



CARBON REDUCTION PLAN

DECEMBER
2023

Seddon

Our net-zero commitment

Seddon Construction Ltd commits to reaching net-zero greenhouse gas (GHG) emissions across the value chain (including scopes 1-3) by 2050 from a 2021 base year.

This carbon reduction plan, aligned to Procurement Policy Note 06/21 requirements, has been completed for two assessment periods and includes the carbon footprint for scopes 1, 2, and 3 (with 5 categories accounted for).

Sustainability and longevity have always been fundamental in our 126-year-old business. Our ambition is to act as custodians of the future – leaving a positive legacy behind.

When formulating our Carbon Reduction Plan, we have considered our strategic priorities as a business and what we can achieve for our customers to reduce embodied and operational carbon.

We are passionate about how we can do things better to radically reduce carbon emissions, eradicate waste, and look at alternative energy; while we recognise we have work to do, we are confident of achieving our targets and have a robust plan to get there.





Baseline emissions footprint

Baseline Year: Calendar Year 2021

Additional Details relating to the Baseline Emissions calculations:

Our previous public disclosure defined our baseline year as 2020 (calendar year). To commence consistent reporting for PPN 06/21 compliance, we have readjusted our baseline year to 2021, with the calculation of emissions from scopes 1 and 2 and the required subset of five scope 3 categories. Category 9 (downstream transportation and distribution) is not applicable due to no requirement for transportation of sold products.

Baseline year emissions:

EMISSIONS	TOTAL (tCO₂e)										
Scope 1	1,345										
Scope 2	123 (location-based electricity) 111 (market-based electricity)										
Scope 3	1,621										
Included Sources:	<table border="0"> <tr> <td>Category 4 - Upstream Transportation & Distribution</td> <td>56</td> </tr> <tr> <td>Category 5 - Waste Generated in Operations</td> <td>106</td> </tr> <tr> <td>Category 6 - Business Travel</td> <td>447</td> </tr> <tr> <td>Category 7 - Employee Commuting</td> <td>1,011</td> </tr> <tr> <td>Category 9 – Downstream Transportation & Distribution</td> <td>N/A</td> </tr> </table>	Category 4 - Upstream Transportation & Distribution	56	Category 5 - Waste Generated in Operations	106	Category 6 - Business Travel	447	Category 7 - Employee Commuting	1,011	Category 9 – Downstream Transportation & Distribution	N/A
Category 4 - Upstream Transportation & Distribution	56										
Category 5 - Waste Generated in Operations	106										
Category 6 - Business Travel	447										
Category 7 - Employee Commuting	1,011										
Category 9 – Downstream Transportation & Distribution	N/A										
Total Emissions	3,089 (location-based electricity) 3,077 (market-based electricity)										

Current emissions reporting

Reporting Year: Calendar Year 2022

EMISSIONS	TOTAL (tCO ₂ e)	
Scope 1	1,052	
Scope 2	119 (location-based electricity) 45 (market-based electricity)	
Scope 3	1,221	
(Included Sources)	Category 4 – Upstream Transportation & Distribution	32
	Category 5 – Waste Generated in Operations	96
	Category 6 – Business Travel	415
	Category 7 - Employee Commuting	678
	Category 9 - Downstream Transportation & Distribution	N/A
Total Emissions	2,392 (location-based electricity) 2,319 (market-based electricity)	



Seddon operations

Carbon reduction goals

We have plans to implement the following carbon reduction initiatives, which are essential to achieving our scope 1 & 2 targets - outlined on page 6.

