The Energy and Utilities Alliance

2017 Autumn Budget Representation

Within the Energy & Utilities Sector, the government is faced with multiple challenges. The Chancellor of the Exchequer's budget is an important opportunity for the government to invest in gas vehicles to achieve carbon emission reductions in line with the legally binding fifth budget, allocate funds to tackle the fuel poverty 2.5 million households in England[1] face and provide means to ensure that domestic, and industrial, energy efficiency is achieved.

In light of these challenges, the Energy and Utilities Alliance (EUA) makes the following recommendations for consideration in the Autumn Budget 2017:

1. Invest in Natural Gas Vehicles, CNG filling stations and NGV buses

With around 40,000 deaths a year attributable to exposure to outdoor air pollution[2], it is vital that the issue of vehicular pollutants is tackled in the forthcoming budget. Whilst much governmental policy is focused on encouraging the adoption of electric vehicles, we urge the Government to consider the role that natural gas can play, providing a viable alternative to diesel in public transport and the heavy vehicles sector.

NGV buses have proved to be a sound investment - buses powered by natural gases are not only more cost effective, they are also low in emissions and place no strain on the electricity grid. Recent figures produced by the Department for Transport show that gas powered buses are already delivering far better value for taxpayers and passengers than their electric counterparts. Due to lower purchasing costs, Biomethane buses used in Bristol came in at just £28,000 per bus, compared with electric buses which have an average subsidy from the taxpayer of over £130,000.[3]

[1] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/639118/Fuel_Poverty_Statistics_Report_2017_revised_August.pdf

[2] https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution

[3] https://www.eua.org.uk/gas-buses-already-offering-best-value-for-taxpayers/

We encourage the Government to support a roll out of natural gas buses, providing funding for local authorities to explore this option.

Given that HGVs emit 21% of total transport derived nitrous oxide, whilst making up just 2% of vehicles on the road, they should be a point of focus if the government is to meet its carbon emission reduction targets, yet are often forgotten. Natural Gas HGV's have the power to be transformative, with real world tests proving that they can reduce particulate emissions by 96%.[4] The investment and infrastructure must be in place in order to allow these vehicles to be used more widely.

Due to the initial costs of filling stations, governmental support is required in order for natural gas vehicles to reach their full potential. We urge the government to financially support the introduction of more CNG filling stations, making gas powered HGVs a feasible option for more organisations. The recent update report, produced by Element Energy[5], from the Leyland gas filling station, and the impressive progress this facility has made, demonstrates that it is possible to fuel vehicles using natural gas, providing a cost effective, emission reducing option. Despite travelling comparable distances to their diesel fuelled counterparts, the CNG vehicles refuelling at Leyland produced 84% lower carbon emissions than equivalent diesel vehicles. Such filling stations are a solid investment, with the payback period for an LTS – connected station equivalent to the Leyland station being an estimated 6.4 years.

Further proposals to support the widespread use of gas HGVs include introducing road tax reductions or exemptions for Natural Gas Vehicles. Additionally, tax bands could be varied either per technology (diesel, natural gas) or based on measurements of emissions, serving to encourage the take up of clean vehicles. Given the monetary strain that poor air quality places on public health services, road tax reduction would not significantly reduce government revenue and would also grant natural gas vehicles a degree of parity with their electric counterparts.

[4] https://cadentgas.com/getattachment/About-us/Innovation/Projects/Revolutionising-Transport/Promo-Full-report/Element-Energy-Monitoring-of-Leyland-station-final-summary.pdf
[5] https://cadentgas.com/getattachment/About-us/Innovation/Projects/Revolutionising-Transport/Promo-Full-report/Element-Energy-Monitoring-of-Leyland-station-final-summary.pdf

2. Provide a financial incentive to encourage the replacement of 'Zombie Boilers'

It is estimated that there are over 9 million inefficient boilers in the UK[6], a large proportion of which are over 20 years old and thus would be classified as 'zombie boilers'- comprising of old technology resulting in them being highly inefficient. These so called 'zombie boilers' not only cost the consumer, causing higher bills (this can be considered a factor which compounds fuel poverty) but also cost the environment – with higher CO2 emissions, compared to a modern condensing boiler.

Whether it be through investing more in ECO and lifting the cap on boilers introduced under the ECO2T scheme, or through incentivising boiler scrappage, it is intrinsic to eradicating fuel poverty and creating energy efficient homes that households are encouraged to replace 'zombie boilers.' Modern boilers achieve efficiencies of around 90%, compared to efficiencies of 70% in older boilers. [7]They also perform significantly better in terms of emissions of greenhouse gases such as CO2 and local air pollutants such as NOx, furthering the environmental argument for boiler scrappage schemes.

