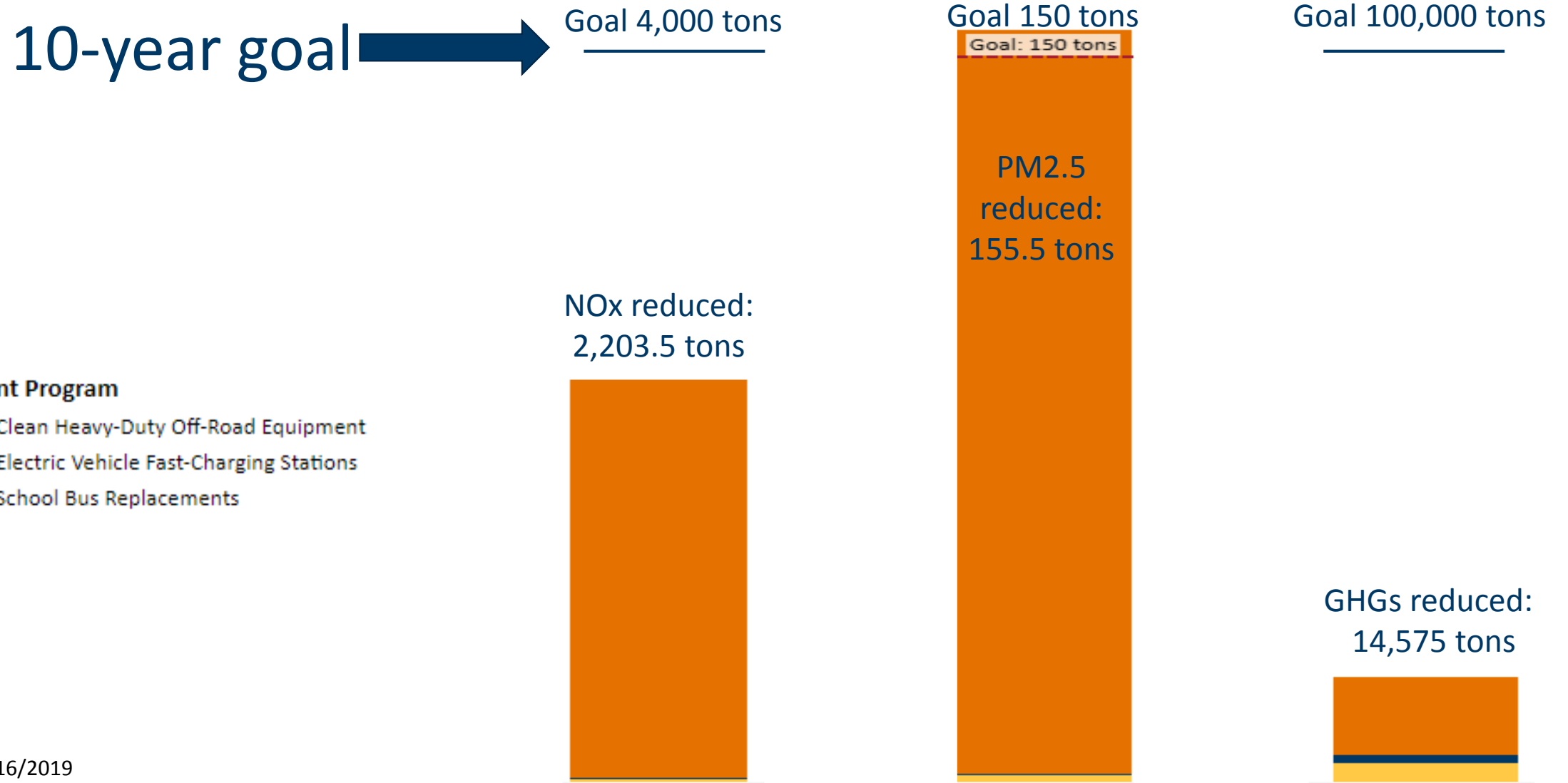


Progress towards our goals

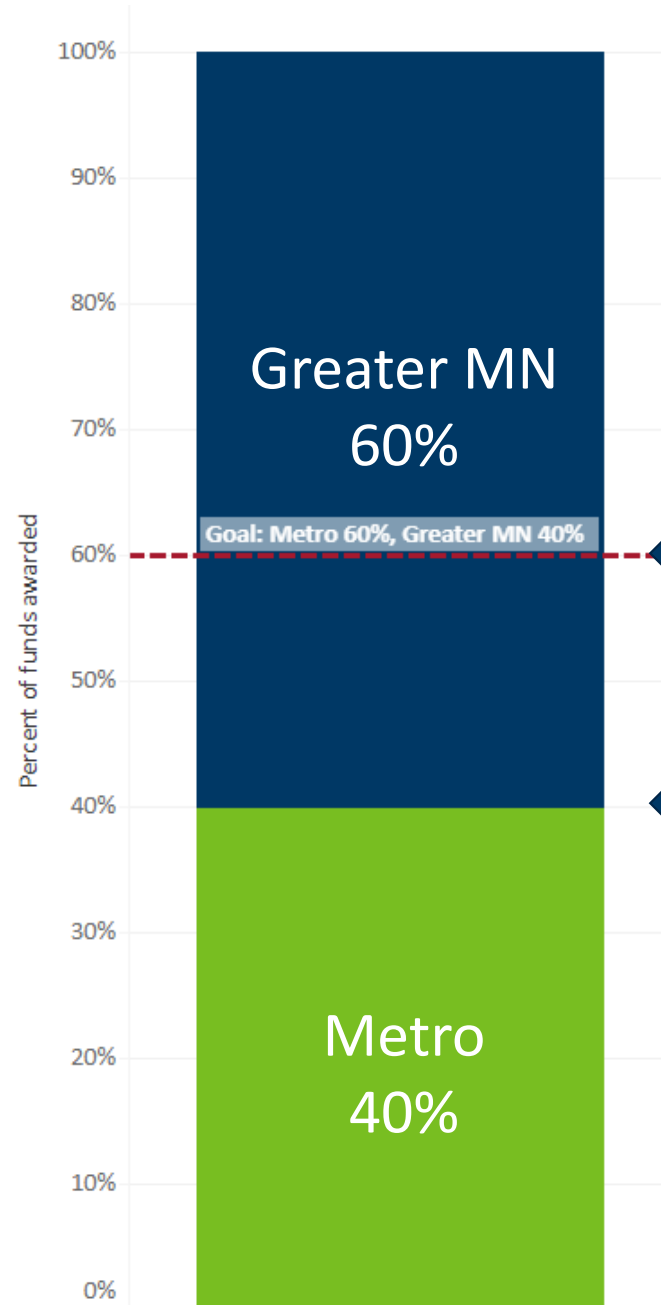
- Significant emissions reductions
- Statewide benefits (60/40)
- Help people disproportionately affected (40%)
- Reduce exposure, maximize health benefits
- Balance cost effectiveness with other goals

