



CARBON REDUCTION PLAN

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JWF Process Solutions Carbon Emissions Report

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1 Net Zero Commitment

JWF Process Solutions have made a maximum commitment to Net Zero by taking part in a 12-month Net Zero Grangemouth Supply Chain Accelerator program called the Net Zero Accelerator, delivered by social enterprise, Net Zero Nation. The Accelerator is running from October 2023 to October 2024, hosted by Forth Ports.

One of the key outcomes of this program is meeting the UN Race to Zero objectives to Pledge, Plan, Progress, Publish and Persuade and in so doing, being a Climate Champion. Working within a cohort of companies they collaborate and support each other on their journey, providing peer review, creating circular and sustainable approaches to make their business more planet positive and work towards their Net Zero ambitions.

Forth Ports, who are hosting the Supply Chain Accelerator at their Grangemouth site, commented “Our target is to be a carbon neutral company by 2032 and Net Zero by 2042. We are well on our way towards that within the business, but also need to work closely with our partners and supply chain to achieve this. We are pleased to be supporting this program to both contribute and learn the Net Zero best practices that will create a greener future.” Jacqueline Ireland, Forth Ports’ senior procurement manager.

Net Zero Nation is a Scottish-based social enterprise with a partner network across the United Kingdom. The mission of Net Zero Nation is to help SMEs go further and faster towards their Net Zero goals, tackling climate change. Achieved by mass mobilising SMEs on the Net Zero journey to ensure none are left behind and they fully gain the economic advantages in embracing it as a business imperative. The organisation aims to help regions and communities across the UK become fully capable in delivering the Net Zero Transition by involving all stakeholders across the public, private and academic sectors to drive decarbonisation efforts.

Net Zero Nation helps companies who need carbon certification to bid on contracts, supply chain owners and public sector bodies looking to rapidly gain carbon transparency to meet their own carbon reduction targets in procurement and investment.

JWF Process Solutions recognises the importance of making a full and lasting commitment to reducing the greenhouse gas emissions from our activities, in support of the wider commitment of the world to limit global temperature increases and the impact on the planet.

We commit to the following:

1. For our company to achieve Net Zero in line with the Science Based targets set out by the UNFCCC i.e., to achieve Net Zero no later than 2050 and target a 50% reduction in emissions by 2030.
2. To set realistic short- and long-term targets that are designed to achieve our Net Zero commitments.
3. To report the total Greenhouse Gas emissions of our business, at a minimum, on an annual basis.

	Year	Earlier Year if Possible
Commitment to be Net Zero	2050	2045*
50% Emissions Reduction	2030	

*In line with Scotland’s Net Zero strategy

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2 Background Information

2.1 Company

JWF Process Solutions is a Limited Company registered in Scotland, company number SC038002, with a head office address of 85 Seaward Street, Glasgow, G41 1HJ.

JWF Process Solutions work with the safest, most efficient solutions for companies' instrumentation needs.

JWF was founded in 1962 by James Wilder Fairbairn. With over 60 years experience in providing measurement solutions our priority is to bring you advice on the most appropriate instrumentation solution for your process as well as the opportunities presented by new technology.

Our 26 employees have a wealth of knowledge and expertise working with customers within health, food and beverage, energy, water utility, gas utility and oil and gas markets.

JWF are partners with world-leading instrumentation companies ABB, WIKA, FLEXIM and Canalta. This allows a comprehensive offering across flow, pressure, temperature, level and analytical.

We can manage the lifecycle of your product as our team of engineers can commission your instrumentation, digitally verify it, and calibrate it onsite or on our liquid and gas rigs.

JWF are uniquely positioned due to our measurement expertise and our in-house software development team. This provides customers with a bespoke measurement and data software solution to support their process and utility applications. For customers looking to increase efficiency, reduce costs, meet new regulations, meet Net Zero targets, identify waste and/or improve environmental performance, we have the know-how to create the measurement and data solution you require.

