

Call for Ideas Response

Friday 1st April 2022



Low Carbon Fuels Strategy

Call for ideas

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. How can the low carbon fuels strategy best improve certainty about the deployment of low carbon fuels to support the decarbonisation of the transport sector and the growth of this industry in the UK?

The Low Carbon Fuels Strategy needs to give the industry certainty over the future status of fuels, such as biomethane, which already have the ability to completely decarbonise heavy goods vehicles. In this call for ideas, the Department appears to be doubling down on its commitment to phase out fuels which are not zero emission at the tailpipe. GVN reiterates the position we took in response to the Department's consultation on these proposals in September 2021. We believe this position to be both short-sighted and a significant gamble to take in light of the relatively short timescales that have been set out for its implementation.

As noted in the call for ideas paper, biomethane can already be produced as a carbon neutral fuel, three decades ahead of our net zero target thanks to the use of manure as a waste feedstock. Emissions savings from this cost effective, carbon neutral fuel could be built on further in the future, enabling biomethane to become a carbon *negative* transport fuel. The focus of any Low Carbon Fuels Strategy should be to slash transport-related carbon emissions and encouraging the use of fuels that achieve this, particularly where they can do so well in advance of 2050 in order to take advantage of cumulative emissions savings. Based on the current thinking of the Department, it appears that the Strategy will, in fact, chart a course for the managed decline of the biofuels industry up until 2040 when, the Government hopes, as-of-yet undeveloped electrified and hydrogen-based alternative technologies will have been developed and scaled up commercially.

Modelling carried out by the Zemo Partnership shows that even with a conservative estimate of growth in the biomethane market, and assuming the current 84% average CO₂ reduction versus diesel, biomethane would deliver cumulative greenhouse gas emissions savings of 70 MTCO_{2e} by 2050. GVN believes that this focus on delivering emissions savings well ahead of 2040 should

be a key focus of the Transport Decarbonisation Plan and these proposals. Following this logic, the Strategy should contribute to a policy framework that would see diesel HGVs phased out as soon as practically possible, something which GVN has long called for. However, usage of demonstrably low (and carbon neutral) fuels should be allowed to continue beyond 2040. To effectively ban the use of biomethane from 2040 would be an act of self-sabotage as far as the UK meeting its net zero target is concerned.

The development of a Low Carbon Fuels Strategy, something our members are very supportive of in principle, therefore offers the Department an opportunity to truly recognise the ongoing role that zero carbon transport fuels, such as biomethane, could play in decarbonising HGVs.

2. Are there specific examples or best practices, the government should take into account when drafting the strategy?

The Government should take note of international examples of transport decarbonisation strategies. In many cases, decarbonised transport fuels are being promoted as a long term solution for eliminating transport-related emissions, particularly for the more difficult to decarbonise vehicle classes, such as HGVs. For example, the German has long championed its biofuels industry and created ample export opportunities as a result. The German government is also pushing the European Union's transport strategies to align with a zero carbon gas future. Additionally, the Californian Low Carbon Fuels Standard recognises biomethane as source of carbon negative energy – i.e. greater than 100% GHG emissions reduction compared to diesel – and therefore a way to reverse net transport emissions today.

3. Does this chapter accurately capture key trends, opportunities and risks in terms of low carbon fuels demand? If no, please expand on any aspects that you think are missing or inaccurate, or require further exploration?

Yes, this chapter broadly captures matters relating to changes in demand. We welcome the acknowledgment that demand for low carbon fuels for long haul HGVs will most likely increase in light of the fact that alternatives, such as battery electric HGVs, are nowhere near commercial viability. The paper also acknowledges that increasing demand for biomethane HGVs has presented challenges for fuel production, supply and infrastructure. These challenges have been met by the industry, largely without the need for government intervention or subsidies, unlike many other zero carbon alternatives. However, the Department is mistaken if it believes driving "wide-scale adoption" of any fuels, other than the polluting fossil fuel incumbents, can be achieved if low carbon fuels are relegated to 18-year bridging fuels. This approach risks choking off growth in the industry at a time when it is expanding rapidly, continually driving up emissions reductions and offering a commercially viable, simple pathway to HGV decarbonisation.

4. In your view, what are the key challenges relating to demand in the future transition of the sector?

Government policy. Simply put, demand for low carbon fuels, biomethane in particular, has been increasing rapidly for many years now. However, this trajectory could be seriously jeopardised if the Department takes a firm position that such fuels will be effectively banned

from 2040. This could cut private investment in the industry and put fleet operators off taking decisions that could decarbonise their fleets well ahead of our net zero target.

5. Apart from developing demand scenarios, are there any other actions the government should consider as part of the strategy development to address uncertainties and identify opportunities on the demand side?

The demand scenarios should take into account Government policy in other areas relating to the circular economy, for example the waste strategy which will impact the availability of feedstocks, hopefully in a positive way.

6. For the development of the demand scenarios, are there any key sources of information or data the government should consider?

GVN can supply data on the growth of the biomethane fuels market if this would be of use to the Department.

