



INBOUND LOGISTICS'

# G75

**75 GREEN  
SUPPLY CHAIN  
PARTNERS**

From employing goats to clear land to updating fleets with the latest technology for miles-per-gallon gains, these 75 Green Supply Chain Partners constantly innovate to help you grow greener.

*IL* editors combed through submissions from companies with impressive green credentials, and ultimately chose the G75 based on four benchmarks: measurable green results, sustainability innovation, continuous improvement, and industry recognition. Our annual G75 list showcases the sustainability best practices these companies employ in their supply chain, logistics, and transportation operations. It details the green strides they have made and how they can help environmental initiatives take root in your operations as well.

## A. Duie Pyle

To reduce fossil fuel consumption, Pyle's fleet is composed of trucks with 11L and 13L engines for higher fuel efficiency. The carrier also utilizes engine idle limiters, tire inflation monitor systems, oil reclamation, and automatic transmissions in heavy-duty over-the-road vehicles. Pyle's facilities employ green initiatives through paperless docks, radiant heated flooring, and motion-activated lighting. The carrier's Parkesburg, Pa., warehouse currently features a one-megawatt solar installation that supplies 100 percent of the building's electricity needs.

## ABF Freight

For 40 years, ABF Freight has been conserving fuel and reducing emissions by voluntarily limiting the maximum speed of its trucks. The carrier specifies all new trucks to include computerized engine shut-offs to automatically reduce idling, further cutting fuel consumption and limiting emissions. As a partner in the EPA's SmartWay Transport Partnership, the carrier earned a SmartWay Excellence Award. ABF Freight advocates sustainability through its participation in the American Trucking Associations' "Trucks Deliver a Cleaner Tomorrow" program and is a member of the ATA Sustainability Task Force.

## Americold

Maintaining cold temperatures is an energy-heavy activity, but Americold employs energy-saving solutions. By using real-time energy consumption monitoring; retrofitting motion-sensing LEDs; placing solar arrays on buildings and gas turbines; and through effective energy management, Americold has saved more than 220 million kWh of electricity since 2010—enough to power more than 20,000 homes for one year. That number translates to approximately 180 million pounds of CO<sub>2</sub> equivalents. In addition, the company's automatic storage and retrieval systems incorporate regenerative energy.



Increased MPG | AAA Cooper

## AAA Cooper

AAA Cooper focuses on green initiatives to enhance MPG and reduce emissions through the use of wide base tires in all positions; automated manual transmissions engineered with specific drivetrain modifications; enhanced and full aerodynamic fairing packages; conversion of oil to lighter-weight synthetic; and modernized tire pressure and monitoring systems. The carrier operates a 100-percent fully skirted pup trailer fleet. Its sleeper fleet is equipped with the latest APU systems, as well as a plug-in system, to allow operation without any fuel burn when parked.



Refrigerated trailers | Alliance Shippers

## Alliance Shippers

As an active SmartWay partner with annual CDP assessments, Alliance Shippers Inc. participates in many green solutions. In 2016, Alliance added 200 energy-efficient refrigerated trailers to increase its fleet to nearly 2,100 CARB-compliant trailers. Alliance also uses U.S. rail intermodal for the line-haul portion of service to provide shippers with a green alternative. Its green initiatives extend to its Keasbey, N.J., warehouse, which produces the majority of its power supply from solar arrays.



APU Auxiliary Power Unit  
 CDP Carbon Disclosure Project  
 CNG Compressed Natural Gas  
 EPA Environmental Protection Agency

GHG Greenhouse Gas  
 kWhr Kilowatts Per Hour  
 LED Light-Emitting Diode  
 LNG Liquid Natural Gas

MPG Miles Per Gallon  
 NGV Natural Gas Vehicle  
 NO<sub>x</sub> Nitrogen Oxide  
 SmartWay EPA's SmartWay Transport Partnership

## APL Logistics

Using its carbon footprint calculator and green supply chain analysis, APL Logistics' engineers identify sustainable practices, including operation savings, for shippers. The 3PL's analysis tools estimate the amount of greenhouse gases produced by using fossil fuels for electricity, heat, and transportation at each warehouse. Simulation tools help explore warehouse configurations to reduce movements and double handling. APL Logistics also optimizes shipment routes and the overall logistics network to help reduce carbon footprints.



Optimized routes | APL Logistics



## Averitt Express

Averitt Express employs many environmentally friendly practices such as increasing fuel efficiency with fleet speed limits; using low-viscosity lubricants and engine oils; utilizing software to plan efficient routes; and equipping tractors with auxiliary power units. The company recycles all used oil and oil filters, captures and recycles freon when servicing tractors' air conditioning units, and, when possible, reuses tractor antifreeze. Averitt Express also provides incentives to reward staff for conservation efforts, including improved MPG rating and reduced energy usage.

## Avnet

To ensure sustainable and responsible business practices, Avnet created a corporate social responsibility council comprising global representation. Global activities focus on six areas: supply chain, environment, labor practices, human rights, anti-corruption, and community. Per DFG – Institute for Energy, Ecology, and Economy, Avnet achieved a carbon footprint reduction in 2015. Avnet operates 19 ISO 14001-registered facilities that monitor electricity, gas, and water consumption; participate in landfill diversion programs; and operate LED lighting and solar panels.



Responsible labor practices | Avnet

## BDP International

BDP International is focused on decreasing its carbon footprint through its sustainability program. Main achievements since 2015 include: distributing the first annual Green Leaf Award to its Netherlands office for sustainability innovation; the BDP green, safety, and wellness teams collaborating to form a global environment, health, and safety group; and hosting web-based conferences to reduce paper usage. As a steering committee member of the Clean Cargo Working Group, the 3PL works with industry peers, measures carbon emissions, and accesses carrier environmental data.



Environmentally friendly rail | C.H. Robinson

## C.H. Robinson

C.H. Robinson is committed to preventing deterioration of the environment and minimizing the impact of its operations on land, air, and water. C.H. Robinson helps shippers reduce carbon emissions and improve sustainability, and helps carriers leverage backhaul capacity to reduce empty miles. The 3PL provides load and mode optimization in both consultative analysis and real-time operations environment, which helps reduce miles and utilize transportation equipment effectively.

