



# GET IT THERE GREEN:

## Why and How to Choose Sustainable Transport Partners

A Whitepaper by EA Logistics,  
the leader in eco-responsible freight



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## I. Toward a Greener Transport System

In 2007, Bensenville, Illinois-based EA Logistics launched the Delivered GrEAn® program to help our customers reduce shipping-related greenhouse gases. In doing so, EA Logistics became one of the first transport companies to establish an environmentally responsible freight program. According to EAL President Mike Ellis, Delivered GrEAn® has become “the most complete eco-responsible freight forwarding program in the nation.” In addition, EA Logistics has taken a leadership role in setting green transportation standards for the meeting and events industry, which represents a significant part of our freight forwarding business.

The goal of this whitepaper is to share our knowledge and experience with potential customers and other stakeholders in the transport industry in order to encourage greater adoption of sustainable practices across the sector. This objective takes on even greater urgency with the U.S. EPA’s recent finding that greenhouse gases contribute to air pollution, which could lead to regulation of carbon.



## II. Why Green Freight®?

Transportation has been the fastest growing source of carbon-dioxide emissions in the U.S., increasing more than one percent annually on average.

According to the EPA, moving freight in the U.S. accounts for 20 percent of energy consumed by the transportation sector, and truck and rail transport combined use more than 35 billion gallons of diesel fuel per year and generate more than 350 million metric tons of carbon dioxide. The EPA projected that without efforts to adopt eco-responsible shipping practices, diesel consumption for ground freight would have grown to 45 billion gallons per year by 2012 and the carbon dioxide generated would climb to 450 million metric tons.<sup>1</sup>

Transportation is the second largest contributor to greenhouse gases (after electricity generation). It plays a significant role because the industry relies so heavily on oil. The U.S. Department of Energy says that 98 percent of CO<sub>2</sub> comes from fossil fuels, and 96 percent of transportation runs on petroleum. The Department of Energy has set a goal of reducing petroleum use by 20 per cent in large trucks (Class 7 and 8) by 2050 and expects weight reduction to be a big part of that effort as fleets deploy new trucks and trailers built with weight-saving materials.<sup>2</sup>

For shippers and their customers, runaway fuel costs in 2008 underscored how energy prices can negatively impact the economy and reinforced the necessity of reducing fuel consumption now and for the future. As global demand rises, so will oil prices – possibly beyond the recent peak of \$144 a barrel.

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In addition to affecting costs, oil consumption is a key factor in energy security because the U.S. has only three percent of the world's oil reserves but consumes 25 percent of the oil produced annually. Moreover, the DOE says that if the U.S. was forced to rely solely on its own oil reserves it could run out in less than four years.<sup>3</sup>

As the global movement to reduce greenhouse gas emissions gains momentum, new shipping standards are likely to emerge in the not-too-distant future. For example, the Port of Long Beach has launched a Clean Trucks Program designed to reduce air pollution from harbor trucks by more than 80 percent by 2012. Beginning October 1, 2008, 1988 and older trucks were banned. The program progressively bans all trucks that don't meet 2007 emission standards by 2012. To finance the truck replacement program, the Port of Long Beach is collecting a fee on loaded containers (\$35 per loaded 20-foot equivalent unit and smaller; \$70 for larger containers).<sup>4</sup>

Additionally, the EPA's recent classification of greenhouse gases as a "danger to public health and welfare" could result in tough new standards for freight transport vehicles along with legislation aimed at reducing global warming.

### III. What Can Be Done to Make Freight Transport Greener?

Buying more efficient vehicles with fuel-sipping engines can lower costs significantly, but with many in the freight business struggling in this turbulent economy, many have relegated plans for new, more-efficient rigs to long-term wish lists. But there are plenty of other ways that stakeholders involved in transport can reduce the industry's carbon footprint. Shippers can influence industry practices by working with suppliers who understand the importance of sustainability and embrace strategies such as:

- **Conserving Fuel:** The most direct approach to reducing CO2 emissions from transportation is to burn less fuel, a goal that can be accomplished through vehicle technology and solutions rooted in smart, green business practices, from slowing down trucks to tactical decisions on choosing the best shipping routes.
- **Reducing Idling:** Idling is a major source of shipping-related carbon emissions. Idling engines use between one half and one gallon of fuel per hour. Each gallon of conventional diesel emits 22 pounds of CO2. The EPA