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2.2 General Data

Reporting Period	Current Period
	January 2023 – December 2023
Industry	Data Measurement
No. of Staff	26
No. of Offices Owned	1
No. of Offices Leased	0
No. of Company Vehicles - Owned	7
No. of Company Vehicles - Leased	1

2.3 Current Reporting Period

January 2023 – December 2023

2.4 Organisational Boundary

There are 3 different approaches to measuring emissions, as defined by the GHG Protocol. This report has been constructed using the **Operational Control Approach**, considering the requirements of each potential approach.

Approach	Description	Approach Taken
Operational Control	The organisation has operational control over an operation if it or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation.	✓
Financial Control	The organisation has financial control over the operation if it has the ability to direct the financial and operating policies of the organisation with a view to gaining economic benefits from its activities.	
Equity Share	The organisation accounts for GHG emissions from operations according to its share of equity in the operation.	

2.5 Benchmark Year

This is the first time the company has done a detailed measurement and reported on its carbon emissions; therefore, this is the benchmark year, i.e. from **January 2023 – December 2023**.

2.6 Methodologies Used

Throughout this report all methodologies used are explained within the relevant sections.

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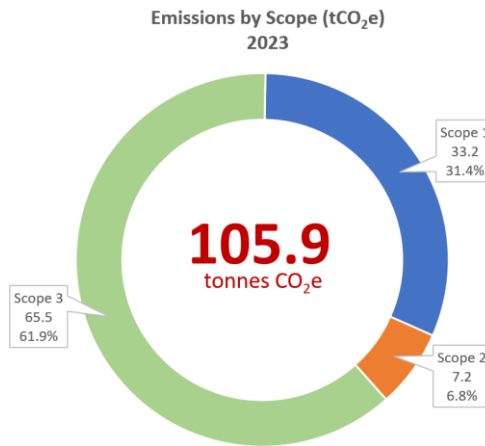
3 Carbon Emissions Overview



The total calculated emissions for the business for the period 2023 are 105.9 tCO₂e. This is the first year the company has measured its carbon emissions. As such this is the benchmark year of the company with the breakdown of emissions analysed throughout this report.

The Company will aim to measure an increasing amount of Scope 3 emissions and is committed to reducing their emissions across all scopes.

4 Analysis by Scope

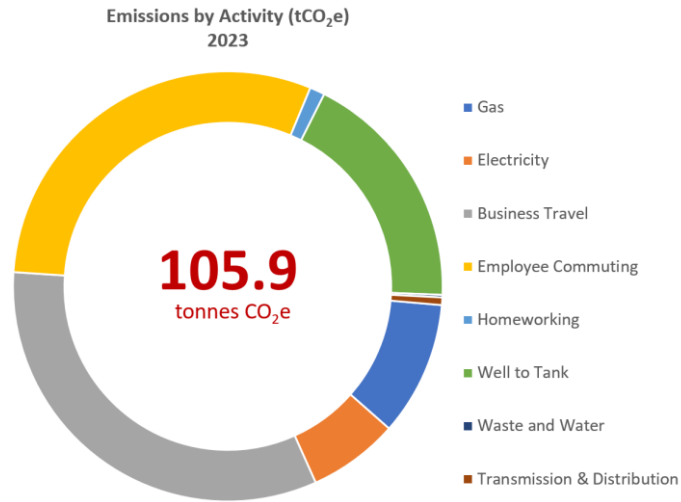


Scope	Description	tCO ₂ e	%
Scope 1	Scope 1 emissions includes fuel from company vehicles and natural gas used in the office.	33.2	31.4%
Scope 2	Emissions in scope 2 includes electricity used at the company's office. The office is not on a renewable tariff.	7.2	6.8%
Scope 3	Scope 3 emissions include: <ul style="list-style-type: none"> • Business Travel • Employee Commuting • Transmission and distribution of electricity • Homeworking • Well to Tank (Gas and Electricity, and Vehicles) • Waste Management • Water Supply • Water Treatment 	65.5	61.8%
TOTAL		105.9	100%

Reported Scope 3 emissions will increase in future years as data and information becomes available.

