

Plans for Britain's first 'gas from grass' plant revealed

MILLIONS of boilers could be spared the axe by a revolutionary money-saving switch to green gas produced by farms. Eco-entrepreneur Dale Vince has unveiled plans for Britain's first £10million "gas from grass" plant which he hopes to have up and running by the end of next year.

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10:46, Wed, Sep 22, 2021 | UPDATED: 10:57, Wed, Sep 22, 2021

The first green gas mill will be built near Reading. It will supply carbon-neutral biomethane to homes via the national grid and help in the Government's fight against climate change. It will also reduce our dependence on unreliable foreign suppliers and boost the economy by keeping billions of pounds here, which would otherwise have gone abroad.

Dale estimates that half the UK's homes could be heated with gas from grass with a network of just 1,500 mills, which in turn would create 45,000 rural jobs. This would leave 20 percent of the UK's remaining homes to be heated by green hydrogen - created by using renewable energy to separate hydrogen and oxygen in water - and 30 percent to use heat pumps, which draw warmth from the air or the ground. But he believes eventually every home could be heated with gas from grass at a cost of £30billion compared to about £300billion for heat pumps.

Dale's plan was unveiled ahead of the Government's controversial Heat and Buildings Strategy, which has been delayed amid reports of Cabinet battles over fears of an electoral backlash from the cost of phasing out gas boilers. The Government's favoured option is to get households to switch from gas boilers to heat pumps powered by renewable electricity. But heat pumps can cost up to 10 times as much as boilers and use three times as much electricity.

Finding an alternative to natural gas - a fossil fuel - is vital. Homes account for 19 percent of UK carbon dioxide emissions, with natural gas heating the main source. Britain has to clean up its act because it has legally committed to Net Zero - eliminating or offsetting all emissions - by 2050.

Dale, the founder of green energy pioneer Ecotricity, said gas from grass would slash the cost to consumers of going green by letting them keep their existing boilers. He said the cost of building gas from grass mills is also much less than installing heat pumps. He added:

"Switching to green gas would transform the rural economy - creating tens of thousands of sustainable farming jobs - just as EU subsidies come to an end. Green Gas is a perfect example of what the green economy has to offer us, if we get it right: zero carbon emissions, long-term sustainable jobs and industries, diversification from the old to the new and making room for nature. The beauty of our green gas is that business can go on as normal. We don't need to change any gas mains infrastructure to put our green gas into the gas grid and, more importantly, consumers will not need to change any of their appliances at home."

Ecotricity's head of generation, Steve Ellis, explained how gas from grass is carbon neutral because, unlike fossil fuels, it does not add greenhouse gases to the atmosphere. He said:

"When grass grows it absorbs CO₂. We make biomethane with that grass and when that is burned it releases the CO₂ back into the atmosphere. So this green gas is carbon neutral over a very short time-frame - six months from absorption to release. Fossil gas, by comparison, is releasing CO₂ that is not in the atmosphere now and has been locked up for millions of years. It is, therefore, a net addition to atmospheric CO₂."

The first green gas mill will be built near Reading and will use 3,000 acres to power 4,000 local homes.

Dale said:

"Building 1,000 gas mills would cost £10billion and provide enough gas for four million homes. The cost of four million heat pumps to do the same job is close to £30billion."

Dale estimates that the true cost of heat pumps in every home is closer to £300billion - £150billion to install them and the rest to expand the capacity of the grid to power them and the resulting higher bills.

Other Net Zero heating options include replacing natural gas with hydrogen but it is currently more expensive, and producing it can add to greenhouse gas emissions. Green hydrogen involves separating hydrogen and oxygen in water electrolysis powered by renewable electricity. But the most common way to produce it is to use natural gas, which generates greenhouse gas emissions. Using gas from grass to power the nation's homes will take up some grassland currently used to feed livestock.

But the Government's global warming advisers, the Committee on Climate Change, this summer insisted the national diet has to change to meet Net Zero. It said Britain needs to cut consumption of meat and dairy by 20 percent by 2030 because of methane emissions from livestock - and by 35 percent by 2050.

Dale said that the UK currently has 23 million acres of farmland, of which 63 percent - or 14.5 million acres - is grassland. Using grass to heat half the UK's homes would require up to 4.5 million acres.

Dale said:

"Heating 100 percent of homes from grass is feasible, leaving 40 percent of grassland for other purposes."

The first farmer to join the scheme, Russell Butler, 45, who lives near Reading, said he wanted to help create a greener Britain and one which didn't rely on importing energy from all over the world, with its associated transport costs.