



# Going Green with GPS Vehicle Tracking

How to Reduce Your Environmental Impact and Your Costs

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## How to Reduce Your Environmental Impact and Your Costs

If you are considering GPS vehicle tracking and management, you're probably interested in the increased productivity and reduced costs businesses using these systems currently enjoy.

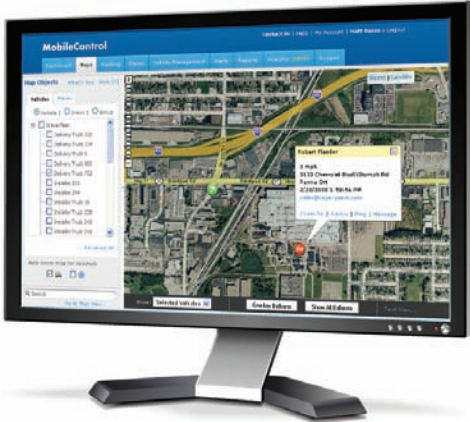
### But did you realize you'll also be running a greener fleet?

Fuel consumption and emissions make up a large part of the environmental impact by mobile workforces. By using GPS vehicle tracking, you not only reduce your expenses on fuel, but also make your fleet as eco-friendly as possible.

### Why Should Your Fleet Go Green?

By running a greener fleet, you protect yourself from volatile fuel costs and reduce the wear and tear on your vehicles. You also stay ahead of future environmental regulations, remain eligible for contracts requiring green initiatives and capitalize on consumer preferences for eco-friendly services and companies.

The following pages will help you understand the true impact GPS vehicle tracking can have on the environment—as well as your vehicles and your bottom line.



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## Introduction

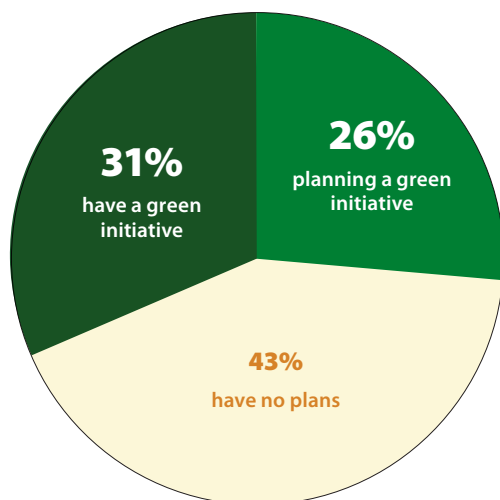
Customers, regulators, and advocacy groups ask businesses like yours to adopt more environmentally responsible practices, or become more “green.” Products and services to help you facilitate this transition are everywhere, and suggestions on how to become green vary greatly. You probably feel compelled to take action, but you may be confused about the easiest ways to get started.

Many agree that a long-term, strategic approach is needed for true culture change, but opportunities for green improvements exist in simple projects that will have immediate impact on your business and spark enthusiasm and employee buy-in.

For organizations with a mobile workforce, improving vehicle management using a GPS vehicle tracking solution is the best place to start. Companies with such systems already have a high-impact, well-documented green initiative underway—although they might not realize it. And those companies thinking about investing in a GPS vehicle management solution should know that it is a low-cost, easily implemented, and financially beneficial way to start becoming green.

This guide explains how using such a system can reduce your bottom line costs while providing quantifiable improvements in green measures like fuel consumption, carbon emissions, and waste generation. We also discuss several key aspects of environmental responsibility in business, including:

- Why taking steps now to become more environmentally responsible makes sense for your long-term competitiveness.
- How proactive management of your vehicle activity using a GPS tracking solution can not only cut fuel, payroll, maintenance and other costs, but also provides you a low-cost and fast way to implement a green fleet program.
- How to measure green performance of your vehicles.
- How to tell your customers about your sustainability practices.



***“ In a recent SageQuest customer survey, 31% of companies surveyed have a green initiative in place, while another 26% are planning one.”***

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## Why Go Green?

