

Dear Mr Miliband, Secretary of State <secretary.state@energysecurity.gov.uk>

I write on behalf of Wirral Wildlife, a local community group advocating for nature within the Wirral peninsula. We have been forced to look into the state of the cement and concrete industry in this country, because of plans by Peak Cluster to put a carbon dioxide pipeline through central Wirral to store the gas in Morecambe Bay. This pipeline threatens to harm a large number of wildlife-rich sites in the Wirral peninsula alone.

However, the reason for writing to you is the more general one, that this project would require a large amount of public money through the National Wealth Fund (estimated half the cost) and we question whether it is a good use of our money.

We ask you to commission a strategic study into the cement and concrete industries, including current and projected demand, to look at the new alternative ways of making cement alongside the existing method. This should be done before it is decided where to invest large amounts of public money.

New ways of making and using cement are coming into use, for example:

1) Transpennine Route upgrade: Infrastructure company [Murphy](#) has successfully carried out the first permanent works use of Ecocem ACT in the UK.

ACT is a new scalable low carbon cement technology which can deliver up to 70% CO₂ reduction compared to conventional cements. It does this by reducing the clinker content of cement (clinker is responsible for 94% of cement's carbon footprint) by up to 70% and replacing it with abundantly available fillers and local supplementary cementitious materials (SCM).

2) Material Evolution, whose ultra-low carbon cement production plant has launched in Wrexham. The ultra-low carbon cement production facility has been commissioned and is operating on an industrial scale, making it the UK's biggest producer of ultra-low carbon cement. The Mevo A1 Production Facility produced its first batch of ultra-low carbon cement in October 2024.

3) Limestone calcined clay cement (LC3). Concrete emissions reduction by 40% and savings of around 500 million tons of CO₂ annually by 2030. Projected to account for more than one-quarter of cement used globally by 2050

4) Electric recycled cement, invented in England Potential to produce 1 billion tons annually by 2050

5) several USA companies - Sublime, Fortera, and Brimstone - are using novel chemistries to change the chemical reaction used to create cement.

6) Researchers at the University of Cambridge have developed a process for recycling cement which could allow the production of low-emission concrete at scale. The method uses the electrically-powered arc furnaces used for steel recycling to simultaneously recycle cement. Steel recycling by electric arc is already going on at Scunthorpe and Port Talbot.

All these new technologies offer long-term reductions in concrete and cement emissions. Supporting traditional cement production by using Carbon Capture and Storage (CCS) to store the emissions merely props up an old technology. The new technologies could easily provide as many jobs as the traditional method does, and some could be accommodated in existing quarries where the current plants are situated.

Our public funds are limited, particularly at this time, and we urge you to investigate this industry before deciding where best to invest our funds.

Yours sincerely

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The Wirral Group of Cheshire Wildlife Trust

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Wirral Wildlife is the Wirral group of Cheshire Wildlife Trust and was founded in 1971. In 2017 we were awarded the Queens Award for Voluntary service for inspiring, informing, educating and encouraging people to protect nature in Wirral.

Refs and links:

<https://news.railbusinessdaily.com/murphy-delivers-uk-first-low-carbon-concrete-pour/>

<https://www.ecocemglobal.com/en-us/act/frequently-asked-questions-about-act/>

<https://www.materialevolution.com/ultra-low-carbon-cement-plant/>

Sublime, based in Massachusetts, turns limestone into lime through an electrolytic process, which involves using an electric current to change a substance. Sublime's technology can be fuelled by renewable energy and the process allows for cement's ingredients to be broken down at room temperature. A small quantity of the cement was used on One Boston Wharf, where it was mixed in a ready-mix concrete truck, maintained workability, and poured out of the concrete truck. Sublime plans to open a demonstration plant in early 2026 in Holyoke, Massachusetts, where it will produce 30,000 tons of clean cement per year.

Based in California, Fortera uses a technology that works within existing cement facilities. The technology takes the carbon released by the kilns and routes it back into the process to make additional cement by mixing the CO₂ with calcium oxide to make ReAct Cement™. Fortera has opened its first demonstration plant in Redding, California, where it will capture 6,600 tons of CO₂ and produce 15,000 tons of low-carbon ReAct Cement™. There will also be a 70% reduction of carbon emissions on a ton-for-ton basis, and the process will eliminate the feedstock waste associated with traditional concrete production.

Brimstone, based in California, uses calcium silicate rock instead of limestone to create a different chemical reaction without CO₂ emissions. Instead of heating limestone to create lime, the company extracts calcium oxide from the rock — which does not release CO₂. While these processes are different, the cement produced is chemically and physically identical to traditional cement. Brimstone's first plant will produce up to a combined 140,000 metric tons per year of Ordinary Portland Cement and SCMs. The plant will also prevent 120,000 metric tons of CO₂ emissions annually.