Emission source/activity	Carbon reduction goal	Carbon reduction initiatives to achieve our goals
Natural gas	Reduce to zero by 2028.	<ul style="list-style-type: none"> We will engage with our landlord to switch from gas use by 2028 - as soon as the current boiler comes to the end of its lifespan. We will move to a renewable heating system such as renewably powered electric heating or a heat pump.
Company cars	Reduce to zero for company owned or operated cars by 2035.	<ul style="list-style-type: none"> Reduce our fleet size. Transition from internal combustion engine (ICE) and plug-in hybrid cars to be completely replaced with electric vehicles (EVs) by 2035.
Company vans	Reduce to 90% for company owned or operated vans by 2030.	<ul style="list-style-type: none"> We will invest in alternative fuels for our diesel vans, such as HVO fuel which can reduce emissions by 80%. We will explore opportunities to replace ICE vans with electric models, where suitable for our operations.
Plant & machinery fuel	Reduce by 90% by 2030.	<ul style="list-style-type: none"> We will analyse energy and fuel use on project sites to identify opportunities to streamline processes and improve energy efficiency. This can reduce fuel consumption and associated costs. We will invest in the procurement of HVO fuel over gas oil and petrol. We will explore and invest in biofuels, such as biodiesel. We will continue to invest in electrical plant and machinery equipment for our operations as it becomes more readily available. We will ensure they are powered using 100% renewable electricity.
Purchased electricity (offices)	Reduce to zero by 2025.	<ul style="list-style-type: none"> When energy contracts expire in November 2024, we will ensure our premises are secured to 100% renewable electricity tariffs.
Purchased electricity (construction sites)	Reduce to zero by 2030.	<ul style="list-style-type: none"> We will engage with an energy broker to improve co-ordination of electricity procurement for our construction sites. We will switch to 100% renewable tariffs across all sites by 2030.

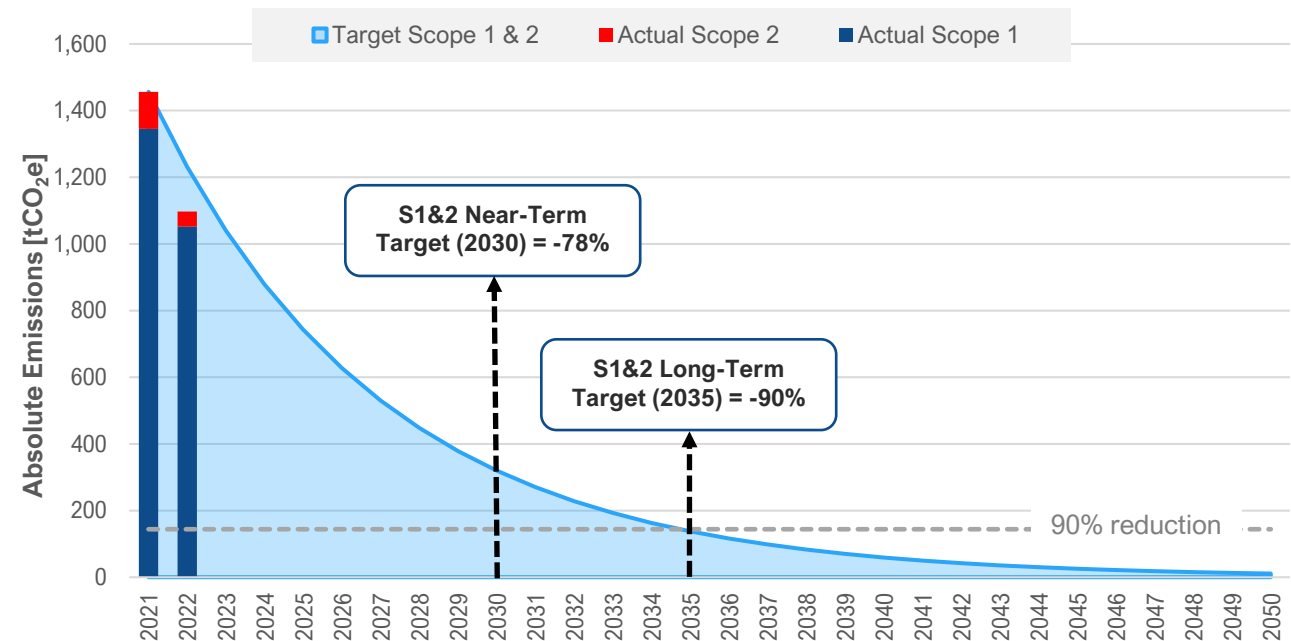
Seddon operations

Carbon reduction targets

We have adopted the following carbon reduction targets to drive our progress toward achieving net-zero.

