

Government launches new scheme for technologies producing hydrogen from biomass

- £5 million government funding to support the development of innovative new technologies that will generate hydrogen from biomass and waste
- paired with carbon capture and storage methods, these technologies have the potential to remove carbon dioxide from the atmosphere
- new technology will help generate green jobs and attract private investment, while also supporting the UK's net zero goals

The government has today (Wednesday 12 January) launched a new programme to help develop innovative technologies to produce hydrogen, a clean energy source, from sustainable biomass and waste.

Backed with £5 million in government funding, the new [Hydrogen BECCS Innovation Programme](#) will support the development of technologies to produce hydrogen generated via BECCS (bioenergy with carbon capture and storage). The BECCS process produces hydrogen from biomass and waste, with the ability to capture and store the carbon released during the process.

BECCS technology can uniquely offer the ability to remove carbon dioxide from the atmosphere, as the CO₂ absorbed during the growth of the sustainable biomass and the organic content found in waste can then be permanently removed from the atmosphere using carbon capture technologies. Hydrogen BECCS technologies therefore have a key role to play on the UK's path to net zero emissions, providing hydrogen as a clean fuel for hard-to-decarbonise sectors such as transport and heavy industry, while also removing greenhouse gases from the atmosphere.

Energy and Climate Change Minister Greg Hands said:

This innovative technology offers incredible potential for removing carbon dioxide from the atmosphere, crucial to reaching our net zero goals. This government funding will help support the development of this new technology in the UK, boosting green jobs and investment while slashing carbon emissions.

From today, applicants from small businesses and large companies, to research institutions and universities, will be able to bid for a share of £5 million new government funding under Phase 1 of the Hydrogen BECCS Innovation Programme. Each project will be able to bid for up to £250,000 to help develop their project plans and demonstrate the feasibility of their proposed innovation. Phase 1 will then be followed by a second Phase, that will provide further funding to support the most promising Phase 1 projects to demonstrate their projects.

This new programme will support the government's [plan to develop a thriving low-carbon hydrogen sector](#) as part of the UK's green industrial revolution. As a clean fuel, emitting only water vapour when combusted, hydrogen has a critical role to play in our transition to net zero, with the potential to help reduce emissions from hard to decarbonise areas of the economy, such as transport and heavy industry.

Hydrogen BECCS technologies therefore present a key opportunity for the UK. This new programme will be crucial in supporting this new type of technology to be developed and scaled up for commercialisation here in the UK, helping the nation on the path to net zero while also providing new green jobs and encouraging private investment.

- The [Hydrogen BECCS Innovation Programme](#) is funded through the Department for Business, Energy and Industrial Strategy's £1 billion [Net Zero Innovation Portfolio](#), which aims to accelerate the commercialisation of innovative clean energy technologies and processes through the 2020s and 2030s
- the programme seeks to support development of innovative hydrogen BECCS technology solutions across 3 categories:
 - feedstock pre-processing: the development of low cost, energy and material efficient technologies which will optimise biomass and waste feedstocks for use in advanced gasification technologies
 - gasification components: the development of advanced gasification technology components. Advanced gasification technologies are thermal conversion technologies which can be used to convert biomass or waste into aviation fuel, diesel, hydrogen, methane and other hydrocarbons
 - novel biohydrogen technologies: the development of new biohydrogen technologies which can be combined with carbon capture, for example dark fermentation, anaerobic digestion, waste water treatment
- the programme will be conducted in 2 phases, one building on the other, to support the development of core technologies essential for the generation of hydrogen from biomass and waste with the ability to capture carbon
- in Phase 1, successful applicants will receive funding to develop their hydrogen BECCS innovation, demonstrating its feasibility and preparing project plans for Phase 2. Under Phase 2, Phase 1 projects will be able to apply for further funding to support a physical demonstration of the hydrogen BECCS technology