

CORSERV

Carbon Reduction Plan

2022/23 Update



A CORNWALL
COUNCIL COMPANY

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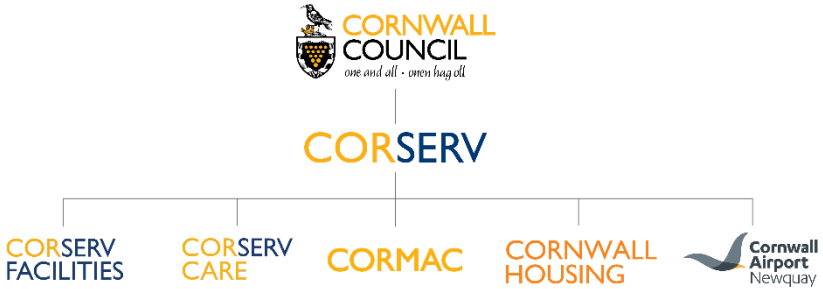
This Carbon Reduction Plan conforms to the requirements of Procurement Policy Note PPN06/21: *“Taking Account of Carbon Reduction Plans in the procurement of major government contracts”*

Throughout this document, ‘carbon emissions’ refers to all greenhouse gas emissions (CO2 equivalent / CO2e).

About Corserv

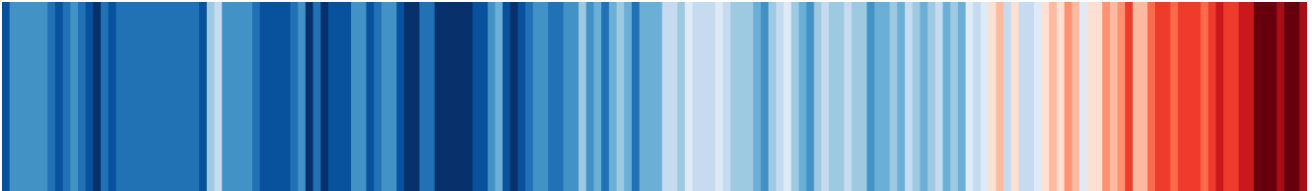
Corserv is a diverse group of businesses owned by Cornwall Council and established to improve the lives of people in Cornwall. We deliver a wide range of services, including:

- Highways & environmental maintenance
- Infrastructure & engineering
- Facilities management
- Adult social care
- Social housing
- Transport



Climate Emergency

The planet's climate is warming faster than anything previously experienced. Global average temperatures are increasing year on year, setting a clear trend towards a hotter world which will bring significant consequences. The progression from blue (cooler) to red (warmer) stripes in the graphic below portrays the long-term increase of average global temperature from 1850 to 2021 (left to right).



[Warming Stripes by Professor Ed Hawkins MBE](#)

During 2019, Cornwall Council declared a 'Climate Emergency', recognising the need for urgent action to address the climate crisis. The Corserv Group has been closely working with the Council to identify, investigate and pursue key opportunities for emission reduction. We recognise that we have a leading role to play and that by facilitating positive organisational changes we can help Cornwall to achieve carbon neutrality by 2030 and the United Kingdom to achieve net zero emissions by 2050. As outlined within the Paris climate agreement, this will give us our best chance of keeping global warming below the critical +1.5°C 'tipping point' threshold for ecosystems, human health and wellbeing.



Carbon Challenge

We recognise that many of our business activities have environmental risks associated with them and that we have an obligation to manage these in a responsible manner, minimising adverse impacts and maximising positive opportunities.

If we are to eliminate our emissions, the sectors in which we operate does present us with some challenges:

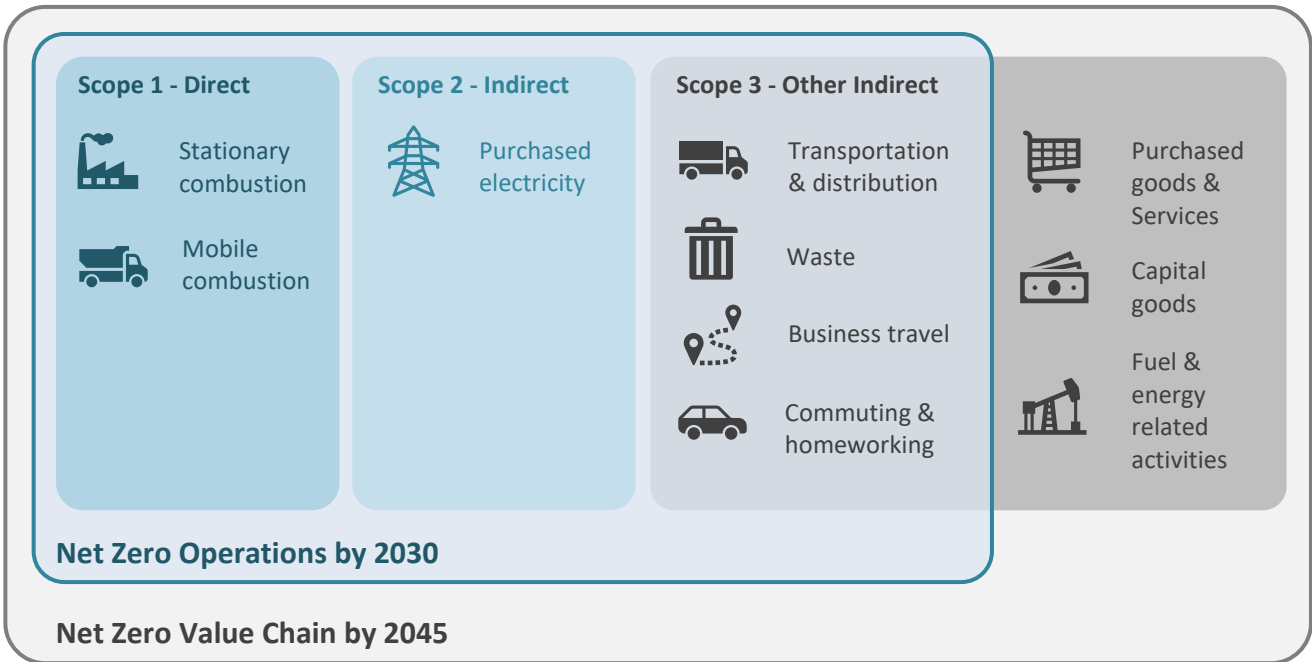
- The Corserv Group contains an airport and quarry with asphalt manufacturing plant
- Our construction activities require significant materials, heavy plant and specialist machinery
- The vast majority of our employees are operational and mobile, providing front-line services (not office based)
- Our customer and client decisions can directly impact our pace of change

These challenges will not stop us from being ambitious and aiming high. By prioritising actions that result in significant reductions and utilising offsets, we can still work towards a 'net' zero ambition.

Reduction Targets

The Corserv Group of Companies is committed to achieving:

- **Net Zero Operations by 2030**
This primary target aligns with Cornwall’s ‘Carbon Neutrality’ commitment and the requirements of PPN 06/21.
- **Net Zero Value Chain by 2045**
This secondary target includes the full activity of our external supply chain, working on our behalf.



United Nations Global Goals

To ensure that all of our sustainability work feeds into wider frameworks for action, we have taken care to ensure that our initiatives align, support and contribute towards the United Nation's 17 internationally agreed goals for a better world by 2030...



Global Goal 13 ‘Climate Action’ is particularly relevant to this Carbon Reduction Plan...

“Take urgent action to combat climate change and its impacts”

[Overcoming the World's Challenges - The Global Goals](#)

Calculation Methodology

To ensure we achieve the transparency required and deliver effective emissions management, we have implemented and utilised robust and accepted methods when calculating our disclosures...

Reporting Period

Our annual carbon reporting covers the financial year (April to March).

Methods & Guidance

Energy use and associated emissions data was collected and assessed in accordance with the 'Greenhouse Gas Protocol', the U.K Government's 'Environmental Reporting Guidelines: Including Streamlined Energy and Carbon Reporting Guidance' and the 'Greenhouse Gas Reporting: Conversion Factors'.

Estimates & Assumptions

Verifiable data was used where available. Where verifiable data was unavailable, reasonable estimations derived through calculations were applied in line with guidance. It is not thought that any estimations and assumptions used have materially impacted the accuracy of disclosed emissions. Where possible, data collection systems will be continually refined to improve the accuracy of future emissions reporting.

Adjustments & Recalculation

In order to accurately and consistently track our reduction progress over time, we will adjust our reported emissions to account for any data errors or significant changes to our business structure and reporting methodology.