Track our progress at: www.pca.state.mn.us/vwprogress

Goal 1: Achieve significant emissions reductions



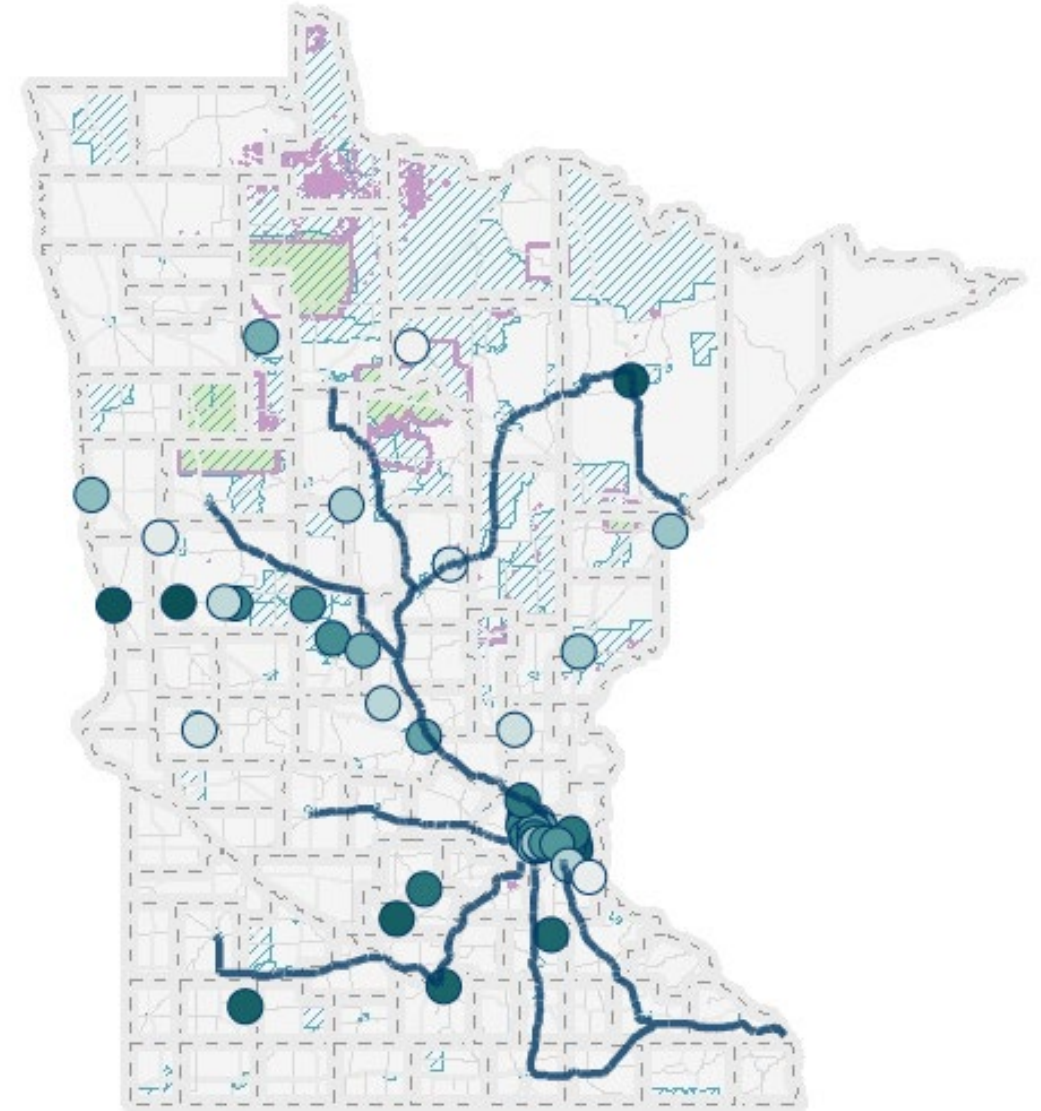
% funds awarded by location



Goal 2: Benefit all parts of the state

Goal

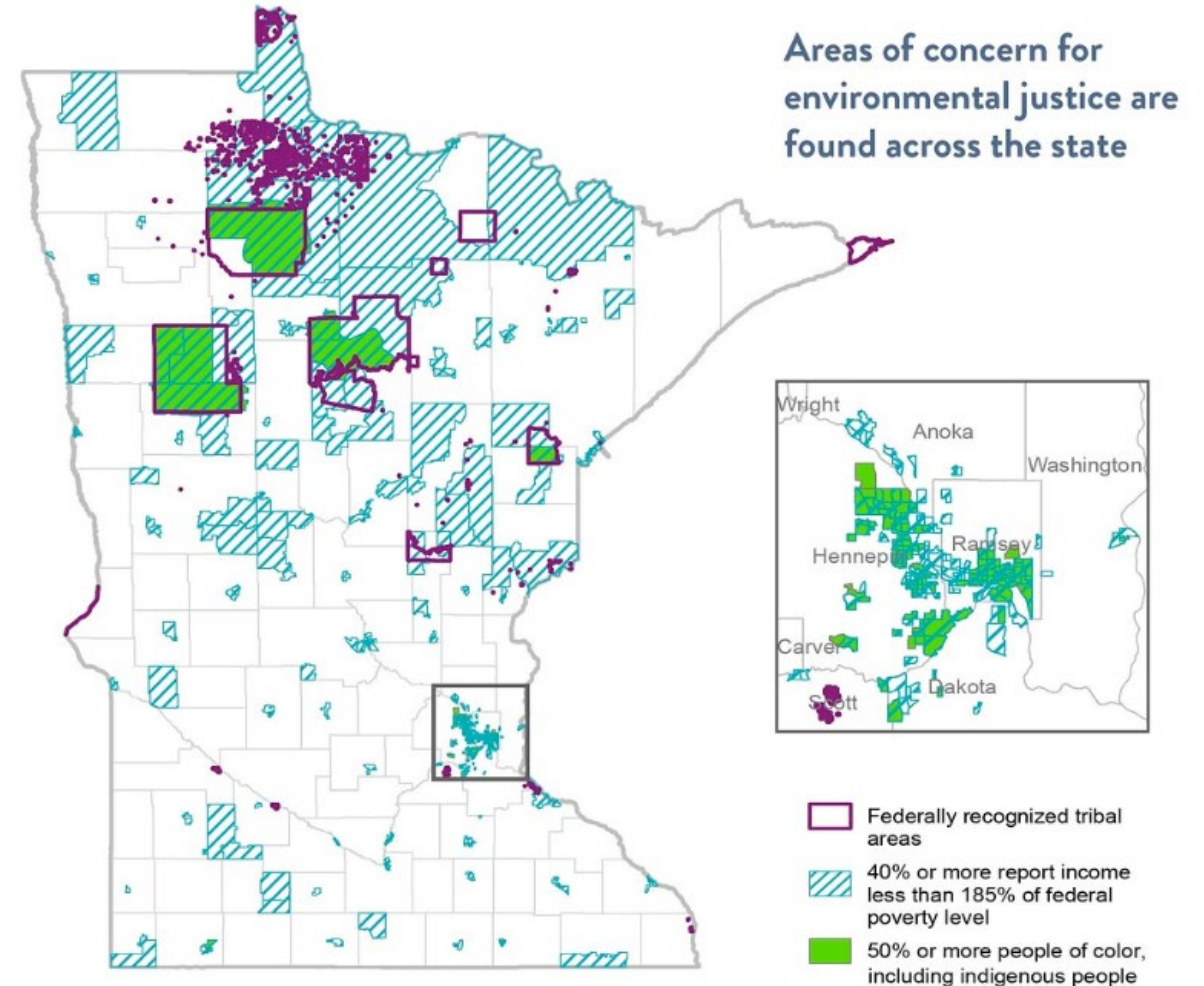
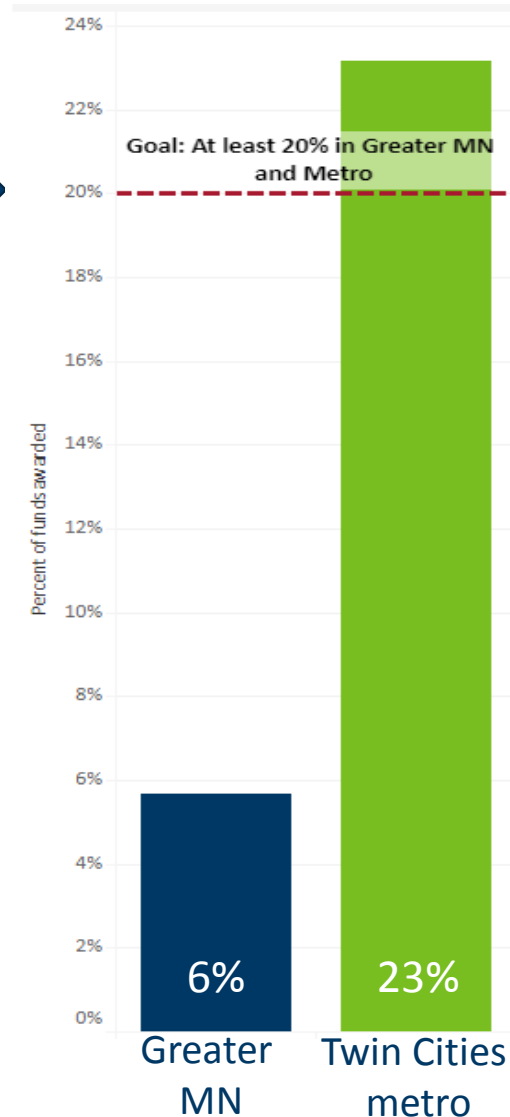
We are here



