

CONTROLLING FUEL COSTS

YOUR SURVIVAL DEPENDS ON MINIMIZING FUEL CONSUMPTION AND GETTING A FAIR SURCHARGE

Diesel fuel is still king in the trucking industry, but electric trucks are expected to emerge as legitimate options over the next decade. Some have predicted sales of e-trucks could make up about 5% of all truck sales in 2026. But until then, controlling the cost of diesel is paramount to being a successful owner-operator.

You can make the wisest business decisions about fuel when you know your fuel economy, expressed in miles per gallon, and your fuel cost per mile (CPM).

Calculate your mpg simply by tracking your mileage between fill-ups and dividing the total by the number of gallons you burned. Do this for all trips. Fuel economy constantly changes, affected by weather, loads, routes, traffic, terrain, road surfaces and other factors. It's helpful to know mpg per month, per week and even per load. That occasional haul of steel across the Appalachians may be costing you more in fuel than it's worth. If your numbers look bad, don't give up; the worse your fuel economy, the more you have to gain by improving it.

Armed with your mpg, calculating your CPM is easy. Suppose your truck gets 6 mpg, and you ran 6,000 miles in a month, meaning you burned 1,000 gallons (6,000 divided by 6). If diesel averaged \$3 per gallon that month, your total cost was 1,000 x \$3, or \$3,000. Your fuel CPM was \$3,000 divided by 6,000, or 50 cents – likely the largest single chunk of your total CPM.

It will pay you huge dividends to consider strategies for cutting your fuel bill.

For good fuel economy, your truck has to overcome three things: rolling resistance, air resistance and gravity. Fortunately, your driving technique and other choices you make can address each of these.

REDUCE YOUR AVERAGE SPEED

Owner-operators get no shortage of "encouragement" from shippers, consignees and others to hurry, so it's easy to get into the trap of driving fast. But speed is the main reason for increased fuel consumption and reduced profit. Experts agree that every mile per hour driven over 60 mph reduces fuel economy by one-tenth of a mile per gallon. The typical argument against driving slower is that you can make better time by driving faster and therefore make more money. But compare one driver running at 70 mph and another running at 60 mph. Driver A is 10 miles further down the road than driver B after an hour, but at \$4 per gallon, he's spent \$12.25 more to go those 10 miles in the same amount of time.

That might not seem like much money, but the impact over an entire year is stark. If you drive 130,000 miles per year and average 5.5 mpg vs. 6.5 mpg because you drive faster, you will spend \$12,727 more on fuel.

Most owner-operators net about 50-60 cents per mile. If you divide the extra \$12,727 fuel expense that driving faster costs by your net per mile of 50 cents, you



would have to drive 25,454 miles more per year just to pay for the extra fuel.

LIMIT IDLE TIME

Idling requires about a gallon of fuel per hour, which can cost you about \$120 per week at \$3 per gallon if your truck idles eight hours a day. According to the U.S. Environmental Protection Agency, line-haul trucks not equipped with auxiliary power units (APUs) might idle about 20% to 40% of the time the engine is running to power climate-control devices and sleeper compartment accessories and to prevent startup problems in cold weather.

Just because idling is common doesn't make it smart. Idling easily can cost you a few thousand more in fuel alone per year, not including the added engine maintenance expense that results from excessive idling, harder on your truck's engine than highway driving. In addition to operating costs, many governments impose no-idling laws with fines as high as \$25,000.

Instead, there are many alternatives. An extra blanket for cold temperatures and window screens for when the weather is warm make it easier to turn off the engine. For about \$80, you can buy a remote starter with a temperature sensor that will start the truck at a specified temperature.

APUs can pay for themselves in a reasonable amount of time. A mobile generator costing as little as \$200 will burn less fuel and provide heating and cooling.

Choosing idle-reduction technology. This can be a difficult decision. Systems and costs vary widely. Diesel-fired heaters are near the bottom of the cost range for purchase and annual maintenance (about \$1,000 with purchase and a year's worth of maintenance). Full-function diesel APUs/ gen-sets are at the top, up to \$8,000 or more, and battery-powered systems have become common at similar or lesser price points.

