

EUA response to the Comprehensive Spending Review

About us

The Energy and Utilities Alliance (EUA) provides a leading industry voice helping shape the future policy direction within the sector. Using its wealth of expertise and over 100 years of experience, it acts to further the best interests of its members and the wider community in working towards a sustainable, energy secure and efficient future. EUA has seven organisational divisions - Utility Networks (UN), the Heating and Hotwater Industry Council (HHIC), the Industrial & Commercial Energy Association (ICOM), the Hot Water Association (HWA), the Manufacturers' Association of Radiators and Convectors (MARC), the Gas Vehicle Network (GV Network) and the Manufacturers of Equipment for Heat Networks Association (MEHNA)

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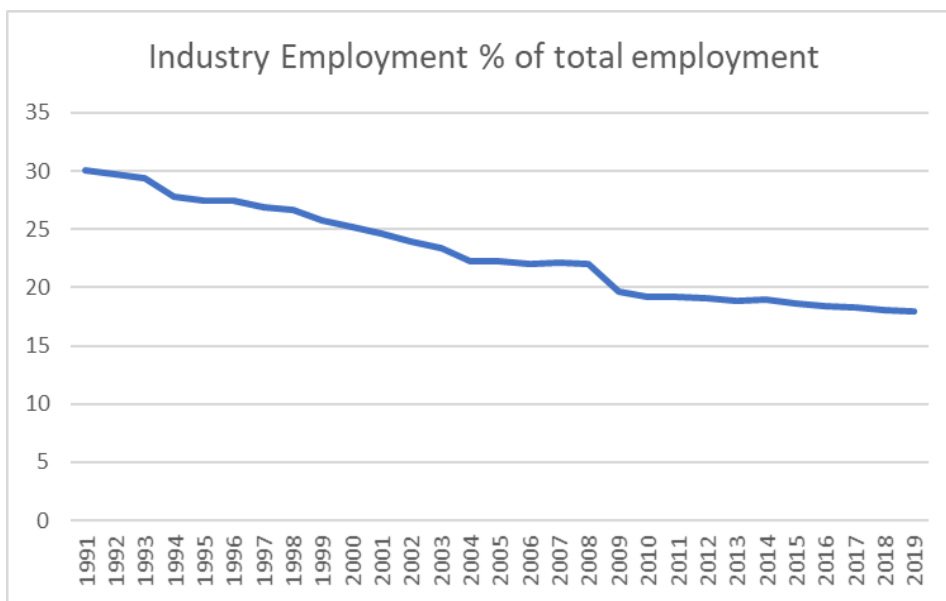
Response

