



Fleet fuel management: 4 ways to improve fuel economy

Fuel is often a fleet's biggest expense. Learn how telematics data can help fleets make every gallon count through smart maintenance scheduling, enhanced driver behavior and more.

Driving fuel economy with telematics data

It's hard to remember when fuel was this expensive. Since 2021, on-highway diesel fuel has increased by \$2.43 per gallon. With [gas prices expected to stay high](#) throughout the rest of the year, keeping tanks full is becoming a growing concern—and cost—for fleets. While there are external market factors wreaking havoc at the pumps, fleets need to focus on the factors that they have control over to ensure they are using every drop of fuel in a conscientious way.

Fleet fuel management best practices aren't a new concept to the industry. Finding ways to improve fuel economy can provide ROI at scale through reduced resource costs, improved driving efficiency and boosted fleet uptime. Telematics can play a vital role in finding and fixing operational inefficiencies that can lead to improved fuel management.

The following are four methods that fleets can use to curb fuel costs and improve their overall efficiency.

Follow the fleet facts: fighting fuel costs with tech

- **66%** of fleets believe they can do more to reduce fuel costs
- **19** litres per hour are burned by the average fleet vehicle from idling
- **47%** decrease in logistics costs projected by 2020 due to tech and digitization

Source: [Entrepreneur](#)



Method #1: Optimize back-end operations

It's easy to underestimate the impact that improvements away from the wheel can have on fuel economy. However, cutting back on deadhead miles via route optimization can greatly benefit fleets. In fact, just cutting 1% of deadhead or empty miles can save fleets a lot of money in fuel.

One method to curb empty miles is by eliminating a common occurrence in yards—drivers leaving with the wrong trailer attached to their truck. This simple mistake costs fleets dearly in fuel wasted, labor burned and time spent. Fleets can solve this by using [tractor-trailer pairing](#) which will determine which trucks are attached to which trailers in the yard, enabling dispatch to catch mistakes before trucks are hundreds of miles en route without the proper load.

Keeping sight on trailer capacity can be done through frequent checks to determine loads are properly secured; however, an easier solution is to install [cargo camera sensors](#), which allow fleet managers to remotely see inside their trailers. With this, improperly loaded trailers can be found and fixed before wheels hit the road.

[Intelligent routing](#) and trailer visibility can work in tandem to help fleets run leaner on fuel by ensuring trucks that are being sent to jobs have adequate space and are the closest, avoiding unsafe loads and deadhead (or out-of-route) miles. This can be further simplified by implementing an intuitive job workflow and communication system in the cab, and by improving communication from dispatch to drivers for routing, and repair crew to drivers for maintenance concerns.

Focusing on how fuel is acquired—and ensuring it stays in trucks—is another area where fleets can save on fuel costs. Using routing data, fleets can locate power lanes within their operations.



Method #2: Monitor driving behavior

Fuel-conscious driving is big business for fleets. On average, there's a 30% spread in fuel economy by driver based on behavior—making it one of the largest controllable factors for a fleet. Behind the wheel, dozens of choices drivers make have an impact on fuel consumption. For instance, speeding, harsh acceleration and harsh braking can increase fuel consumption by as much as 39%. What's more, this can also cause unnecessary wear and tear on components, which can lead to even worse fuel economy down the road.

Telematics data can arm fleets with the data they need to reduce the spread between top drivers and those in need of improvement. One way to start seeing improvements is by [measuring anticipation scores](#)—the time it takes for a driver to move from accelerating to braking. While this isn't an exact science, anticipation scores can give insight into how drivers are paying attention to the roads. Multiple instances of low anticipation scores can indicate frequent uncontrolled or rushed braking events. Not only does this lead to unnecessary fuel use, it's also unsafe driving behavior that can have fatal consequences.

[Monitoring driver behavior](#) behind the wheel has never been easier with the emergence of [intelligent in-cab cameras](#) that can not only be used for insurance claim purposes, but also as a crucial coaching tool for fleet managers.

Combined with telematics data that pinpoints bad behaviors, in-cab voice coaching can lend a hand in alerting drivers to events as they happen, helping them to learn as they drive. The value of addressing poor driving with targeted data-driven voice coaching from within the cab is clear—it can help fuel efficiency, drive fleet safety, extend vehicle lifetime and more without having drivers return to the office for in-class lessons.

Follow the fleet facts: driver anticipation

A study found that for speed changes occurring over 18 seconds consumed **20% less fuel** than those occurring over 12 seconds.

Source: [National Resources Canada](#)





Cutting down on fuel consumption starts with understanding which behaviors have an adverse impact on fuel economy. For instance, did you know that **800 million gallons of diesel are wasted on average** by long-haul trucks as they idle?

Once these inefficiencies are recognized, habits can be built that ensure drivers become more fuel-conscious, resulting in more truck uptime and reduced fuel costs.

