

BEIS Select Committee - Financing energy infrastructure inquiry

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 six 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).

The Energy and Utilities Alliance (EUA) is 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.

What role should the Government play in providing financial support and sharing risks for new energy infrastructure?

The Government has a central role in ensuring that the right infrastructure is in place to support the decarbonisation of the UK's energy system. The key components that will need to be upgraded are the UK's energy networks, power generation and carbon, capture and storage and utilisation (CCSU).

Of these, the current system actually requires the market to develop and bring forward the required new energy infrastructure. The Iron Mains Risk Reduction Programme will be completed in 2032; this upgrade will allow the gas network be used for a range of green gases, including hydrogen. This will allow for the decarbonisation of heating. This is an obligation within the RIIO programme, which in turn is paid for by consumers through their gas bill. RIIO will probably also be used to ensure that the electricity network is also upgraded for electric cars, localised power generation and possibly a degree of electric heating.

The energy networks main risk is over the future direction of government. Nationalisation would change the picture completely for Britain's energy infrastructure. It would require the Government to be prepared to pay for all necessary upgrades either through general taxation or a levy on energy bills. We would be concerned if nationalisation of the networks by a future government was predicated on reducing bills by cutting schemes like the Iron Mains Risk Reduction Programme or electricity network re-enforcement. If this was not subsequently matched by government spending there is a very real risk the UK energy infrastructure would not be ready for decarbonisation.

The areas that require more direct government intervention are power generation and CCSU. The Government needs to make a commitment to assist the development and deployment of commercially ready CCSU. Without it, the decarbonisation of heat, power, and indeed many other sectors, will probably not be possible or will be delayed beyond our 2050 targets. To date, this investment has not been forthcoming.

The same applies to power generation. There has been a welcome increase in renewable power generation, however there is an increasing reliance on gas for power. If there are no new nuclear power stations built, the UK could increasingly rely on gas power stations. Without CCSU this would mean we would struggle to generate enough low carbon electricity to meet our 2050 targets. This is especially true as electrifying transport will lead to increased demand, even with the most sophisticated and aspirational energy demand reduction schemes in place.

What further steps should the Government take to increase investor confidence in the UK energy sector?

The UK Government has committed to keep all options for decarbonisation open. This is welcome as it allows for investors to develop innovative approaches to decarbonising energy. Because of this, the heating industry is developing hydrogen-ready boilers that will make a future switch to a new form of green gas a simpler and lower cost proposition. These have now been lab tested and are being tested in real homes.

The heating industry is also developing smart control systems to manage energy peaks to reduce the overall level of energy needed to heat a home. These will facilitate the move to low carbon heating. Other technologies such as hybrid heating systems, gas heat pumps, micro-CHP units and high temperature heat pumps are also being developed; all of these technologies may be required to decarbonise heating.

The gas fuels industry has helped to develop biomethane for heavy goods vehicles. Evidence presented to the Department of Transport suggests that well-to-tank greenhouse gas savings of 12 to 15 per cent can be obtained by switching from diesel to natural gas; by switching to waste-derived biomethane, savings of 84 per cent can be achieved. Companies like Waitrose, who use green gas certified biomethane for their HGV fleet, are experiencing real world carbon savings of over 80 per cent.

This level of innovation is welcome and is proving that industry in the UK takes the decarbonisation challenge seriously. However, at some point the Government will need to decide if green gas will be a solution to decarbonisation. What will the role of the energy networks be? How will heavy goods transport be decarbonised? Once the Government starts to make these decisions, it will affect investor confidence and there is a reluctance to fully invest in decarbonisation options now in fear that vector will be ruled out at a future point.

An example of this is micro-CHP. The constant changing of the Feed-in Tariff up to its cancellation in 2019 has meant many companies developing this potentially vital technology have gone out of business because investment has dried up. There was a lack of confidence that future government schemes would continue to support the technology or even that the current level of support would be maintained. We have now reached a point whereby this once heralded technology is now only maintained due to its export potential.

The Government needs to consider the way it messages the decisions over future decarbonisation to ensure all routes are kept open.