Non-Road Mobile Machinery Decarbonisation Options – Call for Evidence

26 March 2024

Summary

- Logistics UK is very supportive of this Call for Evidence and the need to develop a clear plan in the sector to encourage decarbonisation efforts. Both Logistics UK and the industry recognise the need to decarbonise NRMM.
- Logistics UK and our members are concerned that this Call for Evidence and the proposed solutions are very data focussed and there are limited questions considering what the industry needs.
- Logistics UK is particularly concerned that there is an assumption that NRMM equipment is always kept on a hard standing surface, which is not the case in multiple sectors of the industry such as agriculture and construction.
- The challenges, opportunities and barriers listed are suitable for the situations outlined but do not go far enough for the full NRMM sector.

About Logistics UK

Logistics UK is one of the country's largest business groups, representing the entire logistics industry and supporting, shaping and standing up for safe and efficient logistics. Our membership of more than 20,000 includes global, national and regional businesses and SMEs spanning road, rail, inland waterways, sea and air as well as the buyers of freight services, such as retailers and manufacturers. As an organisation, we deliver services, representation and thought leadership, helping members and policy makers to seize new opportunities for the sector and the economy, right across the country.

What we represent

Logistics is a sector delivering an increasingly safe, sustainable and efficient system of national infrastructure – creating opportunities across the UK and linking the UK to the global trade network. Spanning land, water and air, it delivers for everyone, everywhere, every day.

- Logistics delivers big public value on small margins, ensuring the availability of the products households, businesses and public services rely on. It moves goods more than 200 billion tonne-km within the UK per year and enables the trade of more than £1 trillion of goods, while working hard to avoid adding pressure to the cost of living. This is a challenge with fuel and energy costs at a historic high and restrictions on logistics growing.

- The sector delivers smart, green, resilient growth and jobs. It contributes £163 billion to the economy each year (12% of UK non-financial GVA), employs 2.7 million people (8.2% of the UK workforce), pays £5 billion in revenue to Treasury through Vehicle Excise Duty (VED) and Fuel Duty, in addition to other taxes. It is becoming ever more innovative and integrated –

within businesses and between logistics sites and transport modes. Its key hubs provide a catalyst for further growth and investment, helping places to thrive.

- Logistics delivers for the future, as an essential system for growth. It underpins the whole economy, with an economic footprint three times larger than its direct GVA contribution, with the public sector and other private sector businesses spending 15% of their total input-related spending on logistics services per year.

Logistics UK appreciates the opportunity to respond to a very needed Call for Evidence on a very challenging issue.

Consultation response to relevant questions

Logistics UK will be responding to a select number of questions. As mentioned, this Call for Evidence does not cover the full sector. The initial summary does not seem to consider non-hard grounded equipment such as combine harvesters or diggers which will be very hard to decarbonise. The responses Logistics UK provides are based on the summary within the Call for Evidence. Logistics UK strongly recommends further engagement with all of the NRMM sector to discuss how to decarbonise.

27. Are there any promising fuel switching options that have not been included in this section relevant to the NRMM type and/or industry that you are interested in?

Electrification, hydrogen and biofuel/low carbon fuels will be the solutions to decarbonising all transport and freight, not just NRMM. However, it needs to be acknowledged that all three of these technologies are at very different readiness levels, and different usability scenarios. There needs to be an immediate-short term plan to reduce emissions from transport and freight through low carbon fuels followed by a renewed focus on zero tailpipe emissions once the technology is more readily and commercially available.

Low carbon fuels, such as LNG or HVO will be able to reduce emissions in the shorter term, however particularly with HVO, it is prohibitively expensive in itself. These two fuels, amongst others, need to be considered in a broader strategy for decarbonisation.

It is imperative, however, that novel technologies and strategies not currently considered are not locked out of the process.

28. What do you see as the necessary fuel switching options for the NRMM type(s) and/or sector(s) that you are interested in?

As answered in Q27, the necessary fuel options must be those that reduce emissions immediately, before switching to zero emission vehicles (ZEV) becomes more commercially viable. This means in the more niche areas where conventional fuels will continue to be the primary fuel source, maximising the drop-in amount of alternative fuels as soon as possible must be encouraged.

EVs are the most advanced ZEV technology for the mass market and for certain NRMM, such as rail, they must be brought in as quickly as possible to reduce emissions, reduced freight operating costs, and create jobs.

Elsewhere across NRMM, a practical approach needs to be taken. Encouraging, through any means, the uptake of lower emission NRMM until ZEV become viable.

30. Do you agree that these are the main opportunities and potential co-benefits to the deployment of NRMM decarbonisation options?

Yes. The reduction is noise from these operations and improvement in air quality will have a myriad of benefits for the local and wider community. There is an intrinsic, clear relation between noise and air quality and that of mental and physical health as reported by the Science and Technology committee. With a following report from the British Medical Association and another from the Confederation of British Industry showing “a healthier community is more economically productive.”

