

PPN 06/21

Carbon Reduction Plan

Supplier name

FCC Environment (UK) Ltd including all subsidiaries, to 31st May 2024

Publication date

July 2025

FCC Environment

Commitment to achieving Net Zero

FCC Environment (UK) Ltd is committed to achieving Net Zero emissions by 2040

2019

The baseline year of 2019 was established to monitor **progress toward achieving net zero emissions**



Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases (GHG) that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

Baseline Year: 2019

Additional Details relating to the Baseline Emissions calculations

The baseline year of 2019 was established to monitor progress toward achieving net zero emissions.

The current greenhouse gas (GHG) reporting framework includes all Scope 1 and Scope 2 emissions, in accordance with the GHG Protocol. To calculate operational emissions, the company uses the UK Government's GHG Conversion Factors for Company Reporting. For sites with specialised waste management activities, emissions are calculated using the EpE Protocol (Entreprises pour l'Environnement), which is endorsed by the Environmental Services Association – the UK's trade body for the resource and waste management sector.

In 2024, FCC Enviro, the parent company of FCC Environment (UK) Ltd, finalised the acquisition of Urbaser's UK operations. This Carbon Reduction Plan does not currently reflect the emissions from the newly acquired business. However, FCC intends to re-baseline the UK group's GHG emissions and update its net zero trajectory at the end of 2025.

In this Carbon Reduction Plan, FCC Environment (UK) Ltd is pleased to report Scope 1, Scope 2 and the following categories in scope 3:

- Upstream transportation and distribution
- Downstream transportation and distribution
- Waste generated from operations
- Business travel
- Commuting

Baseline Emissions Footprint

Baseline year emissions 2019

Emissions	Total (tCO_2e)
Scope 1	1,940,549
Scope 2	3,818
Scope 3*	13,368
Total Emissions	**1,957,735**

*Scope 3 sources include employee commuting and business travel

Current Emissions Reporting

Reporting Year: 2024

Emissions	Total (tCO_2e)
Scope 1	↓ 1,414,035
Scope 2	↓ 18 market-based approach (5,677 location-based approach)
Scope 3*	69,272
Total Emissions	↓ **1,483,326**

*Scope 3 sources include; upstream transportation and distribution, downstream transportation and distribution, waste generation, employee commuting and business travel



Emissions reduction targets

To meet the goal of achieving net zero by 2040, FCC Environment (UK) Ltd. has set ambitious carbon reduction targets, with a primary focus on reducing Scope 1 and Scope 2 emissions.

The company remains committed to enhancing its approach to Scope 3 emissions, working towards full inclusion in its carbon accounting and continuing to invest in their reduction.

Based on current projections, FCC Environment (UK) Ltd.'s carbon emissions are expected to fall to 874,423 tCO_2e by 2030; representing a 55% reduction from the 2019 baseline. However, to account for emissions from the recent acquisition, this projection will be updated following a planned review and re-baselining of the UK Group's GHG emissions at the end of 2025.

FCC is actively working to reduce its environmental impact through the introduction of the following divisional commitments.







Energy from Waste

- **Invest in carbon capture, usage and storage (CCUS) technology and ensure that all new plants are fitted with CCUS, or are CCUS-ready from 2025**
- **Transition to zero emission on-site fuels by 2040**
- **Develop heat networks where feasible, to deliver heat from EfWs**

Landfill, Quarry and Waste Treatment

- **Divert of all organic waste from landfill by 2030**
- **Increase the capture of methane emissions from landfill to 85% by 2030**
- **Transition to zero emission on-site fuels by 2040**

Municipal Treatment and Collections

- **Purchase of zero emissions collection vehicles only from 2030**
- **Phase out use of petrol and diesel entirely by 2040**
- **Decarbonise transport fleet by 2040**

FCC Environment (UK) Ltd. is firmly committed to reducing emissions and recognises the importance of independent verification in ensuring transparency and credibility. In 2024, FCC entered into a contract with BSI to implement ISO 14064:1 2018. Stage 1 verification audits have already been completed, with Stage 2 audits scheduled for completion by the end of 2025. The goal is to achieve full external verification of FCC's greenhouse gas (GHG) reporting system within that timeframe.

To enhance carbon emissions reporting, FCC Environment (UK) Ltd. has invested in a dedicated ESG reporting IT platform. Once configured and implemented, this system will automate the reporting of emissions across Scopes 1, 2, and 3, allowing for more precise impact management and data-driven decision-making. As a fully auditable tool, it will play a key role in our journey toward achieving ISO 14064:1 2018, ensuring comprehensive and transparent reporting of Scope 3 emissions – the most challenging aspect of carbon accounting.