In April, the Government's Energy Company Obligation (ECO) scheme shifted its focus towards insulation. In doing so, they placed a cap on the number of boilers fitted under ECO at 25,000 over 18 months, marking a substantial decrease from their prior yearly allowance of 130,000. As a result, the number of new boilers installed under the scheme has decreased by over 83% monthly, meaning we are still a long way from replacing the estimated 9 million inefficient boilers being used in the UK. This is problematic, as even if insulation is fitted, without an efficient boiler, households remain low in energy efficiency and far more susceptible to fuel poverty.

3. Allocate funds to connect more households to the gas grid to alleviate fuel poverty

Households are far more likely to be in fuel poverty if they are not connected to the mains gas grid. In fact those living off grid comprise approximately 20% of the fuel poor population, with 70% of F/G rated fuel poor properties (the least energy efficient housing) being off-gas.[8] Our research shows that the simple act of

[6] http://www.centralheating.co.uk/news/inefficient-boilers-are-costing-us-dearly-we-must-replace-old-heating-appliances-to-meet-new-eu-energy-efficiency-targets
[7] https://www.carbontrust.com/media/147107/j7743_ctl143_condensing_boilers_aw.pdf
[8] http://www.nea.org.uk/wp-content/uploads/2017/02/In-From-The-Cold_ECO-Funding-Gap-Paper_Final-1.pdf

connecting off grid homes to the existing gas grid can reduce average energy bills by up to £900 for homes currently using electricity as their principal means of heating.

Whilst electric heating is efficient, a unit of electricity is considerably more expensive than a unit of gas. According to the Energy Saving Trust, standard rate electricity costs 13.86 p/kWh while off-peak economy 7 electricity costs 7.21 p/kWh. By comparison, a unit of gas costs 4.18 p/kWh. Gas grid connections, therefore, save consumers money.

Another means to alleviate fuel poverty would be to pay the winter fuel allowance in summer. By doing so, consumers currently living off the gas grid network could purchase heating oil or LPG during the summer months, benefitting from lower prices. It would also allow for central heating systems to be serviced at a quieter time for installers, improving efficiency and reducing energy consumption.

The importance of tackling fuel poverty

The mortality rates associated with fuel poverty are significant - in 2014/15 there were an estimated 43,850 deaths linked to cold homes, all of which were preventable.[9] Statistics from the ONS reveal that in England and Wales in 2013, cold homes killed over four times as many people as road and rail accidents and nearly four times as many people as drug misuse[10], yet there are not the appropriate safeguards in place given the scale of mortality related to this issue.

Further, fuel poverty impacts people both psychologically and physiologically, with high rates of anxiety, depression and loneliness reported amongst the fuel poor, as well as a plethora of cold related illness effecting those living in cold homes.

The economic case for tackling fuel poverty

National Energy Action (NEA) calculated that, yearly, the NHS spends over a billion pounds on treating preventable cold related illness, with every local health board spending, on average, over £27,000 each day.[11] This demonstrates that conditions caused by living in cold homes are placing an unnecessary strain on the National Health Service- given the political pressure to ensure the NHS is sufficiently funded and waiting times are reduced, funding measures that would reduce the aforementioned strain is a logical move.

[9] https://www.eua.org.uk/uploads/587C9C8C18F22.pdf
[10] http://www.energybillrevolution.org/wp-content/uploads/2015/04/ACE-and-EBR-factfile-2015-04-Chilled-to-Death-Updated.pdf
[11] http://www.nea.org.uk/media/news/260216-01/

Conclusion

The government has the opportunity to show leadership in tackling issues pertaining to decarbonisation, air quality and fuel poverty. We urge the government to ensure that the forthcoming budget recognises the importance of reducing carbon emissions by 2030, to 1990 levels. So far, there has been an absence of clear government plans regarding this. Further, with fuel poverty growing in the UK, it is vital that the Government uses the Autumn Budget to adhere to its responsibilities, both in terms of protecting the environment and also ensuring people have warm, safe homes.

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About the EUA

Founded in 1905, The Energy and Utilities Alliance (EUA) is a not for profit trade association that provides a leading industry voice to help shape the future policy direction within the energy and utilities sector. Our association comprises 6 organisational divisions - Utility Networks, 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) and the Natural Gas Vehicles Network (NGV Network).