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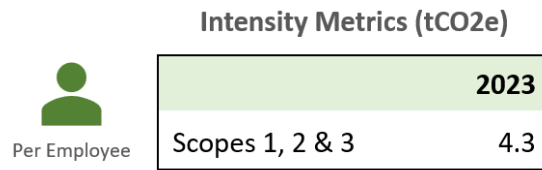
5 Emissions by Activity



Data Details		2023		
Emission Type	Scope	tCO ₂ e	Data Source	Data Confidence
Energy				
Gas	1	10.7	Gas Bills	High
Electricity	2	7.2	Electricity Bills	High
Business Travel				
Vans	1	4.5	Company Travel Records	High
Cars - Owned	1	18.0	Company Travel Records	High
Cars - Private	3	2.3	Company Travel Records	High
Plane	3	9.8	Company Travel Records	High
Rail	3	0.1	Company Travel Records	High
Employee Commuting				
Car - Diesel	3	11.1	Employee Survey	Medium
Car - Electric	3	0.5	Employee Survey	Medium
Car - Hybrid	3	0.9	Employee Survey	Medium
Car - Petrol	3	18.0	Employee Survey	Medium
Bus	3	1.0	Employee Survey	Medium
Rail	3	0.4	Employee Survey	Medium
Taxis	3	0.1	Employee Survey	Medium
Scope 3 Emissions				
Homeworking	3	1.2	Employee Survey	Medium
Well to Tank (Gas and Electricity)	3	3.5	Company Bills	High
Well to Tank (Vehicles)	3	15.8	Company Bills	High
Transmission and Distribution of Electricity	3	0.6	Employee Survey	Medium
Waste Supply	3	0.1	Waste Records	High
Water Treatment	3	0.1	Water Bills	High
TOTAL		105.9		

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6 Intensity Metric Analysis

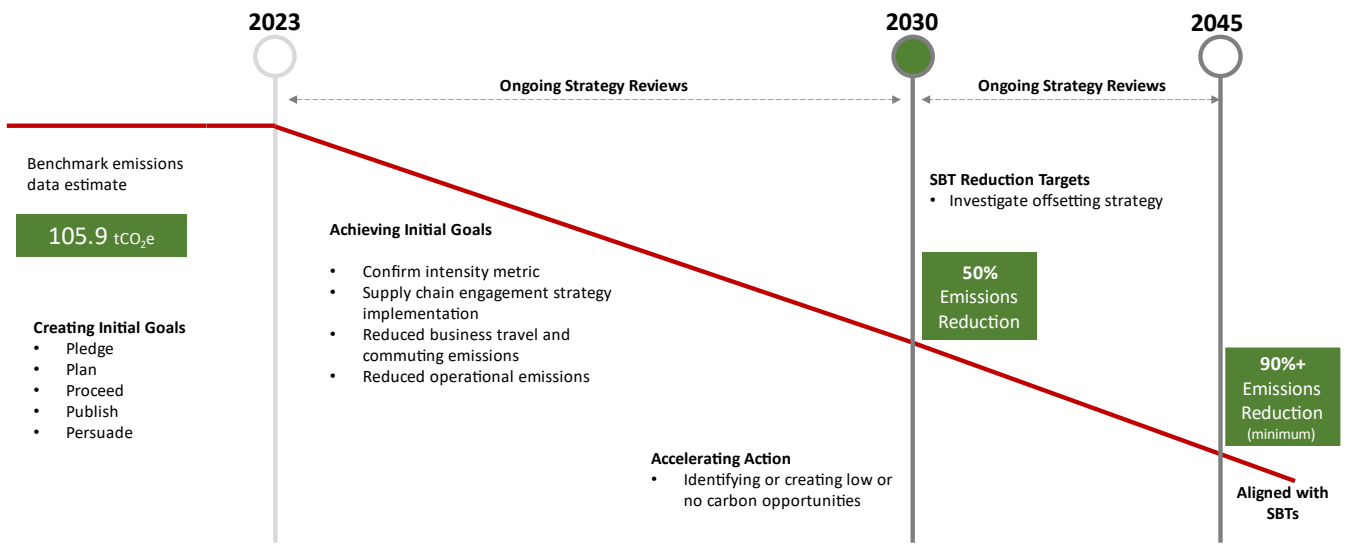


The chosen intensity metrics shows a carbon emissions value of **4.3 tCO₂e per employee**. The business headcount averaged 25 people during the benchmark period, with 26 employees as of December 2023.

