



A **stronger** economy.

A **healthier** environment.

SmartWay
Transport Partners
DELIVER.



MA Smart Growth / Smart Energy Conference
December 7, 2007

What ISN'T "Smart"?









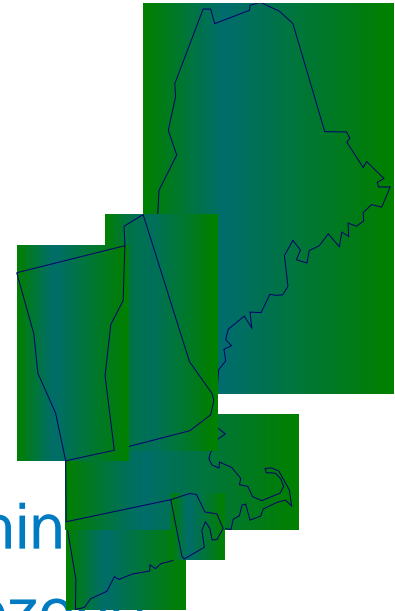
Background

Context

- **Growing concern re: oil supplies, diesel emissions, greenhouse gases**
 - **Freight movement expected to expand dramatically over next decade**
 - **Trucking emits & consumes more per ton/mile than other modes**
- **Maximize efficiency in each mode and intermodally**

EPA Focused on Diesel Emissions

- **Health:**
 - asthma rates
 - respiratory/heart problems
 - probable carcinogen
- **Standards:**
 - Southwest CT fails $PM_{2.5}$ (Boston close behind)
 - CT, MA and RI, and coastal ME & NH fail ozone standard (summertime smog)
- **Diesel's potential:**
 - Efficient fuel
 - Biodiesel alternatives



Trucks are Top Priority

- **Northeast:** 40% NOx and 51% PM from heavy-duty trucks
- **State idle limits:**
MA, CT, NH & now RI



- **New fuel & engines = 95% cleaner, BUT**
 - Still not fuel-efficient
 - Need to address dirty legacy fleet
 - Keep businesses viable





Enter: SmartWay Transport Partnership

Partnership

- Between the ground freight industry and EPA
- Improve fuel efficiency, reduce emissions, save \$
- Launched Feb 2004 with ATA, top carriers & shippers
- Now over 650 partners in 45 states & Canada
 - Trucking
 - Shipping
 - Rail
 - Logistics

Some Partners



..... be sharp I N T E R F A C E



Dimensions

- Individual partners: single- & multi-modal strategies
- Mobile idle reduction & aerodynamic technology development, testing (truck, rail)
- Stationary idle reduction technology & network: truck stops, distribution centers
- Truck Upgrade Kit Loans
- SmartWay Truck
- Grow & Go
- Port drayage management
- (Spring 2008) SmartWay Supply Chain!

Partner Motivations

Carriers:

- Save fuel & money
- Get EPA recognition
- Improve public image

Partner Motivations

Carriers:

- Save fuel & money
- Get EPA recognition
- Improve public image

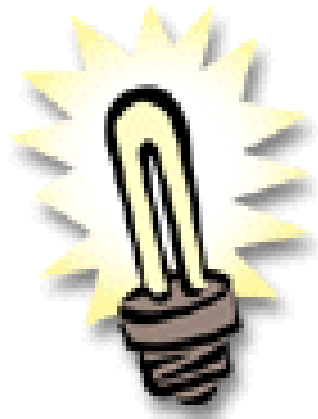
Shippers:

- Understand transport options
- Shrink carbon foot print
- Promote sustainable image

Partner Motivations

Carriers:

- Save fuel & money
- Get EPA recognition
- Improve public image



EPA:

- Reduce emissions
- Improve energy security
- Bring agencies & industry together

Shippers:

- Understand transport options
- Shrink carbon foot print
- Promote sustainable image

Partnership Mechanics

- Sign on for 3 years
- Analyze operations using EPA software
- Set goals for fuel conservation and emission reduction
- Select strategies
- Report progress yearly
- Qualify for logo use
- Compete for awards

Freight Logistics Environmental & Energy Tracking Model

- Excel software
- Develops baseline of *ACTUAL* emissions for a given year for CO₂, NO_x, and PM
- Estimates *POTENTIAL* fuel savings & emissions reductions from various strategies
- Calculates *SCORE* based on technologies & strategies used
- Provides format for tracking *PROGRESS*

New England SmartWay Partners

<u>Partner</u>	<u>Location</u>	<u>Category</u>
Barrett Distribution	Franklin, MA	Carrier
Braun's Express, Inc.	Hopedale, MA	Carrier
Clean Diesel Technologies	Stamford, CT	Shipper
Dennis K. Burke, Inc.	Chelsea, MA	Shipper-Carrier
Green Mountain Coffee Roasters	Waterbury, VT	Carrier
Hannaford Trucking Co.	Portland, ME	Carrier
Hartt Transportation	Bangor, ME	Carrier
Lily Transportation Co.	Needham, MA	Carrier
Maine Motor Transport Assn.	Augusta, ME	Affiliate
Mass. Motor Transport Assn.	Boston, MA	Affiliate
New England Retail Express	Stoughton, MA	Carrier
PAF Transportation, Inc.	Scarborough, ME	Carrier
Pottle's Transportation, Inc.	Hermon, ME	Carrier
Refrigerated Food Express	Avon, MA	Carrier
Regency Transportation, Inc.	Franklin, MA	Carrier
RFX, Inc.	Avon, MA	Logistics
Safe Handling, Inc.	Auburn, ME	Carrier
TrucksOnly.com	Warwick, RI	Affiliate
United Natural Foods	Dayville, CT	Carrier



