SmartWay Transport Partnership

The SmartWay to Sustainable Goods Movement

Northern Transportation & Air Quality Summit

August 15, 2008
“Green” has gone mainstream
Emission Standards for New Highway Heavy Trucks
Growth Threatens to Offset Gains from Cleaner Vehicles

Source: U.S. Department of Transportation – Bureau of Transportation Statistics
Transportation Impacts Emissions

U.S. GHG Emissions Inventory (2005)

U.S. Total: 7261 MMT CO$_2$eq

- Transportation: 28%
  - 2014 MMT CO$_2$eq
- Electric Power Industry: 33%
- Agriculture: 8%
- Industry: 19%
- Commercial: 6%
- Residential: 5%
- U.S. Territories: 1%

- Refrigerants and Lubricants: 77.2%
  - Share of Transportation GHGs: 3.8%
- Other Non-Road: 176.2%
  - 8.7%
- Commercial Aircraft: 158.1%
  - 7.9%
- Freight Trucks: 385.8%
  - 19.1%
- Buses and Motorcycles: 17.1%
  - 0.8%
- Light-Duty Trucks: 566.7%
- Passenger Cars: 632.9%

Other Diesel Emissions From Freight Sector

**NO\textsubscript{x}**
(6.3 million tons)

- Freight: 56%
- Agriculture: 8%
- Construction: 11%
- Non-port marine: 13%
- Other non-road: 4%
- Other highway: 3%
- School bus: 1%
- Transit: 1%

**PM 2.5**
(305,000 tons)

- Freight: 32%
- Agriculture: 19%
- Construction: 21%
- Other non-road: 9%
- Non-port marine: 9%
- Other highway: 5%
- School bus: 2%
- Transit: 0%

Mobile Source Diesel Emissions Inventory by Sector (2004)
Air Quality Impacts

- 88 million people live in areas that do not meet particulate standards.
- 141 million people live in areas that do not meet ozone standards.
Community Impacts

DIESEL OPERATORS
UNLAWFUL TO IDLE TRUCKS OR BUSES MORE THAN 5 MIN.
Recent Developments - 2007

3/2/07 - The Supreme court ruled that CO2 is a pollutant under the Clean Air Act and EPA has authority to regulate CO2 emissions;

5/14/07 - The President issued an Executive Order to reduce gasoline consumption and greenhouse gases by 20% in ten years;

12/19/07 - The President signed the Energy Independence and Security Act of 2007, includes provisions for Heavy Duty fuel economy assessment.
State Measures on Climate Change

States with Climate Action Plans

Cities Signed as on as U.S. Conference of Mayors Climate Protection Agreement

Source: http://www.pewclimate.org

http://usmayors.org/climateprotection/ClimateChange.asp
The Partnership
SmartWay Transport Partnership

Partnerships – multiple Partnership categories with key freight sectors

- Over 800 Partners
  - Carriers, Shippers, Logistics, Affiliates, Rail, plus vendors
  - Includes most of the top trucking companies, many of largest shippers, the class 1 railroads

Tools and models - allowing companies to:
- Measure multimodal transportation footprint
- Project emission reduction impacts of technology, strategy & modes

Technology Demonstration - Advance new technologies/fuels

Product Certification – SmartWay Truck and SmartWay Vehicles

Financial Incentives - access to loan guarantees, public-private capital

Marketing/Media Campaign - SmartWay brand, labeling, public education
Technologies and Strategies
Advanced Truck Stop Electrification

Night Light
Lighted On/Off Button for the screen, so you can find it easily in the dark

120V ShorePower
Inside and Outside your cab for appliances, block/fuel heaters and other accessories

Internet
High-Speed Ethernet Port for Internet on your Computer - Wireless Internet also available

Central Heat & Air
Thermostat controlled filtered air flow, recycled from your cab

Card Reader
Slide your member Card and follow instructions

Built-In Touch Screen Computer
Control your "Home-On-The-Road" and surf the Internet

Help
Available 24x7. On-Screen Context-Sensitive Help or dial 611 from your cab phone or 800-738-7024 from any phone