We will reduce our absolute scope 1 and 2 emissions by 90% by 2035 from a 2021 base year. We have set a near-term target to reduce scope 1 and 2 emissions by 78% by 2030 from a 2021 baseline to support this target.¹

Progress against these targets can be seen in the graph below:



Across scopes 1 and 2, we have seen a ~25% reduction (~360 tCO₂e) against the 2021 baseline due to implementing several carbon reduction initiatives. These carbon reduction initiatives will be in effect when performing the contract and can be found on page 7.

Over the next five years, we project that scope 1 and 2 emissions will decrease to 530 tCO₂e or further by 2027, achieving a reduction of at least 63.6% from the 2021 base year.

¹ Our targets were developed using the most recent climate science and methodology available via the Science Based Targets initiative (SBTi) - aligned to a 1.5° pathway. The target is based on market-based scope 2 data.

Seddon operations Carbon Reduction Initiatives

Completed Initiatives

- **ISO 14001 accreditation:** we have established an effective, certified environmental management system.
- **Net Zero Heroes initiative:** we have established a team of 'net zero heroes' from across the business. They have a responsibility to champion sustainable practices and decision-making.
- **Solar PV:** installed at our head office to reduce emissions and reliance on the grid.
- **Plug-in hybrid vehicles:** we have replaced some fleet vehicles with plug-in hybrids, reducing fuel consumption.
- **EV charging points:** we have installed charging points at our offices to enable and encourage employees to use EVs.
- **PIR sensors in site cabins:** improves energy efficiency by optimising lighting.
- **Reduced-emissions generators:** we are trialing new generators for site cabins and aim to use them across all future sites.
- **Offsite fabrication:** reduces on-site energy requirements and emissions. This enhances resource efficiency and minimises waste.

Future Initiatives

We have the following plans for carbon reduction initiatives to support our scope 1 and 2 emissions reduction goals.

Short-term (within next 3 years):

- **EV charging points:** we will install more charging points at our premises to meet increasing demand.
- **Energy efficiency within Seddon premises:**
 - Conduct energy audits.
 - Building energy management systems (BEMs).
 - New, efficient HVAC systems.
 - Updating lighting to LEDs.
 - Occupancy sensors.
 - Smart meters/thermostats.
 - These measures will feature in our refurbishment of the Bolton head office in 2024. We will look to implement across all premises.
- **Site cabins:** we will ensure low-energy options are prioritised.

Medium-term (within next 10 years):

- **Solar farm:** We are exploring the benefits of investing in a solar farm. We will look to implement this to help contribute to the UK's renewable energy mix as the demand for electricity grows.

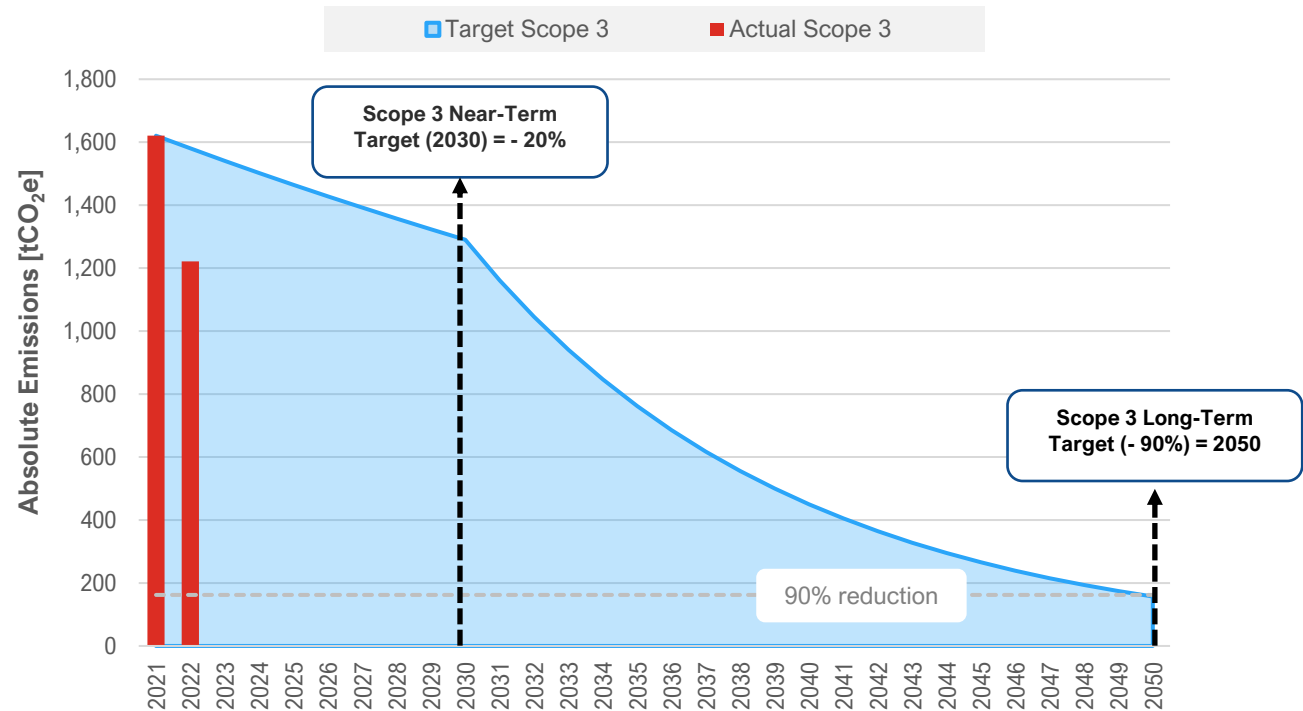
Long-term (10+ years):

