motive

How to turn fuel costs into a profit driver.

Make every mile count.

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Introduction

Fuel is one of the largest costs for organizations that operate transportation fleets, and in a world of volatile prices, tight margins, and rising fraud, controlling fuel is often the fastest way to protect the bottom line. ATRI's 2025 Operational Costs of Trucking report shows that while fuel costs fell 13% in 2024 to $0.481 per mile, fuel still remains a dominant variable expense in for-hire trucking.

According to industry benchmarks from the North American Council for Freight Efficiency's 2024 Fleet Fuel Study, a typical high-utilization long-haul tractor can run 100,000 or more miles per year and average around 7 to 8 MPG, translating to roughly 12,500 to 14,300 gallons of diesel per truck each year.[1]

Even modest efficiency gains add up quickly. According to the Motive Fuel Management ROI Study analyzing 820 commercial fleets, top-performing operators achieved a 13% improvement in fuel efficiency. For a 500-truck long-haul fleet, a 5% gain alone can cut consumption by more than 400,000 gallons annually, the report shows. And hitting the 13% benchmark — in line with top-performing Motive customers — can exceed 1 million gallons in fuel savings per year[2], amounting to millions of dollars in financial savings.

With fuel costs so dependent on external factors, leading organizations tend to treat fuel not as a fixed expense, but as a controllable, data-driven profit driver. They use an integrated operations platform to connect telematics, fleet spend, and workflows; look beyond one-off fixes; and prioritize fuel performance in the same way they prioritize safety and on-time delivery.

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[1]North American Council for Freight Efficiency (NACFE). (2024). 2024 Fleet Fuel Study. The study, which benchmarks 14 major North American fleets operating 75,000 trucks, reported an average fuel economy of 7.77 MPG for participating fleets in 2023. The fuel consumption range of 12,500 to 14,300 gallons is calculated by applying the study's benchmarked 6.9 to 7.8 MPG range to the industry-standard annual utilization of 100,000 miles for long-haul Class 8 tractors.

[2]Motive (2022). Fuel ROI: Increase fleet fuel efficiency, save money, and reduce your carbon footprint. Analysis of 820 fleets finding a 13% MPG improvement for top-performers. Savings for a 500-truck fleet (400k gal at 5% and 1M+ gal at 13%) are derived from these study benchmarks.

What fleets can control about fuel efficiency

In this guide, we'll review the tools Motive customers use to gain visibility into and decrease their fuel consumption. While fuel consumption can fluctuate based on many factors, some factors — such as weather conditions, the weight of a load, and road conditions — are outside an organization's control.

Nonetheless, organizations with fleets can control several variables to improve fuel efficiency, including:

Idling Time

The time vehicles spend with their engines on without moving. These events consume fuel. And while some are unavoidable, limiting idling time is one of the easiest ways to reduce fuel consumption.

Driving Behaviors

According to the U.S. Department of Energy, driving efficiency can have a significant impact on fuel economy, with improvements of up to 30% at highway speeds and up to 40% in stop-and-go traffic.

Fleet Health

Units with low maintenance standards can potentially consume more fuel per gallon.

The factors listed above are the same ones that distinguished the top-performing organizations with fleets in our analysis.[3]

We'll analyze a subset of organizations using Motive that have been especially successful in improving their fuel efficiency. The following sections examine how organizations using the Motive Fuel Hub and Motive Card translate operational visibility into measurable gains in miles per gallon, fuel savings, and emissions reductions. These sections also look at how similar strategies can be applied across fleets of all sizes.

[3]Motive. (2022). Fuel ROI: Increase fleet fuel efficiency, save money, and reduce your carbon footprint. According to the study (p. 7-8), top-performing fleets distinguished themselves from the control group by achieving a 79% reduction in hard acceleration (driver behavior), a 20% reduction in idling time, and performing 80% more vehicle inspections per vehicle (maintenance discipline).

Why traditional fuel management falls short

Many organizations with fleets already have plenty of data about fuel usage and spend. What they lack is unified, trusted visibility. Fuel information is often scattered across fuel card statements and portals, telematics dashboards, spreadsheets, and accounting systems.