Support for the decarbonisation of heat

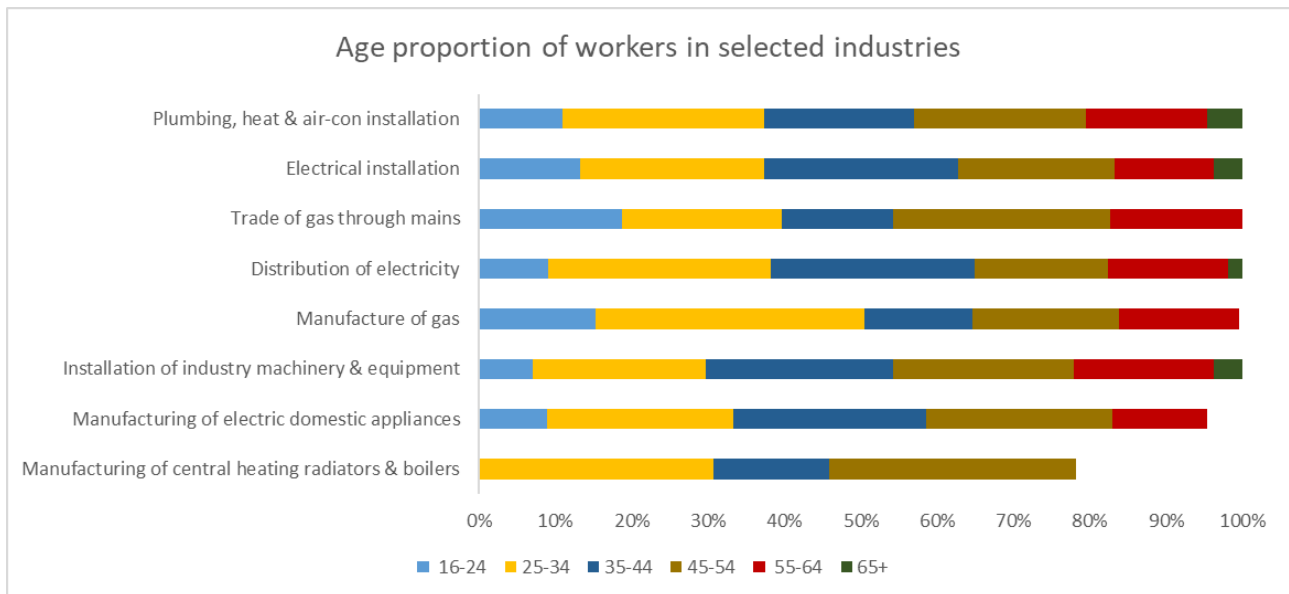
The decarbonisation of heat will be one of the largest infrastructure projects in the UK's history. The task of renovating, replacing and upgrading 25 million homes is going to require significant investment in products, research and development but also skills and people.

EUA believes that both BEIS and the Department for Education need to design and deliver schemes to encourage people to work in this sector. Colleges and Universities should be encouraged to offer pupils the skills needed to develop a workforce that can deliver the decarbonisation of heat during the next 30 years.

It has been estimated that we will need nearly half a million people employed in this sector to meet Net Zero and at the moment around 200,000 are. Worryingly the historic trend for the last 30 years show that this sector has seen a decreasing level of employment according to analysis from National Grid.



Added to this many of those employed at the moment are older workers



This trend will need to be reversed if we are to meet our Net Zero goals, and especially if we want to achieve our ambitious infrastructure renewal targets. There is a very real possibility that the 'retirement crunch' could mean there will not be enough people in the industry with the skills needed to install and build the technologies we will need. This could lead to the importing of jobs and expertise from abroad. This would be unfortunate as the UK has a very real opportunity to be a net exporter of jobs and expertise in Net Zero technology if it can fix the skills gap.

Part of the Covid recovery plan could look at how workers could retrain to work in this industry. Many of the growth areas are in northern towns and cities and regions that may have higher levels of unemployment. Retraining these workers for a role in the Net Zero transition should be seen as a priority. However, it will need Government assistance in provision of training courses, information and funding to help move workers from one industry to another.

Hydrogen could play a major role in helping the UK to meet the all-important net zero emissions target. Many sectors which are proving to be the most challenging to decarbonise, such as heat and transport, could benefit from utilising hydrogen. Hydrogen clearly has great potential to create a zero carbon gas grid and carbon-free gas appliances which would

transform domestic energy use. The end user would require new appliances but regulating so that hydrogen-ready appliances are sold would prime the system ready for conversion. It could also play a significant role as a zero carbon transport fuel, particularly in hydrogen fuel cells; there are additional challenges with this and a hydrogen fuel for combustion engines may be needed for heavier vehicles if biomethane cannot fully replace diesel by 2050.

Developing a zero carbon hydrogen gas grid and appliances which can run on 100% hydrogen could, if made a national infrastructure priority, make the UK a world leader in this technology which would benefit the economy and domestic expertise. Hydrogen boilers, which are already in development, could offer a cost-effective and minimally disruptive solution for the more than 85% of households which currently use natural gas to heat their home. Unlike other alternatives, hydrogen boilers would be very familiar and would slot into a central heating system that consumers understand, like and know how to control. They would require minimal, if any, changes to existing heating systems and would be maintained in much the same way as natural gas boilers but legislation will be required at the appropriate time to ensure all gas products sold are hydrogen-ready.