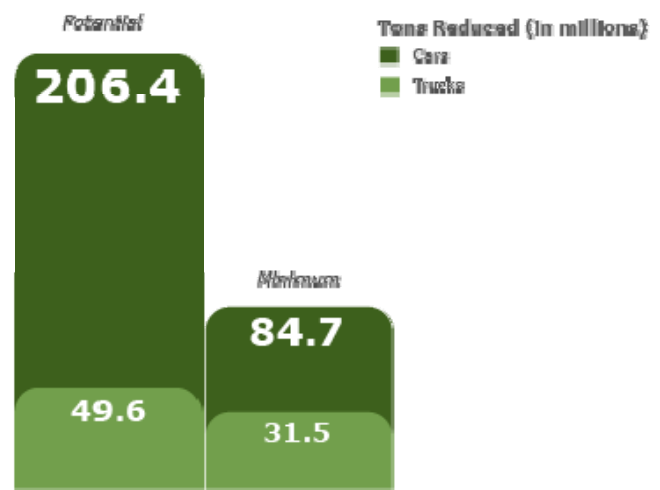


estimates that long-duration idling generates more than 11 million tons of CO2 annually.<sup>5</sup> Environmental advocates are encouraging drivers of trucks and other forms of ground transportation to shut down engines while loading and unloading and designating "anti-idling zones." For example, EA Logistics enforces a strict anti-idling policy at its loading dock. As this approach penetrates the trade show industry, anti-idling clauses are expected to appear in contracts between show organizers and convention centers and other sites.

- **Using Alternative Fuels:** Biofuels, especially ethanol derived from food crops such as corn and soy, have been the subject of intense debate related to land-use, food prices and potential environmental trade-offs. However, many believe that biodiesel produces a net environmental benefit. In addition, biodiesel can be nontoxic and biodegradable. The DOE asserts that any strategy to reduce U.S. reliance on imported oil will involve a mix of energy technologies that includes biofuels, because biomass is a domestic, secure and abundant feedstock.<sup>6</sup> In an effort to use the most environmentally responsible fuels available, EA Logistic is using biodiesel in our fleet, while monitoring ongoing research and development on alternative fuels and their environmental impact.

- **Driving Efficiently:** TNT Express, a mail and express delivery service based in the Netherlands, estimates that a pick-up and delivery driver can reduce CO2 emissions and fuel costs by 25 percent simply by driving more efficiently and following basic rules such as maintaining correct tire pressure and using the air conditioner sparingly.<sup>7</sup> EA Logistics constantly monitors tire pressure to enhance efficiency and reduce fuel consumption in its trucks.
- **Reducing Packaging:** A study presented at the 2009 World Economic Forum co-authored by the consulting firm Accenture<sup>8</sup> ranked reducing the weight and volume of packaging as among the most effective means of lowering carbon impact in transport and logistics. Packaging represents approximately five percent of the shipping weight of consumer goods and an unknown but certainly significant amount of volume. The elimination of packaging where feasible is the ideal, but in cases where it isn't practical there are green alternatives, such as trimming weight from crates and containers and reducing the amount of "air" within packages and master containers. The use of sustainably forested wood (SFI) is a greener substitution for conventional materials.
- **Slowing Down:** A number of freight companies, including EA Logistics, have implemented driving speed limits that save fuel and lower emissions. The American Trucking Associations say slowing down 13 percent (from 75 mph to 65) will reduce fuel consumption by 27 percent with a corresponding reduction in CO2 emissions.<sup>9</sup>
- **Consolidating:** The World Economic Forum study concluded that increasing load capacity utilization, coupled with slower shipping speeds, is one of the most effective ways of reducing carbon caused by shipping.<sup>8</sup> EA Logistics' business model is based on consolidation of loads – it is a significant driver of profit for the company as well as an environmentally sound practice.
- **Optimizing Routes:** The shortest distance between two points may not be the best route. Computer programs can help shippers design the most efficient routes, taking into account traffic patterns and the likelihood of delays. In situations where traffic is sure to be heavy, smart shippers are redesigning routes to eliminate left turns that can leave trucks idling for several minutes, waiting for an opening. A route that has only right turns may look longer on paper but can turn out quicker and more efficient. UPS recently announced that it has cut nearly 29 million miles from its delivery routes and saves three million gallons of fuel annually by using GPS systems to design routes that eliminate most left turns.<sup>10</sup> EA Logistics is currently implementing a GPS tracking system to its trucks to monitor route efficiency and to track unnecessary idling and excessive drive speeds.
- **Regionalizing:** Warehousing shipments regionally can help cut transport-related carbon by shortening routes and increasing load factors over longer distances. EA Logistics promotes this practice by providing warehousing options in every major U.S. city. If a manufacturer can build a full load of product and then ship direct to a regional warehouse, the likelihood of "full load" miles increases, and only the regional distribution remains with

