Government to double hydrogen power target

The government is expected to double its target for hydrogen production in the Energy Security Strategy to be published on Thursday.

Low-carbon hydrogen is considered a crucial contributor to a greener energy system, with potential to replace natural gas in domestic heating and industrial energy supply, as well as industrial transport.

Last year Business Secretary Kwasi Kwarteng set a target of 5GW of low-carbon hydrogen capacity by 2030 to be used across the economy.

That ambition is set to be doubled, with industry sources anticipating a new target of 10GW of capacity, made up of 50% “green” hydrogen, produced using renewable power sources; and 50% “blue”, which generates CO2 as a byproduct that is captured.

The government estimates that hydrogen will need to deliver up to 35% of the UK’s energy supply by 2050 if its net zero goals are to be delivered. The UK currently has almost no low-carbon hydrogen production.

Ministers consider that the UK is well-placed to develop a hydrogen industry given its growing capacity for wind power, and have already set aside £240m in a Net Zero Hydrogen fund to co-fund projects.

More investment is likely to coincide with the energy strategy.

More from Business

Economy ‘surged higher’ in March but risk to growth intensifies as firms raise prices

Ukraine war: The West is chipping away at Russia’s ability to finance its violent campaign

Tesla’s Elon Musk drives past Jeff Bezos in Forbes’ list of billionaires

Campaigners have pushed for the industry to focus on green hydrogen, produced by electrolysis powered by renewable sources, splitting water into hydrogen and oxygen.

Blue hydrogen production is a carbon-intensive process in which natural gas is combined with steam to produce hydrogen. Carbon capture technology renders it a low-emission process. Hydrogen itself produces no carbon emissions.

It is highly versatile and can be used in fuel cells or boilers, turbines or engines to generate heat or electricity. It can also be stored at scale and transported like natural gas or liquid fuel, and is widely used in chemical and industrial production.

Low-carbon hydrogen is seen as a potential replacement for natural gas in energy-intense industries.

Some large vehicles already run on hydrogen, raising hopes it may be a long-term alternative to diesel for freight vehicles too large to be battery-powered.

A spokesperson for Renewables UK, which represents the renewables industry, said: “Innovative technology like this will play an important part in our future energy mix: if the government does indeed bring forward 5GW green hydrogen target by 2030, as Kwasi Kwarteng is suggesting, this could replace 5% of total UK gas demand by the end of the decade.

“Green hydrogen generated from renewables has a key role to play in reaching net zero as quickly as possible.

“We need to ramp up the roll-out of green hydrogen as a clean fuel for sectors which have proved difficult to decarbonise so far, such as shipping and heavy industry.”

The Department of Business, Energy and Industry Strategy declined to comment but Mr Kwarteng tweeted that the UK “would go further” than current targets.

“Global hydrogen production is set to boom – we’re going to grab as much market share as possible,” he wrote.

“This home-grown super fuel could power British industry, homes and transport. We’re set to generate 5GW this decade, but will go further in this week’s Energy Security Strategy.”

His comments came as he also commissioned a fresh scientific review of the impact of fracking for shale gas from the

British Geological Survey.

It comes just two years after a report from the North Sea Transition Authority formed the basis of a government moratorium on fracking.

Conservative backbench MPs and peers have led calls for that to be lifted, arguing shale gas can deliver abundant fuel and promote energy security.

Ministers remain sceptical however. Fracking remains unpopular with the public, with 45% of people opposed and just 14% in favour, according to BEIS polling, and would take at least a decade to deliver.

The review allows the government to tell fracking’s supporters on its own benches that it remains open-minded, while sticking to its position that it will only proceed if evidence supports it.