- **Wind turbine:** We are exploring the feasibility of installing a wind turbine at our head office and will look to install this within the next 10 years. This would help provide the additional energy required for our growing electrical demands (e.g., electric heating, EV charging, charging other electrical machinery).

Scope 3

Carbon reduction targets

We commit to reducing absolute scope 3 GHG emissions by 90% by 2050 from a 2021 base year. We have also set a near-term target of a linear annual reduction of 2.5% to reduce emissions by 20.4% by 2030 from a 2021 baseline.¹



We have seen a ~25% reduction (~400 tCO₂e) in scope 3 emissions against the 2021 baseline. Over the next five years, we anticipate that scope 3 emissions will not exceed 1,392 tCO₂e by the year 2027. This reflects a decrease of at least 14.1% compared to the baseline year.

¹ Our scope 3 targets were developed using the most recent climate science and methodology available via the SBTi - aligned to a 1.5° pathway.

Targets outlined in this carbon reduction plan include the subset of scope 3 categories required for PPN 06/21 compliance only. In the future, we plan to consider all applicable scope 3 categories to set verifiable science-based targets under SBTi requirements.

Our current scope 3 targets demonstrate the minimum requirements to align to a 1.5° pathway; However, we plan to consider more ambitious targets once we have measured all scope 3 emissions.

Scope 3 Completed Carbon Reduction Initiatives

- **Electric Vehicle (EV) salary sacrifice:** encourages our employees to drive EVs to reduce employee commuting emissions.
- **Lifestyle policy:** encourages staff to work from home and travel sustainably.
- **Supplier Sustainability Assessment:** we prioritise suppliers with firm environmental commitments. Some have transitioned to EV-only fleets and switched to primarily renewable energy consumption.
- **Supply chain engagement:**
 - We distributed a greenhouse gas (GHG) questionnaire to suppliers to better understand their carbon impacts, practices, and targets.
 - We incorporate sustainability into subcontractor orders and long-term agreements.
- **Timber:** we select timber frames for most projects for low embodied carbon.
- **Reducing waste:**
 - Our waste management company, Circle Recycling, is committed to a zero-landfill policy.
 - Circular Recycling provides an online reporting portal to monitor data on our waste and associated GHG emissions.
- On-site training is provided to educate our staff on best practices.
- We aim to optimise resource use, re-using materials where possible.
- We are working to enhance circularity throughout the business.
- **Reducing emissions from procurement:**
 - We promote practices such as bulk purchasing, consolidated deliveries, and local sourcing where possible.
 - Educate staff on sustainable procurement through the Supply Chain Sustainability School.
 - We consider environmental product declaration (EPD) and life cycle assessment (LCA) data in procurement decisions for construction materials.
- **Reducing building lifetime emissions:** we make design choices to enhance the energy efficiency of the buildings we construct and provide facilities for sourcing renewable or low-carbon energy.
 - Installing heat pumps.
 - Installing district heating facilities for suitable projects.
 - Installing solar PV panels and designing suitable roofs.
- Provision for EV charging points.
- Install building energy management systems (BEMS) to optimise energy consumption. Providing LED lighting and motion sensors supports this.
- PIR sensors installed in commercial spaces for automated lighting control.
- We offer BREEAM-certified projects which ensures our consideration of appropriate sustainable materials.
- Passivhaus design to minimise energy consumption through optimising efficiency.
- We have collaborated with Salford University to understand emissions savings from our Passivhaus social housing projects.
- High mass construction and phase change materials are utilised to improve the energy efficiency and thermal performance of buildings. Insulation plays a critical role in regulating a building's temperature, reducing reliance on gas, and decreasing energy consumption for heating and cooling.
- We have installed green roofs and walls in some projects.

