

## **EPA partnership with industry helps shippers, carriers, 3PLs conserve energy, cut fuel use, produce significant savings.**

The SmartWay Transport Partnership, a federal program that helps transport operators save millions of gallons of fuel and millions of dollars, is reaching out to shippers.

The Environmental Protection Agency initially targeted carriers when it launched the SmartWay program in 2004. By bringing more shippers on board, it can push the environmental and economic benefits it offers upstream into supply chains in the United States and around the globe.

"At the end of the day we all want the same thing," says Mitch Greenburg, SmartWay manager at EPA.

That's not just a cleaner environment, but more efficient, less costly transportation and logistics. Collectively, SmartWay partners are saving close to 620 million gallons of diesel fuel per year, lowering fuel costs by around \$2.5 billion and reducing carbon-dioxide emissions by 6.8 million tons.

"Your CO2 footprint of transportation and your cost of fuel are permanently linked," Randall Boeller, package and engineering program manager at Hewlett-Packard, a SmartWay member, said in an interview earlier this year. "If you can reduce logistics costs, you can write an environmental story about it."

It's rare to find private industry enthusiastic about a federal regulatory program, but SmartWay is an exception. That's largely because the program was envisioned as a collaborative effort, and because the EPA provides businesses with guidelines and benchmarks to help businesses reduce greenhouse gas emissions and improve energy efficiency while bolstering their bottom lines.

The program has doubled in size each year since 2004 and now tops 1,100 members. It expects to double that number in 2009. Its members include trucking companies, railroads, ocean carriers, logistics providers and shippers such as Best Buy, Target, Coca-Cola Enterprises, Johnson & Johnson and Procter & Gamble and Wal-Mart.

Non-profit groups such as the American Trucking Associations, the Transportation Intermediaries Association and several state trucking associations have joined SmartWay as affiliate members. Nonasset-based third-party logistics companies are encouraged both to promote the program to customers and to commit to a goal of shipping half of their freight with SmartWay certified carriers.

SmartWay grew out of a growing consensus about the need to address climate change and increased awareness of the environmental impact of freight shipping.

Trucks and locomotives consume 35 billion gallons of diesel fuel each year, producing more than 350 million metric tons of carbon dioxide. EPA estimates show by 2012 ground freight transportation will consume more than 45 billion gallons of diesel fuel and produce more than 450 million metric tons of carbon dioxide. The key goals of SmartWay are to reduce carbon dioxide emissions by 3.3 million to 6.6 million metric tons per year by 2012 and to reduce diesel fuel consumption by between 3.3 billion and 6.6 billion gallons annually by the same target date, said Greenburg.

SmartWay offers several tools and recommends a number of specific strategies to help companies reduce fuel use. Trucking and rail carriers can use the Freight Logistics Environmental and Energy

Tracking or FLEET Performance Model to track improvements on an annual basis and quantify the environmental and cost-saving benefits of various technologies and practices. Based on FLEET modeling companies develop a three-year action plan for reducing fuel consumption.

The SmartWay Clean Diesel Finance Program helps trucking companies secure financing for the purchase or lease of vehicles and equipment that incorporate fuel-saving technologies. In September, the EPA awarded \$3.4 million in grants to nonprofit agencies that in turn offer favorable, flexible loan terms to trucking companies.

"Our goal is to create a broad sweep of financing programs that provide better than market rates to trucking companies of all sizes," said Greenburg.

In October, the program recognized 27 businesses and organizations for significantly reducing fuel usage and carbon emissions.

One of the award winners was Schneider National, a founding industry member of SmartWay. Actions taken by Schneider include lowering its fleet speed to 60 miles per hour, a move that is equal to taking 7,259 cars off the highways, saving 3.75 million gallons of diesel fuel and eliminating 83.25 million pounds of carbon dioxide emissions on an annual basis.

"Schneider National actively supports environmental programs to reduce emissions," said Dennis Damman, director of engineering at Schneider. "We view SmartWay as an integral part of our operations."

SmartWay recommends several fuel-saving strategies for carriers, starting with reduced idling and the use of auxiliary power units on tractor-trailers.

Other steps include buying more aerodynamic tractor-trailers; better truck routing; automatic tire inflation systems; expanded driver training; using advanced lubricants and power train technologies and greater use of intermodal transport.