### Diesel & Gasoline: CO2 Emissions Reductions Achieved by Lowering Speed Limit to Maximum of 65 MPH



Source: American Trucking Association, Inc., Urban Mobility Report, Texas Transportation Institute (2007)

a lesser likelihood of full load transport. EA Logistics' national footprint enables single-source transport and warehousing of goods.

- **Changing Modes:** Air cargo is generally recognized as the most destructive form of freight transport due to the higher fuel consumption and the release of CO<sub>2</sub> at higher atmospheric levels, which decreases the ability of the planet's "carbon sinks" to absorb the CO<sub>2</sub>. While air transport is a necessary and vital part of our economy, companies that can divert air cargo to ground modes deliver a smaller carbon footprint. Additionally, rail and ocean transport are less carbon intensive than air and ground transport. Companies like EA Logistics offer customers a full range of modal choices and help to divert airfreight to ground transport when appropriate, which also saves money for the shipper.
- **Offsetting Carbon:** Carbon emissions that can't be eliminated or reduced by taking the steps listed above can be addressed through a responsible carbon offsetting program. Carbon offsets are emissions reduction credits from projects such as wind farms, landfill methane capture or reforestation. The World Economic Forum agrees that responsible offsetting is a legitimate tactic to mitigate carbon emissions that can't otherwise be reduced.<sup>8</sup> Credible offsets should be quantifiable, verifiable by an objective third party and "additional," meaning that the project would not have occurred absent the carbon offset monies. EA Logistics began offering such a carbon offsetting option free of charge through its Delivered GrEAn® program in 2007. Through Delivered GrEAn, EAL measures each shipment's specific carbon emissions and funds reforestation projects on the customer's behalf. [EA's reforestation carbon offsets are the first reforestation carbon offset project in North America to achieve dual validation by the Rainforest Alliance to the Voluntary Carbon Standard (VCS) as well as the Climate, Community & Biodiversity (CCB) Standards with Gold Distinction.]

#### EAL ONLINE CARBON CALCULATOR

EA Logistics has developed an online calculator specifically designed to assist shippers in estimating carbon emissions from freight. The tool can be found online at [www.freightemissionscalculator.com](http://www.freightemissionscalculator.com) or as a link on the EA Logistics website at [www.ealogistics.com](http://www.ealogistics.com).



The EPA launched the SmartWay Transport Partnership in 2004 as an innovative collaboration with the freight sector, setting goals of reducing diesel fuel use by 3.3 billion gallons to 6.6 billion gallons per year by 2012 and saving as much as 150 million barrels of oil annually. That would save enough oil to heat 17 million houses for one year, according to the EPA, and lower operating costs for participating freight partners by more than \$9 billion. The program also aims to lower CO<sub>2</sub> and other emissions and reduce operating costs. The EPA reports that more than 1,500 partners had signed on to the program as of the end of February 2009, and the roster encompasses more than 584,000 trucks, or seven percent of the industry. The agency estimates also that in 2009 alone partners in the program will eliminate 6.9 million tons of CO<sub>2</sub> and save 625 million gallons of diesel fuel and \$1.5 billion in fuel and maintenance costs. EA Logistics is a SmartWay Partner and has earned the program's highest possible score for fuel efficiency. EA Logistics transported 57 percent of its 2008 LTL tonnage on SmartWay Partner carriers. More information on SmartWay is available at [www.epa.gov/smartway](http://www.epa.gov/smartway).



#### IV. What Are the Benefits of Green Freight®?

- **Green Freight Saves Money:** At a time when everyone is pinching pennies and looking for efficiencies, green business is good business. By implementing many of the strategies listed above, retail giant WalMart reports that it has improved fuel efficiency in its fleet by 25 percent and seeks to double fuel efficiency by 2015 to about 13 mpg. According to WalMart, increasing mileage by one mpg saves the retailer \$35 million to \$50 million annually.<sup>11</sup> Imagine the positive outcome if this kind of savings could be created throughout the supply chain.



