



Greening Fleets

A roadmap to lower costs and cleaner corporate fleets

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finding the ways that work

Rising energy costs and climate change are dual challenges facing businesses today.

These challenges are particularly salient for corporate vehicle fleets. Uncertainties loom—from fluctuating fuel costs to future government regulations. At the same time, customers, shareholders and employees are pressuring corporate leaders to help solve global environmental problems.

Fleet vehicles are driven hard, averaging nearly double the mileage, fuel consumption and emissions of personal vehicles. As a result, fleets are not only expensive to operate but are also a major source of global warming pollution.

However, there are easy, cost-effective ways for fleets to “go green” and reduce their environmental impacts and operating costs at the same time.

This guide presents a proven framework for greening your fleet. Fortune 500 companies, including Abbott, DuPont and Owens Corning, have already implemented this framework and are reaping the benefits. The strategies presented here were created by a partnership between Environmental Defense Fund, a leading national nonprofit organization, and PHH Arval, one of the world’s largest fleet management services providers. In its first year, over a dozen companies and 60,000 vehicles benefited from the program.

For more information, visit edf.org/greenfleet or email greenfleet@edf.org



The Benefits of a Green Fleet

There are three compelling reasons to adopt a green fleet program for your fleet.

- **Cut operating costs**—By improving efficiency, a greener fleet can significantly reduce lifecycle costs and vulnerability to volatile fuel prices.
- **Reduce greenhouse gas emissions**—Because vehicles are a primary source of greenhouse gas pollution, fleets can represent a large slice of your company's total emissions. Implementing a green fleet program is an immediate and meaningful way to reduce your company's carbon footprint.
- **Improve corporate reputation**—With public concerns about climate change reaching all-time highs, companies are under increasing pressure to set and achieve environmental goals. Green fleet management can provide measurable results—often within the first 12 months—to report to employees, customers and shareholders.

Vehicles and Climate Change

Global warming is the most pressing environmental challenge we face today. The link to vehicles and fleets is clear. In the U.S., nearly a third of carbon dioxide emissions comes from transportation, and 62% of that comes from cars and light trucks. Despite technological advances, vehicle emissions continue to grow due to the popularity of larger vehicles, higher horsepower engines and increasing vehicle miles traveled.

This is a problem we can solve. With new tools and good information, corporate fleets can reduce global warming pollution, position themselves as good corporate citizens and improve their bottom lines.

The Five Step Green Fleet Framework

Operating a cleaner, greener fleet means more than counting the number of hybrids or alternative fuel vehicles you put on the road. Successful management means actively measuring and reducing your fleet's greenhouse gas emissions over time. There's no need to wait. You can get started today with relatively minor changes—vehicle selection, maintenance schedules and driver education—that add up to significant improvements in fuel economy, operating costs and emissions.

This section provides an overview of the five step framework that we developed and road tested with PHH Arval and the leading companies profiled in this guide. You may choose to work through this framework on your own or with your existing fleet services provider. The Environmental Defense Fund website provides additional tools and resources to get you started. Visit edf.org/greenfleet for more information.

1 Measure Emissions and Set Goals

The first step to developing a greener fleet is to understand your fleet's current greenhouse gas emissions. “What gets measured gets managed” holds true for emissions as well. Simple calculations allow you to track greenhouse gas emissions based on fuel consumption.

- Create a baseline—Establish a greenhouse gas baseline for your fleet by collecting fuel consumption data. If available, we suggest reviewing data from the past few years to identify any unusual trends in fuel consumption and therefore, emissions. Since each gallon of gasoline you burn releases approximately 19.5 pounds of carbon dioxide (CO₂), you can use fuel consumption data to generate the greenhouse gas baseline for your fleet—the starting point from which to measure future reductions in fuel consumption and emissions.
- Develop a goal—Based on your current operations, strategies to increase fuel economy (discussed in the following sections) and corporate objectives, establish aggressive, but achievable emissions reduction goals and timelines for your fleet.
- Report progress—Moving forward, track annual fuel consumption and emissions. Measure and report these against your baseline.



Abbott (North suburban Chicago, IL)

Abbott, a leading health care company, was the first to test drive this framework. To encourage employees to switch to more efficient vehicles, Abbott offered incentives such as satellite radios and sunroofs and educated drivers about the impacts of their choices. About 20% of Abbott's drivers have voluntarily switched to more efficient vehicles. In addition, Abbott committed to go "carbon neutral" with its U.S. fleet by purchasing carbon offsets.

Fuel economy: 4.4% increase

GHG emissions: 4.2% decrease

Operating costs: 4.1% decrease

2 Improve Vehicle Selection

The most important environmental decision a fleet manager makes is which vehicles to have in the fleet. Relatively minor changes in vehicle selection can result in significant environmental—and financial—benefits over time. Consider the following strategies when choosing vehicles for your fleet.

- Select the right size—Analyze the operational needs of the fleet and eliminate excess vehicles. Match the duty requirements with the appropriate class and size vehicles. Special features, such as 4-wheel drive and 6- or 8-cylinder engines can increase costs and emissions.
- Choose "best in class"—Select vehicles with the highest fuel efficiency in their class that meet your organization's price and performance needs.
- Evaluate total lifecycle costs—Make vehicle selections based on costs over the full life of the vehicle, including acquisition, fuel consumption, depreciation and resale.
- Use incentives—Consider offering employees popular driver-paid options such as interior upgrades, sunroofs and satellite radio as incentives to select more cost-effective, efficient vehicles.

