

Carbon Reduction Plan

Supplier name: Cory Group

Publication date: February 2023

Commitment to achieving Net Zero

Cory is committed to achieving net zero emissions by 2040.

Baseline Emissions Footprint

Baseline Year: 2020				
Additional Details relating to the Baseline Emissions calculations.				
<p>Our baseline year is 2020. This was our first year reporting according to the UK Government's Streamlined Energy and Carbon Reporting (SECR) requirements. Our reporting methodology is in accordance with UK Government Environmental Reporting Guidelines and the GHG Protocol Corporate Accounting and Reporting Standard. GHG emission factors are taken from the 2020 UK Government's conversion factors for GHG reporting, our electricity tariff's conversion factor and AIB's European Residual Mix 2018. To calculate the CO₂ emissions from Riverside 1 EfW facility, a locally agreed conversion factor with the Environment Agency was used (1.008 tCO₂ to 1 tonne of waste). From 2021 onwards, this became a measured figure, monitored with the facility's Continuous Emissions Monitoring System. In 2021 the system measured a CO₂ emitted to waste incinerated ratio of 0.98 to 1 tonne of waste.</p> <p>As per the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, the carbon emissions from our EfW facility are separated into fossil and biogenic origin, and only the fossil CO₂ is included in this Carbon Reduction Plan as Scope 1 emissions. However, Cory's commitment to reach net zero by 2040 includes the biogenic emissions from our EfW process.</p>				
Baseline year emissions:				
EMISSIONS	TOTAL (tCO₂e)			
Scope 1	353,393			
Scope 2	1,906			
Scope 3 (Included Sources)	Scope 3 category	Activity	Emissions source	Tonnes CO₂e
	Upstream transportation and distribution	Waste collection	Customer fleet energy use (waste collections)	8,170

	Waste generated in operations	By-products from EfW process	Incinerator Bottom Ash, Air Pollution Control Residue sent for reprocessing and Air Pollution Control Residue sent to long-term storage	3,256
	Business travel		Company car and personal car use for business travel	4
	Employee commuting			We do not have this information available
	Downstream transportation and distribution			As Cory do not operate the substation that transfers the electricity we generate to the UK national grid, this category is not applicable to our operations.
Total Emissions	Total Scope 1 and Scope 2 emissions: 355,299 Total Scope 1, Scope 2 and Scope 3 emissions as outlined above: 363,795			

Current Emissions Reporting

Reporting Year: 2021				
EMISSIONS	TOTAL (tCO_{2e})			
Scope 1	366,657			
Scope 2	1,709			
Scope 3 (Included Sources)	Scope 3 category	Activity	Emissions source	Tonnes CO_{2e}
	Upstream transportation and distribution	Waste collection	Customer fleet energy use (waste collections)	8,594
	Waste generated in operations	By-products from EfW process	Incinerator Bottom Ash, Air Pollution Control Residue sent for reprocessing and Air Pollution Control Residue sent to long-term storage	3,537

	Business travel		Company car and personal car use for business travel	5
	Employee commuting			We do not have this information available
	Downstream transportation and distribution			As Cory do not operate the substation that transfers the electricity we generate to the UK national grid, this category is not applicable to our operations.
Total Emissions	Total Scope 1 and Scope 2 emissions: 368,366			
	Total Scope 1, Scope 2 and Scope 3 emissions as outlined above: 380,502			

Emissions reduction targets

99 per cent of our gross and 98 per cent of our net Scope 1 and Scope 2 emissions relate to the combustion of our customers' residual non-recyclable waste. Our Scope 1 emissions increased in 2021 due to processing 51,000 more tonnes of waste than in 2020. Energy from waste remains the lowest carbon method to process waste, saving 170kg per tonne of waste compared to disposal in landfill.¹

Achieving net zero is dependent upon Cory installing carbon capture and storage (CCS) technology at our EfW facility, Riverside 1, and future EfW facility, Riverside 2.