Technologies and Strategies

For Carriers

- Idle reduction
- Speed control
- Driver training & incentives
- Improved aerodynamics
- Advanced tire technology
- Advanced lubricants
- Improved freight logistics
- Weight reduction
- Intermodal alternatives

Idle Reduction Technologies

<u>Average fuel savings</u>	<u>Emissions Controlled</u>
.8 gal/hr	CO ₂ , NO _x , and PM

- Automatic Shut-Down/Start Up Systems
- Auxiliary Power Unit/Generator Sets
- Diesel-Driven Heating Systems
- Battery-Powered Systems
- Truck Stop Electrification



Improved Aerodynamics

<u>Average fuel savings</u>	<u>Emissions Controlled</u>
5 - 7%	CO ₂ , NO _x

- Trailer Side-skirts
- Gap Reducer
- Boat Tail



Low Rolling Resistance Tires

Single Wide Base and Improved Duals

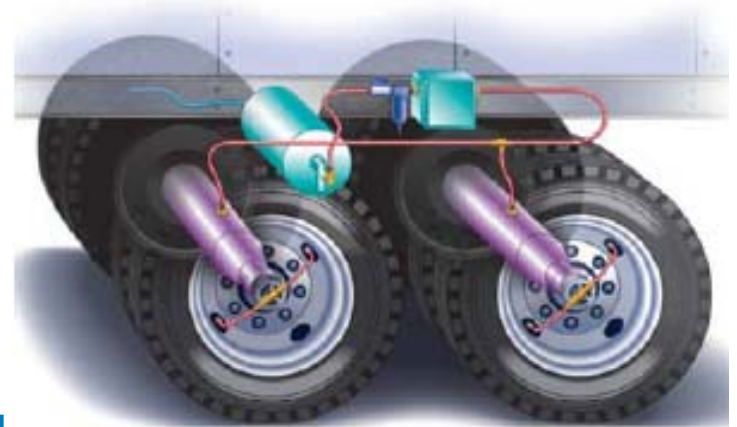
<u>Average fuel savings</u>	<u>Emissions Controlled</u>
Trucks: 4 - 5%	CO ₂ , NOx

- Single-wide tires and aluminum wheels
 - Reduced rolling resistance
 - Reduced weight
- Low rolling resistance duals



Other Strategies

- Speed control
 - For each 1 mph increase, 2% lower mpg
- Weight reduction
 - Low-viscosity lubricants
 - 2 – 4% higher mpg
- Tire pressure
 - For each 10 psi under, 1 - 1.5% lower mpg
- Driver training: progressive shifting, mpg standard, idle monitoring, incentives, auto shutdown...
- Biodiesel, hybrid drivetrains, certified trucks & trailers, emission controls...



For Shippers

- Ship more freight with SmartWay Carriers
- Preferential docking for SmartWay Carriers
- Idle reduction at docks
- Driver comfort stations
- Improved pick-up & delivery scheduling

ATTENTION DRIVERS:



IS A MEMBER OF THE
EPA'S SMARTWAY TRANSPORT PARTNERSHIP.

**GREEN MOUNTAIN HAS AN
IDLE REDUCTION POLICY.**

PLEASE TURN OFF YOUR ENGINES
WHILE ON SITE AWAITING
TO BE LOADED/UNLOADED.



THANK YOU FOR
HELPING US WORK TOWARDS A
CLEANER ENVIRONMENT.

For Shippers (cont.)

- Full truck loads
- Warehouse improvements
- Electric or alt fuel forklifts
- Intermodal shipping
- Light fleet efficiencies

SHIP SMARTER



An environmentally appealing way to transport goods that's also deliciously profitable.

SmartWay[™]Transport helps shippers and for-hire carriers lower greenhouse gases and other emissions, while at the same time giving the average truck a fuel savings of \$2,000 per year.

To find out more about this new partnership, call for your info kit at 1-734-214-4767 or log onto www.epa.gov/smartway.



A new voluntary program from the U.S. Environmental Protection Agency

More information about technologies & strategies:

www.epa.gov/otaq/smartway/swresources.htm



Ideas & Resources for Planners

Build it Right

- Rail spurs and sidings
- Adequate parking/staging areas
- Gate control
- Electrified truck parking
- Shore power at loading docks for refrigerated trailers, containers
- Comfort stations







Run it Right

- Attract SmartWay shippers and carriers
- Incentives for clean infrastructure and vehicles
- Idle limit signs & no idle zones



SmartWay Tractors and Trailers

SmartWay Tractors:

- Model Year 2007 or later engine
- Improved Aerodynamics
- Choice of idle reduction and tire technologies



SmartWay Trailers:

- Side Skirts
- Weight-saving technology
- Gap reducer
- Choice of tire technologies



www.epa.gov/smartway

Abby Swaine

(617) 918-1841

swaine.abby@epa.gov