CCS will be critical to producing so-called 'blue hydrogen' from steam methane reformation (SMR) whilst meeting the 2050 target. It is likely that we would be able to produce blue hydrogen on a larger scale due to the availability of natural gas versus excess renewable electricity. 'Green hydrogen' production could utilise renewable electricity when grid demand is low. As we are seeing currently due to the pandemic, excess supply can present a challenge for grid operators.

The Hy4Heat project is demonstrating the safety of raising hydrogen blends in the grid and has shown promising results. We can also learn some lessons from the usage of town gas which had a 50% hydrogen content. Polyethylene gas mains, as are now commonplace due to the ongoing Iron Mains Replacement Program (IMRP), and suitable for hydrogen

distribution, could transport the gas and the exemplary safety record and expertise within the UK gas industry would ensure a safe transition.

The UK is currently at the forefront of establishing hydrogen as a fuel for the heating sector. We have an opportunity to be a world leader in hydrogen technology and to export it to the rest of the world, but only if the Government is supportive and moves quickly unlike the prevarication over CCS which squandered the opportunity to be a leader in that technology. Germany have published hydrogen strategy and so has the EU. Currently, these strategies are not as ambitious as the UK's but they soon will be.

We have one of the most advanced and extensive gas infrastructures globally, one that could be transformed into a hydrogen network, but the Government needs to publish a comprehensive hydrogen strategy detailing how it will develop a hydrogen economy. This will unlock a significant amount of private investment and will transform the UK's energy infrastructure. However, without clear Government signals that investment may well go to other countries and we will lose our competitive advantage.

A fully-realised hydrogen economy in the UK could both safeguard existing expertise and high-skilled jobs in the gas industry and also create additional opportunities as hydrogen becomes more widely used in other sectors such as transport and industrial processes. The same cannot necessarily be said for alternatives, such as heat pumps, which are overwhelmingly manufactured abroad and would not see all jobs currently in the gas industry replaced.

Government investment so far has been a positive influence in kick-starting research into the feasibility, safety and processes of hydrogen as a low carbon fuel source. It has also given certainty to industry that the Government considers hydrogen to be a potential low carbon fuel for the gas grid and that it wants to explore its feasibility. For a transition to a hydrogen economy to occur, we will need full suite of policy support from the Government including:

subsidies for low carbon hydrogen production, strategic oversight of increasing hydrogen blends in the gas grid and phased switching of individual areas to 100% hydrogen, investment in, and support for, carbon capture and storage, and also mandating hydrogen-ready appliances when natural gas appliances are replaced.

With the technical and safety case for hydrogen blending now being demonstrated by the world-leading HyDeploy project, household cookers and gas boilers are already capable of managing a gas mix of up to 20% of hydrogen without an impact on the way people use those appliances.

At present, network companies are allowed to blend up to just 0.1% mix of hydrogen in the gas grid, but if a 20% hydrogen blend was rolled out across the country it could save around 6 million tonnes of carbon dioxide emissions every year, the equivalent of taking 2.5 million cars off the road.

A new report from Frontier Economics¹ concludes that setting a target date for new large-scale hydrogen production plants to connect to the gas network will help stimulate demand for hydrogen production, pump-priming investment in a hydrogen economy and keeping Britain on course to build the world's first zero-carbon gas grid.

ENA research shows that if investment into zero carbon hydrogen infrastructure began today, then the country would be a net beneficiary of that investment five years ahead of its 2050 net-zero carbon emissions target, saving bill payers £89bn in the process.

The sector can deliver a full hydrogen economy but would need the green light from government to unlock the full investment which would allow it to happen.

¹ <https://cdn.prgloo.com/media/download/a02128b4502446639a21a9bae2177d55>

Government would need to invest in carbon capture and storage (CCS), a critical technology, to ensure it reaches commercial viability, not only for hydrogen but for many other industrial processes. They will also need to support the development of hydrogen production, both renewable and SMR, until it reaches the point of being commercially viable.