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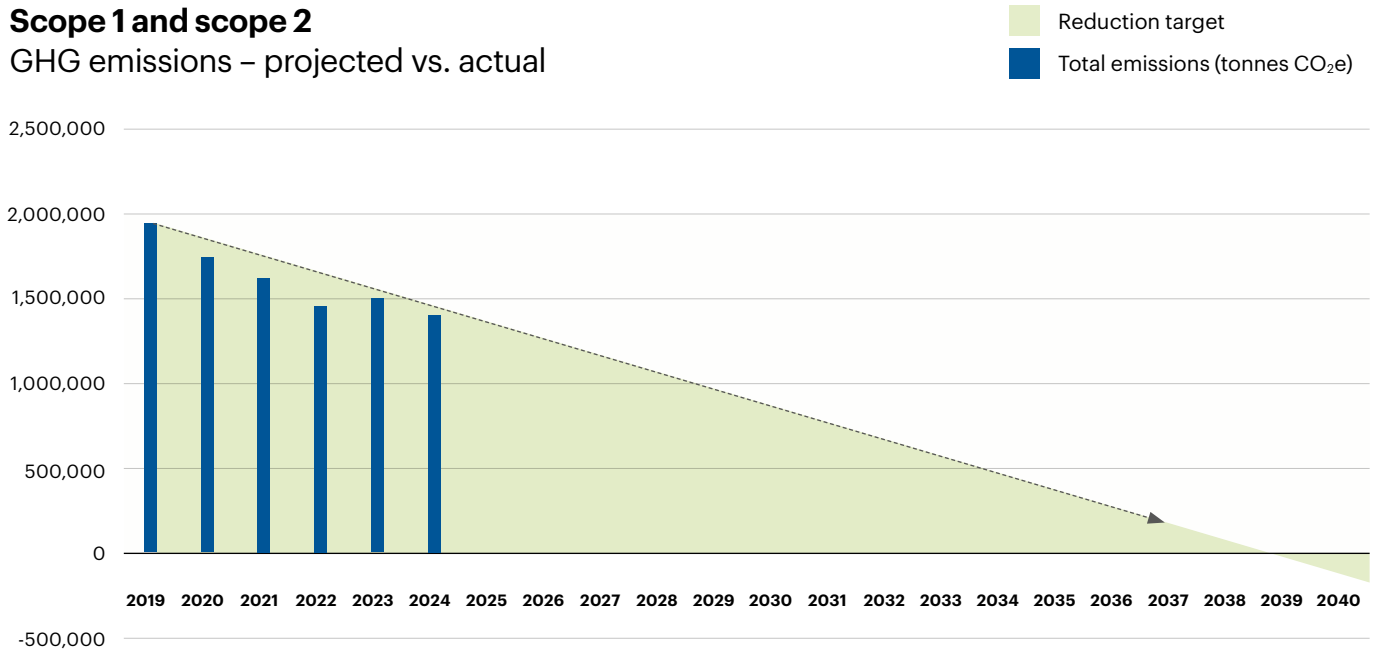
Emissions reduction targets

In addition to its divisional commitments, FCC Environment (UK) Ltd. remains dedicated to the following ongoing actions:

- ✓ Supplying all facilities with zero-emission renewable electricity, supported by Renewable Energy Guarantees of Origin (REGOs)
- ✓ Collaborating with partners to install renewable energy generation systems for export to the National Grid
- ✓ Delivering carbon reduction awareness and training across all facilities, offices, and support functions
- ✓ Engaging with key suppliers to reduce delivery frequency through order consolidation
- ✓ Continuing the phased retrofit of LED lighting across all sites
- ✓ Partnering with stakeholders to explore innovative solutions aimed at reducing fossil fuel use and embodied carbon

Progress against our net zero targets can be seen in the chart below:

Scope 1 and scope 2
GHG emissions – projected vs. actual



Our trajectory shows that we are progressing towards our goals, while our commitment to ISO 14064:1 2018 demonstrates our dedication to transparency.

However, we operate in an evolving landscape, meaning we need to re-evaluate. Global Warming Potential (GWP) measures how much a greenhouse gas warms the Earth compared to CO_2. In 2023, the GWP of methane increased, resulting in an increase in CO_2e emissions associated with landfills. So, while our landfill emissions decreased in 2023, that reduction was unfortunately offset by the GWP increase.

