

CARBON REDUCTION PLAN 2024

Our journey to Net Zero



COMMITMENT TO ACHIEVING NET ZERO

Veolia UK and its UK subsidiaries are committed to achieving Net Zero by 2050. This is underpinned by our global mission of Ecological Transformation achieved by putting ecology at the centre of our assessments and decision making and supporting the radical change of patterns of production and consumption.

Our customers and partners play a key role in our journey towards Net Zero and we are actively working with them to drive innovation and new market opportunities to achieve our collective goals.



PPN 06/21 - CARBON REDUCTION PLAN

Supplier name:
Veolia UK Limited

Publication date:
30 June 2024

This Carbon Reduction Plan captures the activities of Veolia UK Limited and its UK subsidiaries.

BASELINE EMISSIONS FOOTPRINT

Baseline emissions act as a key reference point for measuring changes in the amount of emissions produced within a reporting period.

Our carbon measurement and targets are in line with the GHG Protocol Corporate Accounting and Reporting Standard, and we align with the DESNZ (Department for Energy Security and Net Zero) guidance on measuring and reporting our GHG emissions.

We have taken the operational control approach, reporting and accounting for 100% of the GHG emissions from operations we control. Operational control is held where we have full authority to introduce and implement our operating policies.

All GHGs are expressed in a carbon dioxide equivalent value (CO₂e), made up of the seven main GHGs covered by the Kyoto Protocol. Unless specified otherwise, all total GHGs are expressed in Gross tCO₂e.

UK Government emission conversion factors for greenhouse gas company reporting have been adopted. Where factors are specific to the waste management and water industries, we have utilised factors in line with the Environmental Services Association (ESA) and UK Water Industry Research (UKWIR) respectively. Unless specified otherwise, Scope 2 emissions are recorded through a market-based method, allowing for clear reporting on our accredited purchasing of renewable electricity.

Our GHG footprint includes all emissions under Scope 1 and 2, as well as a subset of Scope 3 emissions:

- **Scope 1:** Direct GHGs from our operational sites, offices and vehicles.
- **Scope 2:** Indirect GHGs from the electricity we consume.
- **Scope 3:** Other indirect emissions across our value chain (upstream and downstream).

THE SCOPE 3 EMISSIONS CATEGORIES REPORTED ON INCLUDE:



Business travel



Employee commuting



Waste generated in operations



Upstream transportation and distribution

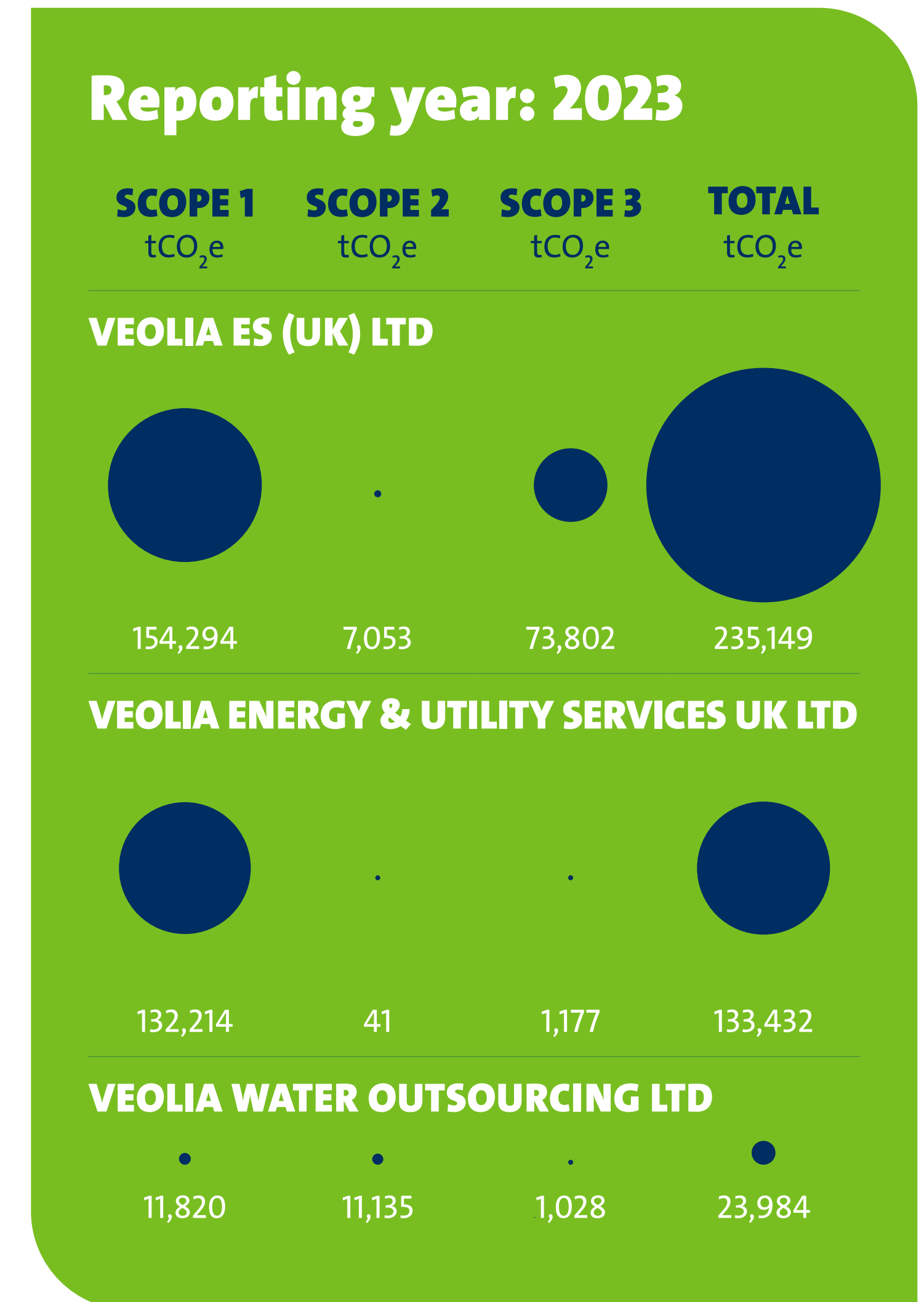
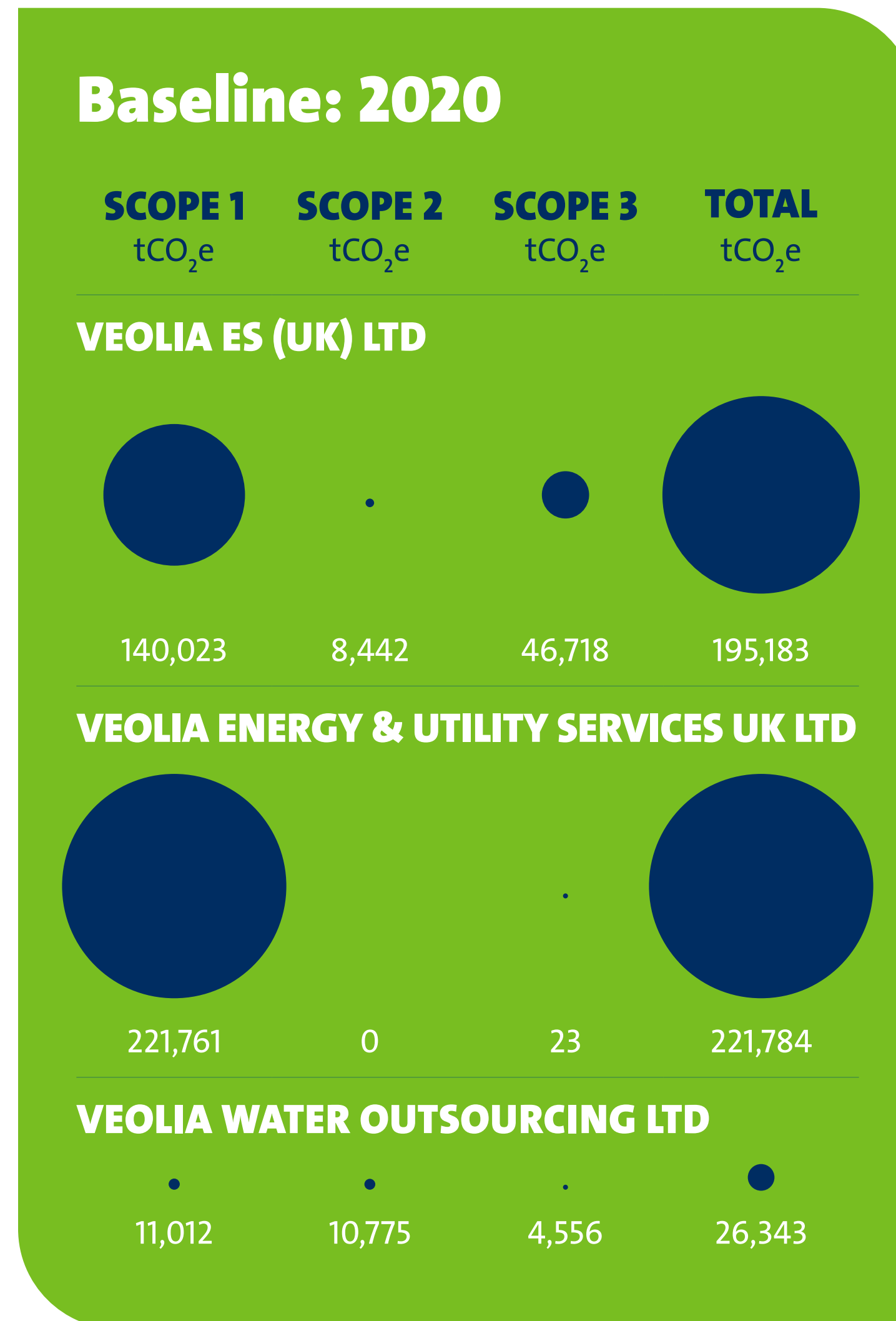


