

Focus on: Fleet Management

Hannaford's transportation strategy reduces costs, helps environment

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operations

Transportation budgets are taking a hit this year as diesel fuel costs continue to climb, topping \$3.57 per gallon last month, roughly \$0.74 higher than a year ago. For a retail fleet that travels 11.5 million miles a year, that adds almost \$8.51 million in fuel costs over the 2010 spend.

However Hannaford Supermarkets, based in Scarborough, Maine, has taken proactive measures in recent years that have increased efficiencies across its fleet of 100 tractors, helping to mitigate the pain of rising fuel costs.

In 2010, Hannaford reduced its usage of diesel fuel by 137,000 gallons and anticipates reducing usage by 460,000 total gallons by 2014 — despite the fact that the Hannaford fleet continues to travel approximately 11.5 million miles each year to serve the company's 177 stores.

Over the past six or seven years, Hannaford tested several tractors and determined that the Freightliner Cascadia model, with the Detroit series DD15 engine, was the most efficient

largely because the company had decided to make some changes relative to its tractor life cycle," explained Chris Huff, director of transportation for Delhaize America, parent company of Hannaford Supermarkets.

"We analyzed the information with our Hannaford financial team and then began a pilot program to further understand the lease versus purchase [strategy]," Huff continued.

The tractor-leasing program began in early 2009, and currently about 75% of the Hannaford fleet is leased. All of the leased trucks have EPA-certified "clean-diesel" engines, and on average the trucks that were replaced were five to seven years old.

In the past, Hannaford's fleet replacement strategy had been to operate trucks on average 700,000 miles or seven years. In addition to being less fuel efficient, the older equipment also incurred additional maintenance costs.

"With the dramatic increase in fuel prices a few years ago, our overall cost per mile got my attention," Huff said. "After further



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choice. The retailer also determined it would be more efficient to lease equipment and now leases the majority of the tractors in its fleet through Fleet Advantage of Fort Lauderdale, Fla.

"We had a great deal of interest in understanding the financial impacts of leasing programs versus buying [equipment],

analysis, we also identified the trending of increased maintenance cost per mile with the older equipment and the model truck that was being utilized in the fleet at that time. Additionally, the aging fleet was experiencing unusual mechanical failures."

Huff, along with Delhaize VP distribution >

and transportation, Gerry Greenleaf, conducted additional research and decided the better strategy would be to replace equipment every four to five years or every 500,000 miles.

“We determined turning our equipment over at this interval would reduce our overall maintenance cost by \$0.2 to \$0.4 cents per mile,” Huff said. “We also knew the newer equipment and the technology applied today would deliver improved miles per gallon.”

The company partnered with Freightliner and specified a truck that not only met their requirements but also would be desirable in the used-truck market, providing a higher residual value at the end of life. The retailer also integrated the Eaton automatic transmission into its fleet.

“The results provided a more consistent MPG improvement across the fleet, improved driver ergonomics and reduced driver ailments caused by operating a manual transmission,” Huff reported.

An additional benefit of the improvements to the fleet was an impressive leap forward in sustainable effectiveness. Since 2005, Hannaford has partnered with the EPA SmartWay program, and the partnership with Fleet Advantage also included a Clean Air program that addressed reducing emissions.

Early results of this Clean Air initiative showed a reduction of 1,388 metric tons (MT) of carbon dioxide from 2009 to 2010, with a projected cumulative total reduction of 4,625 MT by 2014. A reduction of 1.61 metric tons (MT) of particulate matter was also recorded from 2009 to 2010, with a projected cumulative total reduction of 2.54 MT by 2014.

Put into the perspective of social well being, the Clean Air Task Force, a nonprofit research organization based in Boston, reported in 2010 that 21,000 Americans die prematurely each year from inhalation of diesel exhaust particulate matter.

“Conservation is extremely important to us, as we need to continue to find ways to reduce cost throughout the supply chain and reduce emissions globally,” Huff said. “The information and feedback provided by the EPA Smart Program, along with our internal fleet-maintenance management data and the data that Fleet Advantage provides, gives us three streams of information that we can use to manage our fuel conservation efforts.”

Hannaford’s commitment to conservation has encompassed virtually every element of its fleet. For instance, the company is in the process of incorporating trailer side skirts because a test conducted last year with Atlantic Great Dane of South Portland, Maine, confirmed Hannaford could expect 4% to 7% improvement in MPG by using trailer side skirts. Additionally, Hannaford worked with Great Dane engineers to reduce weight while maintaining strength integrity on trailers. They have also conducted testing with various tire manufacturers and are now utilizing super single tire configurations on many of the trailers.

The company also maximizes utilization of equipment, using its fleet not only for store deliveries from its three distribution centers (DCs), two in Maine and one in New York, but also for inbound deliveries from suppliers to the DCs.

“Our dispatch team works closely with the logistics team to coordinate daily return loads from the vendor population in our retail regions,” Huff said.

Ultimately, the success of sustainable programs and increased efficiencies comes down to how well drivers implement new processes.

In 2005 Hannaford invested in new in-board technology that provided information to better manage the fleet.

“This required changes in processes and changes in behaviors; however our drivers and support staff embraced the technology and utilize it to its fullest extent,” Huff added. “Drivers are one of the most important links in the chain of conservation sustainability.”

When drivers understand the desired outcome, the tools that are necessary to achieve the goals and their roles in making it happen, Hannaford has found their drivers take ownership of the conservation program and, in many cases, identify further opportunities for efficiency.

Fuel Prices Going Up

Here is a look at the changes in the price of diesel fuel (dollars per gallon). The price listed is for 2/21/11, the latest date pre-press for which information was available.

	Price	Change from week ago	Year Ago
U.S.	↑ 3.573	↑ 0.039	↑ 0.740
East Coast	↑ 3.620	↑ 0.033	↑ 0.743
Midwest	↑ 3.517	↑ 0.038	↑ 0.723
Gulf Coast	↑ 3.522	↑ 0.033	↑ 0.729
Rocky Mountain	↑ 3.568	↑ 0.057	↑ 0.741
West Coast	↑ 3.729	↑ 0.058	↑ 0.811

Source: U.S. Energy Information Administration