



*Editor's note: Diesel fuel prices remain at historically high levels. For technicians driving to and from job sites using diesel trucks and for manufacturers hauling products cross-country, this article contains important information for you.*

# DIESEL PRICES TAKE FLIGHT

## Manufacturers, distributors, and traveling technicians should take note

By Phillip M. Perry

Diesel fuel prices have been softening over the past year. The \$4.44-per-gallon level available now is well below the eye-popping \$5.49 level seen in the summer of 2022. But the good news comes with a significant caveat: The price tag for truck fuel is expected to remain historically high, with Moody's Analytics projecting a gradual rise to \$4.50 by mid-2024. That's well above prepandemic times when they stayed below \$3.50 for a five-year stretch.

Fuel costs can account for as much as 25% to 40% of a typical trucking operation's total expenses, so any shift in the price tag can have a real effect on the bottom line. So what's keeping prices high?

### Oil issues

One major contributing factor is the cost of oil, which is passed along to the diesel distillate. "Today's crude oil price of about \$95 a barrel is being supported by the agreement on the part of OPEC to maintain production at a level less than consumption," said Allen R Schaeffer, executive director of the Diesel Technology Forum. "So prices are projected to remain at their current level through 2024."

Tight diesel supplies are not helping matters. "Like other commodities, long and short-term diesel price expectations are driven by supply levels," said Trey Cowan, Oil and Gas Analyst at the Institute for Energy Economics and Financial Analysis (IEEFA). "And right now, figures from the Energy Information Agency (EIA) show that we are tracking toward five-year lows."

### Capping production

Given the popularity of diesel, one would expect refineries to pump out as much product as possible. But that's not the case. It

behooves some countries to reduce output to bolster the price tag of an important export. Furthermore, if pump prices drop too low, then making the fuel no longer becomes feasible.

"Over the years, refiners in the United States have reduced capacity due to poor margins and increased environmental costs, as well as to the expense required to maintain facilities in a world where United States demand has peaked," said Andrew M. Lipow, president of Lipow Oil Associates. "Refineries are shutting down as they look ahead to how much money they will have to spend to maintain safe and environmentally compliant facilities."

Additionally, inflation increases building costs. It can cost several hundred million dollars to bring a new refinery online, especially when oil demand in the U.S. is going down. The United States Energy Information Agency (USEIA) projects diesel consumption to be flat in 2024. So, the prudent decision may be for U.S. refineries to shut down.

### Supply relief

Russia produces roughly 10% of the oil from which the world refines diesel fuel, and its ability to move its product through alternative channels has helped mitigate the global diesel shortage.

There is also a bit of supply relief from new refineries where diesel demand is growing. In the past year, new refineries have opened in Kuwait, Oman, and China, said

Lipow. He noted that two more, one in Nigeria and one in Mexico, are expected to open in 2024. While the additional supply is welcome, it is meager: "These new refineries will only represent an increase of some 1.5% to 2.0% of world capacity."

### Fluctuating demand

U.S. consumption is a mixed bag. Upward pricing pressure is coming from the travel sector, where postpandemic consumers continue to buy airline tickets in great numbers. "There's no doubt that increased jet fuel demand has reduced, somewhat, the availability of diesel fuel," said Lipow. Fuel for the nation's aircraft is pulled from the same oil pool required for diesel production.

At the same time, downward pricing pressure has come from the shipping industry. "Freight activity is a big driver of demand for diesel, and thus of prices," said Schaeffer. "We have been experiencing a drop-off in freight

demand, which is a result of supply chain issues finally being resolved. We've seen a number of trucking companies go out of business as a result."

Current fuel prices are affected by consumer and business confidence. Here, again, there is an expectation for reduced diesel demand. "Right

now, prices are not necessarily responding to the lower supply situation," said Cowan.

“FUEL COSTS CAN ACCOUNT FOR AS MUCH AS 25% TO 40% OF A TYPICAL TRUCKING OPERATION'S TOTAL EXPENSES, SO ANY SHIFT IN THE PRICE TAG CAN HAVE A REAL EFFECT ON THE BOTTOM LINE.”

"That's because people are focused on what the economies are going to look like both in the U.S. and abroad over the coming year. And right now, it's a kind of subdued outlook for demand globally."

## Green power

The increased production of "renewable diesel," an ecofriendly product made from vegetable oils and fats, offers a partial solution to diesel shortages.

"The USEIA is projecting an increase of some 30% in the consumption of renewable diesel in 2024," said Schaeffer. "That is huge, but most of it is going to displace petroleum usage on the West Coast, primarily in California, Oregon, and Washington."

All of those states have low-carbon fuel policies in place that require refiners to bring in increasing percentages of renewable low carbon fuels into the mainstream pool."

Renewable diesel, aka "green diesel," is virtually chemically equivalent to petrodiesel, making it a so-called "drop-in" replacement for fossil fuel. Thus, it can be dropped right into a truck's tank without needing to be blended with its carbon-based twin. That is a significant advantage over biodiesel, an alternative ecofriendly

biomass-based fuel that can only make up 5% to 20% of a petrodiesel blend.

Together, renewable diesel and biodiesel account for some 5% of U.S. diesel consumption. Renewable diesel production has recently surpassed that of biodiesel and more growth is forecast.

"Many mainstream oil companies are putting their fingers into renewable diesel at some level, which will help boost growth," Schaeffer said. At the federal level, tax credits are encouraging producers to produce more renewable diesel.

## Diesel vs. electricity

Given the need to meet federal and state energy mandates, the trucking sector is starting to pay more attention to renewable diesel

as an alternative to electricity. "There are several things preventing the long-haul trucking industry from adopting electric vehicles," said Brian Guinn, CEO of United Energy Corporation. "One is a lack of a sufficient number of charging stations. Another is the fact that the heavier the load the fewer miles an electric truck can

to truckers' schedules. "These guys already spend more than three quarters of their lives on the road," noted Guinn. "If they have to stop an additional two or three times on a typical trip, electric power will not be effective."

Battery performance and range in cold weather can also be a problem. Ed Hirs, an energy fellow at University of Houston, said that although it's reasonable to assume that electric trucks can shoulder the load in warmer temperate regions, it's not clear if they will do very well in northern climates during the winter.

Considering these factors, EVs are a more viable option for truckers if they are traveling relatively short distances and coming back to their home base to charge up. City garbage trucks may transition to electricity sooner than long-haul vehicles, added Guinn.

Even short-haul trucks can become a capital investment problem. "If you buy a fleet of trucks, you're hoping to use them for three or four years and then sell them to recoup part of your investment to buy a new fleet," said Guinn. "The problem with EVs is that the upfront cost of these vehicles is so high that the old investment model no longer works."

"You're not dealing with engines anymore. You're dealing with rare earth minerals and extremely expensive lithium batteries." Additionally, EVs do not last as long as traditional vehicles, which might be usable for 15 or 20 years by multiple owners.

In effect, buying EVs that are twice the price of regular trucks amounts to transferring saved fuel costs to the initial price of the new equipment. Guinn said that what we might end up with is a kind of "vehicle as a service" model where leasing companies provide such trucks to end users. ■

“RENEWABLE DIESEL, AKA “GREEN DIESEL,” IS VIRTUALLY CHEMICALLY EQUIVALENT TO PETRODIESEL, MAKING IT A SO-CALLED “DROP-IN” REPLACEMENT FOR FOSSIL FUEL.”

## RETAIL DIESEL PRICES (\$ PER GALLON)

Geopolitical tensions are supporting elevated diesel prices.

Source: U.S. Energy Information Administration; quarterly projections by Moody's Analytics.

