

Creating Sustainable Financing

How to Pay for Diesel Upgrades

February 28, 2007

Financial Needs for Diesel Reductions

\$100,000,000,000

Deploy Innovative Financial Strategies

Overview

- Grant programs and other government funding programs will not achieve our clean air goals
- We need creative, sustainable **financing** strategies for emission control technologies:
 - For all sectors: Trucks, locomotives, freight, construction, ports, etc.
 - For fuel saving devices: Technologies that pay for themselves
 - For after-treatment devices: Technologies that don't pay for themselves
- Phase I Financing: Traditional Market Rates and Terms
 - EPA and SBA National Environmental Loan Program is now available
 - Will finance fuel saving strategies (APUs, aerodynamics, tires)
 - Tough to finance after-treatment
- Phase II Financing: Low interest, more flexible loans
 - More environmental controls = Better financing rates and/or terms
 - Trucks with after-treatment are less expensive than those without
 - Community Investment Banks, Public/Private investment blends
 - Change the way in which trucks/ equipment are sold to 2nd and 3rd owners

Phase I Financing: SmartWay Upgrade Kits

Fuel Savings Drive the Business Case

1. Example of a SmartWay Upgrade Kit for Long Haul Trucks:

Device	Cost/Unit (Retrofit)*	PM Reduction	NOx Reduction	FE/CO ₂ Change
PM Filter	\$5,000	90%	--	--
Super Single Tires w/ alum. wheels	\$5,600	--	4%	4%
Trailer Aero Kit	\$2,400	--	5%	5%
Direct Fired Heater	\$1,500	--	5%	5%
Totals:	\$14,500	90%	14%	14%

For a truck traveling 100,000 miles/year @ 6 mpg (16,667 gallons /year)

- Fuel savings: 2,333 gallons @ \$2.80/gallon → **\$6,532/year**
- Payback period: \$14,500 / \$6,532 → **~2 years**
- or a 5 year loan @ 12% APR:

Monthly Fuel Savings:	\$530
Monthly Loan Payment:	(\$323)
Monthly Cash for Driver:	\$207

Phase I Financing: SmartWay Upgrade Kits

Fuel Savings Drive the Business Case

- **State programs**
 - Many states (Arkansas, Minnesota, Oregon, California, Tennessee) have or are considering truck loan programs for SmartWay Upgrades
 - Some offer low interest (4 – 6%), but limited capital
- **National Environmental Loan Program:**
 - Partnership between EPA and Small Business Administration
 - Program uses SBA qualified banks to offer loans to truck owners to purchase components of SmartWay Upgrade Kits:
 - 85% government guarantee
 - Quick approval process (1-5 days), \$5K-\$25K loan range
 - No collateral required
 - Interest rate: prime rate + 4.5% (~ 12%)
 - National Loan Program is available
 - We are developing marketing campaign to get the word out, drafting press release, and considering options for formal announcement
 - Interest Rate is too high to impact after-treatment purchases

Phase I Financing: SmartWay Upgrade Kits

Retail Distribution of Products and Financing

- **Purchasing SmartWay Upgrade Kits from individual product OEMs is difficult an time consuming**
 - Many don't offer financing
 - There is a need for one stop shopping
 - Bring the products and financing to the truckers
- **Cascade Sierra Solutions:**
 - One stop shop for SmartWay Upgrade Kit products
 - Opening a series of locations along the I-5 corridor
 - Combines a showroom for the technologies with creative financing
- **Chrome Shop Mafia (4 State Trucks):**
 - Stars of the popular Country Music Television show "Trick My Truck"
 - 4 State Trucks is a parts retail and truck service center located in Joplin, Missouri
 - Combines a showroom for the technologies with creative financing

Phase II Financing: Buy Down Interest Rates

Lower APR Drives the Business Case: No Fuel Savings Needed

Interest Rate Buy Down and other loan term flexibility:

- Does not require fuel or energy savings to create a financial incentive
- A truck with PM filter is **less expensive** than same truck w/out
- Can apply to all types of diesel vehicles/equipment sold:
 - We can also refinance many existing loans with the same strategy
- Requires some type of public (or other low cost) capital for:
 - Reduced APR or extended terms
 - Loan guarantees
 - Blending low cost capital with private existing capital at market rates
- Removes the "Why would I retrofit?" question from owners
 - New question is "How much money will I save if I buy this clean truck?"
- For many small to medium size companies: Cash flow is the key to staying alive in business

Phase II Financing: Buy Down Interest Rates

Lower APR Drives the Business Case: No Fuel Savings Needed

Trucks	2002 MY Truck on the Used Market	
	Standard Truck	Same Truck with PM Filter Buy down the loan
Purchase Price:	\$55,000	\$59,000
60 Month Interest Rate:	12%	8%
Monthly Payment:	\$1,223	\$1,196
Total Cost:	\$73,380	\$71,760

Construction	Bulldozer	
	Standard Bulldozer	Same Bulldozer with PM Filter Buy down the loan
Purchase Price:	\$240,000	\$250,000
60 Month Interest Rate:	10%	8%
Monthly Payment:	\$5,099	\$5,069
Total Cost:	\$305,340	\$304,140

Phase II Financing: Buy Down Interest Rates

Improved Cash Flow Drives the Business Case: No Fuel Savings Needed

Used Trucks	2002 MY Truck on the Used Market	
	Standard Truck	Same Truck with PM Filter Extend loan by 12 months
Purchase Price:	\$55,000	\$59,000
Term (12% Interest):	60 Months	72 Months
Monthly Payment:	\$1,223	\$1,153
Total Cost:	\$73,380	\$83,016

Phase II Financing: Demonstrate the Concept

The Dealership Model

At a used truck dealership EPA and retrofit manufacturers will:

- Upgrade a group of used trucks with after-treatment
 - Retrofit manufacturer will FLOAT the cost of the upgrade until the truck is sold. (Minimize dealer risk)
- EPA through our financial partners will provide 4 – 6% APR financing for the upgraded trucks
 - USDA and Treasury loans through Community Investment Banks (Only available in certain rural areas)
 - Private Companies could contribute low cost financing as well
 - Through DERA (once funded)
 - Financing is seamlessly integrated with the other financing options at the dealership
- At time of sale of the upgraded truck, the dealer pays the technology vendor

Phase II Financing: Full Implementation

New Financing and Re-financing Strategies Throughout the Marketplace

- Low cost financing is available throughout the marketplace:
 - Truck and Equipment dealers, leasing companies, etc.
 - Opportunities for high volume (lower cost) transactions
 - Identify top sales models around the country
 - Design retrofit solutions for those models (Design once, retrofit many)
 - Professional sales staff are trained to sell clean trucks that save money
- Low cost Re-financing is available throughout the marketplace:
 - Financial models provide savings from a variety of refinancing positions
- SmartWay program will market the availability of these loans strategies: PSAs, Truck Stops, Trick My Truck
- Local pressure and Shipper pressure (IKEA) will also advance these loan strategies
- Potentially very useful strategy for drayage trucks