- **Green Freight Offers a Competitive Advantage:** Companies that demonstrate environmental sensitivity through their operations and purchasing decisions have a leg up on competitors that aren't as proactive. A socially responsible image attracts a growing segment of customers who prefer doing business with green-thinking companies. Over the past 10 years, The Co-operative Bank has tracked a steady increase in the number of people who purchase or recommend purchasing from socially responsible companies.<sup>12</sup> And the 2008 Cone Report found that 70 percent of Americans indicate they are paying attention to what companies are doing with regard to the environment today, even if they cannot buy until the future.<sup>13</sup>



- **Green Freight Reduces Risk:** Image aside, reducing a firm's exposure to the volatility of fuel and energy costs through green initiatives is bound to pay off in the future. A global recession knocked oil prices down to under \$50 per barrel, but when the economy rebounds, prices may rise as demand for oil ramps up as well. Looking further down the road, as growing industrial giants such as China and India consume more of the world's oil, petroleum-based fuels could become more expensive and harder to get. Moreover, with global warming legislation, carbon regulation and stringent pollution enforcement imminent, companies that start to trim greenhouse gas emissions from their transport program now will be ahead of the curve. Decreased exposure to fuel price volatility is a positive in any business.
- **Green Freight Enhances the Supply Chain:** For a company or organization to maximize the benefits of its environmental initiatives, its policies have to reach throughout the supply chain, including its transport program. The World Economic Forum study concluded that just 10 percent of businesses are managing the greenhouse gas emissions in their supply chains, and more than one-third are unaware of their supply chain carbon footprint. In the future, environmentally conscious companies will have to factor freight transportation into their overall environmental performance.
- **Green Transport Increases Accountability:** Companies are under increasing scrutiny by customers, employees, shareholders and watchdog groups to substantiate their socially responsible claims. Making sure that the organization's environmental standards are carried out by its logistics and transport partners enhances transparency and adds weight to environmental reports. Partners like EA Logistics that pursue environmentally responsible practices in their own operations are able to provide documented, verifiable benefits to their customers.

## V. The Future of Green Transport

With concern for the environment growing and interest in sustainability gathering steam, it is incumbent on businesses of all types to exercise more social responsibility in all aspects of their operations.

EA Logistics advocates taking proactive steps to “green” your supply chain by choosing environmentally responsible transport partners and encouraging them to become part of your green team. This means not only means building a “green” image but taking a comprehensive approach to managing your business in a manner that reduces greenhouse gases, cuts costs, improves efficiency and adds value for the customer.

The ultimate return on investment will be in reducing the impact the current generation has on the planet and insuring that future generations will have a greater opportunity to live in a world with decreased impact from climate change.



### ENDNOTES:

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12. *Ethical Consumerism Report*, The Co-Operative Bank, 2006.
13. *The 2009 Cone Consumer Environmental Survey*, January 2009.





### About Delivered GrEAn by EA Logistics®

EA Logistics is a freight transportation company that provides service throughout the USA and Worldwide. We handle trucking, airfreight, ocean freight and rail. With expertise in all areas of freight and warehousing, EA provides a single-source solution for even the most complex of shipments. For more on EA Logistics' services visit [www.ealogistics.com](http://www.ealogistics.com).

Delivered GrEAn by EA Logistics® gives you the following eco-responsible actions at no upcharge to you:

- We compute emissions and provide you with FREE reforestation offsets to neutralize the CO2 emissions from your shipments and title the offset receipt in your company's name.
- We use biodiesel in our company truck fleet and encourage biodiesel use from our vendors (where available).
- We give preference to high-performing SmartWay Partners. 57 percent of EA's 2008 LTL tonnage was hauled by SmartWay Partners.
- We find ways to reduce freight CO2 emissions by reducing freight trips (this saves you money!).
- We have the highest score possible in EPA's SmartWay fleet efficiency program.
- We require no-idle at our facility and from our drivers and have established drive speed and anti-idling regulations to reduce fuel consumption. EAL is implementing a GPS-based tracking system to ensure driver compliance.
- And other back-office initiatives to reduce waste, conserve energy and limit carbon emissions.

**For creative ideas on how to incorporate Delivered GrEAn® into your business, contact us at [deliveredgrEAn@ealogistics.com](mailto:deliveredgrEAn@ealogistics.com) or call 1.800.863.5948.**