However, decarbonisation will also provide the UK with many opportunities to become a world leader in the technologies that will enable our own transition to net zero carbon emissions by 2050. As we operate in the energy sector, our members are primarily concerned with the decarbonisation of space heating and hot water, both domestic and commercial. They are ready and able to be at the forefront of the transition to a decarbonised economy but they require certainty from the Government in terms of the fuels and technologies envisaged to be part of that transition in order to enable the necessary investments in development and infrastructure. If these decisions are made soon enough, the development of carbon neutral energy products, fuels and services could become a substantial asset for exporting abroad, something which is key to the Government's Industrial Strategy, as opposed to the alternative which would see us slip behind other economies which we become increasingly reliant on.

Electrification of Heat

Alongside hydrogen, the electrification of heat will be an important vector for decarbonisation. All modelling shows that a mix of solution that includes a significant role for heat pumps will be needed well before the 2050 deadline. It is vitally important that the UK develops the skills and infrastructure needed for the increased role out of heat pumps in the next decade.

The upcoming change in building regulations will help to grow a market for electric heat, however there will need to be an increased drive to get existing homes ready for and consumers aware of heat pumps.

We believe that BEIS need to have the resources allocated in three principal areas: skills development, infrastructure and consumer awareness.

Skills Development

A number of studies have demonstrated that consumers trust their local heating engineer for making the decision on what heat generator they will have in their home. In order to increase the number of heat pump installations, existing heating engineers need to be retrained in order to be competent and confident in installing heat pumps. In turn this should lead to more heat pump installations.

There are currently around 60,000 gas safe registered businesses supporting around 130,000 heating engineers that can safely install gas boilers. For heat pumps there are under 1000 companies registered with MCS, an industry recognised standard for installations.

EUA have argued for a long time that the government need to facilitate a simple route for gas safe registered engineers to become competent in installing heat pumps. We do not believe this needs to be a complicated process as heat pump installations are not in any way more complex than gas boiler installations, they just have different areas of focus. One key consideration is the accurate design of lower temperature heating systems; a skill that would also improve the operational efficiency of condensing gas boiler installations.

EUA believes that the current accreditation route for gas engineers, ACS, should be repurposed to include modules on low temperature system installations; extending to include modules for heat pumps. As all gas heating engineers have to retrain every five years, within a decade we could see the majority of installers being competent and confident in installing low temperature systems. This simple step would take away one of the principal challenges for heat pump installations and futureproof homes for many types of low temperature heating systems.

However, this will require BEIS providing funding to develop the new ACS modules and assistance with unlocking the process for developing this route. At the moment ACS is focussed on gas safety so Government intervention is needed in order to facilitate the change to allow for the aforementioned modules.

Alongside this, as with hydrogen, a focus will be needed from Government departments in encouraging colleges to offer low carbon heating courses. In the past Governments have helped to fund courses and course development. They have also discounted low carbon heating training courses. A similar approach will be needed again if we are to develop the capacity to deliver heat pump installations.

For the Government the benefit is the creation and safeguarding of thousands of jobs across the country, all which will help with a green recovery from Covid.

Infrastructure

Another key pillar of creating a suitable environment for heat pumps is improving the infrastructure of UK homes. The Green Homes Grant is a welcome step in the right direction, however it will not be enough to move the majority of homes to the required energy efficiency level. Recently published ONS figures show that the average property has an EPC rating of D.

It is well documented that the majority of UK homes still need a significant amount of work in order to improve their energy efficiency levels. However, they will also need to develop their heating systems as well. In particular they will need to improve their radiators and include some form of hot water storage.

Currently around 8 million homes have a hot water store in their home; already offering the potential to deliver significant levels of grid flexibility detailed in future low carbon scenarios. However, every year around 500,000 homes take out their hot water store for a combination

boiler. A typical Heat pump installation will need a hot water store as part of their heating system. If we continue to allow hot water cylinders to be taken out of UK homes, we will only have to encourage homeowners at a later date to have these products reinstalled. However, by that point they may no longer have the space, having filled it with a new bathroom or storage facility.