Scope 3

Future carbon reduction initiatives

Short-term (within next 3 years):

- **Green travel plan development:**
 - Encourage carpooling.
 - Provide education for staff on environmentally friendly travel practices.
 - Consideration of route distance optimisation within travel planning.
 - Introduce a public transport salary sacrifice scheme.
 - **Hotel stays:** we will continue to book exclusively through our current hotel chain partner. They have approved science-based net-zero targets. We will enhance our engagement to gather better data on the emissions associated with our stays.
 - **Refurbished/remanufactured IT:** We are exploring options to procure refurbished or remanufactured laptops.
 - **Supporting supply chain partners:** using the findings from our GHG questionnaire, we will consider how we can best support our partners in reducing their emissions and communicating their progress.
 - **Employee education:** we will focus on improving education and training for our on-site employees to ensure they understand the importance of environmental issues and how their behaviours and choices can influence Seddon's impact.
- **Reduce the use of paper and printing:**
 - In our offices, we have been reducing paper-based wastage, and we plan to reduce paper use even further. We aim to reduce printer use and are trialling new printers as we plan our switch from Xerox laser printers to a less carbon-intensive option.
 - On project sites we will soon move to digital practices. This will improve the general efficiency of projects and reduce waste and the demand for energy on-site.
 - **Project carbon assessments:** we plan to assess our future projects' embodied, associated, and end-of-life carbon. To do this, we will:
 - Expand the use of LCA software to consider the emissions associated with design options.
 - Monitor energy and fuel use on sites.
 - Enhance our data collection processes.

Scope 3 Future Carbon Reduction Initiatives

Short-term (within next 3 years):

Improved project design and approach:

Understanding the embodied carbon of materials will allow us to improve our selection of construction materials. We plan to create a **design checklist** to demonstrate carbon associated with procurement decisions. From there, we can work with clients to make sustainable design choices.

Our initial efforts will focus on the use of recycled steel and low-cement content concrete. We aim to develop our design checklist to include sustainability features such as wind turbines, solar thermal facilities, occupancy sensors, and water-efficient appliances.

We will further enhance our design approach through:

- Improving and simplifying our design management process.
- Reducing reliance on external consultants and coordinating efforts more effectively.
- Sharing our examples of best practices internally, such as case studies demonstrating effective emissions reductions.
- Better educating our clients on why they should make sustainable choices for their long-term benefit.
- Exploring the feasibility of undertaking building energy modelling for our projects, to aid in the decision-making process for more sustainable outcomes.

Medium-term (within next 10 years):

- **Expand our design checklist:** we will explore further low-carbon construction materials to add to our design checklist. This will include materials such as:
 - Eco-concrete,
 - Low-water concrete,
 - Natural materials (e.g., bamboo, natural fibres, sheep's wool).
- **Deliveries by EVs:** we will engage with our supply chain partners to request deliveries by EVs or low-carbon alternatives.
- **Paperless offices:** we have ambitions to become paperless in our offices and will continue to explore opportunities.

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 and uses the appropriate [Government emission conversion factors for greenhouse gas company reporting](#).

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) 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:



Date:

- <https://ghgprotocol.org/corporate-standard>
- <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>
- <https://ghgprotocol.org/standards/scope-3-standard>