Goal 3: Help people and places disproportionately affected by air pollution

% of total funds invested in ZIP codes that are majority areas of concern for environmental justice

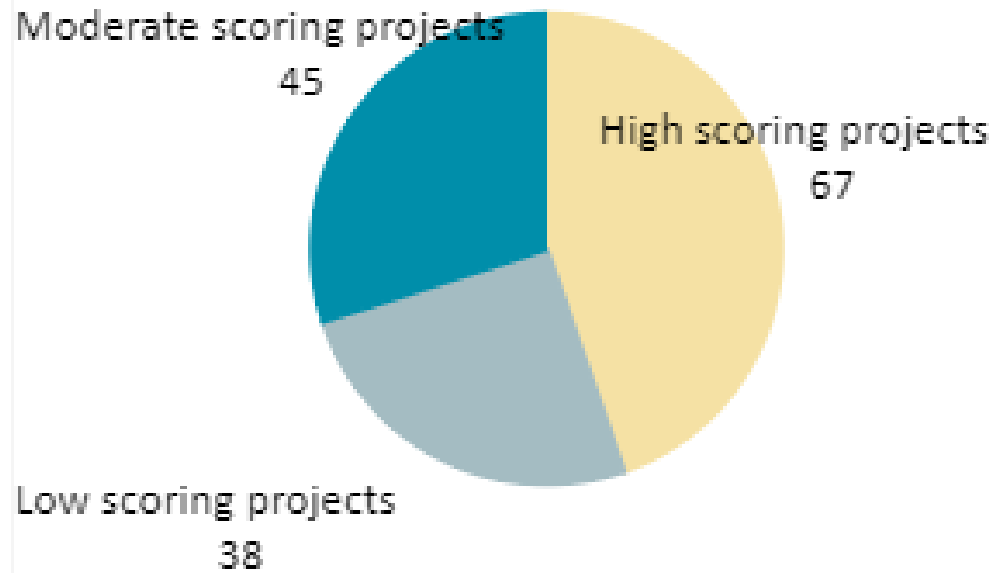
20% Goal →



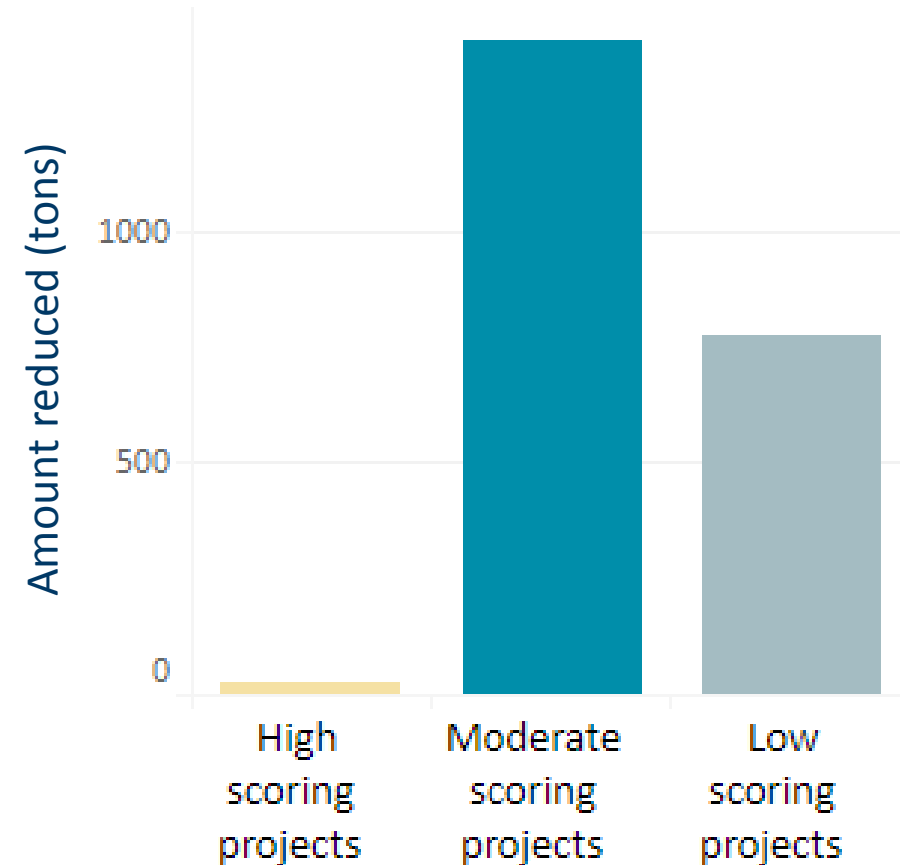
Goal 4: Reduce exposures to harmful air pollutants and maximize health benefits