## BNSF Logistics

Through multi-modal capabilities, BNSF Logistics evaluates all modes to determine which is the most effective and cost efficient to meet shippers' service and environmental goals. The SmartWay partner converts many over-the-road shippers to rail, enabling lower costs while contributing to energy efficiency and emissions reductions. BNSFL demonstrates a year-over-year reduction in CO<sub>2</sub> grams/mile output through the use of contract carriers and mode conversion, leading to a reduction in GHG emissions. The company services the renewable energy sector and is focused on creating solutions for the wind energy market.

## Cardinal Logistics Management

As a SmartWay partner and to ensure safe, environmentally friendly operations, Cardinal operates new, lower-emissions equipment to reduce fuel consumption; governs speed; installs APUs; implements automatic idle shutdown to increase MPG; and tests renewable fuels, including CNG trucks. The 3PL also trains its team on proper maintenance and driving habits, and offers incentives for high MPG rates. Cardinal monitors for efficient performance and uses technology to help lower the fleet's emissions by reducing miles.



Reduced-water car washes | BLG Logistics

## BLG Logistics

As a logistics service provider for the automotive industry, BLG reduced freshwater requirements per car wash by 85 percent, employing smart systems that provide energy only when needed. The company focuses on smart technology to recover and restore energy, and has won awards for measurable improvements from green logistics initiatives. BLG makes green investments in facilities, equipment, technology, and the skills and capabilities of its team. In its offices around the world, BLG takes responsibility for sustainability of local operations and their effect on regional market environments.

# 75 GREEN SUPPLY CHAIN PARTNERS

INBOUND LOGISTICS'

# G75



APU Auxiliary Power Unit  
 CDP Carbon Disclosure Project  
 CNG Compressed Natural Gas  
 EPA Environmental Protection Agency

GHG Greenhouse Gas  
 kWhr Kilowatts Per Hour  
 LED Light-Emitting Diode  
 LNG Liquid Natural Gas

MPG Miles Per Gallon  
 NGV Natural Gas Vehicle  
 NO<sub>x</sub> Nitrogen Oxide  
 SmartWay EPA's SmartWay Transport Partnership

## Cargo Transporters

A SmartWay-certified carrier, Cargo Transporters uses renewable source auxiliary air conditioning for the cab, wide-base single tires, automated transmissions, a cab aerodynamic package, limited idle time based on ambient air temperature, and tire pressure monitoring. Trailers feature wide-base tires, aerodynamic skirting, and smooth wall trailer sides. In operations facilities and shops, the carrier converted all lighting to LED. Its Claremont terminal has 21 shorepower parking spots where trucks can plug in to heat or cool the cab while waiting for service or loads.



Aerodynamic skirting | Cargo Transporters

## CaseStack

CaseStack's efforts to reduce waste reflect its commitment to efficiency and sustainability. The company's retail consolidation programs help conserve natural resources by reducing dock congestion, improving warehouse efficiencies, and decreasing the number of trucks on highways. The resulting supply chain consumes less energy and produces fewer carbon emissions. CaseStack cut emissions by 10.8 million pounds of CO<sub>2</sub> and reduced 1,800 pounds of CO<sub>2</sub> per truck. CaseStack has been recognized and certified by SmartWay.

## CHEP

CHEP achieves sustainable goals and makes its consumer packaged goods customer companies more sustainable through its Better Planet initiative. With its 2015 and 2020 sustainability targets, CHEP is moving toward becoming a zero deforestation, zero emissions, and zero waste company. In addition, CHEP's Value Stream Mapping Solution saved pallet users \$13 million with efficient, sustainable solutions since June 2015, eliminated 4.5 million empty truck miles, and reduced CO<sub>2</sub> by 23.6 million pounds.



Electric forklifts | Commercial Warehousing

## Celadon

In addition to being awarded the SmartWay Excellence Award regularly, Celadon constantly updates its fleet. With an average tractor age of less than two years, the trucking company uses the latest technology to reduce emissions and fuel consumption. Celadon installed speed limiters on its tractors and trailers, and equipped them with skirting. Cabs have APUs to eliminate the need for engine idle to heat or cool the interior. Regular maintenance ensures tractors run at peak efficiency.



Speed limiters | Celadon

## Commercial Warehousing

Commercial Warehousing implements green measures at all cold storage sites. Cool roof installations with added insulation and reflective membrane roof reduce kWhr usage by approximately 15 percent. The company also operates a full recycling program at repack where it bundles, picks up, and sends all excess materials to the recycler. Commercial Warehousing uses electric forklifts; runs a full pallet recycling program for damaged pallets and loose wood; uses recycled materials for promotional items; and has a formal recycling program with CCNA.

## Covenant Transportation Group

With an average age of 17 months, SmartWay-certified Covenant Transportation Group's tractor engines contain strict emissions controls and are Clean-Idle certified. Inside the tractor, Covenant employs various technologies, such as Espar bunk heaters and APU units, that help reduce engine idling. At its Chattanooga, Tenn., terminal, drivers can hook their tractor up to a docking station to access heat/air, internet, satellite TV, and power without running their engine.

## CSX

CSX understands that improving energy efficiency and maximizing clean domestic energy resources are crucial. To help reduce the environmental footprint of its operations, CSX transports goods in a manner that minimizes community and environmental impacts; reduces fuel, energy, water, and other resources needed to move each ton-mile of freight; increases recycling and reuse efforts through minimizing waste; and considers environmental effects and good governance when managing the supply chain.

## DSC Logistics

At DSC Logistics, a sustainability steering committee manages sustainability efforts. The committee oversees initiatives in a three-pronged approach focused on opportunities in warehousing, transportation, and network redesign. Working with reps from each logistics center, the committee provides support for pilot projects and network-wide rollouts, sustainability education through the organization, and metrics and benchmarking efforts. It sets yearly goals for reducing electricity, natural gas, and water consumption, as well as propane and waste tonnage.