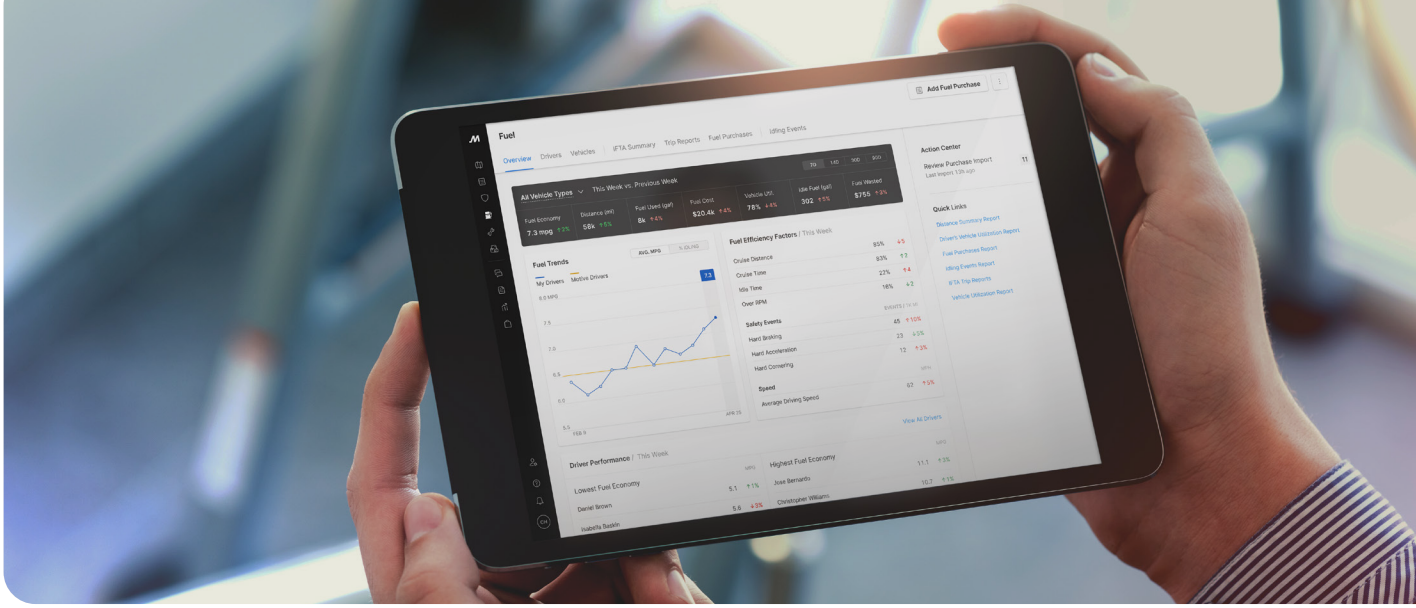
Reconciling these sources is a slow, error-prone process. Finance may close the month before Operations has finished investigating anomalies in fuel spend. Safety leaders may have the idling and speeding data they need, but not the dollar impact that gets executive attention. Managers discover overspend, fraud, or waste weeks after it happens, after teams have already spent hours manually processing thousands of fuel entries and fixing data errors.

In this fragmented reality, even basic questions like these are hard to answer:

- Are we paying what we should be for fuel on our most important routes?
- Which drivers and vehicles are driving up our blended fuel cost per mile?
- Where are we quietly losing money to waste, fraud, or theft?
- Are we actually realizing the discounts we negotiated — or just assuming we are?

Top-performing organizations break out of this reactive mode by consolidating data on a single integrated operations platform and focusing on four practical moves that compound over time:

1. Stopping leaks from fraud and misuse.
2. Turning drivers into fuel champions.
3. Making every gallon count.
4. Turning negotiated discounts into realized savings.



Fuel performance with Motive Fuel Hub

Organizations with fleets that use the Motive Fuel Hub can implement programs that significantly reduce their fuel consumption. Motive's multi-year Fuel ROI research, combined with recent ROI survey data and customer case studies, shows that top-performing customers using Motive's fuel insights can reduce fuel consumption by up to 13% while improving safety and sustainability.[4]

They also pair better driving habits with disciplined maintenance. The most fuel-conscious organizations regularly inspect and service their vehicles, working to keep vehicle engines in peak condition and avoid potential fuel waste.

In practice, that means moving from reactive, spreadsheet-driven fuel reviews to real-time visibility into fraud, waste, and performance across fuel, operations, and safety — all in one place.

[4]Motive (2022). Fuel ROI: Increase fleet fuel efficiency, save money, and reduce your carbon footprint. Analysis of 820 fleets found top-performers (the top 15%) reduced fuel consumption by 13% through behavioral and maintenance improvements.

Fuel at Motive

Today, nearly 100,000 organizations and more than 1.3 million drivers rely on the Motive Integrated Operations Platform to transform the safety, productivity, and profitability of their operations.