Baseline Emissions (2019/20 FY)

Baseline emissions are a record of the greenhouse gases that have been produced in the past prior to the introduction of any reduction strategies. Baseline emissions therefore act as a reference point against which future emission reductions can be measured...

Scope 1 - Direct Emissions

Emissions from owned or controlled activities

| | | |
|---|------------------------------|---------|
|  | Stationary Combustion | 2,260.5 |
|  | Mobile Combustion | 6,051.9 |

Scope 2 - Indirect Emissions

Emissions from the generation of purchased energy

| | | |
|---|---|---------|
|  | Purchased electricity (market based) | 1,264.8 |
|---|---|---------|

Scope 3 - Other Indirect Emissions (Included Sources)

Emissions occurring at sources which are not directly owned or controlled

| | | |
|---|---|---------|
|  | Upstream and downstream transport and distribution | 992.1 |
|  | Waste generated in operations | 90.5 |
|  | Business travel | 559.4 |
|  | Employee commuting (including homeworking) | 2,352.6 |
|  | Downstream transportation and distribution | 149.6 |



Total Emissions:

13,721 t CO₂e

Current Emissions (2021/22 FY)

Scope 1 - Direct Emissions

Emissions from owned or controlled activities

| | | |
|---|-----------------------|---------|
|  | Stationary Combustion | 2,194.2 |
|  | Mobile Combustion | 5,674.8 |

Scope 2 - Indirect Emissions

Emissions from the generation of purchased energy

| | | |
|---|--------------------------------------|-------|
|  | Purchased electricity (market based) | 892.7 |
|---|--------------------------------------|-------|

Scope 3 - Other Indirect Emissions (Included Sources)

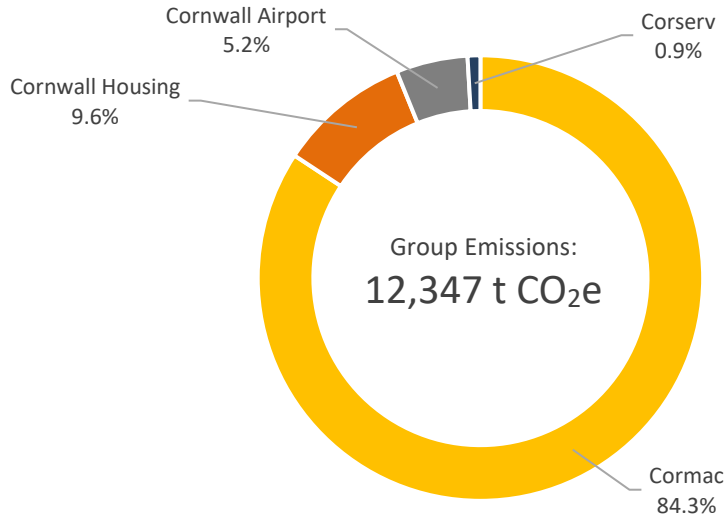
Emissions occurring at sources which are not directly owned or controlled

| | | |
|---|--|---------|
|  | Upstream and downstream transport and distribution | 1,037.7 |
|  | Waste generated in operations | 84.2 |
|  | Business travel | 478.7 |
|  | Employee commuting (including homeworking) | 1,851.5 |
|  | Downstream transportation and distribution | 133.5 |

Total Emissions:

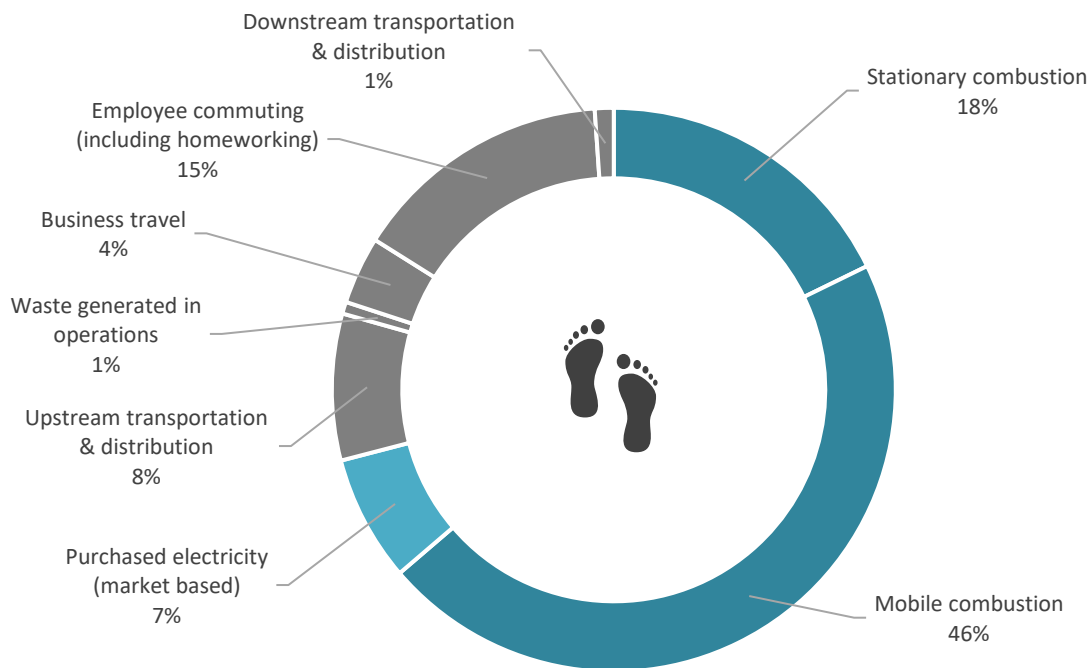
12,347 t CO₂e

2021/22 Group Emissions by Company*



* Corserv Facilities Ltd and Corserv Corserv Ltd started operating during the 2022/23 financial year. During the 2021/22 financial year (displayed above), these business areas were still departments of Cormac Solutions Ltd.

2021/22 Group Emissions by Source



| | | |
|---|---|--|
| <p>Scope 1 - Direct Emissions Emissions from owned or controlled activities.</p> | <p>Scope 2 - Indirect Emissions Emissions from the generation of purchased energy.</p> | <p>Scope 3 - Other Indirect Emissions Emissions occurring at sources that are not directly owned or controlled.</p> |
|---|---|--|

Reduction Approach

In order to successfully reduce carbon across our business, we will be aligning our actions with the 'Greenhouse Gas Management Hierarchy' developed by IEMA (Institute of Environmental Management & Assessment).



Transforming the world to sustainability

| | |
|---|--|
|  | <p>1. Eliminate - preventing emissions entirely</p> <p>Whilst this is often challenging for operational businesses to achieve, eliminating emissions is the most preferred option because it ensures that no greenhouse gases are released.</p> |
|  | <p>1. Reduce - minimising existing emissions</p> <p>When emissions cannot be completely eliminated, it is often still possible to optimise approaches in order to drive operational efficiency that limits the amount of greenhouse gases released.</p> |
|  | <p>2. Substitute - switching to an alternative</p> <p>When emissions cannot be eliminated or reduced, it may be possible to do things differently by adopting alternative energy sources, goods, services and approaches.</p> |
|  | <p>3. Compensate - balancing unavoidable emissions</p> <p>As a last resort, this balancing act ensures no 'net' emissions. Certified carbon offset credits can be used compensate for the final 'unavoidable' residual emissions.</p> |

[IEMA - Pathways to Net Zero](#)

Climate Action

Using our baseline data, we have identified the key areas across our business where we can deliver the largest impact. We already have a wide variety of carbon reduction initiatives well underway...



Ultra-Low Emission Vehicles

We have over 1,000 vehicles and are aiming to have a 100% ULEV (Ultra Low Emission Vehicle) fleet by 2030. In order to achieve this, we have been worked closely with specialist consultants to identify our greatest opportunities and develop a detailed fleet replacement strategy. There are essentially two key elements to this strategy; vehicle types that are under 3.5 tonnes will be replaced with battery electric versions. Vehicles over 3.5 tonnes will utilise alternative low carbon fuels until larger battery electric alternatives become financially and technologically viable.



Hybrid Working

We have reflected how the Covid-19 pandemic significantly reduced office and business travel emissions. Survey results have revealed that the majority of our office-based staff wish to continue to make the most of the benefits that home and flexible working can bring. We have reviewed our estate portfolio in light of this with the view to modernise and consolidate. We took the significant decision to permanently close our Head Office in Wadebridge.



