7 strategies to reduce fleet fuel costs

Quick guide for managing fuel economy and idling.
Innovative tools and methods to reduce fuel expenses

With fuel costs representing 60% of total fleet operating costs on average, it comes as no surprise that fuel is a key focus for companies. Business and government organizations face record-high fuel prices, which can impact decision-making on fleet vehicle acquisition and rightsizing.

In the latest Critical Issues in the Trucking Industry report, the price of fuel was highlighted as an emerging issue to watch. The American Transportation Research Institute highlights fuel prices as a special concern for small fleets and owner-operators.

No matter how many or what type of vehicles your company owns, tracking and managing fuel consumption and idling trends, optimizing routes, and coaching drivers on fuel efficiency are essential strategies. A connected fleet platform can simplify these tasks and provide real-time performance insights to manage costs efficiently and effectively.

This ebook features fleet management best practices to get you started on your fuel-saving journey.
Strategies for fuel reduction success

01 Track your monthly fuel trends
02 Put the brakes on speeding
03 Lower your fleet idling time
04 Optimize routes and delivery schedules

05 Monitor fleet fuel expenses with fuel card integration
06 Benchmark your fuel economy
07 Keep fleet vehicles in peak health from tires to transmission
08 Ready to start lowering your fuel costs?
Track your monthly fuel trends

Maximizing your fuel economy and keeping costs under control all starts with knowing how and when fuel is being consumed. Do you need to get a quick understanding of your fleet’s monthly fuel usage? How are drivers’ habits impacting your budget?

A fleet management platform can deliver that information to you. Fleet fuel tracking is the use of telematics to monitor and manage fuel consumption by vehicles.

Taking a look at fuel usage, in particular, is an excellent way to monitor the fuel efficiency of your fleet. With monthly trend reports, you can identify vehicles that have a lower fuel economy as a result of unnecessary mileage, excessive idling, speeding or aggressive driving.

Watch the fuel usage trend over time to detect patterns or identify anomalies. If fuel consumption is going up over three months, this could signal that it’s time for a policy change and that driver training or coaching is needed.

TIP

Cross-referencing fuel usage with different metrics such as aggressive driving, speeding and idling can provide further insight. It’s a great idea to put all your fuel-related reports side-by-side on the dashboard.

Heather Carlton, Geotab Associate Vice President, Reseller Sales
Report types that are useful for fuel tracking:

**Fuel and Electric Energy Usage report**
Summarizes fuel economy, distance traveled and monthly fuel usage across a chosen time period.

**Fill-Ups Report**
Shows fuel level diagnostic measurements or from user imported fuel transactions.

**Average Fuel Economy Report**
See your miles per gallon (MPG) score.

**Green Fleet Dashboard**
A fleet tool to monitor trends in average fuel and electric energy usage, cost, CO2 emissions, idling time, harsh driving events and charging exceptions (available on the Geotab Marketplace™).
Put the brakes on speeding

Speeding and aggressive driving are not only dangerous, but consume extra fuel as well. Aggressive driving can decrease gas mileage in light-duty vehicles by approximately 15-30% (highway speeds) and by 10-40% (stop-and-go traffic), according to research by the U.S. Department of Energy’s Oak Ridge National Laboratory. This type of fuel waste is important to target for cost savings — especially when gas prices are high.

The dollars and cents of speeding:

- Aggressive driving can cost around $0.25 to $1 per gallon.
- For every 5 miles per hour (mph) you drive over 50 mph, you pay $0.30 more per gallon.

From a safety perspective, cracking down on aggressive driving and speeding is not only low hanging fruit that saves fuel and vehicle wear, but it can also save lives, avoid crashes and bodily injury.

Susan Miller, Broadcast Producer | CAFS, Geotab
Promote safer and more fuel-efficient driving habits with rules-based alerts and coaching

Speeding, tailgating (driving too close), weaving in and out of traffic, and running stop signs or red traffic lights are all examples of aggressive driving, which is “the operation of a motor vehicle in a manner that endangers or is likely to endanger persons or property,” as defined by the National Highway Traffic Safety Administration (NHTSA).

Powertrain abuse, such as running engines at peak RPMs and power shifting manual transmissions, are other common aggressive driving behaviors that drive down fuel efficiency. How do you tackle this bad on-road behavior?

Reinforce company policy with vehicle tracking devices, fleet rules, alerts and reporting

Vehicle tracking devices
Installing vehicle tracking devices will help you accurately capture speeding and aggressive driving events when they occur.