Evaluate your idle-reduction needs by keeping a detailed idle log. Write down every time you idle and why. Keep track of hours idled, and sort them by reason, such as air-conditioning, heat, AC power,

	A	B	C
Miles traveled in 7 days	1,000	1,600	2,500
Total revenue (\$1.40 x miles)	\$1,400	\$2,240	\$3,500
Variable cost per mile	\$0.79	\$0.79	\$0.79
Variable cost - total (\$0.79 x miles)	\$790	\$1,264	\$1,975
Fixed cost (\$115 x 7 days)	\$805	\$805	\$805
Fixed cost per mile	\$0.81	\$0.50	\$0.32
Total cost	\$1,595	\$2,069	\$2,780
Total cost per mile	\$1.60	\$1.29	\$1.11
Profit/loss	(\$195)	\$171	\$720
Profit/loss per mile	(\$0.20)	\$0.11	\$0.29



warming the engine, etc. Try this for a year, accounting for all seasons. That may not be practical, but if you keep this log for three months and are disciplined in your records, you will be able to make good estimates for the other seasons.

Idling solutions have pros and cons, and most revolve around the reason for idling; if you idle only because you need heat, then a full-blown APU is overkill. A better solution is a small diesel-fired heater – easy and inexpensive to use.

If you idle to produce AC power for a computer, TV, coffee maker, microwave, etc., you also can find inexpensive alternatives to a diesel-powered APU. Inverters and high-capacity battery systems will keep small appliances running for days. Add a small solar panel, and you can keep the batteries conditioned and extend that time as well, perhaps using some of the new electrified parking installations if you need to park for an extended period.

Once you have a clear understanding of how often you idle and why, research the options in today's market. Then calculate the break-even point and return on investment for each solution.

OTHER SMART PRACTICES

In addition to reducing speed and idling, there are several other good fuel conservation practices, each of which can reduce your fuel bill by 1% to 3% – or several hundred dollars a year:

WATCH CASH FLOW.

Don't tie up money needlessly in the fuel tank when downtime of a few days or more is expected. If you know a low-price area is on your route, don't fill up at more expensive stop; limit your purchase based on your mpg.

TAKE CARE WITH BIOFUEL.

Biofuels tend to be expensive and produce lower fuel mileage. Know the level of biofuel (B20, for example, is 20% biofuel) that is allowed under your engine warranty, and use only OEM-approved fuels. Carry extra fuel filters, as biofuel can cause clogging.

MAXIMIZE STORAGE.

Whether you're buying a used or a new truck, opt for larger dual tanks. This gives you the option of pigging out on super-cheap fuel and cutting down on the number of fuel stops, saving time.

SPEC YOUR TRUCK WISELY.

Your paycheck will show whether you chose a truck with a big engine and a lot of chrome or a truck engineered to meet your business needs and help you succeed. First, there is the initial extra expense for the purchase, then the added cost of fuel consumption. Weight and maintenance are in even sharper contrast between a lifestyle truck and an aerodynamic truck that is an efficient tool for business. In fuel savings alone, the aerodynamic truck generally more than offsets the resale value of the stylish truck. It also yields greater load capacity, more comfort, less noise and higher profit. On the other hand, operators with too-low horsepower settings for the application will find their feet always hard on the throttle, consuming more fuel. Some have benefited in fuel economy by retuning the engine control module for maximum fuel economy, installing full-flow mufflers or using one of several new engine/transmission combinations built for maximum mileage, offering peak torque at much lower rpms than traditional diesels.

PERFORM REGULAR MAINTENANCE.

This ensures your truck is running efficiently. Also, check your current miles per gallon at each fill – if it falls off, determine the reason. Start a preventive maintenance routine; check often enough to catch low oil, a dirty air filter or an air compressor leak. Don't use a higher-viscosity oil than you need.

MAINTAIN TIRE PRESSURE.

To reduce rolling resistance, check air pressure in all 18 tires, and fill them up at least weekly to the manufacturer's specifications. The trailer tires may belong to your carrier, but why pay the extra cost of pulling a trailer with under-inflated tires?

SLOW YOUR ACCELERATION AND DECELERATION.