Reduce exposures

Modeled air pollution exposure score of all projects



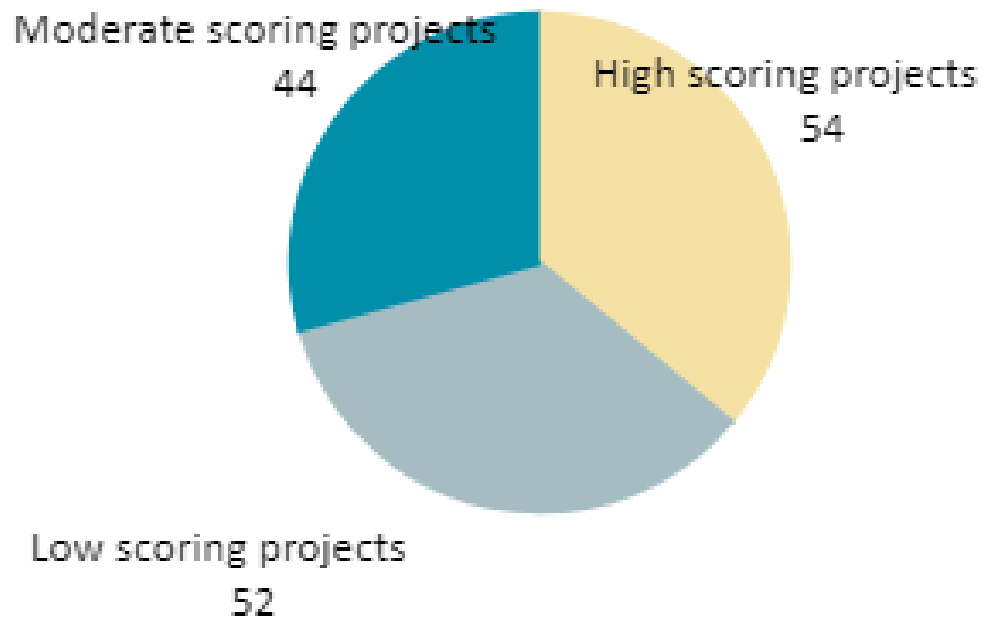
Nitrogen oxides (NOx) reductions by modeled air pollution exposure score



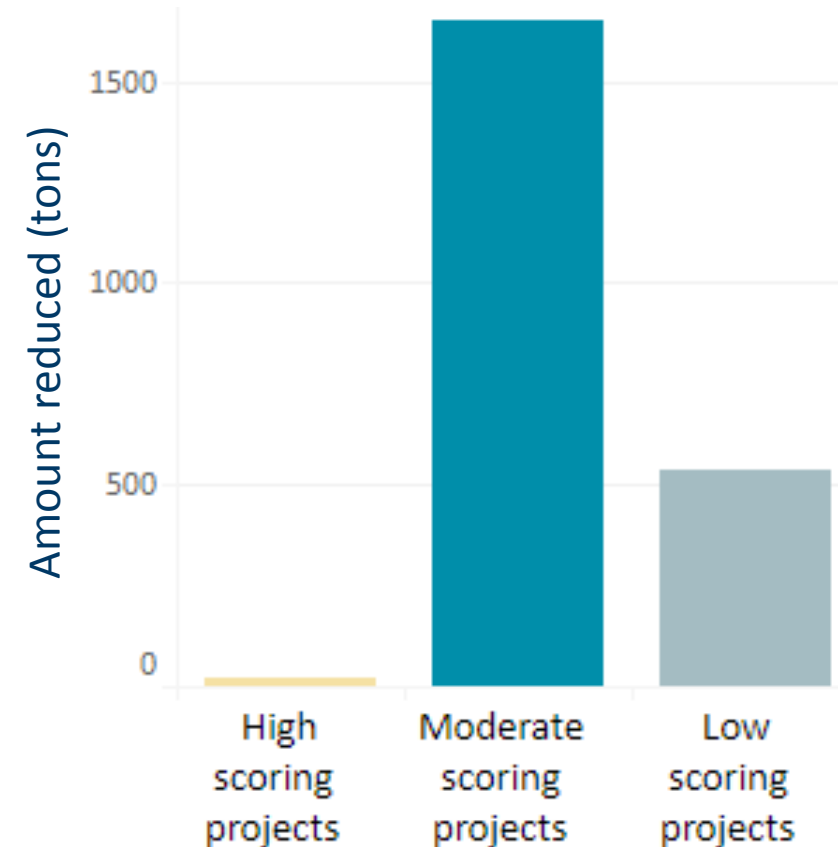
Goal 4: Reduce exposures to harmful air pollutants and maximize health benefits

