



# SmartWay Transport® Fuel-Saving Technology Packages for Trucking Companies



**The Minnesota Pollution Control Agency (MPCA) and the U.S. EPA's SmartWay Transport Partnership have teamed up to help Minnesota trucking companies save fuel and reduce pollution.**

The MPCA is partnering with EPA and other organizations to provide trucking companies with the technical and financial tools needed to achieve their environmental goals. Voluntary efforts such as the SmartWay Transport Partnership play an important role in reducing emissions from diesel engines.

## Financial Assistance

While the MPCA is actively seeking funding opportunities for all businesses, one tool that is currently available is the Small Business Environmental Improvement Loan Program. This program provides low interest loans to Minnesota's small businesses for equipment that meets or exceeds environmental regulations.

## Small Business Environmental Improvement Loan Program

To qualify, a business must employ less than 50 full-time employees, have an after-tax profit of less than \$500,000, have a net worth of less than \$1,000,000, and demonstrate an ability to repay the loan.

The MPCA evaluates a loan application based on applicant's financial need and ability to secure and repay the loan, and the project's expected environmental benefit. A screening committee composed of financial and environmental professionals will review the applications received and award the loans on a competitive basis.

**SmartWay Fuel-Saving Technology Packages –** Transform your trucks into low-emission, high-efficiency vehicles with:

- Idle reduction devices
- Single-wide tires
- Trailer aerodynamics
- Emission control devices

You'll also become more attractive to environmentally-minded shippers, who are looking to work with cleaner freight carriers.

## Features:

- **Flexible** – Custom design a package including technologies that best match your fleet operations and achieve the greatest environmental benefit. Preference will be given to those loan applications containing emission control devices.
- **Attractive Return on Investment** – Depending on technologies selected and the operation of your trucks, for many packages fuel savings may range from 10-15%.
- **Exceptional Loan Terms** – Loans available up to \$50,000 at an interest rate of 4 % or one-half of Prime Interest Rate (whichever is greater), with loan terms of up to 7 years.

## Need more information?

**MPCA's Small Business Ombudsman**

Mike Nelson

Phone: (651) 297-8615

Toll Free: (800) 985-4247

michael.nelson@pca.state.mn.us

[www.pca.state.mn.us/programs/sbomb\\_loan.html](http://www.pca.state.mn.us/programs/sbomb_loan.html)

**For information on the SmartWay Transport Partnership, visit [www.epa.gov/smartway](http://www.epa.gov/smartway)**

# Overview of Fuel-Saving and Emission-Reduction Technologies

**Disclaimer:** The benefits described in this document are estimations only, and are based on a number of assumptions. Actual fuel savings and emission reductions may be higher or lower, and will depend on a variety of factors, including equipment type, driver performance, distances traveled, vehicle speed, etc.

Technology	Description	Cost	Benefits <sup>1</sup>
<p>Idle Reduction Device – Bunk Heater</p> 	<p>Small, lightweight, diesel fuel-fired device mounted in the cab that provides heat for cab comfort. Does not include any air conditioning capabilities.</p>	<p>Approx. \$1,000</p>	<p>Approx. 5% fuel savings assuming 1,200 hours idling per year.</p> <p>Additional reduction in engine wear-and-tear.</p>
<p>Idle Reduction Device – Auxiliary Power Unit</p> 	<p>Small diesel-powered generator mounted outside the cab that provides heat, air-conditioning, and electrical power to run appliances.</p>	<p>Approx. \$6,000 - \$8,000</p>	<p>Approx. 8% fuel savings assuming 2,400 hours idling per year.</p> <p>Additional reduction in engine wear-and-tear.</p>
<p>Single Wide Tires</p> 	<p>Traditional dual tires are replaced with one single wide tire and aluminum wheel. Can be applied to all tractor and trailer tire positions except for the steer tires.</p>	<p>Approx. \$3,000</p>	<p>Approx. 4% fuel savings.</p>
<p>Trailer Aerodynamics</p> 	<p>Fairings added to the front and underside of the trailer to reduce drag.</p>	<p>Approx. \$2,400</p>	<p>Approx. 5% fuel savings.</p>
<p>Emission Control Device – Oxidation Catalyst</p> 	<p>A device added to the tractor's exhaust system to reduce the emissions of particulate matter and other pollutants.</p>	<p>Approx. \$1,000</p>	<p>Approx. 20 – 50% reduction in particulate matter.</p>

<sup>1</sup> All savings assume a Class 8B tractor trailer traveling approximately 100,000 miles per year.

## Monthly Loan Payments and Cash Saved for Fuel-Saving and Emission-Reduction Technologies

The following tables show just how much money you can save through the use of selected technologies. Best of all, you start seeing these savings as soon as you put the equipment on your trucks. Be sure to visit the SmartWay website at <http://www.epa.gov/smartway> to use our interactive tool to calculate your own savings.

**Disclaimer:** The benefits described in this document are estimations only, and are based on a number of assumptions. Actual fuel savings and emission reductions may be higher or lower, and will depend on a variety of factors, including equipment type, driver performance, distances traveled, vehicle speed, etc.

Technology	Average Cost	Loan Period (months)	Monthly Fuel Savings <sup>2</sup>	Monthly Loan Payment (at 4% interest rate) <sup>2</sup>	\$\$\$ in Your Pocket Each Month Beginning Immediately With Equipment Installation <sup>2</sup>
Idle Reduction Device – Bunk Heater (Heater)	\$1,000	60	\$176	\$18	\$158
		36		\$30	\$146
Idle Reduction Device – Auxiliary Power Unit (APU)	\$7,000	60	\$270	\$129	\$141
		36		\$207	\$63
Aluminum Wheels for Single Wide Tires (Wheels)	\$3,000	60	\$135	\$55	\$80
		36		\$89	\$46
Trailer Aerodynamics (Aero)	\$2,400	60	\$169	\$44	\$125
		36		\$71	\$98
Emission Control Device – Oxidation Catalyst (DOC)	\$1,000	60	---	\$18	---
		36		\$30	---

### Sample Technology Packages

Equipment	Total Package Cost	% Fuel Savings	Monthly Fuel Savings <sup>2</sup>	Monthly Loan Payment (@ 4% interest rate) <sup>2</sup>		\$\$\$ in Your Pocket Each Month from Time of Installation <sup>2,3</sup>	
				36 month	60 month	36 month	60 month
APU, Wheels, Aero, DOC	\$13,400	16%	\$540	\$396	\$247	\$144	\$293
Heater, Wheels, Aero, DOC	\$7,400	13%	\$446	\$218	\$136	\$228	\$310
APU, Wheels, DOC	\$11,000	12%	\$405	\$325	\$203	\$80	\$202
APU, DOC	\$8,000	8%	\$270	\$236	\$147	\$34	\$123
Heater, DOC	\$2,000	5%	\$176	\$59	\$37	\$117	\$139

<sup>2</sup> Calculations are for a Class 8B tractor-trailer consuming 18,000 gallons of diesel fuel per year at a cost of \$2.25/gallon, and idling 2,400 hours per year.

<sup>3</sup> Note that for all equipment, after the loan period expires, the total monthly fuel savings is a benefit to the owner.