## DHL

DHL actively finds ways to minimize its environmental impact. The company's group-wide environmental protection program, GoGreen, focuses on improving carbon efficiency and reducing air and noise pollution—including direct fleet emissions and indirect emissions from its transportation subcontractors. DHL's goal is to reduce GHG emissions by 30 percent by 2020. To meet the goal, the company develops and implements measures to improve efficiency, optimize networks and routes, and improve energy efficiency in its buildings.



Fuel conservation | Dupré Logistics

## Dupré Logistics

Dupré's fleet has fuel-efficient specifications, a top speed of 62 mph, and utilizes fuel-saving tires as part of an overall conservation and emissions reduction strategy. Dupré boosts fuel economy and environmental performance to improve supply chain efficiency and support safe service. The company utilizes technologies to monitor safety and fuel economy, supporting continuous improvement. It participates in the Trucking Alliance, ATA, and NTTCC. In 2015, the EPA recognized Dupré with a SmartWay Excellence Award.

# 75 GREEN SUPPLY CHAIN PARTNERS

INBOUND LOGISTICS'

# G75



APU Auxiliary Power Unit  
 CDP Carbon Disclosure Project  
 CNG Compressed Natural Gas  
 EPA Environmental Protection Agency

GHG Greenhouse Gas  
 kWhr Kilowatts Per Hour  
 LED Light-Emitting Diode  
 LNG Liquid Natural Gas

MPG Miles Per Gallon  
 NGV Natural Gas Vehicle  
 NO<sub>x</sub> Nitrogen Oxide  
 SmartWay EPA's SmartWay Transport Partnership



Energy-efficient lighting | ECW

## East Coast Warehouse

East Coast Warehouse (ECW) operates the largest solar-powered warehouse in the Northeast, producing more than 810,748 kWhr of clean, renewable energy each year. ECW uses motion-sensing technology to provide energy-saving controls across its facilities. Additionally, it installed 1,425 T-5 and T-8 high-energy, high-pressure sodium light fixtures and movement sensors. When customers permit it, ECW utilizes third-party companies to destroy product and recycle components. ECW also repairs or takes apart all broken wood pallets to build new ones.

## Florida East Coast Railway

Florida East Coast Railway (FECR) purchased 24 new 4400 HP Tier 3 emissions-compliant locomotives for conversion to LNG, replacing the rail carrier's entire mainline thru-haul fleet operating from Jacksonville to Miami. Providing efficiency benefits, FECR's locomotives feature technology such as the *Trip Optimizer*, which minimizes fuel usage, and an automatic start/stop idle reduction system that cuts fuel consumption. FECR will be the first North American railroad to convert its mainline locomotive fleet to LNG, a cleaner and more efficient fuel source, reducing GHG emissions.



Tier 3 locomotive | FECR

## FedEx

FedEx integrates environmental practices into its daily operations, and works to increase efficiencies and reduce waste and emissions. The company operates 118 all-electric trucks and 364 commercial hybrid trucks, and is adding 87 all-electric trucks, bringing its all-electric global vehicle count to 130. The company has set the following goals to reduce its footprint: reduce aircraft emissions 30 percent by 2020; increase FedEx Express vehicle efficiency by 30 percent by 2020; get 30 percent of its jet fuel from alternative fuels by 2030; and expand on-site renewable energy generation and procurement of renewable energy credits.



Electric vehicle | FedEx

## GENCO, A FedEx Company

At GENCO, A FedEx Company, continuous improvement is a culture and an attitude with all teammates involved. Across GENCO's network of 130+ operations, programs to reduce costs and increase productivity begin from the ground up. A key area of continuous improvement is its "Reduce, Reuse, Recycle" program. In 2015, GENCO successfully implemented 35 green projects that resulted in cost savings.

## GEODIS

GEODIS continually develops initiatives to reduce fuel consumption and provide carbon footprint transparency in the supply chain. Recently, GEODIS launched a low-carbon Europe-Asia road and rail solution to help shippers reduce GHG emissions. In addition, the company initiated green projects in Paris, Mexico, and Shanghai to provide eco-friendly services, increase the number of electric vehicles in its fleet, and explore options for the use of alternative fuels. An emissions reporting program that provides effective trade lane-related emission data helps shippers measure CO<sub>2</sub> in the supply chain.

### Efficient fleet | GEODIS



## Hub Group

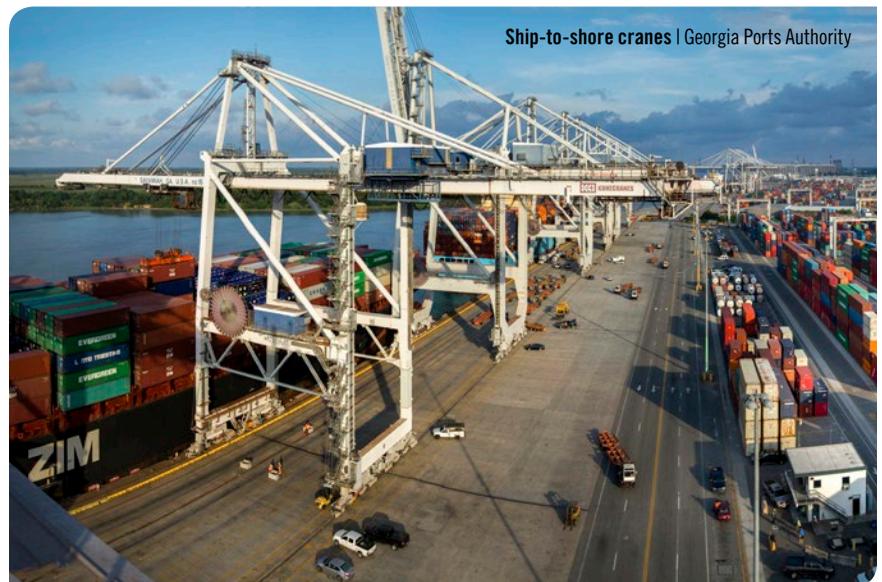
Hub Group has been a member of SmartWay since 2004 and has received multiple SmartWay Environmental Excellence Awards. By converting shipments from over-the-road to intermodal, Hub Group helps shippers significantly reduce fuel consumption and CO<sub>2</sub> emissions. Hub Group Trucking encourages the use of day cab tractors, which save approximately 4,056 gallons of diesel fuel per day cab annually. The company's corporate offices received LEED Gold status through features such as natural habitat landscaping, energy-efficient lighting, electric vehicle charging stations, and rainwater harvesting.