Health benefits

Health vulnerability score of all projects

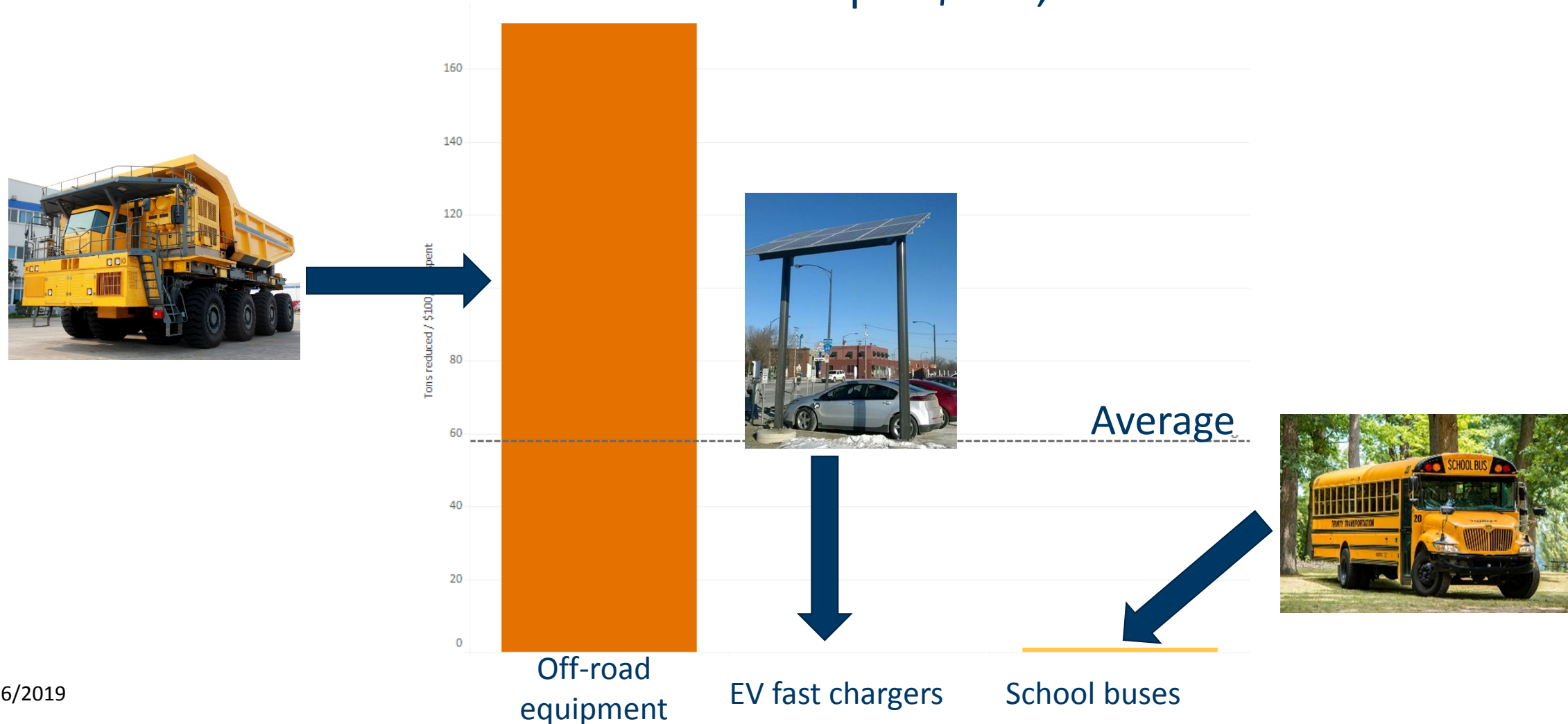


Nitrogen oxides (NOx) reductions by health vulnerability score



Goal 5: Balance cost effectiveness

NOx Reduced per \$100,000



Lessons learned

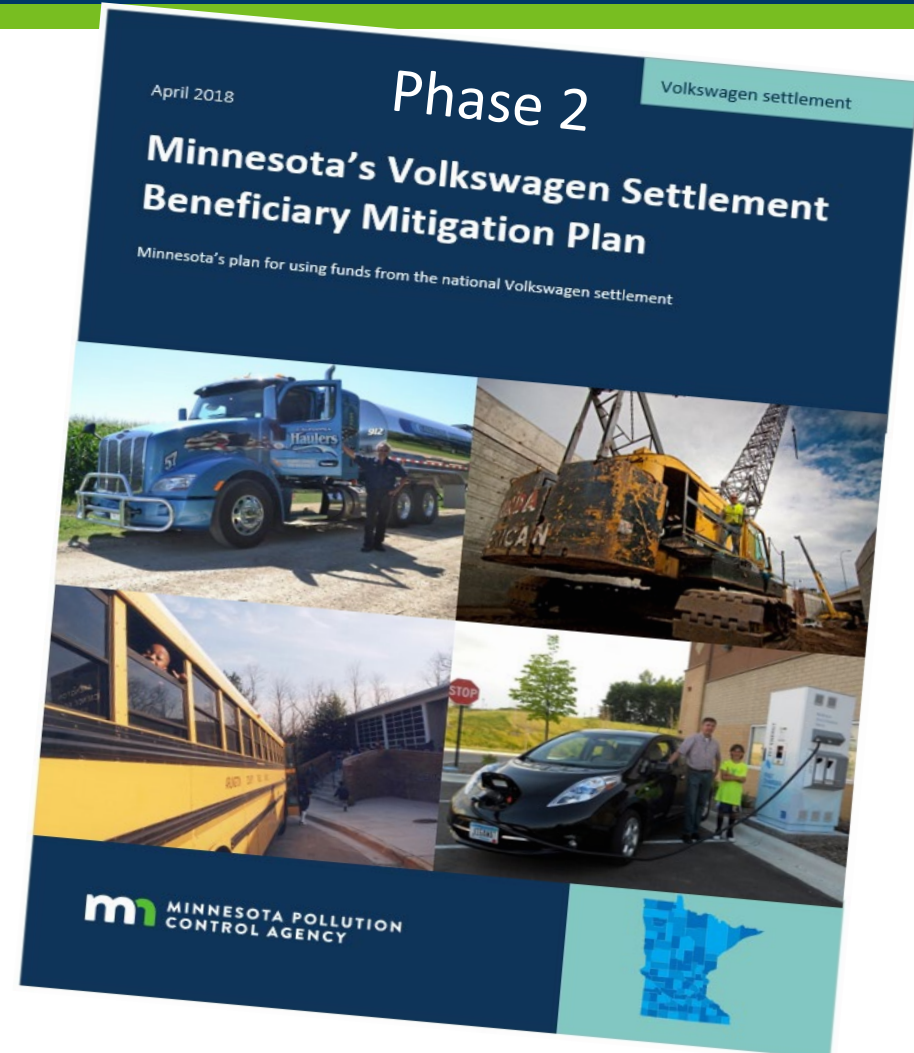
- Lots of interest in the programs: receiving more applications than anticipated
- Administering VW settlement grants takes time
- Initial estimates for emissions reduction estimates were low: our actual NOx reductions may be 5-10 times higher
- Room for improvement on the application process