We believe schemes like the Green Homes Grant and other schemes that encourage home renovation should also look to support hot water stores to ensure that if the homeowner wants to install a heat pump, the heating system requires less rework.

A similar situation exists for radiators. The majority of radiators in UK homes are now over twenty years old and their heat output may not be suitable for a low temperature heating system like a heat pump. Modern radiators are more than capable of supporting heat pumps and due to modern technology, they do not have to be any bigger than existing radiators in UK homes. However, replacing radiators adds additional expense and increases the time required to complete an installation. Therefore, a grant scheme should also seek to include radiator replacement costs.

A large number of radiators and hot water stores are made in the UK, so this would also help to support UK jobs. Many are based in Northern towns and cities and expanded demand would help them employ more people in these regions.

Consumer Awareness

According to the BEIS Attitudes Survey published in February 2020 30% of the public had some awareness of heat pumps, but only 3% knew a lot about them. This is an obvious barrier to the wider deployment of heat pumps.

We believe that BEIS should be allocated the funding to have a widespread communication plan to inform the public about the changes that will be needed in order to decarbonise heating.

It is clear from extensive work done that consumers are equally unaware of all other low carbon heating systems.

We believe that a division within BEIS or wider Government needs to look at an integrated communications plan for engaging with consumers to enable them to understand the options and make more informed choices. Unless they have clear knowledge about what they could be installing, consumers will just choose the status quo products.

We appreciate that this is a complex area and potentially expensive for Government, however recent studies have shown that consumers place a high level of trust in Government communications. Industry would be happy to work alongside Government to help create and disseminate the information.

Within its strategies to enable the transition, the CSR must recognise that different parts of the UK face varying challenges when it comes to energy. For example, many rural areas which are not connected to the gas grid suffer from high levels of fuel poverty. These areas will require a very different approach to more urban areas which benefit from a gas grid connection. Treasury-funded schemes to alleviate fuel poverty will need to take account of particular difficulties in certain regions.

The CSR should also recognise that the way in which the transition is funded will be key to whether it can be regionally balanced or considered 'just'. As previously mentioned, Scotland's energy efficiency schemes are well developed and this is true, albeit to a lesser extent, for Wales. This leaves consumers in England and Northern Ireland with relatively few options for accessing funding or finance for energy efficiency improvements, particularly

ones which give them a wide degree of choice. If this situation is not rectified by the Government providing a better offer and more encouragement of green finance, then any transition which comes will not be regionally balanced by virtue of a postcode lottery for energy consumers. Furthermore, if the focus remains on consumers either funding their own part of the transition, or putting system-wide costs onto energy bills which are regressive by nature, then it cannot be a just transition. Those who are least able to pay need to be assisted in making the transition to decarbonised heating with a parallel aim of reducing their energy bills which will impact them disproportionately compared to wealthy households.

We believe that the Comprehensive Spending Review is an opportunity for the Treasury to recognise that the long term transition of heat needs to begin now. Schemes such as the RHI have not delivered the scale of change needed so the CSR will need to provide certainty to BEIS that there will be sufficient funding for their long term heat decarbonisation strategy to be delivered. We believe that progress on demonstrating the viability of hydrogen as a zero carbon fuel for Britain's gas grid needs to be a key focus for the Government going forward. Therefore, the Treasury will need to back up by funding and credible policies development in close co-operation with BEIS.

We also feel that the Treasury needs to place a greater emphasis on incentivising a wider range of households to invest in improvements to their heating system and their home's energy efficiency. As previously mentioned, this is something which has been lacking since the failure of the Green Deal but is available to households in Scotland.

EUA also believes that BEIS should re-evaluate the products supported by their energy efficiency grants and support schemes. In order to decarbonise the UK's housing stock, we will need to replace most homes radiators and install hot water cylinders. There is currently no support for homes to do this. Whilst insulation measures and some heat generators are included in these schemes, radiators and hot water cylinders are not. Not only would inclusion help grow jobs and help UK based manufacturers, it would help get our homes 'net

zero ready'. The sooner we do this the sooner we can start installing the technologies that will decarbonise heat.