Plastic pallets | iGPS

## iGPS

A recent independent lifecycle analysis examined the environmental impact of the three common pallet types: the pooled multi-use wood pallet, the single-use wood pallet, and iGPS' pooled all-plastic pallet. According to this analysis, plastic pallets had up to 70 percent less impact on global warming, and 92 percent less impact on ozone layer depletion. iGPS plastic pallets are also 35-percent lighter than multi-use wood pallets, requiring less fuel for transport, thus reducing pollution and GHG emissions.



Ship-to-shore cranes | Georgia Ports Authority

## Georgia Ports Authority

The Georgia Ports Authority is committed to conducting port operations in an efficient and environmentally respectful manner. It continually improves operations and facilities with these goals in mind. For example, the port saves 1.9 gallons of fuel annually by electrifying ship-to-shore cranes, and converted all 27 of its ship-to-shore cranes from diesel to electric power. In addition, the port used 20,000 tons of recycled crushed concrete to construct a cross-terminal roadway, and a single-stream recycling program allows for a variety of recyclables, keeping products out of landfills.



APU	Auxiliary Power Unit	GHG	Greenhouse Gas	MPG	Miles Per Gallon
CDP	Carbon Disclosure Project	kWhr	Kilowatts Per Hour	NGV	Natural Gas Vehicle
CNG	Compressed Natural Gas	LED	Light-Emitting Diode	NO <sub>x</sub>	Nitrogen Oxide
EPA	Environmental Protection Agency	LNG	Liquid Natural Gas	SmartWay	EPA's SmartWay Transport Partnership

## Inmar

Through 29 facilities nationwide, Inmar's remarketing services keep 134 million pounds of material out of landfills annually. Inmar's Rx returns program reduces carbon footprint by eliminating redundant touchpoints and unnecessary transportation of returned product. It consolidates destruction, reduces repackaging requirements, and facilitates recovery and recycling of packaging, saving hundreds of tons of CO<sub>2</sub> equivalent and more than 107,000 boxes annually. The company's donation programs provided more than five million food boxes in 2014 that would have been waste.

## J.B. Hunt Transport

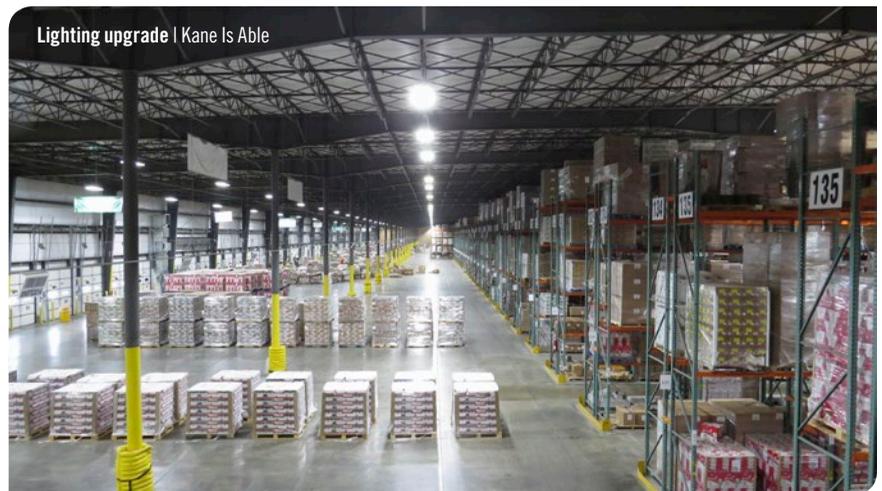
J.B. Hunt converts over-the-road truckload freight to more energy-efficient intermodal. In 2015, intermodal conversion resulted in the carbon reduction equivalent of removing more than 560,000 passenger cars from U.S. highways for one year. Other green initiatives that J.B. Hunt utilizes include LTL consolidation and network optimization, MPG tracking and improvement maintenance, lightweight and aerodynamic equipment, driver training, and alternative fuel options such as natural gas and biodiesel. J.B. Hunt has won the SmartWay Excellence Award every year since 2008.

## Kenco

In 2015, Kenco completed lighting upgrades at its facilities in Allenton, Pa., Portage, Mich., and Chattanooga, Tenn. The 3PL anticipates the lighting systems to produce an annual savings of \$227,000. Kenco also has employed new sustainability dashboards that track usage of electricity, natural gas, and water; they also monitor labor costs and measure the output of both landfill waste and recyclable materials. The company monitors baseline data on each metric to set goals toward lowering costs, reducing energy use, and producing less waste in the warehouses it manages for customers.

## Kane Is Able

KANE's project to install new lighting at select DCs should save more than 2 million kWh and eliminate 2.7 million pounds of GHG each year. KANE also expects a recent update of its fleet to save \$1.3 million and 343,000 gallons of diesel annually. The 3PL has invested in CNG-powered trucks, which produce up to 20 percent fewer GHG. Re-use is a way of life in all KANE DCs. No material is landfilled if it has potential for recycling. In 2015, KANE recycled 4.35 tons of paper, 42 tons of plastic/stretch wrap, 3,399 tons of cardboard, and 1 ton of cans/bottles. KANE has been a SmartWay member since 2006.



Lighting upgrade | Kane Is Able

## Lufthansa

The Lufthansa Group's corporate management practices emphasize a sense of responsibility for the climate and environment. By implementing a wide range of measures, Lufthansa and its group companies continuously work to increase their ecological efficiency in flight operations over the long term. Aside from billion-euro investments in a state-of-the-art, low-emissions fleet, this also includes implementing the latest technologies in aircraft maintenance and examining all processes that influence weight.



