

For virtually every trucking company, fuel is the second largest expense behind labor. Numerous technologies are currently available to help these companies reduce fuel consumption; however, one of the major barriers to their widespread adoption is a lack of investment capital. The SmartWay Transport[®] Partnership is establishing several innovative financing programs to make these technologies more accessible to interested trucking companies through SmartWay Upgrade Kits. Greater use of these technologies will not only reduce fuel consumption and related costs to trucking companies, but it will also result in reductions in emissions of greenhouse gases and other harmful air pollutants.

The SmartWay Technology Upgrade Kit

SmartWay Upgrade Kits are highly fuel-efficient technologies bundled with emission control devices. These SmartWay Upgrade Kits create a unique incentive for trucking companies to retrofit their trucks because the monthly fuel savings generally exceed the monthly loan payments. Fleet owners save money immediately. Fleet owners can compare the costs and estimate the fuel savings associated with various efficiency technologies by using the SmartWay Technology Package Savings Calculator, visit www.epa.gov/smartway/calculator/loancalc.htm. The following table shows how the individual components of the SmartWay Upgrade Kits can benefit the company and the environment.

Technology	Cost ¹	Benefits ² (Monthly Fuel Savings)	Monthly Loan Payment @ 9% for 48 months	Net Monthly Savings
Idle Reduction Device – Bunk Heater	\$1,500	\$215	\$37	\$178
Idle Reduction Device – Auxiliary Power Unit (APU)	\$8,500	\$330	\$212	\$118
Aluminum Wheels for Single Wide Tires	\$5,600	\$153	\$139	\$14
Trailer Aerodynamics	\$2,400	\$191	\$60	\$131
Exhaust Aftertreatment Device – Diesel Oxidation Catalyst (DOC)	\$1,200	\$0 (20-50% PM emission reduction)	\$30	--
Exhaust Aftertreatment Device – Particulate Matter (PM) Filter	\$6,000	\$0 (90% PM emission reduction)	\$149	--

¹ Equipment cost may vary depending on vendor, equipment specifications, quantities purchased, etc.

² Monthly fuel savings are estimated for a long-haul truck using 16,667 gallons of diesel per year and idling 1,200 hours per year for bunk heaters, and 2,400 hours per year for APUs. Fuel cost is \$2.75/gallon.

What is the SmartWay Transport Partnership?



- Voluntary partnership between the U.S. Environmental Protection Agency (EPA) and the freight industry to improve energy efficiency and reduce emissions from freight transportation.

What does the Partnership do?

- Encourages trucking companies and railroads to adopt technologies that reduce fuel consumption and emissions.
- Works with freight shippers (such as IKEA, Nike, Lowe's, The Home Depot) to ship more of their freight using trucking companies participating in the Partnership.

SmartWay Upgrade Kits that include an idling reduction device, exhaust aftertreatment device, tractor and/or trailer aerodynamics, and low rolling resistance duals or single wide tires may improve fuel economy up to 20%, reduce oxides of nitrogen (NOx) up to 20%, and reduce particulate matter (PM) up to 90%. Upgrade Kits purchased by trucking companies can be customized to the specific needs of the company. The following table provides some possible SmartWay Upgrade Kit options.

Possible SmartWay Upgrade Kit Options	Total Cost	Benefits (Monthly Fuel Savings)	Monthly Loan Payment @ 5% for 48 months	Net Monthly Savings
Heater, Tires, Aero, DOC	\$10,700	\$520	\$266	\$254
APU, Tires, Aero, DOC	\$17,700	\$636	\$440	\$196
Heater, Tires, Aero, PM Filter	\$16,000	\$520	\$386	\$134

For additional idle reduction technologies, visit www.epa.gov/otaq/smartway/idlingtechnologies.htm. For a list of exhaust aftertreatment devices, visit www.epa.gov/otaq/retrofit/retroverifiedlist.htm.

Financing Options

SmartWay is exploring a number of options to help trucking companies reduce their fuel consumption and costs and make funds available for the purchase of SmartWay Upgrade Kits. These options include state loan programs and national loan programs.



A SmartWay partner using single wide tires.

State Loan Programs:

- Some states have existing loan programs through their small business or environmental offices that may be able to finance SmartWay Upgrade Kits.
- These loan programs are often offered with terms that are more attractive than currently available commercial loans (e.g., low-interest rates, flexible repayment terms).
- SmartWay has partnered with loan programs in Arkansas, Minnesota, and Pennsylvania to offer SmartWay Upgrade Kits and is working to partner with additional states.
- SmartWay is working with Cascade Sierra Solutions, a non-profit organization headquartered in Coburg, Oregon, to implement a loan program for upgrading trucks that travel along the I-5 Corridor (from Washington to California).

National Loan Programs:

- Commercial banks or other organizations could develop programs aimed at providing capital to trucking companies for the purchase of fuel saving and emission reduction devices.
- Programs could be nationally available and offer below-market rates or preferred terms for trucking companies.

If You Would Like to Learn More

For the national loan programs, please contact: Mitch Greenberg, 202-343-9269, greenberg.mitchell@epa.gov

For state loan programs, please contact: Annie Kee, 202-343-9218, kee.annie@epa.gov.

Information about SmartWay can be found on the program website: www.epa.gov/smartway.