Alerts
With the variety of notifications now available — email alerts, pop-ups, text messages, audible driver alerts in the vehicle or spoken driver feedback — everyone can stay informed.

Fleet rules
Set up rules and notifications in your fleet management app for any driving habits that need improvement. For example, create rules for driving a maximum of 5 miles per hour over the posted speed limit, harsh braking, hard acceleration, harsh cornering, or over-revving the engine.

Reporting
On the software side, you can review a detailed report on the number of events by vehicle over a specific time range. View results daily, weekly or monthly to identify the top candidates for coaching, as well as see the best performers who have exceptionally safe and fuel conservation-oriented driving habits, so you can reward and recognize their performance.

TIP
When you can’t be with your mobile workers in their vehicles, having a telematics system that allows you to be the virtual supervisor with real-time alerts and corrections will have ongoing benefits to your fleet by reducing collisions, maintenance and ultimately your overall costs.

Sherry Calkins, Vice President, Connected Car & Platform Solutions, Geotab
Deliver immediate real-time feedback to drivers with in-vehicle device notifications

Technology can simplify and automate driver coaching. Driver rules can be configured to trigger a beep sound for speeding over a threshold, dangerous driving when engines hit RPM thresholds or idling time milestones.

For noisy work environments, look for louder buzzer hardware options. A spoken feedback tool like Geotab IOX-GOTALK™ uses text-to-speech technology so you can share pre-recorded messages tailored to the situation.

Identify the riskiest drivers with a scorecard

A scorecard report helps you track trends in risky driving behavior, including an average driver safety score and risk range, as well as top and bottom performers (available on the Geotab Marketplace).
Lower your fleet idling time

Not only is idling a leading cause of wasted fuel, but the carbon emissions associated with excess idling are also harmful to the environment. Vehicle idling can use a quarter to a half-gallon of fuel per hour. The exact amount of fuel used in idling depends on the engine size and air conditioner (AC) use. As well, idling for as little as 30 seconds wastes more fuel than restarting the engine.

Cutting down on idling will pay dividends to your fleet. According to the Environmental Defense Fund, an idling car uses 1/5 to 7/10 of a gallon of fuel an hour, while an idling diesel truck uses around one gallon of fuel an hour. A diesel bus can lose four to eight liters of fuel per day idling (1.06-2.11 gallons per day). At current U.S. prices, if you’re spending $4 per gallon of diesel, that can add up to a lot of money quickly.

Understanding the location and circumstances of unnecessary idling is key to reducing idling rates. With a fleet management platform, you can dive deep into this data.

Valuable reports for tracking idling:

- **Trips History Report**
  Shows you the amount of time a vehicle spent idling, along with a summary of driving versus idling time.

- **Last 3 Months Idling Trend Report**
  View idling trend over a three-month horizon to assess performance. (available on the Geotab Marketplace).

- **Weekly Idle Cost**
  Displays the entire fleet’s idling costs for each day, making it easy to identify the total amount idling is costing their company and see if rules are making an impact.
Setting up idling rules to alert and track idling events is a proactive way to manage this issue. Create rules based on idling time limits or even restrict idling within a certain zone on a map. Helping drivers break their idling habits can lead to significant cost savings and reduce your carbon footprint to meet your sustainability goals.

How low can you go? Here are some ideas for fleet initiatives to further reduce idling:

- Education and awareness campaign
- Eco-driving training for employees
- Idling contest

**PRODUCTIVITY**

This rule identifies preventable idling. In addition to wasting fuel and increasing greenhouse emissions, idling is often associated with unproductive drivers. The default allowed idle duration is 5 minutes.

While each fleet is different, an idling rate of less than 10% of the work day is usually a good target... Keep in mind the 80/20 principle, that 20% of your activities will account for 80% of your results.

Susan Miller, Broadcast Producer | CAFS, Geotab
Optimize routes and delivery schedules

Routing optimization is a simple yet powerful tool that can save you time and costs. Using a fleet management system to plan the shortest route between stops reduces total miles driven. It can also help to identify areas where traffic congestion or construction delays will lead to excess idling and wasted time behind the wheel.

The advantages of route optimization include shortening the drive time and reducing unnecessary fuel consumption. Cutting out those out-of-route miles will also reduce your fleet’s carbon emissions. What’s more, the benefits extend to customer service as well. Finding the shortest route can increase the productivity of drivers, leading to more customer visits per day. The Energy Savings Trust reports that reducing mileage by 10% frees up 30 hours for work.

