

# 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 2<sup>nd</sup> and 3<sup>rd</sup> 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 <sub>2</sub> Change
PM Filter	<b>\$5,000</b>	<b>90%</b>	--	--
Super Single Tires w/ alum. wheels	<b>\$5,600</b>	--	<b>4%</b>	<b>4%</b>
Trailer Aero Kit	<b>\$2,400</b>	--	<b>5%</b>	<b>5%</b>
Direct Fired Heater	<b>\$1,500</b>	--	<b>5%</b>	<b>5%</b>
<b>Totals:</b>	<b>\$14,500</b>	<b>90%</b>	<b>14%</b>	<b>14%</b>

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)
<b>Monthly Cash for Driver:</b>	<b>\$207</b>

# 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 and 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 several 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

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

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

# Phase II Financing: Buy Down Interest Rates

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

<b>Used Trucks</b>	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
<b>Monthly Payment:</b>	<b>\$1,223</b>	<b>\$1,153</b>
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