Downstream transportation and distribution

EMISSIONS BREAKDOWN

The following is a breakdown of the emissions of certain wholly owned subsidiaries of Veolia UK Limited, for the baseline and current reporting period.

We have automated our data collection processes to improve our emissions data.

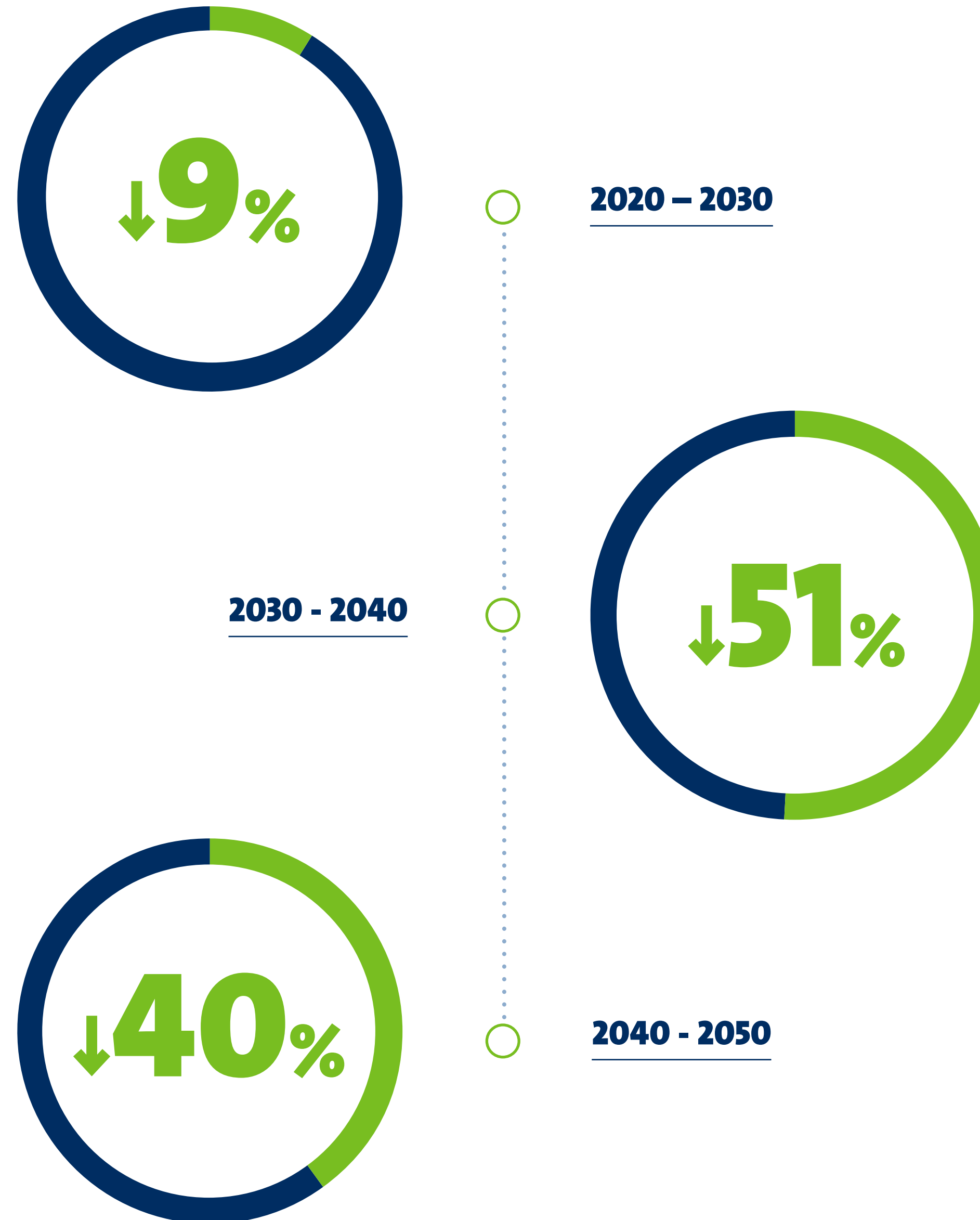


EMISSIONS REDUCTION TARGETS

Veolia UK and its subsidiaries are committed to achieving Net Zero by 2050. Our 2021 Net Zero Strategy presents our roadmap to decarbonise these water, waste and energy services that are essential to everyday life.

Emissions from our operations and processes are reported under Scope 1 and Scope 2 emissions, accounting for the vast majority of our 2023 GHG emissions. Emissions from activities within our value chain are reported under Scope 3.

We estimate that our carbon emissions will decrease by:



OUR NET ZERO STRATEGY

Our Net Zero Strategy is underpinned by the following six commitments and their targets:

COMMITMENT #1

Reduce our operational emissions

- Reduce the emissions from our fuel, gas and electricity consumption by 2% year on year from 2021 until 2040.
- Reduce our operational emissions from Fleet, Yellow Plant and other on-site engines down to zero by 2040.
- Switch 100% of our energy portfolio to zero emission processes by 2050.

COMMITMENT #2

Reduce our process emissions

- Reduce the process emissions from landfill, incineration, organic waste and waste water treatment by 25% compared to 2020 by:

- Removing organic waste from landfill and plastics from energy from waste.
- Continually improving and optimising processes for organic waste treatment and waste water treatment.

COMMITMENT #3

Capture and offset our remaining GHG emissions

- Work with the UK Government to enable the deployment of Carbon Capture, Utilisation and Storage (CCUS) technology across our Energy Recovery Facilities (ERFs), where feasible, by 2040 in line with the UK waste sector ambition.
- Continue to capture over 85% of fugitive landfill emissions.

COMMITMENT #4

Work in partnership to reduce the emissions we do not have control over

- Continue to collaborate with our employees, suppliers, customers, partners and public bodies to educate, innovate and drive new market opportunities.

COMMITMENT #5

Improve the quality of our carbon reporting

- Introduce a waste composition analysis based on emission factors at our ERFs, landfills and composting sites to measure the biogenic potential of the waste processed and accurately calculate resultant GHG emissions.
- Work with our suppliers to purchase goods and services with a lower carbon footprint.