We also believe the CSR should be evaluating how best BEIS can support the roll out of smart systems. In particular, smart hot water systems. Using hot water systems already installed in UK homes could provide up to 29GWh of storage potential. New systems coming onto the market now are able to convert even more stored energy into electricity for the home. However, there is not a work stream currently looking at how stored water systems can be retained in the home or encouraged.

The CSR should evaluate the cost effectiveness of BEIS's position on off gas grid heating. There is a concern that BEIS will choose to pursue an all-electric scenario. Whilst we understand and support the concept of encouraging heat pump deployment. We also acknowledge that one size does not fit all, especially in the off gas grid sector where many houses will not be suitable for electric heating. Research² from Liquid Gas UK shows that a 'one size fits all' electrification only approach to rural areas (fuel poverty, consumer choice, older housing) will cost over £7bn more than a mixed technology approach. Similar to hydrogen, bio gas and bio oil also have a transition to low carbon alternatives but also needs support in encouraging indigenous production and needs stronger supportive messaging from BEIS to help drive this supply chain, including incentives to drive green bio fuels into heat beyond the gas grid.

For example, BioLPG, alternatively known as biopropane, is a versatile, 'drop-in' renewable solution which can provide up to 90% emissions reduction. Already available on the market today, bioLPG is chemically indistinct from LPG and can be used as it is, just like conventional LPG. This means it can be 'dropped-in' to existing supply chains and can be used by consumers in their existing heating appliances, stored in existing bulk tanks and cylinders,

² <https://www.liquidgasuk.org/uploads/DOC5DA5B347CF3A7.pdf>

and transported using today's infrastructure and skilled workforce. It is the industry's ambition to offer 100% renewable energy solutions by 2040.

To help drive this change the CSR needs to ensure departments across Government have the resources to deliver the projects needed to support heat decarbonisation. These teams should also have a more unified purpose. We are concerned that there are currently too many teams and groups looking at niche areas of the heat decarbonisation problem, but these are not feeding into a central point. This risks certain innovative technologies not being considered and it means that urgent actions such as the skills gap are not addressed centrally.

Support for Green Gas to decarbonise transport

If the UK is to meet its climate change targets then the current biggest contributor to greenhouse gas emissions, transport, needs immediate attention. Compared to 1990 (the baseline for the 80 per cent reduction) the UK has reduced its overall emissions by 41 per cent; transport emissions in that time have fallen by just 2 per cent. Transport is now the largest emitting sector of the UK's greenhouse gas emissions, comprising some 26 per cent of the total, compared to energy supply (electricity) 25 per cent.

Within the transport sector, road transport is the largest emitter of greenhouse gases and HGVs have disproportionately high emissions. They account for 17% of road transport CO₂ emissions despite making up just 5% of vehicle miles.

The importance of tackling HGV emissions was recognised in DfT's "The Road to Zero" which stated that a voluntary target for industry is now in place to reduce HGV emissions by 15% by 2025.

The powertrain required for these vehicles means that alternatives to diesel, such as batteries, are simply not capable of pulling the loads. Gas-powered engines are an alternative to diesel and are suitable for use in the UK. In 2013, the Chancellor recognised this and lowered the fuel duty on gas compared to diesel. At the time, this decision was a nudge to encourage a switch to gas-diesel hybrid HGVs. The industry however, recognised that these vehicles are not as effective as dedicated gas-powered HGVs.

The duty differential has encouraged the industry to deliver gas filling stations; fleet managers (such as Waitrose) to start switching from diesel and the potential for lower carbon HGVs to become a reality. We would encourage Treasury to ensure that this duty differential remains in place.