If implementing sustainable practices is not part of your business, then you are quickly becoming less competitive for two main reasons: going forward, your costs will be higher than green competitors, and these same competitors will grow revenues at a faster rate.

### Green companies have lower costs.

Green companies consume fewer resources and produce less waste; and therefore, spend less on capital assets, processes, and regulatory fees. Service companies, for instance, spend less time wasting resources while idling; so they have lower carbon emissions and burn less fuel, oil and other supplies that are expensive, limited, and energy-intensive.

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*“An idling vehicle spews air toxics, chemicals, gases and particulate matter (“soot”) into the air, contributing to regional haze, acid rain and global climate change . . . and emits 20 times more pollution than one traveling at 30 miles per hour.”*

Connecticut Department of Environmental Protection <sup>1</sup>

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Additionally, efficient vehicles travel fewer miles to create the same amount of customer value compared with inefficient vehicles. Traveling fewer miles not only reduces fuel and maintenance costs, but it reduces a vehicle’s impact on roadways in the form of causing lower amounts of harmful rainwater run-off, less wear-and-tear on public streets, and safer and more efficient roadways for all drivers.

Companies with service vehicles can expect governments to pressure them to become greener with increased regulatory fees as well. This is already happening. For example, Connecticut has outlawed idling for more than three minutes for all vehicles, and the state has granted its Department of Environmental Protection the authority to grant citations for drivers who don’t comply.

### **Idling Wastes Fuel and Money**

The Environmental Defense Fund reports that an idling vehicle uses approximately ½ gallon of unleaded fuel an hour. <sup>2</sup>

So at \$2.40 a gallon for unleaded, a fleet of 20 vehicles that idles for an average of 1 hour per day would waste \$6,000 in fuel costs annually and create approximately 21 tons of environmentally harmful green house gas.

## Green means growth.

Consumers and corporate buyers prefer products and services that come from companies with sustainable practices. This trend has been on an upswing for years, and all indications are that it will continue to increase without regard to economic conditions.

***In a 2009 survey of 9,000 consumers by Boston Consulting Group, 73% said it is important to them that the companies they deal with have a good track record of environmental responsibility.<sup>3</sup> They said they are willing to pay more for green products, even during tough economic times. In another recent survey of procurement professionals in North America representing more than \$78 billion in business-to-business spending, about one-third of respondents indicated that at least 40% of their spending is influenced by environmental factors.<sup>4</sup>***

In business-to-business relationships, many organizations—large and small—are directing buyers to seek out green suppliers as part of company-wide sustainability programs. Wal-Mart and other highly influential global companies have accelerated this practice in recent years with public commitments to drastically transform themselves into sustainable companies. Wal-Mart, for instance, has committed to becoming a company that produces zero waste and uses 100% renewable energy. The company, which has more than 100,000 vendors worldwide, also gives preference to green suppliers:

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*“Those who share our goals, who innovate, who become more efficient and who drive compliance and sustainable practices throughout their own businesses will be more likely to share in our business growth.”*

Wal-Mart 2009 Global Sustainability Report <sup>5</sup>

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The message is clear: businesses that want to remain competitive need to improve environmental sustainability or will face eroding profit margins due to higher costs and declining revenues. But where is the best place to start?

### **Efficient Fleet Management at The World’s Largest Public Company**

**Wal-Mart is using more efficient routing as a tool to reduce the environmental impact of its corporate vehicles. According to the company’s 2009 sustainability report:**

*“Overall, we reached a 38% increase in efficiency by working within our SVN (sustainable value network) and with our partners to install fuel-saving technologies on our trucks, load our trucks and cases more efficiently, improve our routing, and eliminate the number of empty miles our trucks traveled. These initiatives enabled us to deliver 3% more cases to our stores while driving 7%, or about 90 million, fewer miles in absolute terms. If we had driven at the same efficiency level and used the same routes and loading methods in 2008 as we did in 2007, we would have driven nearly 140 million more miles to deliver those extra cases...”*

*“By driving fewer miles, we avoided adding 200,000 metric tons of CO<sup>2</sup> into the atmosphere. These efficiency improvements also resulted in fewer trucks being on the road, reducing wear-and-tear on roads, highways and bridges. Additionally, our changes helped us save almost \$200 million last year. Now, we are working toward our goal to double the efficiency of our vehicles by 2015 compared to our fleet in 2005...”<sup>5</sup>*

# Go Green with Easy Wins from Your Vehicles

For companies that service customers at home or on-site, improving vehicle productivity and efficiency is the easiest, lowest-cost, and highest-impact starting point. Through GPS vehicle management, a company can take this step-by-step approach to implementing its first green program.

