

# Creating Sustainable Financing

## SmartWay and NCDC Innovative Financing Development

October 2, 2006

# Financial Needs for Diesel Reductions

\$100,000,000,000

# Deploy Innovative Financial Strategies

## Goals

1. Create innovative, sustainable financing for emission control and energy efficient technologies:
  - Trucks, locomotives, freight infrastructure, construction, port equipment, etc.
  - Start with technologies that pay for themselves: SmartWay Upgrade Kits
2. Integrate government/public funds more creatively with private capital to create unique financing tools:
  - Public funds: DERA, State Infrastructure Banks (SIBs), CMAQ, state bonds, SBA programs
  - *More environmental controls = Better financing rates and/or terms*
3. Create demand for the technologies, the financing programs, and the fleets willing to upgrade:
  - National, regional, and local marketing and advertising
  - Are their creative methods to generate additional financial resources from marketing?

# SmartWay Upgrade Kit Example

## Fuel Savings Drive the Business Case

### I. 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	\$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%
<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>

# State Financial Programs

## Smaller Programs with Limited Capital

- Current State Loan Programs for SmartWay Upgrade Kits

- Arkansas, Minnesota:

- Arkansas: 6.6% interest rate; collateral required; \$1.3M/y fund
- Minnesota: 4% interest rate; collateral required; \$750K/y fund

- Oregon:

- First use of SIB funds for SmartWay loans
- Washington and California SIBs are also discussing possibilities for Smartway loans
- Cascade Sierra Solutions

- Programs under development

- California:

- AB 1901 creates revolving loan program for SmartWay Upgrade Kits
- AB 2647 creates revolving loan program for Truck Parking Space Electrification

- Michigan:

- Small Business Pollution Prevention Loan

### Cascade Sierra Solutions “Showcase Centers”



# Public/Private Financing Examples

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
  - Applies to all types of diesel vehicles/equipment sold:
    - Used truck and equipment market
    - New equipment, shipping market (before new non-road rules begin)
    - Construction projects
  - A truck equipped with PM control is less expensive than same truck w/out
    - *More environmental controls = Better rate or terms*
  - Requires some type of public capital for:
    - Reduced APR or extended terms
    - Loan guarantee
  - Removes the “should I retrofit” question from owners

# Public/Private Financing Examples

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 of 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 of loan</b>
Purchase Price:	\$240,000	\$250,000
60 Month Interest Rate:	12%	10%
Monthly Payment:	\$5,339	\$5,312
<b>Total Cost:</b>	<b>\$320,340</b>	<b>\$318,720</b>

# Public/Private Financing Examples

More Flexible Loan Terms Drives the Business Case

<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

# National Financial Programs

## EPA and SBA Program

- **National Environmental Loan Program:**
  - Partnership between EPA and Small Business Administration
  - Program uses SBA qualified banks to offer flexible loans
    - 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, preparing a formal announcement
  - EPA and SBA are working with a small drayage fleet operating at the Port of Virginia to execute an innovative loan that will:
    - Upgrade the small fleet of pre-1990 trucks to **post 2000 trucks with PM filters**
    - Provide loan flexibility that will reduce the monthly payment for the new trucks with the PM filters
    - Create business opportunities through the SmartWay program

# National Financial Programs

## Public-Private Financing to Buy Down Interest Rates

- Interest Rate Buy-Down Examples:
  - Multi-State SIBs as public funds
    - Create large scale I-95 and I-5 corridor multi-state projects
    - SIBs can finance transportation projects (as low as 0% APR)
    - Use low APR public funds to buy down interest rates of private capital (create the sliding interest rate program to encourage PM)
  - DERA Funds:
    - DERA allows EPA to create loan programs for diesel programs
- Each strategy could provide low cost public capital:
  - Blended with EPA/SBA program to create sliding interest rate program

# Innovative Marketing and Advertising

Create Demand, Generate Additional Funds

- US Companies spend \$100s billion/year on advertising
  - GEICO spent \$502 million on advertising in 2005 alone
  - Companies are increasingly using 'green' advertising
    - Oil companies, car companies, other large corporations
- EPA is creating marketing opportunities with SmartWay
  - SmartWay Truck and brand
  - Companies marketing to each other
- Socially responsible investing (SRI) and marketing
  - Socially responsible investment firms are looking for green companies
  - "Green" can affect share price
- There are opportunities to create direct revenue streams from the billions spent on advertising