The Motive Integrated Operations Platform connects vehicles, equipment, and facilities to the cloud, bringing physical operations online and providing managers with the tools and data they need to proactively optimize their fleets. The Motive Vehicle Gateway collects and analyzes telematics data, including vehicle activity, driver behavior, and engine diagnostics, in real time.

Motive Fuel Hub, which includes dashboards, reporting, and coaching as part of the Motive Sustainability application, leverages AI to provide a comprehensive view of a fleet's fuel profile and highlight ways to improve efficiency.

When managers log in to the Motive Fleet Dashboard, they can see the amount of fuel consumed in the past week, the list of active vehicles and drivers, and each driver's fuel consumption and efficiency.

They can also see trends and benchmark fleet and driver performance against Motive's network of more than 700,000 vehicles and 1.3 million drivers, powered by billions of miles of anonymized data across industries.

Customers can also see detailed reports, such as idling time by driver and by vehicle; fuel usage per driver and per vehicle; and detailed driving reports that highlight wasteful driving behaviors and how often they emerge.

At a glance, managers can pinpoint which driving behaviors and vehicles are the most inefficient and implement steps to reduce fuel consumption.

Case studies: Fuel efficiency in action

Motive customers have seen these tools translate into measurable fuel ROI and savings:

Hardy & Harper, a 300-vehicle construction fleet, reported a 24% reduction in fuel spend after combining Motive Fuel Hub with Motive Card and targeted driver coaching.

Southwind, a field service organization with a fleet that scaled to over 1,000 vehicles, tied fuel savings directly to reduced idle time. The company reported more than $500,000 in annual fuel savings.

Smart Chemical Solutions:
Quantified fuel ROI through rebates and discounts, reporting an average $4,879 monthly rebate on fuel purchases alone since switching to the Motive Card.

Estes Forwarding Worldwide:
Used Motive's weekly fuel optimization reports to identify inefficiency and cut waste.

> Adopting a new platform with Motive has been transformational for us in terms of advancing safety, reducing costs, and helping the company scale and grow."
>
> **Adam Stowers**
> Equipment Manager at Hardy & Harper

What is the impact for top-performing fleets?

The analysis in Motive's Fuel ROI Report shows that double-digit gains in fuel efficiency are achievable when fleet-based organizations consistently manage idling, driver behavior, and maintenance.

Across Motive's Fuel ROI research, customers that lean into Fuel Hub insights and driver coaching save up to 13% on fuel compared to similar operations[5]. Those gains are driven by cleaner driving profiles and tighter maintenance discipline.[6]

To illustrate the impact of this kind of improvement, consider again a long-haul operation with 1,000 tractors, each running 110,000 miles per year at 6.8 MPG:

- Baseline annual fuel consumption: ≈16 million gallons of diesel.[7]
- With a 13% improvement in fuel efficiency, annual consumption drops by about 2.9 to 3 million gallons.[8]

At current U.S. diesel price levels, that kind of reduction represents millions of dollars in annual fuel savings, year after year.

From an environmental perspective, 3 million gallons of diesel correspond to roughly 30,000 metric tons of CO_2 (10.18-10.19 kg per gallon). Using the EPA's current greenhouse gas equivalencies calculator, that's about the same as the amount of carbon sequestered by more than 500,000 tree seedlings grown for 10 years.

Taken together, the data underscores a simple truth: When organizations meaningfully improve fuel economy and reduce waste, the financial and environmental impacts scale quickly.

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[5]Motive. (2022). Fuel ROI: Increase fleet fuel efficiency, save money, and reduce your carbon footprint. Analysis of 820 active commercial fleets from Jan 2020 – Dec 2021.

[6]Ibid. (p. 7-8). Findings identify the specific behaviors of the top 15% of the study cohort, including reductions in hard acceleration (79%), hard braking (40%), and idling (20%), alongside increased platform engagement.

[7]Hypothetical Operational Model: 1,000 tractors x 110,000 miles ÷ 6.8 MPG = 16,176,470 gallons.

[8]Ibid. Saving calculation: 16.1M gallons x 13% efficiency gain (plus compounded behavioral impacts) ≈ 3M gallons saved.

Characteristics of the most fuel-efficient fleets

To better understand what separates the most fuel-efficient operations from others, Motive examined how top-performing customers use the Motive platform and how their operations differ. Several consistent patterns emerged:

1. **They measure and act on fuel data.**
   On average, these organizations are significantly heavier users of Motive Fuel Hub and related reports, even after normalizing by fleet size. They log many more visits per vehicle to fuel, idling, and driving-behavior reports than comparable organizations.[9]

   As Peter Drucker famously said, "You can't improve what you don't measure." The most successful fleet-based organizations put fuel performance front and center in their dashboards, KPIs, and coaching programs.