Biomethane is today's ultra-low carbon fuel of choice for fuelling HGVs and in particular for trucks travelling long distances. When sourced from certain feed stocks, biomethane is not only an ultra-low Greenhouse Gas (GHG) emissions fuel but is a negative GHG fuel. Wastes that would otherwise lead to significant methane emissions are used to produce a renewable and sustainable road fuel. It is also an abundant fuel with ADBA estimating that by 2030 there will be sufficient feedstock to power long haul HGVs on the road today.³

No other green technology is currently available to fuel heavy, long distance, logistics operations. It is likely to take decades before zero carbon alternatives are widely available or economic with infrastructure deployed to make them a practical alternative. Biomethane for HGVs is compatible with all future technology developments and will not hinder their development. In fact, for some it may be an important first step in the transition to clean fuel.

The public and the UK logistics and haulage industry want action today to reduce emissions from trucks. Biomethane fuelled HGVs represent a no regrets "solution available today" and

³ <https://adbioresources.org/news/adba-launches-biomethane-the-pathway-to-2030-report>

are therefore a vital component in transitioning and delivering “The Road to Zero” as well as the UK’s ambition to become a world leader in low carbon technologies.

The Gas Vehicle Network, GVN agree with the DfT’s own statement in their recent RTFO consultation which stated that: “Carbon budgets are made under the Climate Change Act, and every tonne of GHG emitted between now and 2050 will count. Where emissions rise in one sector, the UK will have to achieve corresponding falls in another. In 2018 biofuels reduced carbon emissions from transport by over 3.5 million tonnes⁴. Biomethane powered HGVs will save greenhouse gas emissions now.

Each biomethane powered HGV typically saves 130-150 tonnes/pa of CO₂ when using 100% biomethane compared to the same vehicle powered by Euro VI diesel, running on a standard diesel blend.

80% of the total dispensed volume of gas for transport fuel was bio-methane in 2019⁵. This highlights how successful the Renewable Transport Fuel Obligation (RTFO) has been in decarbonising transport.

Large HGV operators turn over their vehicle fleets in a typical 4 to 6-year cycle. The speed of adoption for biomethane is also more rapid than for cars because the primary life of a truck in a major haulage fleet is far shorter.

No pragmatic CO₂ reduction strategy for road transportation should ignore the potential benefits of decarbonising the “CO₂ intensive” HGV sector. A 1% annual CO₂ saving can be achieved by switching 540,000 diesel cars to electric OR, 14,000 HGVs from diesel to biomethane.

⁴ <https://www.gov.uk/government/consultations/increasing-the-renewable-transport-fuel-obligation-buy-out-price-for-biofuels-suppliers/>

increasing-the-renewable-transport-fuel-obligation-buy-out-price-to-ensure-continued-greenhouse-gas-savings

⁵ <https://www.ngvnetwork.co.uk/news/renewable-gas-accelerates-hgv-industry-to-carbon-free-destination>

Biomethane, when produced from certain feedstocks such as manure, offers more than 100% CO₂ equivalent savings compared to running on a fossil fuel and is therefore a carbon negative transport fuel.

Under almost all future scenarios, development of refuelling infrastructure will be key to enabling the deployment of new low carbon technologies. Diesel refuelling is cheap and widespread but refuelling for future technologies will be much more expensive and require scale to be economic.

Biomethane refuelling infrastructure provides a first step in this direction as stations can be deployed at large logistics parks, ports or logistic company sites where very large concentrations of trucks operate and refuel. In the fullness of time, as other zero carbon technologies emerge such as hydrogen and potentially replace biomethane, these same locations will be ideal for HGV refuelling and can be repurposed to the new technologies and fuels.

The UK is a world leader in gas HGV engine technology. Jobs are being created in the manufacturing of fuel systems that are used globally in high pressure gas injection trucks. It is also estimated that 30,000 jobs⁶ will be directly created in the biomethane industry when operating at its full potential.