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## 5 Steps to Implementing a Green Program for Your Vehicles

### 1. Reduce Mileage by Improving Routing and Dispatching

GPS vehicle tracking solutions give you the ability to better plan and monitor your drivers' routes. You can quickly eliminate miles driven from inefficient routes. These solutions also improve your dispatching efficiency by allowing your dispatcher to identify the closest qualified driver or technician to an urgent job and route them efficiently. You save time, your customers are more satisfied, and you make a positive impact towards your green initiative.

### 2. Reduce Fuel Consumption Due to Unauthorized Use

Many companies provide their drivers the flexibility of taking vehicles homes, or allowing certain levels of personal use. When these policies are exceeded, however, the cost to your company and the environment add up quickly.

GPS vehicle tracking solutions let you create alerts for off-hours movement, and provide reports that detail unauthorized activity. Addressing these instances with your team can eliminate mileage and fuel consumption that provides your company no value and negatively impacts any green initiative.

### 3. Reduce Wasteful Driving Behaviors

How your drivers or technicians perform on the road and at the customer location can make or break your reputation—as well as your fuel costs and environmental impact. Fuel dollars lost to speeding and excess idling are common culprits in mobile workforces, but can also be easily reduced with a GPS vehicle tracking solution. Reports on speeding and idling help you see how large the problem is for your team, and how much impact a reduction could create. Setting real-time alerts to monitor speeding incidents over a specified MPH or idling incidents over a specified number of minutes can also help you change behavior immediately—not just review it after the fact.

#### 4. Monitor and Improve Fuel Efficiency

Speeding, idling and other poor driving behaviors like hard braking or excessive acceleration take a toll on a vehicle’s fuel efficiency, which is often measured in its miles per gallon (MPG) over a time period. Achieving the EPA’s estimated MPG for your vehicles may seem difficult, but if you don’t know where you stand you’ll never know how much room you have for improvement.

Some solutions allow you to integrate fuel transactions into your account, which combine with mileage to help you understand actual vehicle MPG versus the EPA rating. It’s an easy way to understand which vehicles are performing better or worse than others, and what behavior might be causing the problem.

Fuel Efficiency Report										
5/24/2009 12:00:00 AM - 6/5/2009 12:00:00 AM										
Vehicle (Driver)	Fuel Consumed (Gal)	Mileage (city)	Mileage (hwy)	Calc. MPG	EPA est. MPG (city)	EPA est. MPG (hwy)	Proj \$ lost (hwy)	Proj \$ lost (city)	# of Speed Incidents	Idling Duration (minutes)
Installer Van 1	12	102	148	20.8	22	26	\$28	\$27.65	0	0
Installer Van 2	10	85	112	19.7	22	25	\$23	\$22.77	0	5
Technician Van 2	19	37	44	4	31	35	\$12.25	\$11.38	3	0
Technician Van 4	25	190	112	12.1	18	22	\$61.12	\$60.82	20	34
Sales Car 1	16	69	212	17.6	23	26	\$38.30	\$38.10	0	71

#### 5. Maintain Performance by Staying Ahead of Maintenance

A consistent maintenance program not only prevents breakdowns or major service, it also ensures that vehicles are running at optimal efficiency. Routine checks on everything from air filter and tire pressure to oil levels keep your vehicles more efficient and minimize your environmental impact.

Leading GPS vehicle tracking solutions offer vehicle maintenance tools that let you create types of service and set reminders based on time and mileage, ensuring that fleet managers or other staff stay ahead of maintenance to prevent costly repairs and inefficient use.