COMMITMENT #6

Continue to develop low and zero carbon solutions for our customers

- Continue to innovate collaboratively with our partners, customers and value chains to innovate and develop tailored solutions for our customers using the latest, Best Available Technologies across all our operations.

Our Net Zero roadmap is currently under review, as we look to ensure it continues to accelerate our actions to decarbonise, taking into account material organisational changes, policy and legislation updates and developments in technology and innovation. This may include revising the baseline year, commitments and projected emissions reductions.

CARBON REDUCTION ACHIEVEMENTS

To demonstrate our recent and ongoing progress, the following section outlines key decarbonisation achievements and activities against our six commitments and their targets:

Commitment #1

- Veolia UK has reduced the emissions from our fuel, gas and electricity consumption, seeing an overall reduction of 19.7% from 2020-2023.
- Veolia UK's operational emissions from fleet, yellow plant and other on-site engines have decreased by 12.8% from 2020-2023.
- Veolia has installed LED lighting across 12 sites to improve on-site energy efficiency, for example, following the replacement of 230 lighting units with LEDs at our Resource Centre at Southwark Integrated Waste Management Facility in late 2022, we have seen over 34% electricity savings throughout 2023.
- Veolia has implemented further energy efficiency measures at our sites, including:
 - **Whitburn Waste Water Treatment Works:** Surface aerators were downsized to reduce electricity consumption due to increase in mixer efficiency in 2023.
 - **Sludge Incinerator:** Installation of steam traps in 2023 at Duncrue Incinerator are improving energy efficiency.
 - **Bidston Materials Recovery Facility:** HVAC controls were changed from manual setup to automatic meaning the fans are now only demand based, with an estimated 50% reduction in energy consumption.
 - **Kings College Hospital:** An extension to the Low Temperature Hot Water (LTHW) network has led to higher heat utilisation and efficiency from the CHP and a subsequent reduction in gas usage.
 - **Liverpool Hospital:** By replacing the economiser, we improved the boiler efficiency and reduced gas usage by ~49 tCO₂.

Veolia UK's electric vehicles deployment increased with a total of 635 electric vehicles across our fleet, up from 295 at the start of 2023. Additions to our waste operations include:

27 Electric refuse collection vehicles (RCVs) introduced in Kingston

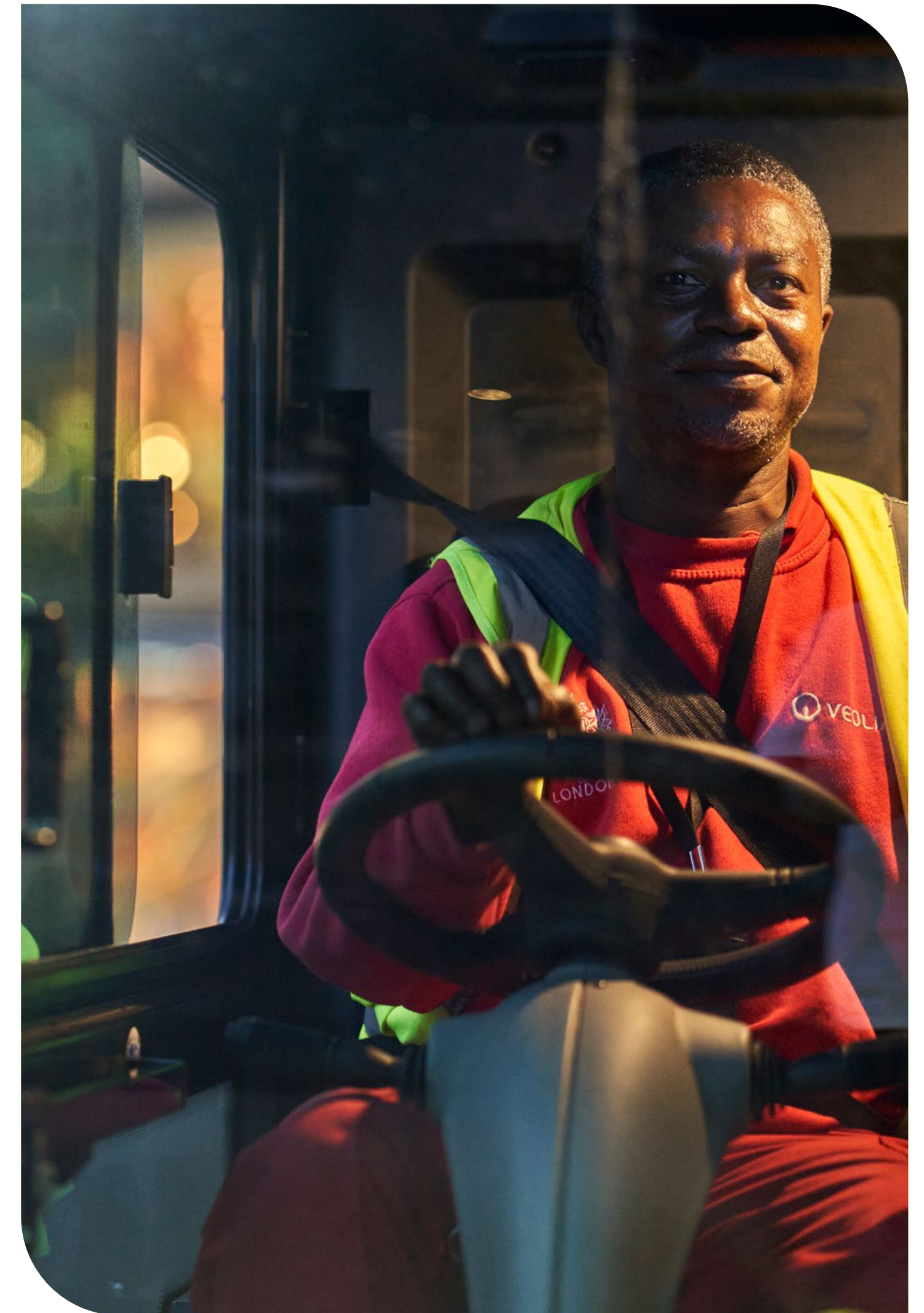
5 New diesel fork lift trucks replaced with new electric forklifts in Birmingham

5 Electric street cleansing vehicles and nine electric ancillary vehicles introduced in Hammersmith & Fulham

- In partnership with Westminster City Council, Veolia opened a fully electric depot on Landmann Way in July 2023, capable of simultaneously charging 54 electric refuse collection vehicles (eRCVs). The council's electric waste collection fleet, the largest in the UK, is charged using power from our adjacent South East London Combined Heat & Power facility via a private wire network. In January 2024, Veolia also completed our first Vehicle-to-Grid (V2G) trial at the site, charging and discharging back to the grid 110kW of energy from two specially designed bi-directional vehicles.
- Veolia has an ongoing programme to drive fleet optimisation and explore alternative fuels for its road and non-road fleet.
 - A partnership with Finning CAT trialled reductions in diesel use by yellow plant machines. The total time vehicles spent idling was cut by 8.29 hours/day, saving an est. 11,937 litres of fuel/year. Other reductions in fuel burning rates could save a further 36,902 litres of fuel/year. Together, saving an estimated 130.8 tCO₂ each year at our Rainham site alone.
 - All five gritting vehicles under our Brent Council contract have switched to HVO fuel instead of diesel, and HVO is powering a new yellow plant in Canterbury. HVO is a low emission alternative to conventional diesel which eliminates up to 90% of net CO₂ emissions.

Commitment #2

- Veolia continues to work with our customers to increase the proportion of materials going to recycling:
 - Our Southwark contract achieved a 32% reduction in front-end rejections following a project to tackle contamination of estate communal bins. This was delivered through extensive engagement with residents and crews.
 - Our Solihull contract achieved its highest recycling rate in six years at 41.5%, a 5% increase from the previous period.
 - Our Westminster contract has also seen a 3.7% uplift in recycling rates over the past year. The food waste recycling program has diverted nearly 3,000 tonnes of food waste from landfills over a two year period.
- Veolia is investing in infrastructure to expand the types and volume of material we treat. In Spring 2024, we opened a new hazardous waste transfer station in Avonmouth to manage waste streams such as aerosols, gas cylinders, and toxic, corrosive and oxidising materials.
- Veolia continues to optimise the use of recovered heat. At our Sheffield District Energy Network we have introduced an Artificial Intelligence thermohydraulic modelling tool to optimise temperature and network pressure over the 44km long network. By taking real time data from across the network and predicting heat demand and weather patterns, the system will reduce peak loads by up to 20% and increase the heat delivery capability by 25%.