Low-emissions fleet | Lufthansa



## Lynden

Lynden was the first Alaska-based transportation company to be recognized by SmartWay and the first trucking company to earn the Green Star Award for Alaskan businesses. The transportation company focuses its people, equipment, processes, and technology on the efficient use of resources and sustainable operations. Lynden's environmental commitment is based on a common-sense desire to be efficient and to do things right, and its culture of innovation and efficiency complements its commitment to protect the environment.



Efficient barge service | Lynden

## Murphy Warehouse Company

Through a comprehensive environmental management system, Murphy Warehouse has made significant investments to upgrade its logistics campuses in a sustainable manner that includes energy savings and power generation, pollution abatement, and resource management. Average Energy Star ratings of 97 and LEED Gold certified buildings highlight Murphy's sustainable efforts. The 3PL uses an annual Corporate Sustainability Report, which follows Global Reporting Initiative standards, to track and publish its sustainable initiatives every year.

Low-impact ocean transport | Maersk



## Maersk Line

Maersk Line constantly seeks out innovative and commercially viable ways to reduce its environmental impacts, be it CO<sub>2</sub> and other air emissions, ballast water, or the materials it uses to build vessels. Since the launch of a 60-percent CO<sub>2</sub> reduction target in 2014, the ocean freight carrier has been accelerating efforts to reduce its carbon footprint. Maersk also works with shippers to transport their products across the globe with the lowest possible environmental footprint.

## Matson

In 1993, Matson's Zero Solid Waste Discharge policy, developed with Ocean Conservancy, set the industry standard for environmental protection at sea. Its Greentainer program uses a revenue slot on every sailing to collect all solid waste for transfer to recycling and waste-to-energy facilities on shore. Matson recently installed engine exhaust cleaning systems on its Alaska fleet and will outfit its two new Aloha Class vessels, currently under construction, with dual-fuel, LNG-capable engines.



Alternative marine power | Matson

## NFI

NFI has partnered with customers to implement natural gas fleets across the country and advocate for natural gas fueling stations. NFI also integrates new technology to improve aerodynamics and fuel efficiency. Trucks across its 2,300+ dedicated fleet utilize AirTabs, trailer skirts, battery-powered APUs, and speed limiters to improve fuel usage. NFI has also outfitted its headquarters and several warehouses to operate on solar power. NFI won the SmartWay Excellence award three times, and recently received the Advanced Clean Transportation Expo Fleet Award for Shippers & Carriers.

# 75 GREEN SUPPLY CHAIN PARTNERS

INBOUND LOGISTICS'

# G75



APU	Auxiliary Power Unit	GHG	Greenhouse Gas	MPG	Miles Per Gallon
CDP	Carbon Disclosure Project	kWhr	Kilowatts Per Hour	NGV	Natural Gas Vehicle
CNG	Compressed Natural Gas	LED	Light-Emitting Diode	NO <sub>x</sub>	Nitrogen Oxide
EPA	Environmental Protection Agency	LNG	Liquid Natural Gas	SmartWay	EPA's SmartWay Transport Partnership

## Norfolk Southern

In 2015, Norfolk Southern (NS) began deploying its Eco switcher locomotives, part of an in-house rebuild program that recycles older locomotives and equips them with new low-emission engines. Eco units are at NS yards in Atlanta and Chicago as part of public-private partnerships to reduce diesel emissions. The railroad also rolled out the Sleeper, a custom plug-in engine heater system that, during winter, helps eliminate unnecessary locomotive idling and reduces fuel burn and emissions. NS scored in the top 10 percent for carbon disclosure on CDP's S&P Climate Disclosure Leadership Index.



Eco switcher locomotives | Norfolk Southern

## PECO Pallet

PECO continually repairs, reuses, and recycles its wood block pallets. Built from responsibly forested timber, no harmful chemicals are ever used on PECO pallets, and all materials are reused or recycled; nothing goes to the landfill. PECO's block pallets offer structural rigidity, eliminating the need for customer-supplied slip sheets or tie sheets to maintain product integrity. True four-way block pallets can also be stacked and transported more efficiently than conventional notched stringer pallets. By efficiently managing a controlled pallet pool, PECO turns its pallets an average of four times per year.



Recycled pallets | PECO Pallet

## Penske Logistics

Penske incorporates advanced technologies—real-time GPS tracking, trailer temperature monitoring and insulated trailers; barcode inventory tracking; and RFID devices—to drive sustainability. The 3PL continues to add CNG vehicles to its fleet and committed to fuel a fleet of CNG tractors at a proposed CNG fueling facility in Pennsylvania. As a SmartWay partner since 2008, Penske has reduced emissions and improved the MPG performance of its fleet. Specifically, Penske has improved fuel economy by 5 percent, reduced idle time by 16 percent, and reduced CO<sub>2</sub> emissions on a gram/ton-mile basis by 24 percent.

## Old Dominion Freight Line

Old Dominion Freight Line values sustainability initiatives throughout all aspects of the company. The carrier equips every new service center with LED lights, and is retrofitting many existing service centers with LEDs. Other green initiatives include adding skirts to every trailer, along with fully equipped technology—such as onboard computers—that track MPG. Solar panels cover the warehouse at the company's newly renovated corporate office in Thomasville, N.C. Old Dominion is SmartWay certified.



Improved MPG | ODFL

## Performance Team

Performance Team continues to undertake green initiatives. The 3PL is growing its transload operations—a 3:2 trailer compression reduces carbon footprint by 30 percent. PT updated its entire fleet to SmartWay-approved tires, and uses trailer skirts and under trays to improve fuel efficiency. On-demand packaging equipment and software reduce carbon footprints and waste from corrugate and filler material. Innovative recycling programs allow PT to pick up and dispose of recycled materials during daily routes. PT has been a SmartWay partner since 2008, and is a Coalition for Responsible Transportation member.