Go Buttons
One-Touch Access to Main Functions

USB Ports
Use a keyboard, mouse or other USB devices

Telephone
Plug in a regular phone for incoming and outgoing calls

Television
Connect your TV with standard COAX cable for Premium Satellite TV
Idle Reduction Technologies
For Trucks and Locomotives

**Average fuel savings**
- Trucks: 1 gal/hr
- Rail: 4 - 12 gal/hr

**Emissions Controlled**
- CO₂, NOₓ, and PM

- Automatic Shut-Down/Start Up System
  - Battery Powered Systems
  - Diesel Driven Heating System
  - Auxiliary Power Unit/Generator Set
  - Truck Stop Electrification
Low Rolling Resistance Tires
Single Wide Base and Improved Duals

**Av fuel savings**
Trucks: 4 - 5%

**Emissions Controlled**
CO$_2$, NO$_x$

- Single-wide tires and aluminum wheels
  - Reduced rolling resistance
  - Reduced weight
- Low rolling resistance duals can be as effective as singles
Trailer Aerodynamics

<table>
<thead>
<tr>
<th>Av. fuel savings</th>
<th>Emissions Controlled</th>
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<tbody>
<tr>
<td>Trucks: 5%</td>
<td>CO₂, NOₓ</td>
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Trailer Fairings, Side-skirts
Nose Cone and Trailer Tail
The SmartWay Truck

Turn Over A New Leaf To Save Big

Introducing SmartWay Certified Tractors & Trailers From These Manufacturers

Tractor makers:
- Freightliner
- International
- Kenworth
- Mack
- Peterbilt
- Volvo

Trailer makers:
- Great Dane
- Trailmobile
- Utility
- Wabash

To learn more visit epa.gov/smartway
The SmartWay Truck
Rail & Intermodal Shipping
No-Idling Policies at Loading Facilities

ATTENTION DRIVERS:
SHARP ELECTRONICS IS A MEMBER OF THE EPA'S SMARTWAY TRANSPORT PARTNERSHIP
SHARP HAS A NO IDLE POLICY.
PLEASE TURN OFF YOUR ENGINES WHILE ON-SITE AWAITING TO BE LOADED/UNLOADED.

SmartWay Transport Partnership
THANK YOU FOR HELPING US WORK TOWARDS A CLEANER ENVIRONMENT.
Light Duty Vehicles

US EPA Certified
SmartWay Elite

US EPA Certified
SmartWay

Check Out EPA's Green Vehicle Guide

www.epa.gov/greenvehicles
Get a fast loan quote Now – truck, trailer, & equipment loans and leases

Start Your Loan Application Now:

1. Loan Type: SELECT

2. Amount $: 0

3. Location: SELECT

This World Wide Web site is provided as a public service by the U.S. Environmental Protection Agency (EPA), SmartWay Transport Partnership. The purpose of this site is to efficiently and conveniently disseminate information on financing that is available for purchasing cleaner truck trailers, cars, and emissions reducing and fuel saving technologies. All loan information contained in this site represents private company loans. These are not Federal government loans. If you obtain a loan from any of the financial entities here you are subject to their contractual terms and conditions. The EPA does not endorse the products or services of commercial companies. Any reference to a specific commercial product or service by trade name, trademark, manufacturer, company, or otherwise does not constitute or imply the endorsement or recommendation of the EPA.
Marketing and Recognition
Marketing

You’re a Click Away
From a Smarter Supply Chain

Logistics managers are constantly looking for ways to reduce costs for their customers through customized solutions. SmartWay® Transport Partnership is one smart money-saving program grounded in innovative business strategies and new technologies. SmartWay Transport is about streamlined logistics operations that reduce fuel costs while reducing greenhouse gases and other emissions.

To find out more about this collaborative program, please call 1-734-214-4767 or visit www.epa.gov/smartway.

Ad Concept 2.23.07
Marketing

These Manufacturers Are Hauling The Best Logo In The Business

Introducing SmartWay Certified Tractors & Trailers From These Manufacturers

Tractor makers:
- Freightliner
- International
- Kenworth
- Mack
- Peterbilt
- Volvo

Trailer makers:
- Great Dane
- Trailmobile
- Utility
- Wabash

To learn more visit epa.gov/SmartWay
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