Some organizations create wide-ranging sustainability plans and even add sustainability-focused departments and positions to become green companies. These can be necessary and desirable in large companies, but not all companies need them.

This list of steps demonstrates tangible measures you can take to create a sustainability program, by expanding and/or adjusting current practices and activities. Common to all groups with green goals, though, is the need to measure performance.

Mobile Control - Vehicle Management - Complete Service

**Complete a Scheduled Service**

Please fill in the information below and click "Submit" to complete the service. The maintenance data will be recorded in your vehicle log.

**Service Details**

**Vehicle:** Install 1

**Service:** Oil Change

**Interval:** 90 days or 3000 miles

**Mileage:** 20,375.65

**Reminder Date:** 6/2/2009

**Date Service was Performed:**

**Location:**

**Cost:**

**Mileage when Serviced:**

**Notes:**

## Measuring Green Efforts

*“In order to achieve long-term, sustainable success, companies need to transform their goals into specific initiatives and integrate them into their overall reporting structure.”*

Boston Consulting Group <sup>6</sup>

### **Measuring environmental sustainability is essential for several reasons:**

- Changing employee behavior requires setting goals and assigning accountability.
- Measures help company leaders choose where to invest time and resources when it comes to sustainability and how to prioritize efforts.
- When customers ask about sustainability efforts, they want to see quantifiable evidence of improvement.
- As governments require more efficient use of natural resources and decreasing waste by-products from businesses, record-keeping will become essential for compliance.
- Longer-term trending information provides vital cues for incorporating green initiatives in strategic planning decisions such as training needs, growth plans, capital investments, etc.

### **Benchmarks: Set Them, Don't Forget Them**

To measure your progress, you first have to understand where you stand today against green metrics:

- How many miles does your mobile workforce drive in the course of a week, month or year?
- What does your fuel bill look like compared to the miles traveled?
- How much idle time is happening today, and what would you like the reduction goal to be?
- How prevalent is speeding?
- How inefficient are routes and dispatching today?

## Learn to Speak Green with the Right Metrics

Government and environmental agencies evaluate the performance of companies like yours against green initiatives using special metrics like your carbon footprint to appreciate the impact you are making. When reporting to press or these agencies, it's helpful to have these measurements ready so that you're speaking the same language with the same understanding.

It's never bad to say you have reduced idle time by 10% or mileage by 15%, but if you can say you reduced your Carbon Footprint by 3 tons per vehicle you'll get more attention and appreciation from the green sector.

SageQuest's Mobile Control solution includes a Carbon Footprint Report which gives customers a way to set benchmarks and measure progress in reducing fuel emissions. The report uses fuel consumption data to show the size of a vehicle's carbon footprint for a given time period.

## Monitor Your Carbon Footprint with Mobile Control

A company's carbon footprint is a measurement of the volume of greenhouse gases emitted into the atmosphere by assets such as vehicles, machinery and buildings. Metric tons (or tonnes) is the recognized standard by which governments and other groups measure a carbon footprint. An example: a Chevy Express Van that drives 20,000 miles a year creates an annual footprint of nearly 11,000 metric tons, or almost 1 ton per month.

### Carbon Footprint Report

7/17/2009 12:00:00 AM - 7/24/2009 12:00:00 AM

Vehicle Name	Year	Make	Model	Est MPG	Carbon Footprint Est. (in tonnes)
Install 3	2006	Ford	Econoline Cargo	17.00	0.18
Install 5	2008	Ford	F 250	12.00 **	0.11
Install 6	2008	Ford	F 250	11.50 **	0.13
Sales 3	2008	Honda	Accord	21.00 **	0.08
Sales 4	2007	Honda	Accord	20.00 **	0.15
Sales 5	2008	Honda	Accord	19.50 **	0.14
<b>Total Carbon Footprint: 0.79</b>				<b>Average Carbon Footprint: 0.13</b>	

\*\* represents MPG values which have been manually entered.

