

£90 million UK drive to reduce carbon emissions

- £90 million package announced to tackle emissions from homes and heavy industry – including funding for Europe’s first large scale, low carbon hydrogen plants which could generate enough clean energy to heat over 200,000 homes
- local energy projects across the country could reduce housing emissions by up to 80% and save consumers money on their energy bills
- renewable energy to power industry instead of fossil fuels, removing 3.2 million tonnes of CO₂ from the atmosphere by 2030

Households and businesses will benefit from £90 million to cut carbon emissions in industry and homes, Energy Minister Kwasi Kwarteng announced today (18 February 2020).

£70 million will include funding for 2 of Europe’s first-ever large scale, low carbon hydrogen production plants – the first on the banks of the Mersey, the second planned for near Aberdeen. A third project will develop technology to harness offshore wind off the Grimsby coast to power electrolysis and produce hydrogen.

Hydrogen is a low or zero-emission alternative to fossil fuels which could power future industry and transport. The investment will also fund projects to trial cutting-edge technologies for switching industrial production from fossil fuels to renewables in industries such as cement and glass production.

The remaining £20 million will be used to fund projects aimed at cutting household emissions and bills through nine UK-wide local “smart energy” projects. Over 250,000 people could have their homes powered by local renewable sources by 2030 – which could lead to their energy bills reducing by as much as half, thanks to this government funding.

If successful, the 10 community pilot projects from Rugeley near Stafford to Coleraine in Northern Ireland could revolutionise local energy generation – allowing local communities to join the frontline in the fight against climate change.

In Rugeley, a coal fired power station is to be demolished and turned into a sustainable village of 2,300 homes. Residents will benefit from thermal storage units instead of traditional gas boilers, enabling them to draw, store and heat their homes with geothermal energy from local canals and disused mine shafts.

In Coleraine, a micro-grid of nearly 100 homes will be established, powered entirely by local wind power. It will help lower household electricity bills by as much as 50% and boost the contribution of renewables to the local energy mix by a quarter.

Visiting the Gigastack project in Grimsby today, Kwasi Kwarteng, Minister for Business, Energy and Clean Growth, said:

Cleaning up emissions from industry and housing is a big challenge but today's £90 million investment will set us on the right path as we develop clean technologies like hydrogen.

This is an important part of our world-leading efforts in eliminating our contribution to climate change by 2050 while also growing our economy, creating up to 2 million green collar jobs across the country by 2030.

This investment in low carbon innovation will be crucial to help us end our contribution to climate change by 2050.

The news comes just 2 weeks after the Prime Minister announced plans to bring forward the phase-out of coal to 2024 as we continue to ramp up our Year of Climate Action ahead of the UN Climate Change Conference (COP26) this November.

1. The complete funding package forms part of the Department for Business, Energy and Industrial Strategy's £500 million innovation fund, which is dedicated to harnessing and rolling out cutting edge technology to fight climate change.
2. Currently difficult and expensive to produce in bulk, hydrogen could be vital in the fight against climate change as a low carbon alternative to fossil fuels used by heavy transport and industry.
3. Of the £70 million being invested in these technologies, £28 million will be for projects developing hydrogen production, including the 2 plants.
4. A further £18.5 million of funding is being awarded to projects developing and trialling technologies to move industrial concrete and glass production away from fossil fuels and onto renewables.
5. The projects have the potential to be scaled up and rolled out across industry, meaning houses and roads could be built using low-emission concrete by 2030. This would prevent 3.2 million tonnes of CO₂ a year from polluting the environment – equivalent to taking 679,000 cars off the road.
6. The remaining £22 million of funding will go to top UK scientists and engineers to conduct cutting-edge research into decarbonising industry, focusing on emission-heavy transport and heating.
7. Breakdown of funding:
 - Hydrogen Supply programme – £28 million for 5 demonstration phase projects
 - Industrial Fuel Switching programme – £18.5 million for 4 demonstration phase projects

- UKRI Local Smart Energy Designs – £21 million for 10 demonstration phase projects
- UKRI Key Technology Components for Local Energy Systems – £3 million awarded to various demonstration phase projects
- UKRI Research funding – £22 million for research into challenges in reaching net zero posed by: heating, transport and global fuel markets

8. Hydrogen projects awarded funding:

Project	Leading body	Funding received
Dolphyn Project	Environmental Resources Management Ltd	£3.12 million
HyNet	Progressive Energy Limited, in collaboration with Johnson Matthey, SNC Lavalin and Essar Oil	£7.48 million
Gigastack	ITM Power Trading Ltd, in collaboration with Orsted, Phillips 66 and Element Energy	£7.5 million
Acorn	Project Pale Blue Dot Energy	£2.7 million
HyPER	Cranfield University, in collaboration with Gas Technology Institute and Doosan	£7.44 million

Find [more details of the Hydrogen Supply Competition projects](#).

9. Fuel switching projects funding:

Project	Leading body	Funding received
HyNet	Progressive Energy Ltd, in collaboration with Pilkington, Unilever and Essar	£5.27 million
Hydrogen Alternatives to Gas for Calcium Lime Manufacturing	British Lime Association	£2.82 million
Switching fuels for cement production	Mineral Products Association	£3.2 million
Switching Technologies for the Glass Sector	Glass Futures Ltd and partners	£7.12 million

Find [more details of the Industrial Fuel Switching competition projects](#).

10. Local smart energy projects awarded UKRI funding (more information available from [UKRI](#)):

Project	Town / City
West Midlands Regional Energy System Operator	Coventry
GIRONA	Coleraine, Causeway Coast and Glens
Peterborough Integrated Renewables Infrastructure	Peterborough

Project	Town / City
Green Smart Community Integrated Energy Systems 2	Islington (London)
Zero Carbon Rugeley	Rugeley
GM Local Energy Market	Greater Manchester
Project REMeDY	Southend
Energy Kingdom	Milford Haven
Multi-vector Energy Exchange	Liverpool
REWIRE-NW	Warrington