Inquiry Response

Friday 21st January 2021

Fuelling the future

Motive power and connectivity

The Gas Vehicle Network (GVN) is an established trade body which represents a diverse range of businesses involved in the production of gas-derived fuels and gas-powered vehicles, particularly heavy goods vehicles. Given that air pollution, and related preventable deaths, are at unacceptably high levels, the work of our members is vital in developing the next generation of cleaner transport fuels and vehicles.

The GV Network is one of the seven divisions of the Energy and Utilities Alliance (EUA), a company limited by guarantee and registered in England. Company number: 10461234, VAT number: 254 3805 07, registered address: Camden House, 201 Warwick Road, Kenilworth, Warwickshire, CV8 1TH.

1. The effect of Government fuel policy on future road, rail, air and maritime connectivity

We believe that currently Government policy on the decarbonisation of heavy goods vehicles (HGVs) is short-sighted and self-defeating as it ignores the role that biomethane could play as a carbon neutral alternative to diesel. When the Department for Transport released its consultation on phasing out the sale of new, non-zero emission HGVs, we welcomed the proposal to polluting HGVs from 2040. However, we expressed grave concerns around the fact that this proposal effectively included biomethane vehicles in its scope due to the focus on allowing only HGVs with zero tailpipe emissions. Should this proposal go ahead unaltered, it could damage both our ability to reach our 2050 net zero target and the early emissions reductions which could be achieved with biomethane.

HGVs are a notoriously difficult to decarbonise vehicle class. They also account for a disproportionate share of emissions: 17% of transport-related CO_2 emissions despite only making up 2% of vehicles on our roads and travelling just 6% of vehicle miles. Having said that, HGV can be decarbonised *today* through the use of biomethane produced from waste feedstocks, most notably manure which can be used to produce a certified carbon neutral fuel. This incredible, yet underappreciated, development in the HGV industry could be a game changer in the effort to decarbonize HGVs. This fuel can be produced domestically and could mesh well with the Government's emerging waste strategy for England which is likely to set an ambition for greater use of organic wastes in the increased production of biofuels. Greater emissions reductions are possible; with the development of carbon capture and storage, it could be possible for manure-derived biomethane to be carbon *negative*, something which is very unlikely to be possible for any of the alternative zero carbon HGV technologies being pushed by the Department for Transport.

The Government's short-sighted focus on zero tailpipe emissions at the expense of cutting emissions from HGVs as soon as possible risks curtailing the exponential growth in the biomethane market seen in recent years. Figures compiled from our member companies dispensing gas fuels show that the amount in kilograms of biomethane dispensed in 2020 was up 80% on 2019. Of all gas fuels dispensed in 2020, 93% was waste-derived biomethane which shows

a clear demand for this low carbon alternative to diesel. Much of this growth is being driven by large companies switching part or all of their fleet to biomethane; for example, major logistics company Gregory Distribution recently announced the purchase of 12 new Volvo bio-LNG trucks, each of which are expected to travel 200,000 kilometres per year.

Unlike cars and aeroplanes which are often the subject of 'flashy', headline-grabbing announcements from the Government or manufacturers, HGVs are often seen as an inconvenient afterthought in policy terms. This reality can sometimes lead to ill thought out, overly simplistic policies. We believe that the announcement that biomethane HGVs could be banned from 2040 alongside far dirtier diesel models is a prime example of this type of inadequate policymaking. These proposals were published shortly before COP26 began and, we assume, were therefore an attempt to address a perceived gap in transport decarbonisation policy which could have left the UK Government facing criticism at the conference.

This policy could significantly disrupt HGV-reliant sectors, such as freight, which often operate with low profit margins and need to plan vehicle replacement cycles carefully. With no viable all-electric alternatives available for larger the largest vehicle classes, the currently policies for HGVs beyond 2040 represent a serious concerns for many in the industry. The 2040 ban on diesel and biomethane HGVs could even end up producing perverse outcomes, such as causing fleet operators to renew their diesel fleets in the late-2030s in order to put off having to purchase expensive alternatives, assuming they are even available.