The chart above focuses solely on Scope 1 and Scope 2 emissions, it does not include the scope 3 emissions from upstream transportation and distribution, downstream transportation and distribution, waste generation, employee commuting and business travel. As it currently stands our net zero trajectory does not incorporate scope 3 emissions.

Carbon Reduction Projects

Completed Carbon Reduction Initiatives

Since the 2019 baseline, the following environmental management measures and projects have been implemented or completed. These initiatives have collectively achieved a carbon emissions reduction of approximately 530,314 tCO_2e; representing a 27% decrease compared to 2019 levels. This demonstrates that FCC remains on track to meet its targets, even accounting for the recent increase in Global Warming Potential (GWP) factors. The measures outlined below will be in place throughout the duration of existing and future contracts.

Whilst not exhaustive, this list provides a comprehensive overview of the ongoing sustainability efforts.



Completed Carbon Reduction Initiatives

Energy from Waste

- Invested heavily in **high specification corrosion resistant boiler components** resulting in fewer shutdowns and a **significant reduction in diesel use**.
- Innovative process amendments have been carried out at **Allington EfW** to increase availability and **significantly reduce** diesel consumption.
- **Oxygen analysers** continue to be installed at Allington EfW enabling **improved combustion efficiency** and steam production, reduced emissions and reduced oil burner operations.
- The installation of **furnace fluidised bed cameras** is currently being trialled at Allington EfW. This initiative is expected to **enhance operational efficiency** and **reduce down-time**, resulting in savings on diesel consumption and shortening the time required to warm up the lines.
- **Blast cooler invertors** have been installed at Eastcroft EfW ensuring they only operate when required therefore **reducing energy demand**.
- **ID fan casings** have been replaced at Millerhill EfW, **reducing energy demand by 10%**.
- **Midlothian district heating network** will use heat supplied by Millerhill Recycling and Energy Recovery Centre. A joint venture called Midlothian Energy Limited (MEL) has been formed between Midlothian Council and Vattenfall, an internationally recognised leader in developing and operating heat networks. Once fully operational, the MEL Energy Centre will capture **low-carbon heat** from the Millerhill Recycling and Energy Recovery Centre which it will supply to around **3,000 homes**, **education** and **retail properties** in an ambitious new town called Shawfair. In this first phase, the heat network is expected to **save over 2,500 tonnes of CO_2 per year**, the equivalent of taking 1,200 cars off the road. The eventual plan is for MEL to heat up to **10,000 homes** with low-carbon heat.

FCC Environment is actively exploring carbon capture technologies and their potential application across our energy from waste fleet, taking into account environmental, economic and social factors. To co-ordinate our efforts in this area, we have established an internal, multidisciplinary CCUS working group that supports strategic decision-making by providing technical and policy insights. As an operator, we are committed to identifying viable solutions that support the decarbonisation goals of local authorities, align with community interests, and meet regulatory expectations. This includes the possibility of pilot trials, as well as our ongoing participation in industry working groups and UK ETS Authority consultations.



Completed Carbon Reduction Initiatives

Landfill, Quarry & Waste Treatment

- **Variable speed technology** is proven to **reduce electricity consumption** by as much as 35% and when combined with e-dryers that increases to 50%. In 2024, we completed the roll-out of variable speed drive compressors and e-dryers across our landfill port-folio. **Electricity savings** at Aveley closed landfill site alone amounted to **21 tonnes of CO_2e** (location-based). The modelled location-based savings across the landfill portfolio are upwards of 135 tonnes CO_2e.
- During the last few years, FCC Environment (UK) Ltd. has invested in a fleet of **Cat® 966 XE wheel loaders** and **Cat® D6 XE electric drive bulldozers**. These machines have proven to be up to **29% more fuel efficient**, compared to the mechanical drive equivalents.
- FCC Environment (UK) Ltd. continues with its focus on **engine idling**. The engine idling awareness campaign and toolbox talk is continually delivered across the business and advanced telemetry allows the reporting of worst offenders to the senior leadership team on a monthly basis.
- **The Eco-Drive Advance training course**, delivered in partnership with Finning, continues to achieve positive results. Designed for Managers and Supervisors, the course focuses on **best practices**, **effective operating techniques**, and key workplace factors. It equips participants with the skills to identify inefficiencies, assess equipment performance accurately, and optimise fuel usage – ultimately **boosting productivity**, **reducing diesel use** and therefore **reducing operating costs.** This Eco-Drive Advance training course will be utilised for those mobile plant operators identified as requiring further training in efficient driving techniques.
- **Hydrotreated vegetable oil** (HVO) has been implemented as a replacement for diesel across all facilities within our Waste Treatment Division, leading to a **90% reduction in net carbon emissions** from fuel use.
- In addition, the division has launched a project to upgrade old, energy-intensive compressors with new, **energy-efficient** models.
- **Microgeneration** has now been rolled out at **12 landfill sites across the UK**, exporting around 10 MWh of **renewable electricity** to the grid annually.