Commitment #3

- Veolia launched a feasibility study at our Marchwood ERF in February 2024 to assess using carbon capture technology to produce sustainable fuels. Engineered by Veolia, the system uses Advanced Amine technologies to capture carbon emissions from the combustion of non-recyclable biogenic waste. The CO₂ can be combined with green hydrogen to create fuels such as eMethanol and Sustainable Aviation Fuel, reducing the carbon intensity of shipping and air travel.
- Veolia is commencing Enhanced Rock Weathering (ERW) projects in partnership with UK biotechnology startup, FabricNano. The process applies enzymes to rocks to trial faster, permanent carbon dioxide removal directly from the atmosphere. This year, Veolia will be spreading 30,000 tonnes of basalt rock across farmland throughout the UK. The aim is to prove the methodology for an efficient, scalable method to capture huge volumes of atmospheric carbon dioxide.
- In 2023, Veolia's methane capture rate on landfills was 91.7%. A programme of work to optimise landfill gas capture has included investing £1.4m in new gas engines at our Springfield landfill site.



Commitment #4

SUPPLIERS:

- Veolia's Sustainable Procurement roadmap (2023-27) drives ESG performance into our procurement process.
- In January 2023, Veolia became partners of the Supply Chain Sustainability School, an industry-led organisation driving sustainability knowledge throughout the value chain. It includes a library of free resources on ESG topics, including decarbonisation. The School supported a workshop on Net Zero for 20 of our suppliers.
- In 2024, Veolia introduced a new supplier management system that provides enhanced reporting and analysis on supplier performance. This includes an ESG module that enables Veolia to monitor the ESG sustainability performances of our suppliers. Through a standardised questionnaire and approach, we can assess and track their ESG practices, ensuring alignment with our sustainability goals.

EMPLOYEES:

- Veolia has made it easier for employees to adopt green and low-carbon travel options through increasing the limit for the Cycle to Work scheme from £1,000 to £3,500; promoting the adoption of hybrid and electric vehicles for company cars; and showing the estimated carbon impact of travel options in the business travel booking platform to drive lower carbon choices.



Commitment #5

- Veolia continues to refine and improve data collection processes to report our carbon emissions. This includes expanding and improving the accuracy of our Scope 3 categories reported via engagement with our supply chain.
- Veolia has implemented energy efficiency tracking dashboards for managers and technicians to monitor energy use and efficiency at all district heating schemes.
- Veolia introduced an updated electricity and gas cost and consumption report for sites. The report, available to all employees, allows sites to review high-level trends and examine gas and electricity usage over time to take action to reduce it.

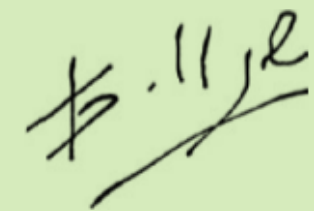
Commitment #6

- Veolia is supporting the development of SmartParc's new local carbon heating and cooling network at their food manufacturing site near Derby. The site is set to cut carbon emissions by 30,000 tonnes/year through using energy sharing infrastructure to deliver sustainable food production. Veolia designed the pipe network, and will operate the heating, cooling and high voltage distribution.
- Veolia installed a solar car park at Eastbourne Hospital, set to generate 1,000 MWh of renewable electricity annually and will see significant savings by generating its own renewable electricity on-site.

DECLARATION AND SIGN OFF

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

This Carbon Reduction Plan has been reviewed and signed off by the Veolia UK Executive Committee, the senior management body in Veolia UK.



Christophe Bellynck
Corporate Development Director

Veolia UK & Ireland

Date: 30 June 2024