7. For the development of the demand scenarios, are there any specific aspects that government should consider (e.g. niche uses of low carbon fuels, competing demand from other sectors or technology development) and if so, do you have a view on how best to incorporate them?

We have no comment to make.

8. Does this chapter capture key trends, opportunities, and risks in terms of low carbon fuels supply? *If no, please expand on any aspects that you think are missing or require further exploration.*

Yes, although we anticipate the average greenhouse gas savings of biomethane to increase when the Department's datasets are updated due to the development and increasing usage of manure-derived biomethane. Once again, we object to biomethane being referred to as a "transitional technology" as it can offer net zero emissions to a carbon intense vehicle class which surely ought to be viewed by the Department as a welcome, long-term opportunity to decarbonise the sector.

9. In your view, what are the key challenges and opportunities as relates to supply in the future transition of the sector?

The availability of waste feedstocks in order to be able to meet increasing demand is a key challenge. The development of a Low Carbon Fuels Strategy presents an opportunity to address this, particularly by dovetailing other work being done across the Government on identifying and utilising waste. We welcome the mention of biomethane being produced and used locally as part of a local circular economy; this is a key benefit of the fuel which GVN and our members have been promoting for many years.

10. Are there any other actions the government should consider as part of the strategy development to address uncertainties and identify opportunities on the supply side?

We have no comment to make.

11. Are there particular actions the government should prioritise as part of the strategy development?

We have no comment to make.

12. Do you have any views on how to best capture interdependencies with the global supply chain?

We have no comment to make.

13. Does this chapter capture key trends, opportunities, and risks in terms of UK industry? *If no, please expand on any aspects that you think are missing or require further exploration.*

Yes, although we would argue that competition from other sectors will constrain the biomethane industry in its continued growth.

14. In your view, what are the key challenges and opportunities for the UK industry in the lead up to 2050?

Aside from policy uncertainty and short-sightedness that we referred to in our response to question 4, a key challenge would be the ongoing availability of suitable feedstocks for carbon neutral biomethane production. Whilst production is increasing rapidly, in order to sustain the growth we are currently seeing in the gas HGV sector, the industry needs Government policies to ensure feedstocks are being used where they can deliver maximum emissions reductions. For example, rather than manure being treated using conventional on-farm methods or spread directly onto fields where it can lead to direct methane and ammonia emissions and run-off, it should be directed wherever possible to low carbon fuel production.

15. What are key actions the government should consider as part of the strategy development to address uncertainties and identify opportunities for UK industry?

The Department should prioritise speaking to fleet operators about the realistic prospects of technologies such as battery electric or hydrogen fuel cell HGVs being commercially viable by the end of the next decade. When speaking to fleet operators, our members have found a number of practical considerations are raised, ones which do not appear to have been adequately addressed by the Government.

For example, the Department appears to believe that rapid charging of battery electric HGVs could make them viable for long haul journeys. The belief that an HGV could be charged in around 45 minutes during a driver's break 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. These kinds of practical barriers to the deployment of certain technologies can only be fully considered through close working with the freight industry.

16. Are there any production pathways or adaptations to production pathways and infrastructure that are most likely to benefit the UK economy?

We believe that carbon capture and storage could play a significant role in the decarbonisation of transport as it could enhance the high emissions reductions already possible with waste-derived biofuels. Forging ahead with the development of this technology would, of course, benefit many sectors across the UK economy. If the UK takes a lead on the development of CCS, it could also provide ample export opportunities to other countries, both developed and developing. However, the window of opportunity when it comes to the development of CCS is closing as other countries continue to push ahead with political and financial backing for it whilst the UK has prevaricated over it for a decade.

17. If applicable, how does your organisation plan to adapt to the expected changes in low carbon fuel demand and supply?

Our members are ready and able to meet the rising demand for biomethane transport fuel but we would repeat the arguments made in our response to question 3 around the need for policy certainty to drive continued investment as opposed to stagnation, or even a decline in this promising industry.

**18. Does this chapter capture key trends, opportunities, and risks in terms of policy framework?
*If no, please expand on any aspects that you think are missing or require further exploration?***

Yes.

19. In your view, how should the government best deliver its aims of using LCFs to maximise environmental and economic benefits and are there specific measures the government should take to support the sector's transition?

Our position has always been that low carbon fuels should be directed where they can deliver the greatest emissions reductions, particularly where other routes to decarbonisation would be more costly, cumbersome or complex. HGVs are evidently responsible for a disproportionate share of transport emissions and, as we have stated already, very few credible routes to decarbonisation in the near future exist. The Government should therefore recognise the significant cumulative emissions savings, particularly regarding our next three carbon budgets, which biomethane can deliver.

20. In view of the different challenges and opportunities, are there specific policy measures the government should prioritise and why?

We reiterate the points made in our response to question 1. The Government should not be pursuing some of the counterproductive policy proposals they have set out in the last 12 months.

21. Are there any key actions the government should consider as part of the strategy development to identify policy gaps and opportunities?

We have no comment to make.