Integrating routes into your fleet management systems can help you choose roads that have less traffic and are smoother for vehicles. You can set up customized, pre-scheduled routes and send them directly to the drivers.
Monitor your fleet’s miles driven statistics

Take a close look at miles driven to evaluate whether drivers are taking the most efficient routes, and if the fleet is dispatching the most efficient vehicles to service calls. Telematics-based mileage reports are helpful for monitoring driver and vehicle efficiency and productivity within defined zones. They also capture essential data for regulatory purposes, such as Hours of Service (HoS) and Electronic Logging Device (ELD) records.

Optimizing routes isn’t a “set it and forget it” process. Changing factors like construction, service-call cancellations or vehicle collisions can force drivers and dispatchers to modify routes on-the-fly. When selecting a fleet management solution, look for one that provides complete visibility into mileage, routes taken and drive time.

TIP

Identify preferred fueling stations in your route plans to direct drivers to fuel up at approved stations or where the cost is lower.
Monitor fleet fuel expenses with fuel card integration

Tracking your monthly fleet fuel expenses in isolation only tells part of the story. Some vehicles may be consuming much more fuel than others. Yet without the context of miles driven, out-of-zone travel, after-hours usage, or driving habits during that time, fleet managers can make false assumptions about their fleet utilization efficiency. Integrating fuel card data with your fleet management platform helps to prevent the abuse of your organization’s resources.

Providing your drivers with fleet fuel payment cards requires clear, concise written usage policies to ensure drivers understand their responsibilities and expectations around usage and fuel conservation. Integrating fuel card usage monitoring with your fleet management platform provides transactional and expense visibility for comparison with fuel consumption metrics.

Many fleet card providers offer daily, monthly and annual spending limits to mitigate abuse and fraud. Establishing a fleet fuel policy for employees, outlining when, where, and how often drivers fill their tanks can drive down costs considerably.
Gain greater insight into fuel costs and KPIs across the entire fleet

Fuel payment and expense management solutions allow fleets to assess optimal vehicle use and cost savings. With fuel card and telematics integration, you can gain greater control over fuel expenses: set spending limits, approve or decline fuel transactions, identify potential unauthorized fuel card use and fraud, and put a hold on stolen fuel cards.

Providing your drivers with fleet fuel payment cards requires clear, concise, co-signed written usage policies to ensure drivers understand their responsibilities and expectations around usage, limits, and consequences of fraud. A comprehensive fleet fuel card policy will specify where fuel is to be purchased (at authorized stations that accept your fleet card), when (during business hours), and how (with manufacturer recommended fuel type and quantity).

Discover Partner solutions for fuel cards.
Benchmark your fuel economy

Do you know how your fleet vehicles measure up on fuel economy compared to industry standards? Fuel economy benchmarking is the process of comparing the fuel efficiency of your fleet assets against those of other companies around the world.

To draw meaningful conclusions, it is important to compare similar groupings — in other words, compare apples to apples. Yet, gathering fuel efficiency insights from companies with similar fleet profiles to yours can be challenging.

Benchmarking fuel economy performance plays a significant role in providing commercial fleets with a strategic competitive advantage. This practice allows you to investigate how your fleet performs against fuel industry averages and gauge the effectiveness of current programs. It can also support decision-making, helping you determine if switching the make and/or model would improve or hurt your fuel economy.
Fuel Benchmarking from the Geotab Analytics Lab is an experimental tool that classifies the fuel economy of your fleet vehicles when compared against the worldwide population of all Geotab-connected vehicles.

Consider that Geotab’s telematics devices collect over 1 billion data points per day.

Using the power of AI and anonymized data, these data points from vehicles are grouped by type and range of miles driven in various applications enabling you to easily benchmark your vehicles and specific usage based on miles, usage and localization.

These vehicles are your 10 best and 10 worst performers when compared to their benchmark:

- **Best Fuel Economy vs. Benchmark**
  - 3 vehicles in this database can significantly improve their fuel efficiency
  - Poor Efficiency: In bottom third of benchmark
  - Average Efficiency: In middle third of benchmark
  - Good Efficiency: In top third of benchmark

- **Worst Fuel Economy vs. Benchmark**
  - 3 vehicles in this database have poor efficiency
  - In bottom third of benchmark

(Click here for details)
Geotab’s experimental Lab Tools are developed based on Artificial Intelligence and Machine Learning models in continuous development by our Data & Analytics team. All successful experiments graduate to Active Insights in MyGeotab, which helps transform your data into measurable cost savings by recommending what you can do to optimize your fleet.