## From Measurements to Messaging

*“Consumer recall of advertising with “green” messaging is very high, with more than a third (37.1%) of consumers saying they frequently recall green messaging and an additional third recalling it occasionally (33.1%).”*

Burst Media Survey <sup>7</sup>

Understandably, consumers and customers can be skeptical of businesses' sustainable-practice claims. They too are overwhelmed with varying ideas of what it means to be green. This makes having quantifiable data on improvements such as carbon reduction essential. Having integrated measurement systems, such as is available through GPS vehicle management solutions, enables companies to collect and compile this information in the background on an ongoing basis and then pull it out to use for marketing and messaging. For promotion, data on efficient and sustainable vehicle management can be used for:

- Inclusion in reports to communities, customers, board members, investors, etc.
- Reporting on sustainability efforts in marketing material.
- Education and background for internal and external communications.
- Positioning your company for media coverage on green issues.

Additionally, this data will become increasingly important for certification as a green vendor, regulatory reporting, and for risk management and legal protection.

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1. Connecticut Department of Environmental Protection, Idling "Ticket" Brochure  
[http://www.ct.gov/dep/lib/dep/air/vehicle\\_emissions/idlingisfuelish.pdf](http://www.ct.gov/dep/lib/dep/air/vehicle_emissions/idlingisfuelish.pdf)
  2. Environmental Defense Fund, "Attention Drivers! Turn Off Your Idling Engines,"  
<http://www.edf.org/page.cfm?tagID=22292>
  3. Boston Consulting Group Report, "Capturing Green Advantage for Consumer Companies," <http://www.bcg.com/publications>
  4. TerraChoice Environmental Marketing, "EcoMarkets 2008 Summary Report,"  
<http://www.terrachoice.com/Home/Services/Research>
  5. Walmart, "2009 Global Sustainability Report"  
<http://walmartstores.com/Sustainability/7951.aspx>
  6. Boston Consulting Group Report, "Capturing Green Advantage for Consumer Companies," <http://www.bcg.com/publications>
  7. Burst Media Survey, "Consumers Recall Green Advertising," [www.burstmedia.com](http://www.burstmedia.com)

## About SageQuest

SageQuest provides GPS vehicle tracking and management solutions that improve the efficiency and productivity of any mobile workforces. Unlike other providers, we focus on delivering true business insight and the personal service you need to maximize your potential return. Our award-winning product, Mobile Control, provides a comprehensive set of tools and the flexibility to fit the needs of virtually any mobile workforce.

### Why Consider SageQuest?

**We separate ourselves from other providers with a best-in-class product and a service-driven model:**

- Our personal service extends from coordinating device installation in your vehicles through personalized training and ongoing support from our in-house customer care team.
- Our web services and integration options make Mobile Control more valuable by enabling it to share data with your on-site business applications.
- We maintain the level of product development investment necessary to keep up with the evolving needs of our customers and make the most of new technologies.
- The design and development of Mobile Control is based on careful attention to the details of when, where and how our customers use it.

**We deliver proven benefits that create value across your entire business:**

- Raise productivity across your entire fleet through increased driver accountability and improved vehicle utilization.
- Reduce expenses by cutting excess fuel, payroll, maintenance and insurance costs.
- Increase safety and security of drivers, vehicles and vehicle contents.
- Improve your customers' satisfaction by shortening response times and providing more accurate status and arrival information.

### Mobile Control from SageQuest

**Mobile Control provides a comprehensive set of tools for vehicle tracking and management:**

- Our industry-leading maps enable you to view and direct your vehicle activities in real time.
- Flexible reports provide vehicle history including details on travel and stops, mileage, exceptions and more.
- Real-time alerts and automated reports inform you about important activities like speeding, off-hours operation and other unauthorized vehicle use.
- Mileage-driven preventative maintenance tools keep you in control of your service needs and maintenance investment. Straightforward routing helps you get your drivers where they need to be.
- Easily chart and browse key performance metrics across your entire fleet using groundbreaking Analytics tools.

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Learn more about how Mobile Control can improve your service and increase your bottom line.

Call us at **888.837.7243** or visit **[www.sage-quest.com/green](http://www.sage-quest.com/green)** for details.

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