EPA studies show that an average long-haul tractor-trailer unit idles for about 8 hours per day for at least 300 days per year, consuming around 0.8 gallons of fuel per hour. That's close to 1,900 gallons of fuel per year. APUs can reduce fuel usage by 75 percent and aerodynamic devices such as gap seals, front bumper air dams and roof and side fairings can reduce fuel usage by around 20 percent.

According to the EPA carriers can save an average of \$4,000 per truck per year by implementing some or all of the recommended measures.

For shippers, SmartWay recommends rescheduling pickups and deliveries; use of full truckloads; preferential docking; improving warehouses; electric forklifts; driver comfort stations and reducing or eliminating idling at docks.

The program also urges shippers to commit at least half of their goods to SmartWay certified carriers.

SmartWay also gets its message out through marketing. Member companies display the SmartWay logo in corporate communications. Other benefits include recognition for environmental stewardship and meeting company and customer sustainability goals.

The program provides valuable networking opportunities, said Ralph Obenauf, compliance officer for AIT Worldwide Logistics, an Itasca, Ill.-based logistics company that joined SmartWay in July.

At a recent conference, for example, AIT executives met a manufacturer of oil filtration systems that reduce the need for frequent oil changes, providing significant savings, and have learned about new tire compounds that increase fuel efficiency.

For AIT, which is largely nonasset-based but operates a fleet of 38 trucks in the Chicago area, the program mostly involves reaching out to vendors and customers and making smarter carrier choices. Carrier partners who are part of the SmartWay program tend to have equipment that is newer and more

reliable, said Ron House, the company's Chicago station manager. "We tend to route business away from carriers that are not involved in SmartWay," he said.

Developing sustainable supply chains shouldn't be too much of a stretch for companies that have spent years meeting quality improvement targets and just-in-time production goals, said Joel Sutherland, managing director of the Center for Value Chain Research at Lehigh University.

The five bedrock principles of just-in-time production - first developed as the Toyota Production System for integrated business process improvement - are as applicable to the supply chain as they are to manufacturing. For example "muda," a Japanese word meaning anything that is wasteful and doesn't add value, perfectly describes engine idling, which is a key culprit in excessive and unnecessary fuel consumption.

"If it is not creating value then you should turn the engines off," said Sutherland.

Better freight logistics - including efficient routing, load matching, driver training, upgrading equipment and improved warehouse management - is a key strategy recommended by SmartWay that is also a cornerstone of supply chain optimization.

Sustainable supply chains are at the top of the agenda for Fortune 500 companies, which can afford the upfront investment. The many smaller and midsize companies that are in survival mode in the current economic crisis will eventually have to get on board as their big customers demand compliance.

"It makes good business sense on Wall Street and in the boardroom to say we are going to improve our business model by becoming green," said Sutherland.

In some cases, carriers bring customers to SmartWay. In others, shippers push carriers toward the program.

Executives at National Retail Systems, a logistics provider based in Secaucus, N.J., began looking into SmartWay at the request of customers, who suggested that the

program's fuel reduction targets will become mandatory in one form or another sooner rather than later, said Larry Ravinett, the company's senior vice president for logistics and supply chain solutions.

The program dovetails nicely with other company efforts to meet environmental mandates and reduce equipment and maintenance costs. NRS recently purchased 50 new tractors for its West Coast operations to comply with the Clean Trucks Program at the ports of Los Angeles and Long Beach and is using more fuel-efficient switchers at its 200-acre North Bergen, N.J., yard.

The equipment upgrades, driver training and transportation management aspects of SmartWay are proving to be effective marketing tools. "SmartWay fits in with our culture as a company and is also good for customer and customer relationships," said Ravinett.

Penske Truck Leasing last month joined SmartWay as an affiliate partner, promoting the program to its customers, said Joe Moleski, the Penske's vice president for sustainability. SmartWay compliments Reading, Pa.-based Penske's ongoing efforts to ensure that its fleet of over 200,000 vehicles is upgraded and maintained to meet evolving clean air and fuel efficiency standards, he said.

"Most of our truck leasing vehicles are driven by customers, so it made sense of us to educate them about sustainability and industry best practices," said Moleski.

Penske Logistics, a wholly owned subsidiary of Penske Truck Leasing, is participating in the SmartWay program as a carrier partner. The company is employing many of the technologies and strategies recommended by the SmartWay partnership including use of APUs; improved truck and tractor aerodynamics; reducing fleet speed from 65 mph to 63 mph; load weight reduction and hotel, lodging and double driver programs.

"The program has really challenged us to explore new technologies and strategies for reducing fuel consumption," Moleski said.