31. Are there any other opportunities and/or potential co-benefits?

The other opportunity, more broadly for the UK, is that these technologies are still in their early stages and not dominating the mass market. UK industry and innovation could lead the way, creating more jobs and economic growth.

32. Do you agree that these are the main technical barriers to the deployment of NRMM decarbonisation options? If not, which barriers listed do not apply and/or what additional significant technical barriers exist?

The two barriers flagged are the main technical barriers for NRMM. The solution for increasing the technology readiness level (TRL) is continued investment in the technologies to improve their commercial viability. A clear roadmap determining the role of specific technologies in the future will allow additional or further investment and provide a clear steer for business.

Taking battery technology as an example, one of the primary challenges is energy density and storage. Currently battery electric solutions do not yet provide the necessary energy density for heavy duty or long duration tasks without frequent recharging or battery swaps, which is impractical in many NRMM situations. Battery electric technology is advancing at such a rate however, that factoring in improvements that must be brought in for batteries to be commercially viable is reasonable. The UK should be preparing in anticipation for a higher TRL and actively contributing to achieving it. This will further stimulate economic growth in expanding markets.

33. Do you agree that these are the main financial and economic barriers to the deployment of NRMM decarbonisation options? If not, which barriers listed do not apply and/or what additional significant financial and economic barriers exist?

These are the main financial and economic barriers to NRMM decarbonisation. The upfront cost of low-emission NRMM technologies, including electric and hydrogen fuel cell machinery, is significantly higher than their diesel competition. This financial barrier frequently deters investment in new equipment, especially as discussed in Q32 newer tech that requires more real-world testing.

The other factor not mentioned in the call for evidence is that given the rugged and harsh working environments NRMM equipment can be in, degradation is to be expected. This results in further financial costs to maintain the efficiency of the equipment. More expensive, newer equipment, that is less available with less spare parts, is expected to be more costly to maintain.

To summarise, the initial and ongoing expenses of NRMMs are too prohibitive for most sectors at present.

34. Do you agree that these are the main infrastructure and fuel supply barriers to the deployment of NRMM decarbonisation options? If not, which barriers listed do not apply and/or what additional significant infrastructure and fuel supply barriers exist?

Logistics UK agrees that these are the main infrastructure and fuel supply barriers. There are positive steps being taken to speed up renewable projects being able to connect to the grid, but more needs to be done on the other fuel infrastructure.

35. Do you agree that these are the main operational barriers to the deployment of NRMM decarbonisation options? If not, which barriers listed do not apply and/or what additional significant operational barriers exist?

Yes, Logistics UK agrees these are the main operational barriers.

36. Do you agree that these are the main regulatory barriers to the deployment of NRMM decarbonisation options? If not, which barriers listed do not apply and/or what additional significant regulatory barriers exist?

The regulatory barriers outlined reflect significant concerns within the sector about transitioning to more sustainable practices. The lack of clear, long-term policy frameworks both nationally and internationally introduces high investment risks, deterring stakeholders from committing to specific technologies due to uncertainty about future policy favourability. This situation is compounded by the regulatory positions of key export markets, where the absence of harmonised standards across global markets further hinders investment.

Logistics UK agrees these are the principle regulatory barriers and addressing them requires concerted effort from Government with industry input to a supportive regulatory and operational environment. This should be focussed on developing clear policies, harmonising standards, improving

infrastructure and providing financial and educational support to facilitate the transition to cleaner NRMM technologies.

37. Do you agree that these are the main knowledge and information barriers to the deployment of NRMM decarbonisation options? If not, which barriers listed do not apply and/or what additional significant knowledge and information barriers exist?

Beyond the barriers highlighted there is also a need to address the systemic lack of structured training programs and educational initiatives aimed at upskilling the workforce in the nuances of low carbon technologies. Moreover, the absence of a centralised, reliable platform for disseminating information and best practices about decarbonisation options.

38. Are there any barriers to the adoption of decarbonisation options for the NRMM type(s) and/or sector(s) that you are interested in which have not been included in this section?

The barriers listed in the Call for Evidence, combined with the ones added by Logistics UK, is fairly robust. However, this does not mean that new ones will not reveal themselves potentially at very short notice. The importance of allowing continued innovation in this sector cannot be overstated. Any plan developed must be flexible, allowing for new barriers to be dealt with promptly. If this flexibility is not built into the plan, this consultation will inevitably need to be repeated before net zero is achieved.

Logistics UK recommendation

Government should host a roundtable, attended by industry and Logistics UK to consider what additional barriers need to be reviewed, in an environment that allows for active engagement to complement this Call for Evidence response.

Yours Sincerely,

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