7 Emissions Reductions Targets

The following graph summarises the carbon emissions reduction targets.

JWF Process Solutions Carbon Reduction Plan – Baseline Year



GOAL:
To become a Net Zero organisation in line with Science Based Targets

- Cut emissions by minimum 90%
- Balance any remaining emissions that cannot be eliminated with technology or other solutions through offsets

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8 Carbon Reduction Actions

JWF Process Solutions will develop the following initiatives that will support the company's strategies to meet Science Based Targets:

Area of Focus	Initiative	Responsible Person or Team
Net Zero Nation Accelerator	JWF Process Solutions have joined the Net Zero Nation Accelerator on a 12-month program to measure, manage and reduce business emissions in collaboration with other organisations and as part of a wider business initiative.	Finance Manager Supply Chain Manager Net Zero & Sustainability Advisor
Sustainability Appointment	To appoint/hire a colleague/employee to focus on circularity, carbon accounting, and sustainability within JWF.	Senior Management Team
Employee Engagement	Increase employee engagement on the net zero agenda by promoting awareness, and demonstrating importance, of net zero within JWF.	Net Zero & Sustainability Advisor Business Coordinator Team Managers
Electric Car Scheme	Encourage employee uptake of Salary Sacrifice Scheme to change personal vehicle to a modern electric vehicle. Evaluate the benefits, and disadvantages, of converting business' vehicle fleet to electric vehicles.	Net Zero & Sustainability Advisor Business Coordinator
Sustainable Travel Policy	Introduce a sustainable travel policy with the aim to lower emissions related to business travel year on year.	Net Zero & Sustainability Advisor Business Coordinator Senior Management Team
Data Accuracy	Consistently work to improve data gathering methods for emissions calculations to be as accurate as possible. Establish a plan to expand measurement of Scope 3 emissions.	Net Zero & Sustainability Advisor
Sustainable Procurement	Create a procurement questionnaire that focuses on carbon footprint, net zero targets, energy efficiency etc. to audit existing suppliers to gain an understanding of their sustainability practices. Integrate this questionnaire into the verification process when choosing new suppliers.	Net Zero & Sustainability Advisor Supply Chain Team Senior Management Team
Energy Efficiency	Build upon improvements to lighting and windows by reviewing, and upgrading, office building insulation. Look into alternatives options for heating office (e.g. heat pumps).	Net Zero & Sustainability Advisor Senior Management Team
Product Development	Identify sustainability motivations of JWF's customer base by conducting a stakeholder survey, and research regulations impacting customers. Use this information to help present customers with the right measurement and data services.	Net Zero & Sustainability Advisor Client-facing members of staff.
Waste Management	Review data provided by current waste management provider, to understand how they are handling waste from JWF, and identify areas of improvement. Explore other waste management providers to evaluate the services they offer and compare them against the current provider.	Net Zero & Sustainability Advisor

Signed on behalf of JWF Process Solution

Name: **David Gemmell**



Position: **Director**

Date: **25th April 2024**

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9 Emissions Data

The data contained in the table below represents total emissions calculated and is consistent with SECR requirements. All sources of emissions that have been measured are included in the totals below. Emissions from key activities are summarised in the previous sections.

	Current Reporting Year Jan 23 - Dec 23
Energy consumption used to calculate emissions Electricity Scope 2 – UK and Offshore (kWh)	34,601
Energy consumption used to calculate emissions – Global, excluding UK and Offshore (kWh)	N/A
Basis of Energy reporting (Location or Market)	Location
% of total energy sourced from certified renewable sources	0%
Emissions associated with energy consumption - UK, Offshore and Global (tCO ₂ e)	7.2
Emissions from activities for which the company is responsible including combustion of fuel and operation of facilities - Scope 1 (tCO ₂ e)	33.2
Emissions from purchase of electricity, heat, steam and cooling purchased for own use - Scope 2 (tCO ₂ e)	7.2
Total Scope 1 and 2 Emissions (tCO₂e)	40.4
Emissions from upstream activities out of operational control - Scope 3 (tCO ₂ e)	65.5
Emissions from use of sold products and services out of operational control - Scope 3 (tCO ₂ e)	None included
Total Gross Scope 3 Emissions (tCO₂e)	65.5
Total Scope 1, 2 and 3 Emissions (tCO₂e)	105.9
Intensity ratio tCO ₂ e (gross Scope 1, 2 and 3) per employee	4.3
Carbon offsets (tCO ₂ e)	0.0
Total Annual Net Emissions (tCO₂e)	105.9