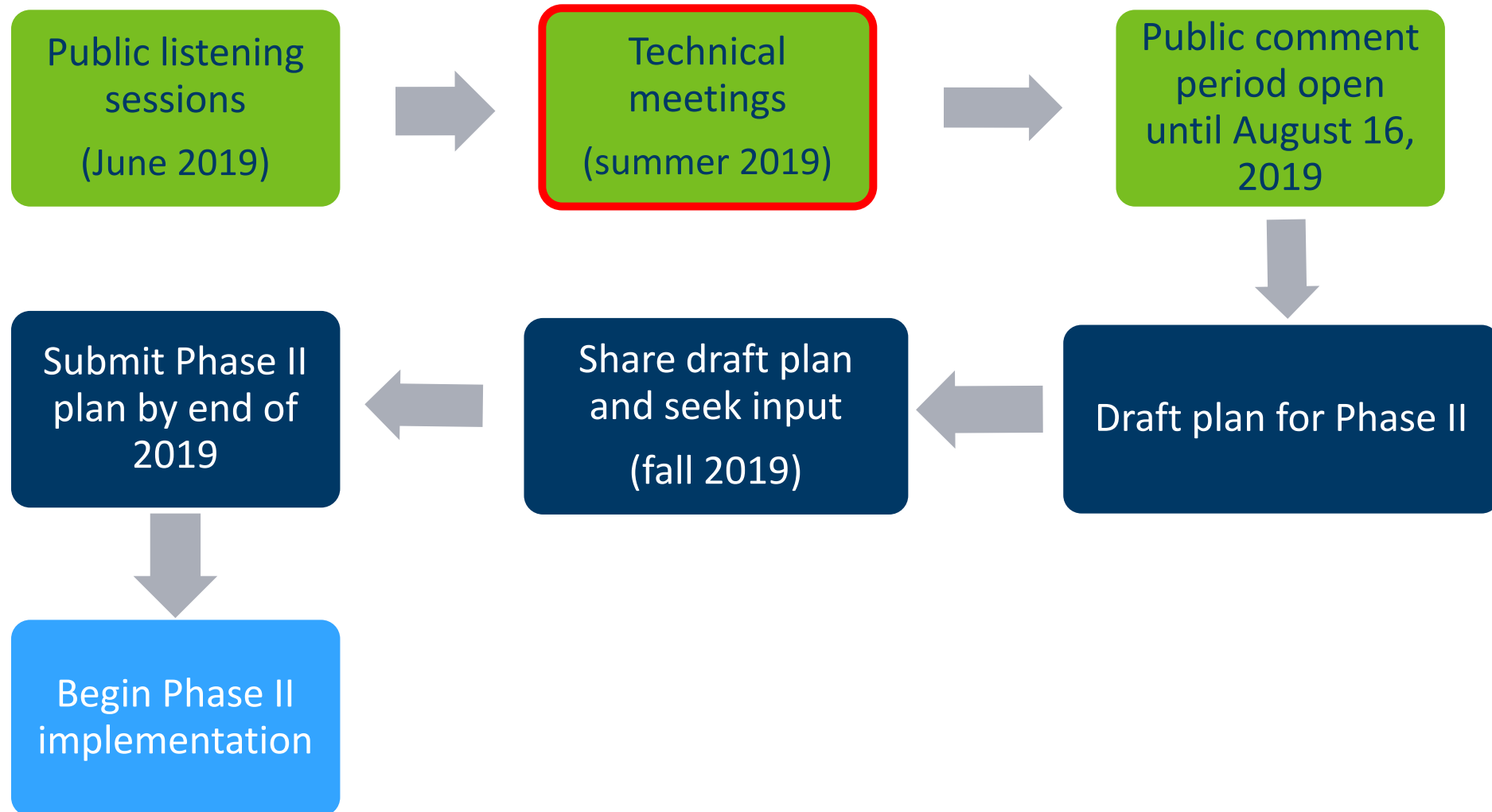
Phase 2

Developing Phase 2

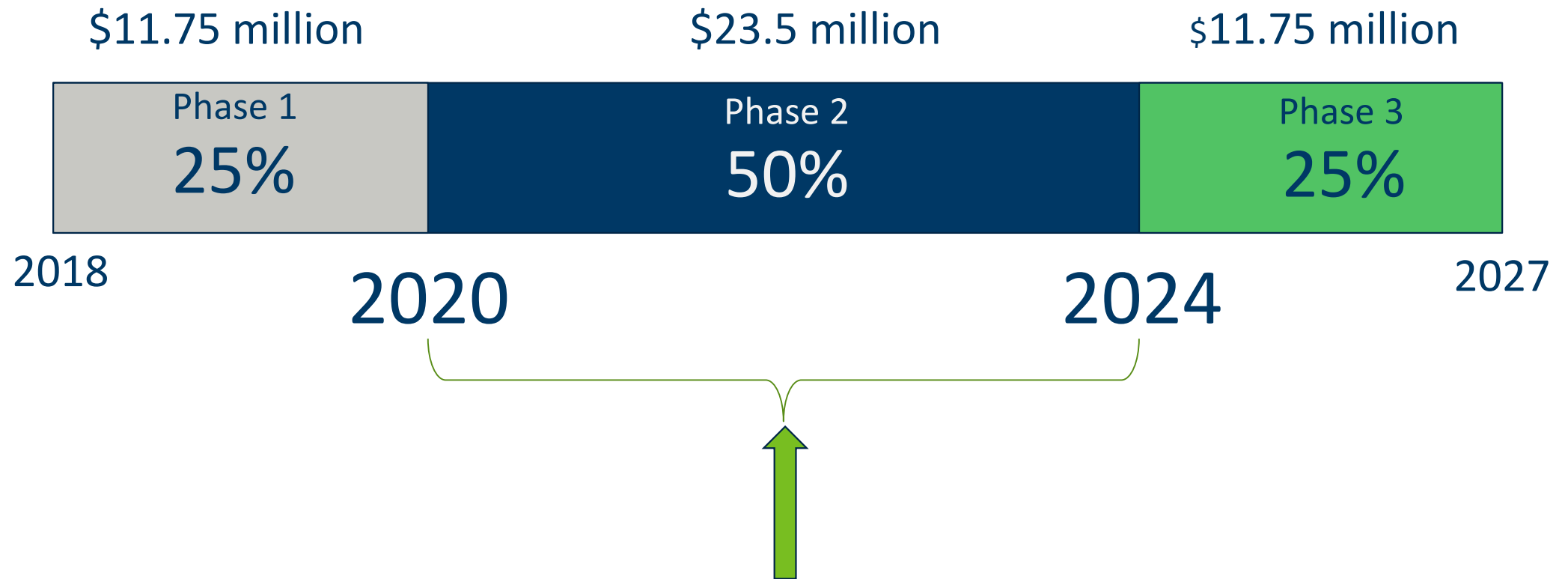
- Phase 2 can be like Phase 1 or totally different
 - Nothing is off the table
 - Has not been drafted
- Learn from Phase 1
 - What worked well
 - What didn't work
- Hear more input
 - Public meetings held
 - Stakeholder meetings scheduled
 - Open comment period



