



FREQUENTLY ASKED QUESTIONS

CORY DECARBONISATION

Where will Cory's carbon capture facility be located?

Our carbon capture and storage (CCS) project will be developed in the area adjoining our existing and planned Riverside energy from waste (EfW) facilities in Belvedere. The development is proposed to be located on our existing site and nearby development land plus a small part of the neighbouring Crossness Nature Reserve nearest our operations.

<http://cory-decarbonisation-map.jfd-test.co.uk/>

Who will determine the outcome of the planning application?

During the consultation process, we will engage with a range of community, technical and political stakeholders, including local residents and the local authority (London Borough of Bexley).

However, this project is to be consented through a Development Consent Order (DCO), and so the application will be determined by the Secretary of State for Energy Security and Net Zero.

What is carbon capture and storage (CCS)?

CCS is a process that captures carbon dioxide (CO₂) emissions from energy generation sources such as power plants, EfW facilities and other industrial emission sources. It is then transported and stored safely so that it will not re-enter the atmosphere.

How does carbon capture and storage work?

To capture the CO₂ emitted by our existing and in-development EfW facilities, we need to install CCS technology and infrastructure. This will divert the emissions from our facilities, and then separate the CO₂ from other gases so that it is not emitted into the atmosphere. Once captured, this CO₂ will be compressed and liquified on site to make it ready for transport. It will then be transferred by ship to storage sites - which are being brought forward by other parties - under the North Sea.

What happens once the CO₂ has been stored?

The undersea reservoirs, which can be depleted oil or gas reservoirs or saline aquifers, are more than 1 km below the seabed. Hydrocarbons have been safely contained under the sea in these reservoirs for millions of years. The carbon dioxide we capture will be stored in the same way as the original hydrocarbons, with impermeable rock strata trapping it in place.

Throughout the process, the captured CO₂ will be closely monitored using state of the art techniques such as seabed surveys and pressure sensors. The UK Government estimates that almost all injected CO₂ will be retained in undersea storage.

Is carbon capture safe?

Yes. Carbon capture is a well-established process with successful examples already operational all over the world, as well as projects currently in development across the UK. It is a process regulated by the Environment Agency.

Throughout every stage of our proposals, the CO₂ extraction, transportation, injection and containment will be carefully monitored using techniques such as emissions monitoring, geophysical surveys, pressure sensors, seabed surveys and dedicated monitoring wells.

All offshore carbon capture and storage projects, their infrastructure and operation will be strictly regulated by the UK Government's North Sea Transition Authority (NSTA) and Offshore Petroleum Regulator for Environment and Decommissioning (OPRED).

How can EfW facilities with CCS help the UK to achieve net zero emissions?

The UK Government has set a target for the country to reach net zero emissions by 2050. Therefore all parts of the UK economy must work to decarbonise by this time.

EfW facilities perform a vital public function, eliminating waste from our society and keeping our environment clean and safe. Carbon capture is the leading technological approach that EfW facilities can utilise to significantly reduce their CO₂ emissions.

Once the project is operational, we could be removing more CO₂ from the atmosphere than is emitted by our EfW process. Generally around 50 per cent of the CO₂ emissions from EfW facilities are derived from fossil inputs (such as plastics) and around 50 per cent are biogenic (from organic sources such as paper, cardboard, wood etc). When the fossil inputs are processed in EfW facilities, they release new carbon dioxide into the atmosphere which contributes to climate change. When the biogenic components are processed, carbon dioxide is emitted that is already part of the natural carbon cycle (i.e. it has been absorbed by plants and trees as they grow and then is rereleased when they die). By capturing both types of carbon dioxide, our operation has the potential to be 'carbon negative'. When more carbon dioxide is removed from the atmosphere than is emitted, emissions are negative.



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How much carbon dioxide will you capture?

Our CCS project has the potential to capture c.1.3 million tonnes of CO₂ per year. This equates to more CO₂ than is emitted by a town the size of Reading each year.

How long will the facility take to build?

We hope to start constructing the carbon capture facility in 2026. Given a minimum build time of two years, we are targeting the project becoming operational in 2028.

What impact will the project have on local traffic?

We will be assessing this in detail as we develop our proposals in the coming months. There is expected to be a temporary increase in the number of vehicles on local roads during construction due to deliveries and increased site traffic. However, we expect these numbers to reduce substantially when the site moves from the temporary construction stage to permanent operation.

What will the impacts of the development be on Crossness Nature Reserve?

Our plans include consideration of an option of building on the paddock at the northernmost point of Crossness Nature Reserve, land adjoining the EfW facilities. However, if this option is selected, we will seek to minimise this impact as much as possible, including working with Friends of Crossness Nature Reserve to find an appropriate solution.

In any event, Cory will be undertaking a robust optioneering process to determine the appropriate location for the CCS facilities.

How will Cory compensate for any loss of land currently occupied by the Crossness Nature Reserve?

The system for developing nationally important infrastructure (such as this project) has guidelines for ensuring the impacts of developments on biodiversity are identified so that they can be appropriately mitigated and compensated if required. This can take place at the site of the development, or at a different location.

Government is also developing policy to require infrastructure developers to show that they have delivered an improvement in biodiversity levels (known as biodiversity net gain) and not just maintained it at previous levels.

At present we are considering a number of options to ensure our impacts are mitigated and compensated and to deliver biodiversity net gain of 10 per cent, and we are already liaising closely with Thames Water, which owns the site, as well as the Friends of Crossness Nature Reserve.

Your website also mentions plans for hydrogen production. What is happening with this project?

While not part of our current operations, the production of alternative low carbon fuel sources, such as hydrogen, can play an important role in reducing emissions from transport and industry across the UK.

Hydrogen is one of the fuels being explored by the UK Government, and we are currently looking at ways to support the Government's ambitious plans through the potential production of green hydrogen at our site, using the electricity generated by our EfW facilities. We will be publishing further information on this in due course.

What about the planned district heating network?

Our carbon capture project is central to our plans to decarbonise our business. The proposed Riverside Heat Network, a partnership with Vattenfall designed to heat homes in the London Borough of Bexley and Royal Borough of Greenwich using waste heat from our EfW process, is another important aspect of our decarbonisation plans and our goal to increase the benefit we provide to our local community.

Using this low carbon energy to heat local homes and businesses will provide a long term and reliable source of heat, and an alternative to gas boilers. Our work so far has demonstrated that both projects can be delivered at our site through this project.

ASK US A QUESTION AND HAVE YOUR SAY

For more information on the project, please visit corydecarbonisation.co.uk

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