## Port of Los Angeles

The Port of Los Angeles works toward the best interests of the community, environment, and economy through integral sustainability considerations during planning, design and construction, and throughout operations and maintenance of facilities and structures. As the port conducts the initial phases of a planned 10-year capital improvement program, it will use sustainable practices for the benefit of the projects and to maintain consistency with the city's mission and goals. Improvements include container terminal redevelopment and transportation infrastructure improvements.

Container terminal redevelopment | Port of Los Angeles



## Port of Portland

The Port of Portland aims to reduce carbon emissions by 15 percent below 1990 levels by 2020. It developed a carbon footprint reduction and energy management strategy to identify projects that can lead to significant reductions in energy use. The port relies on renewable power for 100 percent of its purchased electricity. In addition, its fleet includes CNG shuttle buses, and hybrid and electric cars, and uses cleaner-burning biodiesel or lower-sulfur diesel in other vehicles and equipment. The port has also reduced emissions by installing infrastructure that minimizes idling and congestion.

CNG shuttle bus | Port of Portland



## Port of Baltimore

The Maryland Port Administration's (MPA) Environmental Strategy includes establishing programs to evaluate emission control technologies for its ports, reviewing and updating existing water quality programs, and reducing energy consumption and diesel fuel use. The MPA also continues to support dray truck replacements. This program requires older trucks to be scrapped and helps applicants purchase newer vehicles with engines that meet stricter emissions standards. The goal is to reduce air pollution and greenhouse gases associated with transporting goods to and from the Port of Baltimore.

## Port of Long Beach

The Port of Long Beach holds a 20-year record of environmental protection programs. The Green Port Policy, which the port adopted in 2005, is an aggressive, comprehensive, and coordinated approach to reduce the negative impacts of port operations. Some examples of sustainable practices at the port include the development of a Sustainability Task Force, an environmental management system to establish sustainable stormwater practices during construction projects, and a wastepaper and container recycling program conducted in partnership with the Conservation Corps Long Beach.

## Port of Oakland

The Port of Oakland carefully studies all the impacts of a thriving economy to mitigate unintended negative impacts, including pollution (air, water, noise) and infrastructure wear and tear. As a result, dozens of innovative programs have emerged that work to identify, quantify, and meet these challenges. The port has several green initiatives and programs in place, including a sanitary sewer management plan, several clean air programs, a seaport air emissions inventory, habitat restoration, clean water programs, and a materials management program.



APU Auxiliary Power Unit  
 CDP Carbon Disclosure Project  
 CNG Compressed Natural Gas  
 EPA Environmental Protection Agency

GHG Greenhouse Gas  
 kWhr Kilowatts Per Hour  
 LED Light-Emitting Diode  
 LNG Liquid Natural Gas

MPG Miles Per Gallon  
 NGV Natural Gas Vehicle  
 NO<sub>x</sub> Nitrogen Oxide  
 SmartWay EPA's SmartWay Transport Partnership

## Port of San Diego

The Port of San Diego's environmental sustainability program targets water, energy, air, waste management, sustainable development, and business practices. The port partnered with San Diego Gas & Electric to enhance energy efficiency throughout the tidelands, setting a goal to reduce operational energy use by 170,000 kilowatt hours per year. Its waste management program aims to divert four tons of waste from the landfill through material reuse, recycling, and composting. The port also works with tenants, local environmental groups, and other organizations around San Diego Bay on the Green Port Program.



Restoring habitat | Port of Tacoma



Solar installation in Japan | Prologis

## Prologis

In 2015, 45 of Prologis' new development projects totaling 15 million square feet across 15 countries received sustainable building certifications, bringing its total certified projects to 68 million square feet globally since 2006. Prologis upgraded approximately 73 percent of its operating portfolio with energy-efficient lighting. Prologis also developed more than 149 megawatts of rooftop solar energy installations in nine countries since 2007. In addition, the company partners with colleagues to reduce the energy, water, and waste of its operations; collaborates with community organizations to support educational, environmental, and social causes; and engages with suppliers around its Supplier Code of Conduct.

## Port of Tacoma

The Port of Tacoma cleaned up legacy contamination to return more than 420 acres of property back into industrial use and restored more than 175 acres of high-quality habitat. The port pioneered low-impact industrial stormwater treatment systems in terminals and log and rail yards that have dramatically reduced pollutants; retrofitted a marine cargo terminal to allow ships to plug into electrical shore power to reduce diesel and GHG emissions; and developed a Clean Truck Program to meet the stringent goals of the Northwest Ports Clean Air Strategy, in partnership with the ports of Seattle and Vancouver, to reduce port-related emissions.

## Propak Logistics

Since 1999, Propak has conserved fuel and reduced emissions by limiting the maximum speed of its trucks. Since 2010, all trucks include automatic engine shut-off technology to reduce idling, improving fuel consumption and limiting emissions. After joining the SmartWay program in 2010, Propak increased its total SmartWay miles by 21 percent. Its efforts have cut CO<sub>2</sub> emissions by 18 percent, NO<sub>x</sub> by 21 percent, and particulate emissions by 39 percent. In 2015, Propak installed wood waste compactors, which have reduced the number of trucks needed by more than 35 percent. Propak recycles 95 percent of operational wood waste and more than nine tons of steel daily.

## Raymond Corporation

The Raymond Corporation supports sustainability efforts with materials handling solutions that contribute to reduced energy costs, more efficient space utilization, and higher productivity. Through its Eco-Performance design philosophy, Raymond develops lift trucks that reduce energy consumption while offering longer run-times for greater productivity. RadioShuttle, a semi-automated pallet storage and retrieval system, reduces the need for new warehouse construction by allowing customers to maximize their current warehouse space. And, *iWAREHOUSE*, Raymond's telematics system, offers fleet and facility managers the ability to track key performance metrics, correct inefficiencies, and identify opportunities to operate more sustainably.

## Ruan Transportation Management Systems

Ruan services shippers with CNG and renewable NG fleets, producing up to 80 percent fewer nitrogen oxide emissions than diesel and virtually no particulate emissions. Ruan's Fair Oaks Farms operation displaces 1.8 million gallons of diesel annually. It improves fuel economy across operations by utilizing lightweight trucks, aerodynamic solutions, auto-inflation tire systems, onboard monitoring, and auto-shift power units. Ruan is a member of the National Clean Fleets Partnership, a public-private initiative with the Department of Energy's Clean Cities program to help large fleets eliminate petroleum. Ruan is also an official SmartWay partner and a three-time SmartWay Excellence Award recipient.