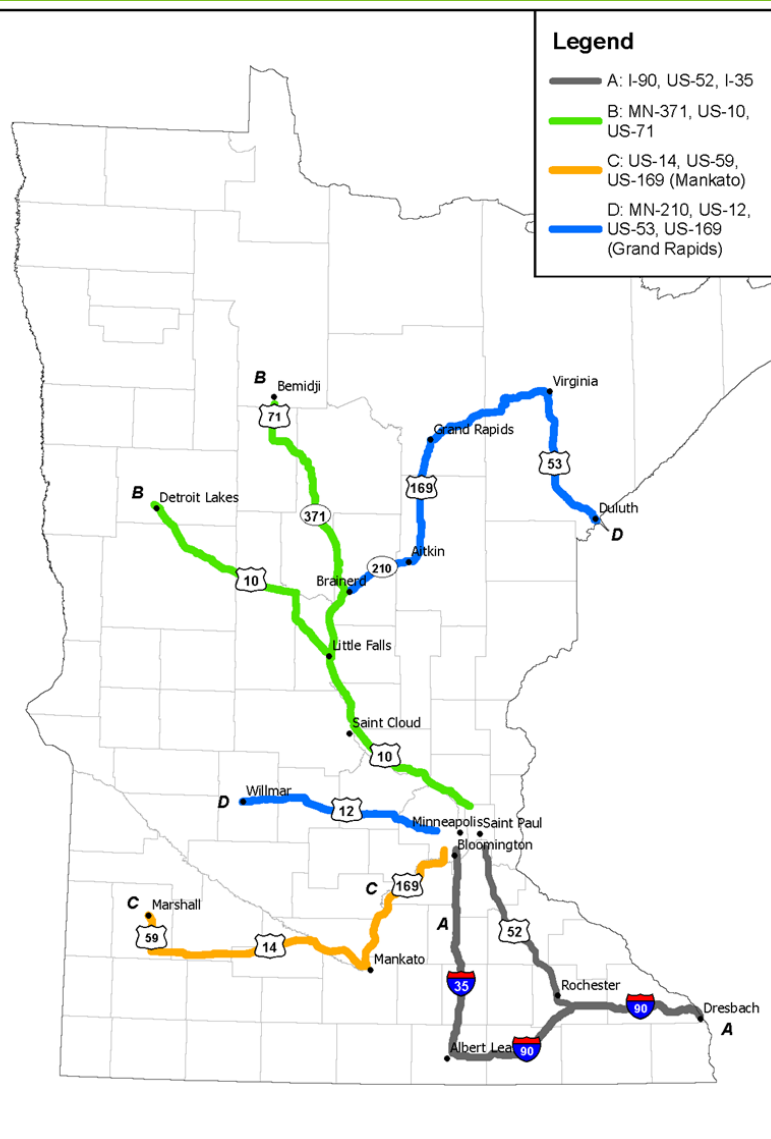
Phase 2 planning timeline



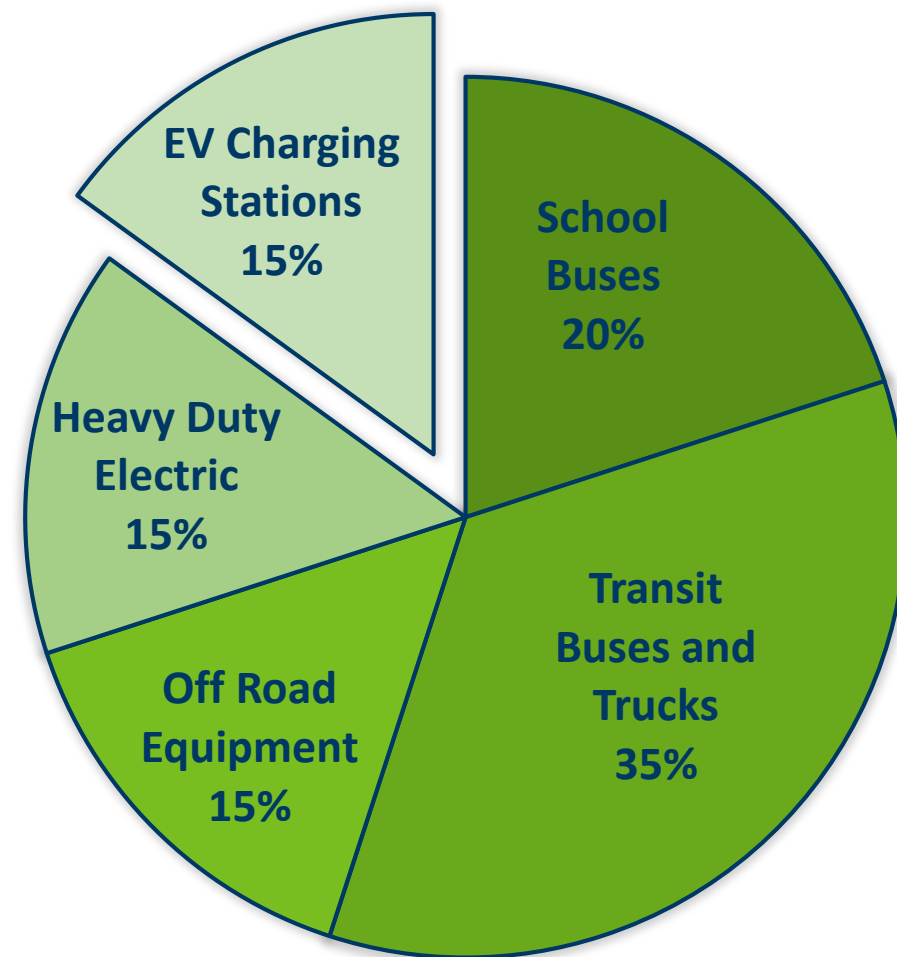
Phase 2 timeline



Phase 2 - EV charging stations?



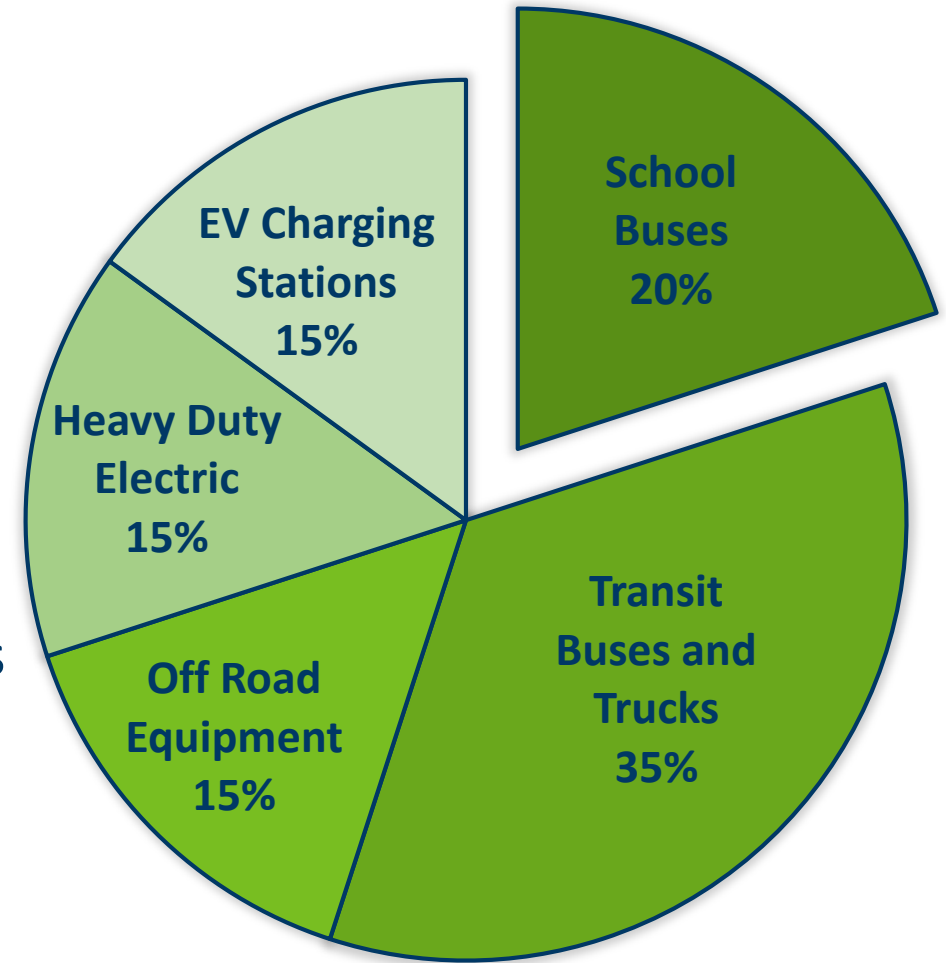
- Should we continue to fund electric vehicle charging stations? Why or why not?
- If so, what %? (max 15%)
- If so, timing? (all at once or spaced out during Phase 2)



Phase 2 - School bus replacements?



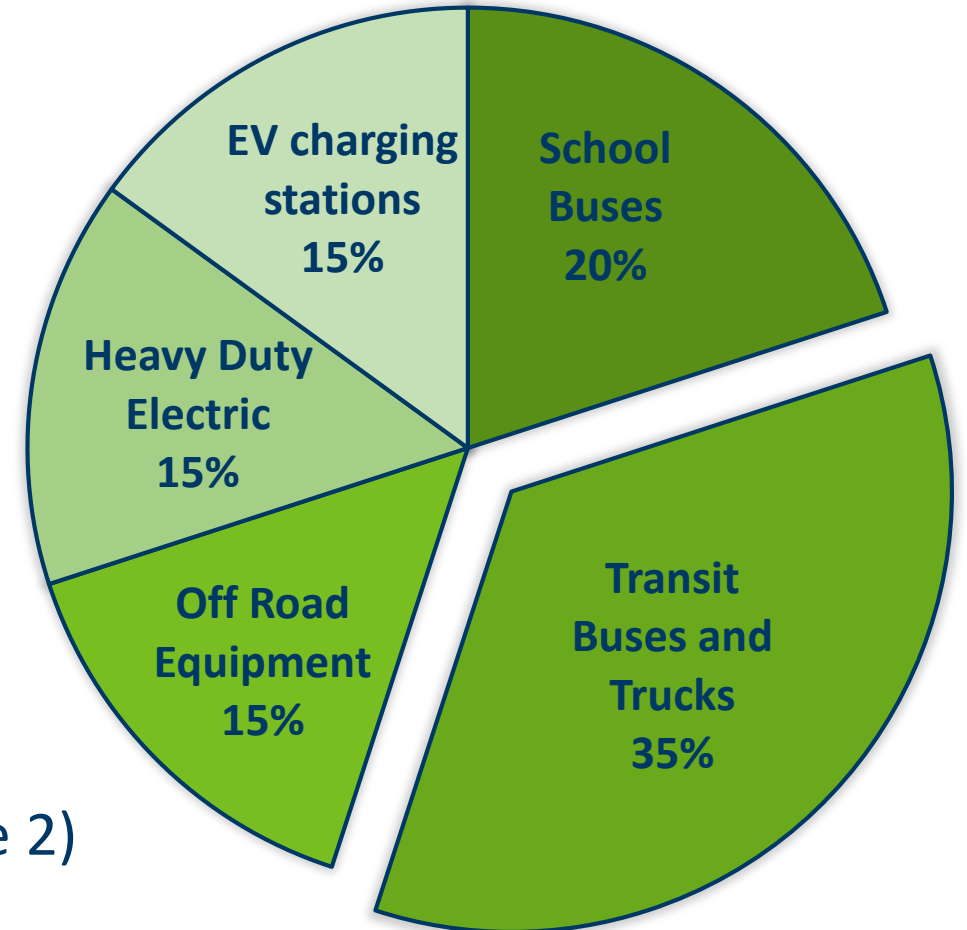
- Should we continue to fund school bus replacements in it's own category? Why or why not?
- If so, what %?
- If so, timing? (all at once or spaced out during Phase 2)



Phase 2 - Heavy duty transit buses and truck replacements?



