

As scientists continue to work on oils in a bid to find fuels that will make commercial vehicles cleaner and more sustainable, Keith Read travels to Holland to assess developments from Shell

FUEL TRANSFORMATIONS

Research by scientists at Shell's technology centre in Amsterdam (STCA) could soon have a major impact on diesel engine exhaust and noise emissions – not to mention the sustainability of vehicles reliant on compression-ignition engines, burning hydrocarbon fuels. And the good news is that benefits will come without any investment required in new vehicles.

STCA's most promising project is based on the Fischer-Tropsch process, which essentially converts a mix of carbon monoxide and hydrogen into liquid hydrocarbons. Dubbed GTL, its process transforms methane gas – left after well-head gas is treated to remove contaminants and processed into petrochemical products – into liquids, including fuels and base oils.

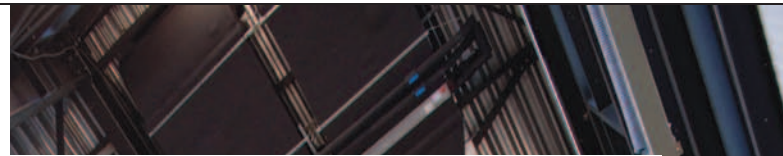
Fortunately, the world has plenty of gas ready for such treatment. "Gas is much more abundant than originally thought," explains Mark Gainsborough, vice president of marketing for lubricants and commercial fuels at Shell.

Big project, big facility

Key to fulfilling the potential of GTL is the success of Pearl GTL, a huge production facility (see panel) built under a joint venture between Shell and the state of Qatar. The multi-billion dollar facility made its first shipments a little over a year ago, supplementing output from a smaller facility, built at Bintulu in Malaysia in 1993 to prove commercial viability of GTL. Today, Pearl GTL is not only supplying cleaner diesel fuel to transport fleets in Germany and the Netherlands, but also producing base oils that, according to Dr Selda Gonsel, Shell's vice president of global commercial technology, promise improved lubricants.

"GTL products are colourless, odourless, biodegradable and virtually sulphur-free," explains Gonsel. "Used alone, or as a blend with diesel, GTL fuel produces lower emissions than those from conventional diesel." And she adds that the resulting lubricant derivatives also offer better cold-cranking, as well as higher viscosity and lower volatility than their conventional counterparts.

Colin Abraham, Shell's vice president of lubricants and commercial fuels marketing, says transport managers won't have to wait long. "By 2014, [the new lubricants] will be on the market," he promises. "Zero-sulphur means no corrosion, making them particularly beneficial as transfer oils." And commenting on GTL fuel, he says: "It works with existing fuel systems, presents no hassles for transport managers and involves no expense."



Shell and GTL

Shell's investment in GTL started during the 1973 oil crisis, when it considered turning coal into fuel, using the Fischer-Tropsch process. However, a timely breakthrough in catalyst development opened the door to converting gas to liquids – a much easier, and far more affordable, process.

Projections showed that GTL would become viable when oil, then barely in double figures per barrel, reached \$40 a barrel. Early in August, the price topped \$90 and showed every indication of continuing to rise.

Coincidentally, the price hike came just as Shell's and Qatar's rulers' massive joint venture in the world's biggest facility for GTL was seeing production reaching maximum capacity. Known as Pearl GTL, the facility converts 1.6 billion cu ft of natural gas from off-shore fields into 140,000 barrels of petroleum liquids and 120,000 barrels of oil equivalent every day.

While his latter assurance is no doubt accurate, the question of pricing for what is clearly a premium product remains unanswered. Shell won't discuss the likely cost of GTL diesel ahead of its availability

in the UK. That said, one transport boss, who is convinced that GTL diesel is the way forward, believes that any premium is more than covered by the benefits.

Egbert Vennick, director of European waste collection and processing firm Van Gansewinkel, explains that 60 of his refuse vehicles have been running evaluation trials. "Our [GTL-fuelled] vehicles can enter closed buildings without staff having to wear masks. Because of GTL, we don't have to make investments in filters. And the vehicles are quieter by up to five decibels," he says. "People notice these things when working with them all day."

Tellingly, Vennick also says that mentioning in tenders the fact that Van Gansewinkel trucks run on GTL is helping the company to secure contracts. "GTL won't solve all the world's problems... But it has a positive effect now," he maintains.

So when might we see GTL in the UK? Shell remains tight-lipped. It says that, following the initial launch of GTL fuel in the Netherlands and Germany, it will assess potential demand in other markets and then make a decision. 

WORKSHOP MANAGER

Siskin Drive, Coventry

Salary £35,500 + Performance Related Pay

The Canute Group is one of the UK's leading logistics providers with a network of depots throughout the UK, customer satisfaction coupled with a high level of service has been our key to growth for more than 30 years.

A vacancy has arisen at our Coventry location for a Workshop Manager. You will be responsible for establishing an engineering team and a maintenance facility operating 7 days a week to support the businesses transport operations and third party customers requirements.

The successful applicant will need to have a proven track record in commercial vehicle engineering and possess strong leadership and people management skills. You will need to be an effective communicator at all levels dealing with both internal and external customers of the group. You will hold the appropriate technical engineering qualifications as well as being a member of The Institute of Road Transport Engineers, practical and management knowledge for Health Safety and Environmental practices is essential. You will be responsible for managing a budget and controlling expenditure whilst working closely with the senior engineering team. You will be measured against customer internal and external KPIs and Service Levels to maintain the expected levels, whilst delivering a reliable and legally compliant fleet.

WORKSHOP SUPERVISOR / ENGINEER – GRADE 1

Siskin Drive, Coventry

£11.50 Per Hour + Performance Related Pay

A qualified engineer is required to join our workshop team at our Coventry workshop location to carry out the maintenance, servicing, inspection and repairs of the depot based and companies trunking vehicles.

You will be a time served engineer with qualifications and preferably hold an LGV licence. Supervisory experience would be a benefit but is not essential.

Knowledge of Workshop Health and Safety and Environmental Practices would be desirable.

For more detailed job descriptions and to learn more about Canute Group please go to our web site at www.canutegroup.com and go to careers/available positions.

If you would like to apply for either of the above roles please forward your CV with a covering letter to kara.bundock@canutegroup.com
Closing date for all applications is Friday 28th September 2012