Both will consume less fuel and be easier on your equipment. Slowing acceleration is especially important running on hills or

GETTING WITH THE PROGRAM

Owner-operators often can save a hefty amount of money when they are able to participate in discount fuel networks. If your fleet has a fuel-optimizer program, use it. An optimizer program helps an owner-operator plan a trip based on fuel prices and locations in the carrier's = fuel network. Fees for using such networks have become rare thanks to competition for drivers. Owner-operators are well advised, however, to pass up network fuel stops that are too costly, are too far off route, sell inferior fuel, are dangerous or poorly maintained, or are perceived as a profit center for the carrier at owner-operators' expense. If you have concerns about a stop on the fleet network, respectfully bring them to the fleet's attention. The National Association of Small Trucking Companies offers members the opportunity to tap into the association's directory of fueling stops to find the lowest prices.

in the mountains because it helps reduce the effects of gravity. Rapid acceleration gets you an extra few seconds but creates premature wear on the engine, drive-line and tires – along with increasing your fuel costs.

CUT OUT-OF-ROUTE MILES.

If you're like many owner-operators, with 6% to 10% of your miles out of route, you possibly could cut them by 3 percentage points. Doing so would save an extra 3% on fuel, as well as on other variable costs such as tires and maintenance. Rethinking your route, keeping side trips to a minimum and using precise directions will pay off in savings.

GETTING A FUEL SURCHARGE.

Since fuel prices surged two decades ago, fuel surcharges have become widespread to help carriers and their operators guard against further price spikes.

Carriers often structure their surcharge scale by assuming a certain fuel efficiency, such as 6 miles per gallon. Some owner-operators make a healthy per mile profit from their carriers' surcharge because good fuel economy practices allow them to average better than 6 mpg. Surcharges traditionally have been based on the national average of diesel prices.

For independents with authority, develop your own surcharges for contract rates quoted to shippers, and know that most brokers negotiate all-in rates irrespective of any added surcharge. Making certain those rates sufficiently cover current fuel costs with plenty of profit left over is key. See more on fuel surcharges in Chapter 13.

FINDING THE CHEAPEST FUEL

An effective fuel-buying practice is to maximize fuel purchases in low-fuel-tax states and mileage run in those states. The International Fuel Tax Agreement between the United States and Canada facilitates the reporting, collection

and distribution of taxes to states and provinces. You pay taxes every time you fuel, but your ultimate fuel tax bill is calculated according to where you drive. If you purchase fuel in high-tax states and drive most of your miles in lower-tax states, you will get a refund when you file your IFTA report. You cannot reduce your tax outlay unless you choose hauls that avoid high-tax states. What you have more control over is how much you pay strictly for fuel when the fuel tax is not considered.

PUMP PRICE MINUS TAXES = REAL COST.

The key to finding the cheapest fuel is to know the current fuel tax rates, both federal and state, and any state surcharges. Subtract taxes to find the raw fuel cost in each state, then buy where fuel is cheapest. The strategy means that you buy without regard for whether you are paying more at the pump – or in taxes.

IFTA also considers state surcharges, which complicates the fuel-buying strategy. Indiana, Kentucky and Virginia have per-gallon surcharges; Kentucky, New Mexico, New York and Oregon have per mile surcharges. While some owner-operators buy only enough fuel to get through surcharge states, this practice can backfire, depending on the actual cost of the fuel in each state.

Other fuel-buying costs depend on how your fuel taxes are managed. Most leased owner-operators depend on a carrier to collect and distribute fuel taxes. If you're leased and your carrier handles your fuel taxes for you, simply look for the cheapest pump prices. Some carriers charge a fee for this, and some pay simply by averaging the mileage of their entire fleet. If your carrier does that, and you average a better per-gallon average than the fleet, you could be paying more tax than you actually owe. For this reason, some make the case that it's always best for an owner-operator to handle his/her own fuel taxes.

Whatever the case, a good lease will itemize all charges, including fuel taxes and how they are assessed. If your settlements do not reflect what is stated in your lease, you should ask for clarification

and, if necessary, look for an alternate method of paying your tax.

You must get your own IFTA account to do your own fuel tax reporting, whether you do it yourself or through a third party. You do not have to have your own operating authority to get an IFTA account, but independent owner-operators must have such an account in their base plate state and be responsible for quarterly reporting.