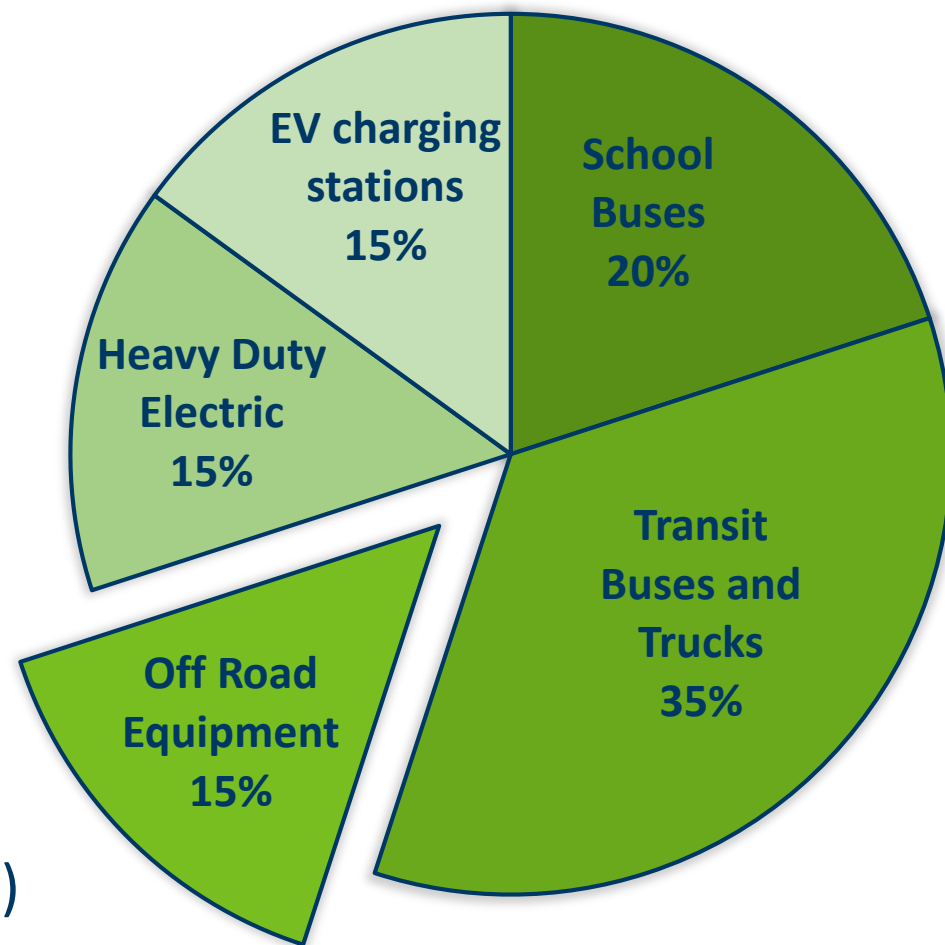
- Should we continue to fund Heavy duty transit bus and truck replacements? Why or why not?
- If so, what %?
- If so, timing? (all at once or spaced out during Phase 2)



Phase 2 - Heavy duty off-road replacements?



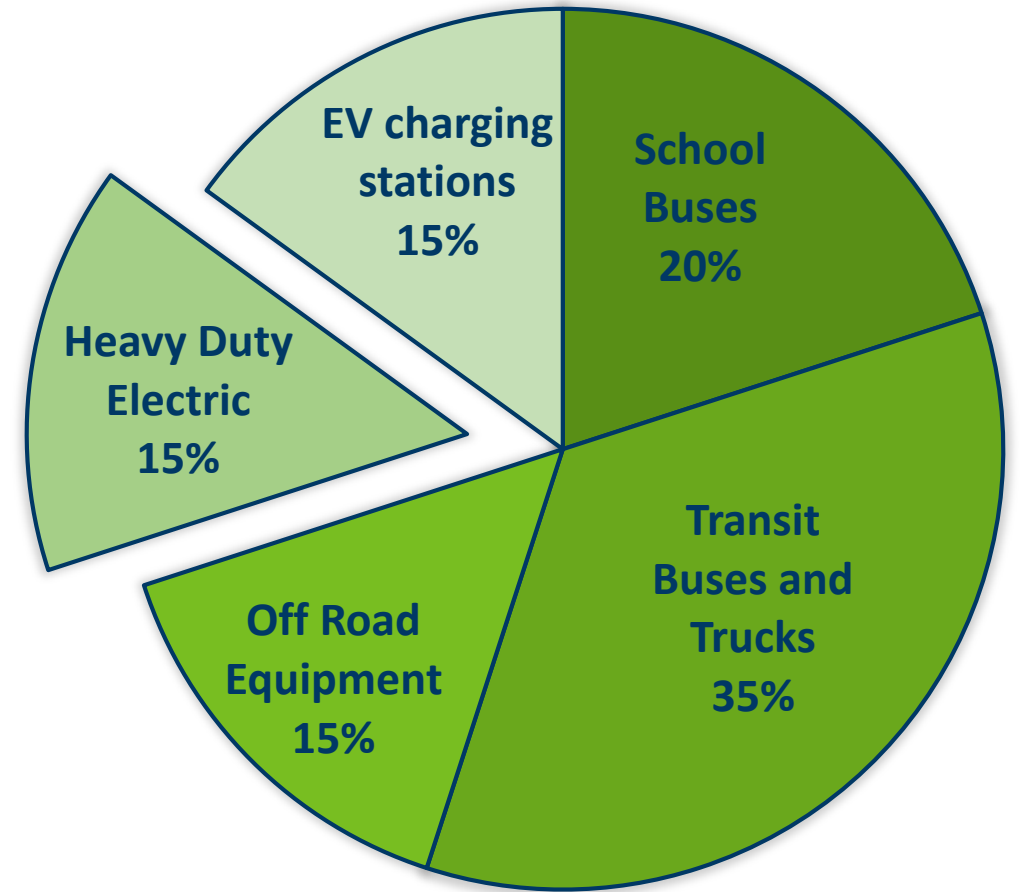
- Should we continue to fund Heavy duty off-road replacements? Why or why not?
- If so, what %?
- If so, timing? (all at once or spaced out during Phase 2)



Phase 2 - Heavy duty electric vehicles?



- Should we continue to fund replacing heavy duty diesels with Electric replacements?
Why or why not?
- If so, what %?
- If so, timing? (all at once or spaced out during Phase 2)



Phase 2 Planning - general

- Should MPCA continue to fund many smaller projects, or instead a few higher cost projects? E.g. locomotives, towboats, electric transit buses, transit hub, etc. Why or why not?
 - Should the MPCA incentivize certain fuel types?
 - Additional categories? For example, ocean-going vessel shorepower?
 - Additional grouping of categories? For example, should transit be called out separately or should it be combined with trucks?
- Anything else related to funding categories or program structure?

Next steps

- Next Technical Stakeholder meeting: Wednesday, August 14 (1:00 – 3:00pm)
- List of Questions
- Send additional comments to:

vwsettlement.pca@state.mn.us

- Sign-up for future email updates and comment opportunities at:

www.pca.state.mn.us/air/vw-phase-2

Thank you!

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www.pca.state.mn.us/vw

National VW settlement clearinghouse: <http://vwclearinghouse.org/>