90%

HVO has been implemented as a replacement for diesel across all facilities within our Waste Treatment Division, leading to a **90% reduction in net carbon emissions**

29%

Cat® 966 XE wheel loaders and Cat® D6 XE electric drive bulldozers. These machines have proven to be up to **29% more fuel efficient**



Completed Carbon Reduction Initiatives

Municipal Treatment and Collections

- Two 26-tonne **electric Refuse Collection Vehicles** (e-RCVs) have commenced operations in Hereford. These vehicles provide an excellent opportunity to gather and analyse data, essential to understanding how e-RCVs can be more widely adopted for municipal collections. In the first 6 month of their operation, they have **reduced** the contract's GHG emissions by **14 tonnes of CO_2e**.
- Further electric-RCVs trials have been undertaken in Wychavon, Central Bedfordshire and London Borough of Waltham Forest and **permanent electric charging points** have been installed at our depots in Hereford, Bedford, Dunstable and Waltham Forest.
- The use of HVO in FCC's Wychavon collections contract since July 2023 has **saved 520 tonnes of CO_2e**.
- FCC Environment (UK) Ltd has invested in a new fleet of vehicles at Sutton Courtenay in Oxfordshire, **saving** approximately **80 tonnes of CO_2e per annum**.
- Trials with **FuelActive technology** will commence at one of our sites in Wales. If successful it will be rolled out across the organisation. FuelActive is a unique method of delivering **92% cleaner fuel** to the engine by drawing fuel from just below the surface of the fuel tank, bulk storage unit or fuel cube, thus reducing CO_2e emissions by 5%.
- **Route optimisation** software is utilised to determine the **most fuel-efficient route**.
- **Daily tyre pressure monitoring** is carried out to identify wear rate, optimise tyre choices and so fuel efficiency.
- **Telematics systems** are utilised in both mobile plant and road going vehicles to report and **track inefficient driving**, particularly engine idling times and unnecessary fuel consumption. The resulting reports detailing the required actions are fed through to the senior management team on a monthly basis.
- In-cab technology is utilised which reports task progress in real-time and is utilised to allocate ad-hoc tasks to the most appropriate crew, generating **operational efficiencies**.
- The **engine idling awareness campaign** and toolbox talk continues to be delivered to all drivers across FCC's fleet.
- **PV solar arrays** have been installed at a number of FCC facilities over the last few years and we continue to invest in their installation where practicable.
- A new recycling and re-use centre has officially opened in Northamptonshire, dedicated exclusively to **re-use and recycling**. The site is open to the public and does not accept any residual waste. By promoting re-use, the facility supports the UK's net zero ambitions – helping to **reduce** the demand for new resources, **cut emissions** throughout product life cycles, and **minimise waste generation**.

Across FCC Environment (UK) Ltd., over 75% of company cars selected by employees are now either fully electric or hybrid vehicles.

Start stop technology (Eco-Drive) has been enabled in all mobile plant across all divisions of FCC Environment (UK) Ltd. which uses telematics to produce live alerts when the technology is overridden. Results from the telematics are reported to senior management on a monthly basis and actioned accordingly.

A project is currently in underway to assess the feasibility of introducing HVO fuel for mobile plant operations across all divisions

Further electric-RCVs trials have been undertaken in Wychavon, Central Bedfordshire and London Borough of Waltham Forest



Declaration and Sign Off

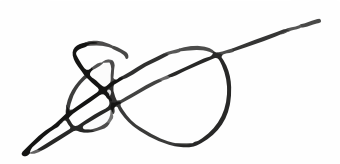
This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard[1] and uses the appropriate Government emission conversion factors for greenhouse gas company reporting[2].

Scope 1, Scope 2 and Scope 3 emissions have been reported in accordance with ISO14064:1 2018 specifications, 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) Standard[3].

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:



Steve Longdon
Chief Executive Officer, FCC Environment

Date: July 2025

References

1 https://ghgprotocol.org/corporate-standard

2 https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting

3 https://ghgprotocol.org/standards/scope-3-standard