



Photos: Nicholls Transport

Normal operations

The transition from diesel isn't always as daunting as operators may think. Nicholls Transport's move to bio-LNG trucks has evolved from a small trial to a successful operational shift, writes **Andy Salter**

For many haulage operators, the transition from diesel is often framed as a daunting journey, one filled with uncertainty, new infrastructure requirements and operational compromises. Faced with that narrative, it can feel easier to wait for the next breakthrough technology rather than invest in alternatives today.

But for an increasing number of fleets, decarbonising heavy goods transport is proving far more straightforward than many assume. Rather than an abstract journey, the shift away from diesel can be a practical process that mirrors existing operations. Trucks still carry the same loads, travel the same routes and refuel in much the same way. The difference lies in the fuel powering them.

Liquefied natural gas (LNG) trucks running on renewable biomethane are already delivering significant emissions reductions for UK fleets on long-distance routes. And while the technology may still feel new to some operators, for others it is an established part of day-to-day logistics. Nicholls Transport is one such operator.

The long-established, third-generation family haulier has spent the past six years steadily introducing LNG trucks into its fleet. What began as a small trial has evolved into a significant operational shift, one that will soon see gas-powered vehicles outnumber diesel trucks across the business.

For commercial director Rob Gearing, the experience demonstrates that switching to renewable gas is far less complicated than many assume. "If you want to go greener, you can do it today. The trucks exist, the infrastructure exists and you can run them just like diesel," he explains.

Embracing change

Nicholls Transport is not a start-up experimenting with new technologies. The company, based in Sittingbourne, Kent, has been operating in the UK freight sector since 1967 and is now run by the third generation of the Nicholls family. The business runs just over 100 trucks, providing transport, storage and distribution services across a range of sectors including construction materials, FMCG and manufacturing.

Much of the company's work involves heavy payloads, often around 27 tonnes to 28 tonnes, moving products such as plasterboard, bottled water and paper reels around the UK. Those duty cycles present a particular challenge when considering alternative fuels. "We looked at electric trucks," says Gearing. "But for the type of work we do, heavy loads and long distances, they can't do the job."

Electric vehicles have a role in logistics, he acknowledges, but the technology struggles to match diesel performance for high-payload trucking operations. "If you had to move the same volume using electric trucks, you'd probably end up sending more vehicles because of the range and payload limitations. That pushes costs up through the supply chain," he adds.

Instead, the company began exploring biomethane as an alternative fuel that could deliver emissions reductions without compromising operational performance.

Starting the transition

Nicholls's move into LNG began in 2019 with the purchase of its first 10 gas-powered trucks.

At the time, infrastructure was still developing and early adopters had to take a leap of faith.

"It was a chicken-and-egg situation," says Gearing. "Do we buy the trucks and hope a refuelling station appears, or do we wait?"

The station is owned and operated by leading supplier ViGo Bioenergy, but located on the Nicholls site, a model that reduces the capital burden for operators while also allowing other fleets to refuel there.

After the initial vehicles entered service successfully in 2019, Nicholls added another 10 LNG trucks shortly thereafter. Since then, the fleet has continued to expand. Today the company operates 45 LNG vehicles out of a fleet of 102 trucks, with another 10 gas trucks due to arrive shortly. When those vehicles enter service, gas-powered trucks will outnumber diesel units.

"We're not playing at it. We're very much committed," Gearing says.

Infrastructure and investment

One of the most common concerns raised by operators considering LNG is infrastructure. In reality, the requirements can be simpler than expected. Because the system is owned by the fuel supplier rather than the operator, the investment model differs from the infrastructure projects often associated with electrification.

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“It’s essentially a large tank placed on site,” Gearing explains. “The supplier owns it and operates it. We simply use it.”

By deploying the services of ViGo, Nicholls unlocks high levels of renewable gas in its fuel mix. Furthermore, ViGo looks after the site, guaranteeing supply and maintenance and providing the sustainability certificates essential for Nicholls to prove its carbon-beating credentials.

Importantly, the station is open to other fleets, helping expand the regional refuelling network. Nicholls has also secured planning permission to expand the site, potentially incorporating LNG, CNG, electric charging and hydrogen.

The company’s aim is to not only decarbonise its own fleet but to encourage wider industry adoption. “The more operators using renewable fuel, the better it is for everyone,” he explains.

Real-world operation

Early adopters inevitably face some challenges, and Nicholls was no exception. When the first LNG trucks entered service in 2019, the refuelling network was still limited. That meant route planners sometimes had to consider fuel stops more carefully. “It wasn’t always a straight A-to-B journey,” Gearing recalls. “Sometimes it was A to B via C, so you could refuel on the way back.” Those issues have largely disappeared as the network has expanded. “Now there are far more refuelling stations across the country, we can reach most destinations in the UK on LNG.”

Vehicle technology has also evolved during this time. Nicholls initially ran Iveco LNG trucks before adding Volvo gas vehicles to the fleet. According to Gearing, the latest models deliver strong performance, with Volvo units offering slightly improved range compared to earlier vehicles.

Driver acceptance has been positive too. LNG refuelling requires additional safety procedures because the fuel is stored at extremely low temperatures, approximately -165°C , meaning drivers have to wear gloves and protective equipment when filling the tanks. But the process quickly becomes routine, he adds. “The drivers are fine with it. The trucks are quieter than diesel and they’re well specified, so the drivers enjoy using them.”

Operationally, the vehicles slot into the existing fleet structure. Nicholls runs a mixed fleet of diesel and LNG trucks and charges customers the same rate regardless of which vehicle is used. “We send whichever vehicle is available,” says Gearing. “Customers get a percentage of



Real world: Rob Gearing believes his fleet shows renewable gas is already a viable option

deliveries done by gas trucks without any change to the service.”

Environmental impact

A key advantage of biomethane is its lifecycle emissions performance. When produced from waste through anaerobic digestion, the fuel can deliver substantial carbon savings compared to diesel. Nicholls tracks its environmental performance using independent certification from the Zemo Partnership, which verifies the emissions savings achieved through biomethane use.

The reporting process is simple. Gearing runs mileage reports for the LNG trucks and with the support of ViGo, which verifies the carbon certification, provides customers with a breakdown showing deliveries completed and the corresponding emissions reductions. “It’s straightforward,” he says. “We show them the miles, and the certificate shows the carbon savings.”

The company’s fuel mix delivers emissions reductions equivalent to between 195% and 210% relative to diesel on a lifecycle basis. In practical terms, that means the fleet is approaching carbon neutrality. “With the next 10 gas trucks arriving, we could be carbon neutral within months,” Gearing says.

However, customer demand has not been the primary driver behind the transition. “Most of the time it’s us going to customers and explaining what we’re doing,” he says.

That reflects a wider challenge in the industry, where many operators remain cautious about new technologies. But Gearing believes real-world examples like Nicholls’s fleet demonstrate that renewable gas is already a viable option.

Looking ahead

Nicholls has no plans to slow its investment in LNG. Gas trucks will continue to replace diesel vehicles as the fleet evolves, while the company keeps an eye on emerging technologies such as hydrogen and electric trucks. The business has trialed several electric vehicles, but for now they are used mainly for short-range tasks around ports rather than long-distance transport. For heavy haulage operations, LNG remains the most practical solution available.

And while government policy and industry debate often focuses on future technologies, Gearing believes the sector should also recognise what is already working. “People often think transitioning away from diesel is incredibly difficult,” he says. “But it isn’t. It’s a process, and once you start, it becomes part of normal operations.” ■



Photos: Nicholls Transport