Here are some fuel-friendly driver behaviors to incorporate in your fuel management program:

- ✓ Use cruise control as often as possible
- ✓ Decelerate by coasting rather than braking
- ✓ Try to maintain a steady speed
- ✓ Limit speeding and accelerate slowly when possible
- ✓ Be mindful of unnecessary idling
- ✓ Regularly conduct pre-trip inspections

Getting buy-in from your drivers is important to ensure compliance across your fleet. One way to encourage safe, fuel-efficient driving—and potentially attract more talent—is to build an incentive program.

This enables fleets to supply drivers with targeted coaching based on their needs while also rewarding the drivers that are setting the standard for your organization.

Method #3: Intelligent purchasing

Around 22% of the [total cost to own and operate a vehicle](#) is fuel, making it a key factor for fleet managers when considering asset depreciation. While there are many changes that can be made to influence fleet fuel management today, how can fleets ensure that they are continuing to fight fuel costs with efficient vehicles moving forward?

Purchasing fuel-efficient vehicles sets a healthy foundation for fleet managers to build off of with proactive maintenance, intelligent driving behavior and other fuel-conscious initiatives. Determining which vehicles will have the best fuel economy will depend on a variety of factors.

Aerodynamics, for instance, can play a role in the amount of fuel consumed due to wind drag—especially when it comes to freight trucks. Finding vehicles with more aerodynamic traits that take drag into account can lead to a smaller fuel bill.

Another avenue to consider is the case for hybrid models versus gas engines. While hybrid models typically don't have the range that some long-haul freight trips will require, they can be a solution for many jobs. If purchasing new vehicles isn't in a fleet's near future, they can also purchase retrofitted parts such as side skirts and roof fairings that can enhance the fuel economy of existing assets.

Another way to find the right fit for your fleet is to use existing component data to determine which vehicles have the best lifespan. For instance, if certain vehicle models are in the shop more often than others or continue to burn through the most fuel, the expected ROI may not look as ideal as other choices. By measuring and comparing equipment groups with different specs, fleets can get a better idea as to what specification is the best fit for their fleet, informing future procurement and enabling them to make data-driven decisions for retrofitting opportunities down the line.

Follow the fleet facts: vehicle procurement

- **75%** of fleets consider fuel economy an important factor in procurement decisions
- **36%** of fleets feel pressure to decarbonize for a variety of reasons, including cost reduction and adherence to regulations
- **92%** of fleets believe fuel economy is an important factor when purchasing a truck

Source: [FleetOwner](#)



Method #4: Master fleet maintenance

Failing to take care of your vehicles can create a host of problems for your fleet—including poor fuel economy. Did you know that something as simple as your tire pressure being underinflated by 10 PSI [can increase in fuel consumption by 1%](#)? These maintenance-driven savings can be found in other components as well.

Simply choosing the manufacturer's recommended grade of motor oil can [improve your MPG by as much as 1%](#) which—when replicated across an entire fleet—can lead to big savings. That's not all either: the type of oil and tires that fleets use can also have an impact on fuel consumption.

The secret to ensuring these inefficiencies don't occur in the first place is by creating a [proactive maintenance strategy](#) that leverages data to inform component repairs and replacements.

With this, maintenance can be better geared towards the needs of each individual asset rather than a broad high-level strategy that can result in trucks entering the shop for no reason other than a certain date being reached, while other trucks severely in need of repairs are still on the road costing fleets money in excessive fuel consumption and component wear.

By using [vehicle health scoring per component](#) and fault code alerts, maintenance shops can accurately triage jobs based on severity level, taking the guesswork and inaccuracy out of shop visits. Not only does this display the true health of the fleet, but it also can help ensure that truck components that are burning more fuel and are in need of repair can get fixed before they need to be replaced, costing more money.

With telematics data, maintenance teams can also receive information about the truck before it arrives at the shop, allowing them to quickly troubleshoot issues and get the truck back out on the road and taking up less shop space. On the driver side, pre-trip inspections can go a long way in making sure that inefficiencies are being found and reported back to repair crews before hitting the road with an asset that is burning more fuel than usual.

Seeing the results of data-driven maintenance is as easy as watching your fleet's MPG over time. Having access to fleet data allows fleet managers to remotely check and see how each asset is consuming fuel. Cross-referencing [fuel auditor data](#) with shop visits, driver behavior, specific routes and other factors can help paint a picture of fuel consumption, allowing fleets to make changes to optimize further.



Fight rising fuel costs today

As the largest expense that fleets typically face, lowering fuel costs is a worthy endeavor. While supply shortages and other market factors are out of a fleet's control, there are plenty of ways to save at the pumps through optimization.

From asset tracking to vehicle procurement, fleets can leverage technology to glean data-rich insights that help them find and solve inefficiencies across their operations—whether it's in the yard, behind the wheel or at an office desk.

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