2. Whether and how the Government is 'technology neutral' in its regulation and assessment of alternative fuels, and how its policies on alternative fuels influence investment, research, development and production

The Government is not at all technology neutral at all when it comes to alternative fuels for HGVs. The Government is effectively taking a huge gamble, betting that all-electric and hydrogen models will be available by 2040. Although it may seem like a sufficient timescale, less than 18 years is not long for the development of completely new HGV models and all of the associated infrastructure. One fact that is often overlooked is that the UK is a relatively small market for new HGVs given that we have right-hand drive vehicles. Many of the largest right-hand drive markets, such as India, Pakistan and Indonesia are reliant on second-hand vehicles. This means that the initial market for completely new models, such as all-electric HGVs, will be small in an international perspective, particularly if the UK Government is alone in its fixation on zero tailpipe emissions HGVs by 2040.

The Government's current assessments of alternative fuels do not seem to take sufficient account of the emissions savings that biomethane can deliver *today*. We know that cumulative emissions savings are far more desirable than putting off reductions for decades. For this reason, the Government should be supporting carbon neutral biomethane HGVs today and for the foreseeable future, rather than gambling on as-of-yet undeveloped alternatives which are unlikely to be viable long before the 2040 cut-off date, if at all. If the Government were truly technology neutral on these matters, they would follow the suggestions we made in our submission to last year's consultation, namely that fleet operators should be able to choose from a range of carbon neutral fuels and HGV models, so long as they are consistent with our net zero target. This could

include biomethane and electric models with fleet operators being able to choose them based on their own needs.

3. The infrastructure required to develop, produce, store and dispense alternative fuels

A key advantage of biomethane is that its associated infrastructure is already being developed privately. Anaerobic digestion and LNG and CNG filling stations are already well developed and being expanded constantly. As previously mentioned, in the coming years the Government's waste strategy could place a greater emphasis on expanding the UK's AD capacity and biogas production. For example, there is potential for far greater 'on-farm' production of biomethane from waste feedstocks.

On other hand, electric HGVs would need slew of new infrastructure and numerous considerations around when they would be charged. During last year's consultation, it was suggested that electric HGVs could be recharged during drivers' rest breaks. This assertion ignores the fact that rests are often not taken at service stations where high-powered recharging infrastructure would likely be sited. Rather, drivers regularly stop off for rest breaks at designated rest stops and lay-bys which are often in remote locations where it would be uneconomical to install chargers capable of rapidly recharging an HGV; for reference, an HGV with 700 kWh of capacity would require a connection of at least 1 MWh to enable a 45-minute charge. Rests may also be taken at a driver's destination whilst the HGV is being unloaded; in this scenario, it is difficult to see the destination organisation having sufficient infrastructure and being willing to allow a large HGV to recharge at their cost. In addition to this, the assumption that an HGV could be charged sufficiently during a rest break relies on a driver taking a 45-minute rest in one go; drivers will often split the 45 minutes over more than one rest period which would make rapid charging all the more logistically and technically difficult.

The provision of charging infrastructure in one location to serve large fleets, a key requirement for the freight industry, could also be problematic. Many depots and distribution centres do not currently have sufficient supply to meet the needs of a fleet of battery electric HGVs, necessitating huge upgrades of substations in many areas. Distribution network operators will have to carry out these upgrades but the facility owners will ultimately have to pay for the work because legislation limits the ability of DNOs to recover the cost of investment in the grid. Where depots are leased rather than owned, freeholders may be reluctant to allow such an upgrade to take place as it could lead to a substantial increase in the site's daily standing charge, which could cause them difficulty in finding a new leaseholder after the current tenant vacates the site.

4. Steps that the Government could take to maximise the utility of the UK's existing transport stock, while meeting its climate-change commitments

We have no comment to make.

5. The contribution that alternative fuels could make to sustainability, transport decarbonisation and connectivity

It is clear that biomethane would be a sustainable, long term solution to decarbonising HGVs in the near future. The Government should recognise the unique benefits of biomethane and exclude it from the currently proposals on restricting the types of HGV which will be available beyond 2040.