In 2021 we commissioned specialist engineering and technical consultants to assess the feasibility of CCS deployment at both Riverside 1 and Riverside 2. The first stage of the pre-front end engineering and design programme concluded that a full chain (CO₂ capture, marine transport, and offshore storage) scheme for a two-phase EfW CCS project would be feasible.

Following the decision to proceed with the project, engagement with regulators and technology providers and the maturation of the basis of design, has enabled us to select a solvent based post-combustion carbon capture technology and we recently shortlisted three qualified technology providers. The project intends to use marine shipment to transport liquefied CO₂ to offshore subsea storage. The emerging scheme is differentiated by the use of an innovative CCS process heat recovery system to capture the otherwise wasted heat to increase the production capacity of our proposed Riverside Heat Network, a Heat Network Investment Project (HNIP) supported district heating partnership with Vattenfall which aims to deliver 58MW of heat for up to 21,000 homes in the London Borough of Bexley and the Royal Borough of Greenwich. The overall masterplan for the CCS project will also include electrolyzers to enable us to provide green hydrogen to the local marine and road-based haulage markets in London and the southeast.

¹ Quantification of greenhouse gas emissions from recycling and waste management activities in the UK, Ricardo for ESA (2021).

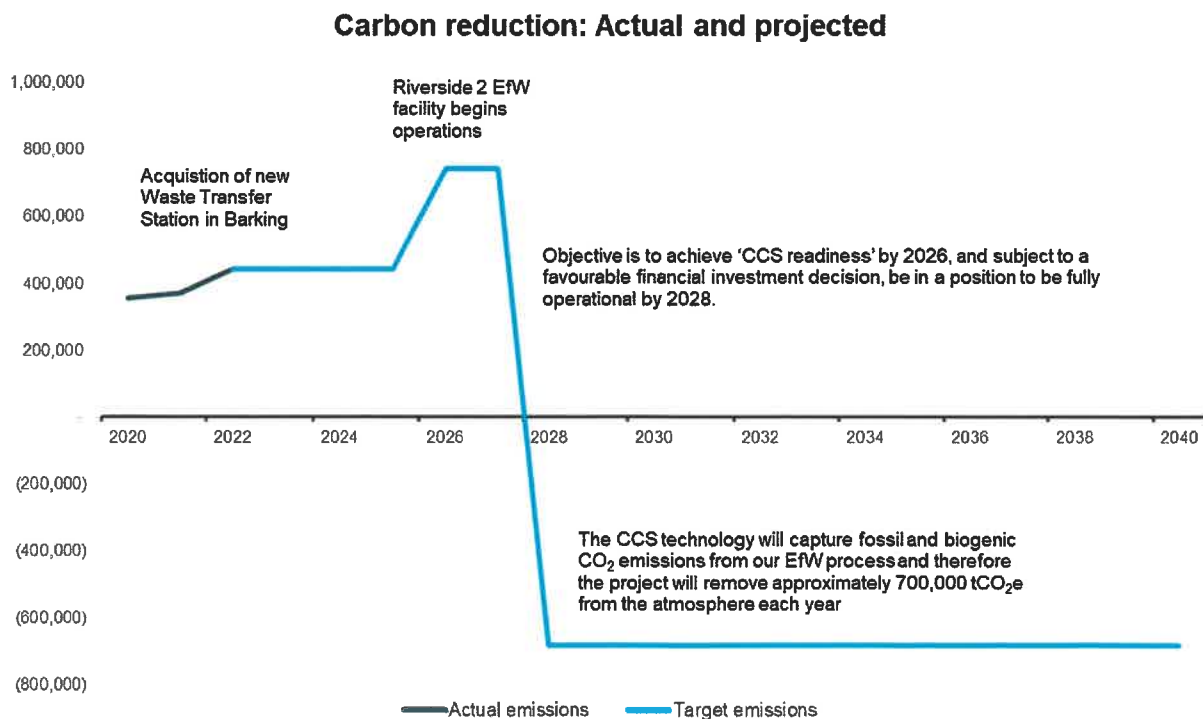
The Secretary of State for the Department of Business, Energy and Industrial Strategy (BEIS) directed that Cory's planned CCS and hydrogen projects qualify as Nationally Significant Infrastructure Projects (NSIPS), acknowledging the vital role they will play in achieving the UK's net zero ambitions. An application for a Development Consent Order seeking permission to build and operate the NSIPS is being prepared and will be submitted for determination in January 2024.