## Saia

Saia LTL Freight continues to train drivers on more fuel-efficient behavior. For example, more than 75 percent of Saia drivers make 85 percent of shifts in the optimal range. Five years into its progressive shifting program, Saia's fleet increased to 6.9 MPG, which reduces the volume of diesel fuel consumed by more than 775,000 gallons. In addition, it enforces a no-idling policy, installs trailer skirts, and aggressively maintains truck equipment.



NG fueling station | Ryder

## Ryder

Ryder provides NGV and maintenance solutions with more than 60 million miles of NGV experience, 6,000 NG trained techs, 21 NG maintenance facilities, and two fueling stations. In 2016, Ryder provided Shell Oil with a lease agreement for 15 liquefied NGVs to support its oil & gas logistics operations in Louisiana and Texas. Ryder worked with Shell to develop a customized truck specification that is weight-sensitive to maximize freight revenue. Ryder also partnered with Clean Energy Fuels to offer renewable NG at its NG fueling stations in California. Ryder has reduced greenhouse gas emissions by 6,300 metric tons annually, the equivalent of removing approximately 1,319 passenger cars from the road each year.



CNG truck | Saddle Creek

## Saddle Creek Logistics Services

Saddle Creek expanded its CNG fleet by nearly 400 percent in about four years. The fleet of nearly 200 trucks handles all freight with near-zero emissions and less noise than diesel vehicles. Each CNG truck saves approximately 120,000 pounds of carbon each year, a total of more than 21 million pounds annually. The eco-friendly fleet has traveled more than 55 million miles on CNG to date. In addition, Saddle Creek expanded CNG operations to include Jacksonville, Fla.; Atlanta and Valdosta, Ga.; and Fort Worth, Texas. The company recently invested \$1.5 million to upgrade its Lakeland, Fla., fueling facility, bringing its infrastructure investment to \$3.7 million.



APU Auxiliary Power Unit  
 CDP Carbon Disclosure Project  
 CNG Compressed Natural Gas  
 EPA Environmental Protection Agency

GHG Greenhouse Gas  
 kWhr Kilowatts Per Hour  
 LED Light-Emitting Diode  
 LNG Liquid Natural Gas

MPG Miles Per Gallon  
 NGV Natural Gas Vehicle  
 NO<sub>x</sub> Nitrogen Oxide  
 SmartWay EPA's SmartWay Transport Partnership

## Schneider

Schneider operates an energy-efficient fleet. Its testing program has resulted in significant energy savings and emissions reductions, improving fuel efficiency by 11.9 percent since 2008 and reducing fuel consumption by 5.7 million gallons between 2013 and 2014. Emission reductions (from 2014 SmartWay Report Card) include a 22-percent reduction in CO<sub>2</sub> year over year (YoY); 39-percent reduction in NO<sub>x</sub> YoY; and 30-percent reduction in particulate matter YoY. Schneider, a charter member of the EPA's SmartWay program, won the SmartWay Award of Excellence in 2005-2008, 2012, and 2015.



Improved fuel efficiency | Schneider

## Schenker

Schenker entered into carrier agreements with defined carbon reduction targets from 2015 to 2020. It has targeted a 20-percent reduction in CO<sub>2</sub> emissions to achieve Eco Pioneer status by 2020. To accomplish this, the company is improving the capacity utilization of its transportation modes, modernizing equipment and facilities, using a low-emission fleet, and teaching drivers energy-saving driving techniques. Schenker is also increasing its recycling rate by implementing in-house recycling programs and a reusable packaging system. From 2014 to 2015, the company saved nearly 41,000 pounds of paper by reducing paper purchases.

## South Carolina Ports Authority

SCPA plans to install rooftop solar panels at two terminals to generate approximately 3.7 MW. In 2015, it donated \$5 million to a local conservation organization to support wildlife/land conservation. In 2013 and 2014, it enforced a truck replacement incentive program and requires all trucks entering the terminals to have a 1994 or newer engine. With fully electrified ship-to-shore cranes and RTG cranes that meet/exceed Tier 3 engine standards, it reduced gate turn times, idling, and fuel consumption. SCPA is a member of the Charleston, Waccamaw, and Upstate Air Quality Coalitions; Southeastern Diesel Collaborative; Coalition for Responsible Transportation; and the Southeastern Wind Coalition.

## TransGroup Worldwide Logistics

TransGroup works to mitigate the environmental impact of its customers' as well as its own internal operations. Its external and internal sustainability activities are encompassed in its Green Program called TransNeutral. TransGroup has been a member of SmartWay since 2007. Its initiatives include GHG-limiting warehousing and distribution options, asset recovery, reverse logistics, and end-of-product lifecycle disposition. Internal company sustainability initiatives include energy conservation, recycling, waste reduction, and paperless programs.

## Toyota Industrial Equipment

Toyota operates under a global earth charter that promotes environmental responsibility. The majority of forklifts sold in North America are produced at Toyota Industrial Equipment Mfg. Inc. (TIEM), a zero-landfill manufacturing facility in Columbus, Ind. During the manufacturing process, Toyota analyzes and minimizes the environmental impact of every product at every stage. The company requests suppliers use environmentally friendly materials and processes, and the top 65 suppliers, who account for more than 85 percent of the materials purchased locally, to be ISO 14001 certified or have an equivalent environmental management system.



Zero-landfill facility | Toyota

## Transplace

As a non-asset-based 3PL, Transplace's primary means to reduce emissions and save on fuel is determined by the transportation service providers and modes it chooses. Transplace utilizes proprietary technology that allows it to search for SmartWay carriers as a selection criterion. In addition, Transplace continually looks at opportunities to convert truckload freight to rail/intermodal. Transplace also employs technology that enables shippers to consolidate orders into environmentally conscious routings, mode selections, and carrier assignments. The company works with dedicated fleet operations and other private fleets to increase backhauls and reduce the number of trucks on the road.

