



Reduce carbon emissions and waste

The sustainability strategy also focuses on improving our customers' carbon footprint and our own wherever we operate – on site and on our trucks

OBJECTIVES

► Be a leader in clean and green waste collection

SDG LINK



Time is running out for us to change the way we live. Our climate is on the verge of changing irreparably, with enormous consequences for our wellbeing – indeed, our very existence. In addition, the ongoing destruction and pollution of natural habitats turns our world into a hostile place to live for a lot of species, including our own. As a company, our purpose is wholly aligned to being a part of the solution: reducing carbon emissions through the re-use of secondary materials and reducing contamination in our ecosystems.

Our business model is oriented around sustainability by improving the carbon and waste footprint of our customers, and naturally we carefully consider our own environmental impact and behaviour. But we face challenges: our waste collection is performed by a fleet of diesel trucks which, while complying with European emissions standards, also send nitrogen and particulate matter into the air, as well as using carbon. The collected waste is then stored or treated at our sites – activities that use energy, mostly electricity.

Moreover, some of the waste treatment activities also cause direct-process carbon emissions. In addition, events such as fires and environmental spills can cause unwanted emissions of substances to soil, water and air. This is why we have identified 'reduce carbon emissions and waste' as one of the three pillars of our new sustainability strategy.

So while we strive to maximise the carbon avoidance benefit in our value chain, simultaneously we want to reduce our own environmental impact and carbon footprint as much as possible – and make sure our emissions to soil, water and air stay well within the legally permitted boundaries. We have identified three areas of improvement:

WASTE COLLECTION

Collection remains an important part of our activities, and we need to reduce its carbon, nitrogen and particulate matter emissions. Thus our objective here is to **be a leader in clean and green waste collection**. Looking forward, we expect our collection fleet to become smaller and cleaner.

Given the public focus on nitrogen deposition because of environmental and health concerns, the conversion of the fleet to Euro 6 emission standards – the highest in Europe – is itself an important goal, one for which we already have publicly declared targets. But we want to take this a step further and focus on zero-emission vehicles (ZEVs) for waste collection in inner cities, although this presents a greater challenge both operationally and financially.

Our current research and development on this issue is limited, so we are stepping up our engagement with the major vehicle manufacturers to ensure that we are at the

front of the queue for prototypes to test. In fact, **our first zero-emission electric collection trucks take to the roads in Amsterdam in August 2020**. We will also develop a lobbying and marketing strategy to ensure that the roll-out of ZEVs is either mandated or subsidised by customers and government.

Next to growing the number of clean, Euro 6 standard trucks or ZEVs in our fleet, we are continually optimising our collection routes, reducing the number of kilometres driven. Additionally, white-label collection trials are under way for many inner-city customers. These use non-branded trucks operated by multiple waste management companies, reducing urban traffic and kilometres driven as well. Our objective to be a leader in clean and green collection is measured by three metrics, all with 2023 and 2025 targets: carbon intensity of collection, share of cleanemission trucks, and number of zero-emission trucks.

Besides these strategies, other projects are also expected to have the potential to positively impact the carbon reduction of waste collection. Among these are the revitalisation of our eco-drive programme, and researching the use of alternative fuels such as bio-LNG and hydrogen.





Reduce carbon emissions and waste continued

SUSTAINABILITY IN ACTION

Electric trucks – a breath of fresh air

New emission-free electric trucks take to the roads in summer 2020 in our mission to lead the way in cleaner, greener collection operations. Renewi's Commercial Waste Netherlands Division has invested €700,000 in two Volvo FE Electric 6x2 electric trucks – our first – for industrial waste collection in Amsterdam. This puts Renewi ahead of the curve regarding future environmental regulations: Amsterdam's Clean Air Action Plan will only allow emission-free vehicles in built-up areas of the city from 2025, with even wider restrictions by 2030.

And with the likelihood of a growing number of zero-emission areas in the Netherlands, we are gaining important early experience of collecting waste with electric vehicles. Each 27-tonne truck has four 50kW lithium-ion batteries. These are powered up overnight or with DC fast charging, and during braking, making the vehicles very suitable for urban collection.

Commercial Waste Netherlands' fleet of 1,385 vehicles is impressively green; 48.5% of the Group's trucks meet the highest emissions standard – Euro 6. All trucks we buy are second-generation Euro 6s. Renewi is looking at using DAF hydrogenelectric trucks, which efficiently store energy, enabling greater range. **“We believe in sustainable trucks,”** says Commercial Waste Netherlands Asset Manager Adrie van Duyvenboden, who manages the Volvo truck project. **“We see them as the future.”**





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Another area of development is the electrification of our company car fleet. Renewi managers need to travel between our sites, many of which are remotely located, far from public transport hubs – hence the need for company cars. Renewi has a fleet of about 800 cars, so the carbon impact is considerable. That’s why we encourage the use of electric and hybrid cars (fuelled by green energy). We have therefore made arrangements with lease car suppliers and are also going to increase the number of charging stations at our sites.

This second objective, to reduce the carbon impact of our operations, is also measured by three metrics with 2023 and 2025 targets: carbon intensity of our sites, share of renewable energy used on site, and share of hybrid or full-electric company cars.

Reduce carbon emissions and waste – our metrics and targets

OBJECTIVE	METRIC	FY20 BASELINE	FY23 TARGET	FY25 TARGET
Be a leader in clean and green waste collection	Carbon intensity of collection (kg CO ₂ per tonne of waste collected)	10.04	9.50 (-5%)	< 9 (-10%)
	Share of clean-emission trucks (% Euro 6 trucks of total fleet)	48.5%	75%	100%
	Zero-emission trucks (number)	0	20	65