Our objective is to achieve 'CCUS readiness' (consents in place, front-end engineering, and design (FEED) completed, T&S provider identified) by 2026, and, subject to a favourable financial investment decision, be in a position to be fully operational by 2028. Once the CCS plant is operational our EfW operations will become 'carbon negative', i.e. removing more CO₂ from the atmosphere than is emitted due to the composition of waste (c. 50% fossil carbon and 50% biogenic). At full operation, Cory's CCS facility will capture and enable the permanent geological sequestration of over 1.37 million tonnes of CO₂ a year.

We have made the following commitments to progress our journey to net zero in our operational emissions (which comprises all activities outside of our EfW process) to be delivered before 2030:

- Maximise energy efficiency across all sites and activities.
- Invest in no new diesel heavy plant from 2030 and achieve total phase-out of all diesel-fuelled plant and site vehicles by 2040.
- Halve zero emissions dock tractors operating at our site in Belvedere by 2030.
- Phase out natural gas from all sites by 2030.
- Use low carbon fuels in our river fleet while undertaking research and development into zero emissions marine vessels.

Anticipated performance against these targets can be seen in the graph below:



Carbon Reduction Projects

Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 2020 baseline. The carbon emission reduction achieved by these schemes equate to ~3,500 tCO₂e, a 1% reduction against the 2020 baseline and the measures will be in effect when performing the contract

- In June 2021 we moved our river fleet from marine gas oil onto renewable diesel. Over a year of operations this initiative saves around 3,300 tonnes CO₂e.
- Our Lighterage Team have an ongoing programme to maximise fuel efficiency on our tugs; engine idling times have been reduced by an average of 12 per cent across our fleet since 2019 through ongoing monitoring, saving approximately 12,000 litres of fuel. A new programme was initiated in June 2021, requiring captains to operate the tugs at a maximum of 75 per cent engine power when underway and when it is safe to do so. Over six months this saved 63,000 litres in fuel saving around 200 tCO₂e per year (using marine gas oil as the baseline).
- We have had an LED lighting programme in place since 2018, switching lighting to LED when replacement is required. Most of our sites are now over 80% LED (emissions savings not tracked).
- At Riverside 1 we initiated Phase I of a project to upgrade the Building Energy Management System (BEMS) by replacing obsolete controller hardware. This will enable Phase II of the project in 2022-2023 whence the remaining hardware as well as the BEMS Supervisor Hub will be upgraded, enabling energy savings of up to 20% on heating, ventilation, and air conditioning equipment (emissions savings not tracked).
- During 2021 we delivered an education campaign at all of our sites to highlight the importance of reducing diesel use through basic efficiency measures, for example, reducing engine idling. This was followed up with a toolbox talk in 2022 (emissions savings not tracked).

Declaration and Sign-Off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard² and uses the appropriate Government emission conversion factors for greenhouse gas company reporting³.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard⁴.

²<https://ghgprotocol.org/corporate-standard>

³<https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

⁴<https://ghgprotocol.org/standards/scope-3-standard>

This Carbon Reduction Plan has been reviewed and signed off by the board of directors (or equivalent management body).

Signed on behalf of the Supplier:

A handwritten signature in black ink, consisting of a large, stylized 'D' followed by a horizontal line and a short diagonal stroke.

Dogie Sutherland

Chief Executive

Date: 20 FEB 23