As a national network of biomethane refuelling stations is put in place it would be reasonable to project that 50% of all long range, heavy payload new truck purchases will be powered by biomethane by 2030. That would equate to about 60,000 HGVs and be equal to incremental annual CO₂ savings of about 2.5 million cars. ADBA model that the UK could produce up to 76.3 TWh of biomethane per year by 2030. This energy equates to 97% of the

⁶ http://adbioresources.org/docs/Biomethane_-_Pathway_to_2030_-_Full_report.pdf

HGV energy consumption in 2017⁷. Current RTFO statistics show that when comparing Q1'19 to Q1'20 the volume of bio-methane is up by 358%⁸.

With the fixed fuel differential (biomethane versus diesel) already in place until 2032 and a national network of 45-50 open access biogas refuelling stations operational by the end of 2025, annual CO₂e savings of around 5 million tons is achievable by 2030.

The DfT's upcoming Transport Decarbonisation Plan should recommend a role for gas HGVs as a key method for decarbonising heavy goods transport. It is the only way to decarbonise HGVs today without having to wait for a technological breakthrough in 20 years. Unlike many other decarbonisation initiatives, expensive subsidies are not required. Positive support from the Government will create certainty to unlock investment. In turn this will make a significant contribution to the UK's "green recovery" and create jobs in the rapid construction of refuelling infrastructure. This is the essential prerequisite for reducing emissions and pollution from HGVs operating on our roads.

Comprehensive review of business rates

EUA members occupy 8 onshore gas storage properties in England with a total current rates liability of some £21.225 million per annum for 2020/21. Due to the impact of transitional relief this is more than 3 times the correct business rates liability, with some £14.52 million per annum paid above the correct amount.

Due to the impact of the downwards phasing provisions in transitional relief we calculate that our members will have paid approximately £82 million over and above their correct business rates liability during the life of the 2017 Rating list. These provisions have hit a storage industry that is already reeling from market downturn, evidenced by the accounting write-down of all GB gas storage assets by more than [80%] over the last decade. We call on the government to comply with a key recommendation of the Treasury Select Committee

⁷ http://adbioresources.org/docs/Biomethane_-_Pathway_to_2030_-_Full_report.pdf

⁸ <https://www.gov.uk/government/statistics/renewable-fuel-statistics-2020-first-provisional-report>

and ensure that transitional relief schemes operate to ensure ratepayers transition to their correct liability more quickly. The existing scheme will have operated for 4 years by 31 March 2021 and should be terminated at that date. The existing provisions are penal and frustrate the purpose of business rates and revaluations.

EUA also considers that the current level of Uniform business Rate is too high and unsustainable. When business rates were first introduced in 1990 the UBR was set at a level of 34.8 p. It has subsequently increased to in excess of 50 p as a result of the application of RPI and CPI indexation. Revaluations take place to bring property values up to date with the market and should negate the need for indexation to the UBR as inflation is inherently reflected in the RV's. In effect therefore the net rate of tax has increased from 34.8% in 1990 to 51.2 % in 2020/21. The government should target a reduction in UBR back to approximately 35 p to ensure a sustainable tax moving forward.

EUA considers that there are too many reliefs available which serve to drive up the level of UBR and that consolidation of reliefs could be used to reduce the overall level of the tax burden. We also consider that reliefs which are available should be mandatory with all element of discretion from the Local Authority removed.

EUA also considers that all assets which are not in economic use should not be subject to business rates. The application of business rates to mothballed or temporarily decommissioned assets leads to a perverse incentive to demolish assets and is an example of the tax working against the interests of maintaining important national infrastructure. Our members have faced extreme economic headwinds in our industry since the 2010 rating list commenced. The 2017 business rates revaluation largely captured this severe downturn in the industry by reducing Rateable Values for gas storage by 75% to 80%. However, the impact of this revaluation on the industry has been completely frustrated by a penal and unfair transitional relief scheme, which has prevented the application of correct liabilities

over the entire duration of the rating list to date. The application of the scheme should be ended with effect from 31 March 2021 so that ratepayers pay their correct liability.

In addition, the UBR is now at an excessive level which prevents investment and growth. The government should seek to reduce the UBR to a fixed level of 35p. This will incentivise growth and investment and protect public finances in the long run.