3 Improve Vehicle Use

The way a vehicle is driven and maintained affects operating cost, fuel economy and greenhouse gas emissions. A few actions in this area can yield significant savings.

- Educate drivers—Teach your drivers how to be more efficient on the road and drive fewer miles. Speeding, coupled with rapid acceleration and deceleration, for instance, can significantly increase fuel consumption. Idling is another avoidable culprit—ten seconds of idling uses more fuel than re-starting the engine.
- Improve maintenance—Ramp up your vehicle maintenance program. Regular oil changes,

Owens Corning (Toledo, OH)

Owens Corning, a world leader in building materials systems and composite solutions, began implementing this framework in 2007. To date, the company has eliminated its least efficient vehicle, “right sized” trucks and SUVs, and incorporated more 4-cylinder vehicles to decrease costs and emissions.

Fuel economy: 18.0% increase
GHG emissions: 15.8% decrease
Operating costs: 8.0% decrease



proper tire inflation and other preventive maintenance practices increase fuel efficiency. A dirty air filter can reduce fuel efficiency by 10%, causing higher emissions.

- Incorporate technology—Take advantage of new technology, such as routing software, GPS systems and fuel management software to maximize efficiency. New telematics products allow for real time monitoring and data collection that can increase safety, reduce idling, cut fuel consumption and decrease emissions.

Consider Carbon Offsets

Of course, even after implementing a green fleet program, your fleet will still produce greenhouse gas emissions—though at reduced levels. However, by investing savings from lower fuel costs in high quality carbon offset projects, you can effectively “zero-out” your fleet’s greenhouse gas impact. In most cases, the cost of the offsets will be a good deal lower than the fleet savings you earn.

A carbon offset counterbalances the impact of a company’s greenhouse gas emissions by avoiding or storing an equal amount of pollution, often at another site. The idea is that for every ton of emissions “put into” the atmosphere, one ton is “taken out” elsewhere. Since climate change is a global problem, paying for an emission reduction that occurs anywhere in the world helps solve the problem. In essence, by investing in credible offset projects, companies can operate a fleet that has no net global warming impact.

Follow these guidelines in purchasing offsets:

Infinity Property and Casualty Corporation (Birmingham, AL)

Infinity, a leading personal auto insurer, became the first company to operate a climate neutral fleet. It did so by replacing the Jeep Liberty with the Jeep Compass and offsetting the remainder of its emissions by investing in a project that reduces methane emissions on California dairy farms.

Fuel economy: 22.0% increase

GHG emissions: 13.0% decrease

Operating costs: 10.0% decrease

The Co-operators Group Ltd. (Ontario, Canada)

The Co-operators, the leading Canadian-owned multi-product insurance company, applied this framework as part of its sustainability plan. To reduce emissions, it set a new fuel economy requirement for fleet vehicles. The Co-operators also gave all drivers the option of selecting a hybrid vehicle and restricted the ordering of new trucks, vans and 8-cylinder vehicles.

Fuel economy: 21.1% increase

GHG emissions: 20.5% decrease

Operating costs: No change

- Understand offsets and priorities—Before purchasing offsets, companies should understand how offsets work and how they can help support strategic business goals.
- Determine your purchase size—Calculate the greenhouse gas emissions for your fleet based on annual fuel usage. To make your fleet “climate neutral,” your offset purchase must be equivalent to your remaining carbon emissions.
- Review and evaluate available options—Offset quality is an important consideration. Because standards within the offset market are still developing, not all offsets have the same environmental value, which can complicate purchasing decisions. Until uniform standards are established, buy only from trusted suppliers who verify that their offsets meet rigorous criteria. Examples of high quality offsets can be found on our website at edf.org/offsets.

Report Progress

Now that you know you can track your fleet’s fuel use and emissions, share the information—including your successes—with employees, shareholders and the public. Data from your green fleet program can help fulfill reporting needs for your company in programs such as EPA Climate Leaders, the Carbon Disclosure Project and new carbon registries, that are of increasing interest to investors. Make sure your progress in reducing fleet emissions is mentioned in your company’s social responsibility or annual report.

“Our business revolves around helping people lead healthier lives. This includes minimizing our impact on the climate. By working with PHH Arval and Environmental Defense Fund, we’ve found a way to reduce costs and our footprint. We’ve also decided to take the next step by purchasing carbon offsets to become fully carbon neutral.”

—Bob Accarino, director, Global Environmental Affairs, Abbott

“We’re committed to greening our operations around the world to achieve specific environmental footprint reductions and reduce operating costs. Reducing the emissions of our vehicle fleet allows us to achieve both of these goals simultaneously.”

—Frank O’Brien-Bernini, chief sustainability officer, Owens Corning

“By updating our fleet we have had an impact on both the environment and our customers. Our new vehicles, which are more fuel efficient and have lower greenhouse emissions, contribute to a cleaner, healthier environment. At the same time, lower operating costs translate into savings we can pass along to our customers.”

—Roger Smith, chief financial officer, Infinity Insurance

“As an organization that insures more than a million vehicles in Canada, we felt it was important that we assess our fleet and do what we can to minimize the environmental impact of our own vehicles. Working with PHH GreenFleet is helping us do just that.”

—Kathy Bardswick, president and CEO, The Co-operators

“We are committed to helping our clients measure and reduce their impacts on the climate while improving the bottom line. We are proving that green business and good business go hand in hand.”

—George Kilroy, president and CEO, PHH Arval



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