Renewable electricity supply

We have switched our entire electricity supply to a 100% renewable supplier, eradicating emissions under the 'market based' carbon accounting approach. All purchased electricity will be fully certified by UK 'Renewable Energy Guarantees of Origin' (REGOs) ensuring full traceability.



Alternative Plant

We are transitioning to electric handheld equipment, eco welfare units and alternatively powered machinery, eradicating all fuel generator powered mobile traffic lights and flood lighting equipment.



Climate Change Training

Building upon our previous IEMA certified carbon training for 16 staff members, Cornwall Council's 'climate change and carbon literacy' online training course has been made available to all of our staff, ensuring everyone has the knowledge and skills required to help tackle the climate crisis.



Sustainability Strategy

We have published a new 'Sustainability Strategy'. The plan has been presented to Council leaders, receiving positive feedback and giving assurance that we are fully committed to tackling the climate emergency.



Sustainability Committee

We have established a Carbon Reduction, Environment and Sustainability Taskforce (CREST) to help drive meaningful action. By bringing together 'sustainability champions' across the business, CREST promotes effective collaboration and drives positive organisational change.



Vehicle Telematics

Our comprehensive fleet tracking system 'Masternaut' enables us monitor and act on real-time information regarding routes, emissions, speed, driver behaviour, idling and fuel consumption. We have already received 'Gold' fleet status from Masternaut for achieving a greater than 5% year on year improvement in MPG and reducing emissions.



Efficient Programming

Our programming resource office are reducing travel through our 'Total Mobile' system which ensures efficient placement of staff and supports a local area-based delivery approach.



Low temperature asphalt production for road surfacing...

Cormac is embracing a new low energy approach to producing the materials used to build and repair Cornwall's roads. Warm Mix Asphalt is produced and applied at a temperature up to 50 °C lower than an equivalent traditional Hot Mix Asphalt, therefore consuming less energy to manufacture and significantly reducing greenhouse gas emissions.

Producing this new sustainable material should not compromise on the performance and lifespan of road surfaces. The lower temperature also has the added benefit of enabling maintenance teams to open roads sooner, minimising disruption to traffic.

The advantage of reduced energy in production means that fuel consumption and its associated costs and carbon emissions can be minimised.



Quarry solar power development given the green light...

Decarbonising the energy intensive asphalt production at Cormac's quarry has been identified as a key priority.

The planning application for a substantial onsite solar farm was recently given full approval. It will be built on one hectare of disused industrial 'brownfield' land and will produce 425MWh of clean renewable energy per year (equivalent to the electricity requirements of 121 average UK homes).

75% of the renewable energy generated by this development will be consumed onsite, reducing annual electricity import by around 30%, making a significant contribution towards our carbon reduction plan and helping to offset rising energy costs.

Construction is expected to commence during the summer of 2023 - it is estimated that this development will reduce carbon emissions by around 80 tonnes per year (equivalent to 16 hot air balloons in gas volume).



We are particularly excited about our innovative Biomethane trial...

We have partnered with local company Bennamann to start testing renewable and zero carbon fuel captured and refined from dairy farm slurry.

Methane is typically a very harmful greenhouse gas that contributes towards climate change - however, by capturing it before it reaches the atmosphere, it can be used as a powerful clean fuel instead...

Our trials have helped to demonstrate that there are viable sustainable energy options for large construction vehicles and plant that are traditionally powered by fossil fuels. This unique project is thought to be the first of kind, winning sustainability awards and attracting widespread attention. Following the huge success of our initial trial, we have placed an order for a further 12 gas powered vehicles that are expected during 2023.








This £1.6 million pilot will see Bennamann collect and refine the biogas produced at several Cornwall Council owned dairy farms, before delivering it to Cormac to eventually fuel a fleet of 70+ converted road maintenance trucks. In addition to each converted asphalt pot-hole repair unit saving around five tonnes of carbon annually, it is estimated that each flatbed truck will save a further six tonnes per year.



Cormac's new bio-methane powered highway maintenance vehicle and pot-hole repair trailer.