## Transportation Insight

Transportation Insight (TI) supports green initiatives by reducing logistics-related costs on inbound and outbound shipments; aggregating small shipments to reduce costs and fuel; and using routes and carriers with the shortest transit times to reduce fuel consumption and lower CO<sub>2</sub> emissions. TI performs what-if analysis to determine optimal transportation modes; analyzes supply chain networks to optimize locations of DCs and warehouses to reduce last-mile deliveries; automates bills of lading and freight payment processes to reduce paper use; and reduces waste from end-to-end to lower energy usage, cut carbon emissions, and diminish secondary packaging.

## U.S. Xpress

U.S. Xpress continues to strengthen its policies on environmental sustainability. It is a SmartWay partner carrier with emissions performance scores in the top 20 percent of the industry. Additionally, the carrier is in the midst of multi-year CAPEX initiatives that include recapitalizing its truck and trailing asset fleets with new, efficient and safe equipment that meets all federal and state regulations for GHG emission reductions. Additionally, the company is improving maintenance processes to increase equipment efficiencies and reduce waste.



Lowering locomotive emissions | Union Pacific

## UPS

Since 2000, UPS has driven 505 million miles in its alternative fuel and advanced technology vehicles, and is on pace to achieve its goal of 1 billion miles by 2017. Since 2012, UPS and its environmental partners have planted 5 million+ trees in 46 countries and will fund the planting of 15 million trees by 2020. In 2015, UPS scored among the top marks for voluntary carbon disclosure by the Climate Disclosure Leadership Index S&P 500. The Dow Jones Sustainability World Index selected UPS as a constituent for the third year in a row and included UPS on the North America Index for the 11th year in a row. The EPA recognized UPS with the 2015 SmartWay Excellence Award for leadership in environmental and energy efficiency.

## Union Pacific Railroad

Union Pacific Railroad's 2015 *Building America Report* documents its progress in the social, environmental, and economic areas of sustainability. Most notably, Union Pacific strengthened its commitment to improve fuel and environmental performance by investing in 100 Tier 4 locomotives, which reduce particulate emissions by up to 90 percent and nitrogen oxides by up to 80 percent. The company also added its first Tier 4 Generator-Set (GENSET) switching locomotives to the fleet, reducing railyard emissions. Union Pacific helped shippers using rail instead of truck transportation eliminate an estimated 32.9 million metric tons of GHG emissions in 2015.





APU	Auxiliary Power Unit	GHG	Greenhouse Gas	MPG	Miles Per Gallon
CDP	Carbon Disclosure Project	kWhr	Kilowatts Per Hour	NGV	Natural Gas Vehicle
CNG	Compressed Natural Gas	LED	Light-Emitting Diode	NO <sub>x</sub>	Nitrogen Oxide
EPA	Environmental Protection Agency	LNG	Liquid Natural Gas	SmartWay	EPA's SmartWay Transport Partnership

## Werner Enterprises

Werner improves MPG and reduces emissions through sustainability initiatives and investments. Since 2007, the carrier has conserved more than 150 million gallons of fuel and reduced its carbon footprint by more than 1.7 million tons, based on MPG improvements. In 2015, Werner received a SmartWay Excellence Award for the third consecutive year. Werner uses industry-leading sustainability technologies such as diesel-fired heating systems, aerodynamic trucks, trailer skirts, tire inflation systems, and the latest diesel technology. Werner also maintains a small fleet of compressed natural gas trucks.



SmartWay-certified fleets | XPO

## WSI

WSI recycles cardboard and dunnage, manufactures products from used wood, uses energy-efficient lighting, and increasingly employs electric lifts. Green landscaping outside WSI warehouses reduces runoff and eliminates lawn mowing. WSI recycles, reuses, or repurposes nearly 100 percent of its three largest facilities' recyclable waste. WSI reuses nearly 100 percent of wooden pallets at its high-volume Chicago and Central Wisconsin facilities. It also recycles all office paper. In 2015, WSI recycled a large paper customer's tissue product, saving 70 tons of landfill space. WSI is an EPA SmartWay partner.

## XPO Logistics

XPO Logistics drives energy efficiency through technologies such as an LTL line-haul simulation that builds nightly runs to maximize fleet productivity. It uses SmartWay-certified LTL and TL fleets and deploys Freightliner Cascadia fuel-efficient tractors. In addition, it uses AMT transmissions; reduced-weight engine oils; low-rolling-resistance tires; and aerodynamic wind fairings and trailer skirts. Freight Optimizer technology matches truck and route to the load, reducing empty miles. XPO Logistics also recycles 2,000 tons of paper, cardboard, and plastic each year, as well as electronic components and batteries. It installed low-energy lighting, motion sensors, and programmable thermostats.

## Yale Materials Handling Corporation

Yale offers forklift users alternative options including hydrogen fuel cells and the first commercially available UL-recognized lithium-ion battery pack in the lift truck industry. Both technologies produce zero emissions. Using hydrogen to power lift trucks produces only water and heat as byproducts, and with onsite hydrogen generation capabilities, operations can reduce GHG emissions by 33 percent compared to lead-acid battery systems. The Yale maintenance-free lithium-ion option contains no acid, which eliminates the need to dispose of hazardous materials, and lasts up to five times longer than lead-acid batteries.



Sally helps clear brush | Yusen Logistics

## Yusen Logistics (Americas)

Yusen Logistics (Americas) Inc. is committed to reducing its carbon footprint and finding environmentally friendly ways to run its operations. For example, the company recently employed a herd of 120 goats to clear three acres of brush around its Sumner, Wash., warehouse. The goats cleared the land in 20 days, eating eight pounds of brush each day. Goats offer a quiet and green alternative to gas-consuming heavy machinery, without fuel and noxious fumes. Natural climbers, they can go where land-clearing equipment can't and eliminate the need for hauling debris offsite. Yusen Logistics partnered with Rent-a-Ruminant, a firm that uses rescued goats to clear land for commercial properties.