The app provides the following metrics and recommendations for better fuel economy:

01 Track your monthly fuel trends
02 Put the brakes on speeding
03 Lower your fleet idling time
04 Optimize routes and delivery schedules
05 Monitor fleet fuel expenses with fuel card integration
06 Benchmark your fuel economy
07 Keep fleet vehicles in peak health from tires to transmission
08 Ready to start lowering your fuel costs?
09 About Geotab

Leading and lagging fleet performers (top and bottom ten)
Fuel Savings calculator (with batch calculation functionality)
Vehicle group ratings
Recommendation table
Keep fleet vehicles in peak health from tires to transmission

Conducting regular maintenance checks on your vehicles can improve your fuel economy. Using the manufacturer’s recommended grade of motor oil can improve the gas mileage by 1%–2%, according to the U.S. Department of Energy.

Simple maintenance such as replacing air filters and changing the oil can improve fuel economy on average by 4%. Addressing an Engine Light On notification can identify serious mechanical issues with a specified vehicle. Resolving an issue that is flagged by this alert can impact your fuel efficiency by as much as 40%.
A lack of regularly scheduled preventative maintenance can prove costly to the bottom line if not managed proactively with targeted reporting and a strong maintenance policy. Skipping or delaying scheduled maintenance could lead to smaller problems growing into bigger ones, such as low levels for oil, transmission and brakes, incorrect tire pressure or excessive tire wear. Telematics solutions can help fleet managers identify these conditions, and empower them to take action. Sudden spikes in oil and fuel consumption for a specific vehicle strongly indicates that a vehicle needs immediate maintenance, or that perhaps fuel fraud is taking place.

Some underestimated contributors to excessive fuel consumption and costs include:

- Tire inflation
- Wind resistance from damaged body parts
Keep vehicles in peak health by making sure drivers never miss scheduled maintenance services by utilizing the free Dynamic Vehicle Maintenance Reminder Report from the Geotab Marketplace. Help drivers remember to report if their Check Engine Light comes on by making sure the Engine Light On rule is activated across your fleet, and then monitoring exceptions with the Engine Faults Report in MyGeotab.

Properly inflated tires are vital to maintaining fuel efficiency and reducing costs. For every PSI below the tire manufacturer’s recommended pressure, you could be losing 0.2% in fuel efficiency. This percentage may seem insignificant at first glance, yet multiplied by the number of a vehicle’s underinflated tires and each PSI deficiency, the impact on fuel economy becomes significant quickly.

Most modern vehicles are equipped with tire pressure monitoring sensors. Yet drivers may not realize that one or more tires are underinflated until a slow leak becomes a serious problem. Integrating a Tire Pressure Monitoring System (TPMS) system into your fleet management platform provides essential context, and drivers can be alerted to potential tire blowouts before they occur.
Ready to start lowering your fuel costs?

If you want to track fuel usage and promote safe and efficient driving, connecting to a fleet management platform is a great place to start. See your fleet’s performance on fuel economy, idling, aggressive driving, emissions, set rules and monitor your progress goals.

Geotab has what you need to manage fleet fuel efficiency — and productivity, sustainability, compliance and safety. Plus, with access to the Geotab Marketplace of over 200 integrated solutions, you can do much more than that. Explore our fleet management solutions today and book a demo with a Geotab expert by visiting Geotab.com.

Learn more
About Geotab

Geotab is advancing security, connecting commercial vehicles to the internet and providing web-based analytics to help customers better manage their fleets. Geotab’s open platform and Marketplace, offering hundreds of third-party solution options, allows both small and large businesses to automate operations by integrating vehicle data with their other data.

The in-vehicle device provides additional functionality through IOX Add-Ons as an IoT hub. Processing billions of data points a day, Geotab leverages data analytics and machine learning to help customers improve productivity, focus on sustainability, optimize fleets by reducing fuel consumption, enhance driver safety, and achieve strong compliance to regulatory changes. Geotab’s products are represented and sold worldwide through Authorized Geotab Resellers.

To learn more, please visit www.geotab.com and follow us @GEOTAB and on LinkedIn.

This ebook is intended to provide information and encourage discussion on topics of interest to the telematics community. Geotab is not providing technical, professional or legal advice through this white paper. While every effort has been made to ensure that the information in this white paper is timely and accurate, errors and omissions may occur, and the information presented here may become out-of-date with the passage of time.

©2022 Geotab Inc. All rights reserved. Geotab and the Geotab logo are trademarks of Geotab Inc.