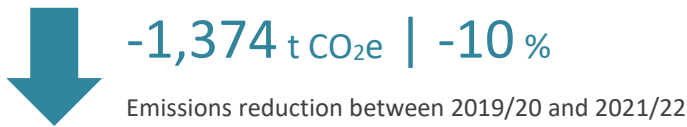
Reduction Forecast

We can attempt to conservatively estimate the emission reductions we expect to achieve by 2030...

| | |
|---|--|
|  | <p>Alternative Vehicle Fleet -3,200 t CO₂e</p> |
|  | <p>Renewable Electricity Supply -1,184 t CO₂e</p> |
|  | <p>Increased Hybrid Working -500 t CO₂e</p> |
|  | <p>Alternative Asphalt Production -234 t CO₂e</p> |
|  | <p>Onsite Energy Production -81 t CO₂e</p> |
|  | <p>Alternative Plant & Equipment -48 t CO₂e</p> |
|  | <p>Current Reduction Forecast by 2030: -5,247 t CO₂e -38 % - Reduction estimated from baseline (2019/20) - Reduction forecast last updated: January 2023</p> |

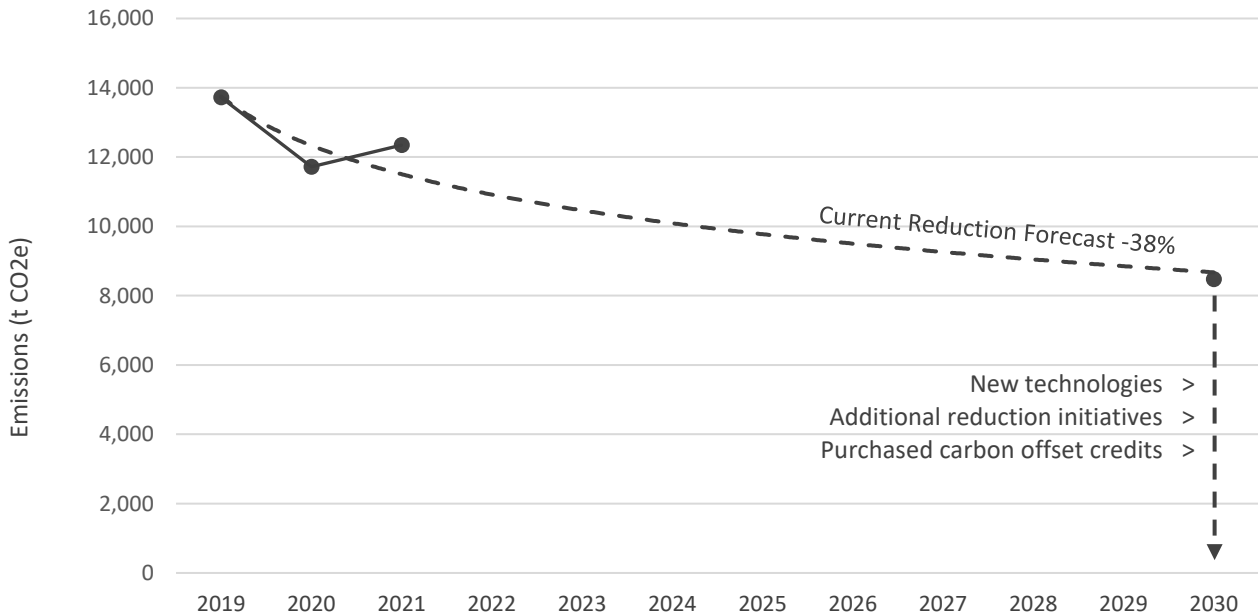
Current Progress

The Covid-19 pandemic has helped provide a head start to our carbon reduction journey by significantly reducing office and business travel emissions. We must now keep these new ways of working and hold onto these reductions...



Reduction Model

Using the forecasted emission reductions outlined on the previous page, we can attempt to project our future carbon reduction trajectory...



While our current actions will provide a significant reduction, we plan to do more...

Additional carbon reduction initiatives and new technologies over the next decade allow us to aim for an even greater reduction of at least 60%, with the remaining 40% to be offset.

The closer the zero emissions, the more challenging and expensive it is for an organisation to achieve reductions. Carbon offsetting will be required as a last resort to compensate the final 'unavoidable' residual emissions.

Declaration

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 approved by our board of directors and will be reviewed annually.



A handwritten signature in black ink that reads "C Robinson" with a long, sweeping underline.

Cath Robinson - Group Managing Director, Corserv



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