2. **Their drivers drive more efficiently.**
   Motive's Fuel ROI analysis shows that top-performing customers consistently exhibit better driving quality than others, with up to 79% fewer hard accelerations and 40% fewer hard braking events per hour, along with roughly 20% less idling.[10]

   These results align with Department of Energy guidance that driver behavior alone can improve fuel economy by up to 30% on highways and up to 40% in stop-and-go traffic. In practice, these organizations use driver scorecards, in-cab coaching, and incentive programs to reinforce fuel-efficient behaviors over time.

[9]Motive. (2022). Fuel ROI Study (p. 7). Platform engagement analysis comparing the top 15% of fuel-efficient fleets against the study average.

[10]Ibid. (p. 7-8). Specific behavioral differentiators for top-performing fleets: 79% reduction in hard acceleration, 40% reduction in hard braking, and 20% reduction in idling.

3. **They prioritize vehicle health.**
   Fuel waste isn't just a driver behavior problem. The most fuel-conscious organizations with fleets maintain strict inspection and maintenance schedules, which helps keep engines in peak condition and reduce fuel waste.[11]

Examples include:

- Ensuring proper tire inflation and alignment to reduce rolling resistance.
- Addressing engine and aftertreatment issues promptly to maintain optimal combustion.
- Using inspection data and fault-code alerts to schedule preventive maintenance rather than waiting for breakdowns.

Together, these practices keep vehicles operating closer to their designed efficiency, amplifying the gains from better driving and reduced idling.

[11]Ibid. (p. 8). Analysis of maintenance discipline and its correlation with sustained engine efficiency and reduced fuel waste.

From one-off fixes to a fuel-smart operation

Fuel-intelligent operations share a few common traits:

- **Unified, trusted data.** They bring card transactions, telematics, and trip data into a single fuel hub instead of layering another point solution on top of an already fragmented landscape.
- **Clear ownership.** They make fuel performance explicitly cross-functional, with Operations owning day-to-day behaviors and fuel inputs, Safety owning culture and coaching, and Finance ensuring savings show up in budgets and planning.
- **Fuel KPIs embedded in the business cadence.** Fuel isn't a side project; it's part of monthly executive reviews (blended fuel cost per mile, idle fuel waste in dollars, realized vs. missed savings), regular driver coaching, and quarterly merchant-mix reviews.

Importantly, these organizations don't wait for perfect data. They start with directional insights, prove out wins in a pilot region or business unit, and then scale.

Conclusion

Motive Fuel Hub has proven effective at helping organizations with fleets improve their fuel performance. With Motive's IoT data and AI insights, top-performing customers in Motive's analysis have achieved fuel-efficiency improvements of up to 13%, underpinned by better driving behavior, lower idling, and stronger maintenance discipline.[12]

These operational changes translate directly into financial and environmental impact. For large long-haul operations, double-digit gains in miles per gallon can mean millions of dollars in annual fuel savings and tens of thousands of metric tons of CO_2 avoided — results echoed in customer stories from Southwind, Hardy & Harper, Smart Chemical Solutions, and others.

We've seen that having visibility into, and identifying areas of improvement around, idling time, driving quality, and vehicle maintenance are key components to improving fuel efficiency and driving significant bottom-line improvements for businesses that operate fleets.

When these organizations pair those components with integrated spend management and tools like Motive Card and Missed Savings, they can unlock up to 5% or more savings on fuel by steering drivers to lower-cost fueling locations and eliminating fraud.

The path forward is clear: Measure fuel performance, coach drivers, and align fueling strategy with data. Use the Motive Integrated Operations Platform to make each of these steps repeatable at scale. Save money and be more sustainable.

[12]Motive (2022). Fuel ROI: Increase fleet fuel efficiency, save money, and reduce your carbon footprint. (p. 8). Final summary of the 13% efficiency benchmark achieved by the top 15% of the study cohort.

About Motive

Motive builds technology to improve the safety, productivity, and profitability of businesses that power the physical economy. The Motive Integrated Operations Platform combines IoT hardware with AI-powered applications to automate vehicle and equipment tracking, driver safety, compliance, maintenance, spend management, and more. Motive serves nearly 100,000 businesses, across a wide range of industries, including trucking and logistics, construction, oil and gas, food and beverages, field services, agriculture, passenger transit, and delivery. Visit gomotive.com to learn more.