10 Standard and Methodology Used

JWF Process Solutions categorises its Greenhouse Gas (GHG) Emissions as Scope 1, 2 or 3 as referred to in the WBCSD – WRI Greenhouse Gas Protocol (revised edition, dated March 2014). Emissions in Carbon Dioxide equivalent (CO₂e) for all scopes are calculated using the conversion factors listed in DESNZ Greenhouse Gas Conversion Factors for the relevant 12-month period over which the Carbon Footprint is calculated. Procured renewable electricity and gas is calculated in accordance with the WBCSD – WSI Scope 2 Guidance on procured renewable energy (2015).

11 Data Quality / Confidence

The data used to generate this report has been collected from various sources from both within the company and using assumptions gathered by Net Zero International. These emissions have been converted to CO₂e using GHG Protocol and DESNZ frameworks and conversion factors for the relevant period.

12 Declaration and Sign Off

This Carbon Reduction Plan has been completed in accordance with SECR, 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 agreed by the board of directors (or equivalent management body).

Signed on behalf of Net Zero International

Name: **David Hawes**



Position: **Co-Founder**

Date: **25th April 2024**

Signed on behalf of Net Zero Nation

Name: **Gavin Tweedie**



Position: **Chief Executive Officer**

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13 Glossary

Benchmark Data	The chosen 12-month period that sets the calculated emissions that need to be mitigated and/or offset.
Carbon Reduction	Reduction in measured CO ₂ e emissions
Carbon Reduction Plan	Plan to reduce CO ₂ e emissions over a period of time, updated annually
Carbon Emissions (Gross)	CO ₂ e emissions from Company activities
Carbon Emissions (Net)	CO ₂ e emissions from Company activities minus verified carbon offsets the Company purchases
Carbon Neutral	When emissions are fully offset including those emissions that could be mitigated.
Carbon Offsets	A removal or reduction of carbon emissions through a verified scheme.
CO₂e	All greenhouse gases expressed in terms of Carbon Dioxide equivalent (CO ₂ e) for consistency of reporting.
DESNZ	Department of Energy Security and Net Zero (https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting)
EEIO	Environmentally Extended Input Output – Emissions estimated on spend https://ghgprotocol.org/
Organisational Boundaries	GHG Protocol Organisational Boundaries https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf
GHG Protocol	Greenhouse Gas Protocol https://ghgprotocol.org/
Greenhouse Gases	Carbon Dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O), Chlorofluorocarbons (CFCs and HCFCs), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur Hexafluoride (SF ₆)
Greenhouse Gas Conversion Factors	Annually published conversion factors normally published by relevant government departments. Converts activity into CO ₂ e emissions.
Greenhouse Gas Emissions (GHG)	Gases in the atmosphere that absorb and radiate heat
Intensity Metric/Ratio	A metric that measures carbon emissions per relevant unit of activity in a business.
Market Reporting v Location Reporting	Market is based on specific tariffs. Location is based on the country from which you are reporting.
Net Zero	GHG emissions are mitigated and those that cannot are offset
Renewable Tariff	An energy tariff that is 100% powered by renewable energy and is certified.
SBT	Science Based Targets – reducing emissions by 50% by 2030 and by 90% by 2050 and offsetting the remaining amount.
Scope 1	The fuels that are burnt (gas, transport the company owns, refrigerant gases)
Scope 2	The energy that is bought (electricity from the grid, purchased heat)
Scope 3	Emissions embedded in everything a company buys and emitted as a consequence of everything a company sells.
SECR	Streamlined Energy and Carbon Reporting
tCO₂e	Metric tonnes of CO ₂ equivalent emitted.
WBCSD	World Business Council for Sustainable Development https://www.wbcsd.org/
WRI	World Resource Institute https://www.wri.org/