# Our Journey Towards Net Zero





March 2024

NET

Falcon HQ, Stirling, Central Scotland

alcon Foodservice Equipment

Falcon

### Falcon Net Zero Commitment Statement



"Falcon Foodservice Equipment is committed to achieving Net Zero by 2045 for emissions Scopes 1, 2 and 3"



Peter McAllister Managing Director February 2024



# Our Environmental Journey So Far...





# Monitoring of Utilities and Waste

#### Utilities

Already report under Streamlined Energy and Carbon Reporting

Energy & Environment KPI's

Reviewed Monthly in Management Pack

Discussed at Quarterly Environmental and Energy Review

#### Waste

Main waste streams transfer is managed on site by Hamilton Waste & Recycling -Scotland's first carbon neutral company

- General Waste
- Dry Mixed Re-cycling
- Wood & Food
- Scrap Metal
- WEEE



- · Zero waste to landfill
- On-site waste segregation
- Recycling of all waste
- Packaging reports are submitted via VALPAK
- Waste & Packaging reduction plans in place





# Energy saving initiatives prior to Net Zero journey

PIR sensors installed

LED lights at 97% replaced (50k hour lifetime & 60% energy reduction)

Pipe lagging on all pipes

Lighting on timers

Logistics partner McDowells Haulage initiatives:

- Trailers left on site to fill before transport minimizing pick ups and maximizing efficiency
- Part of TPN (The Pallet Network) that ensures no empty running during deliveries





# Solar PV Study

Prior to our Net Zero analysis we commissioned a Solar PV feasibility study by EMTEC

A system of 850 Solar PV modules with four inverters was proposed

Estimated yield of 360,942 kWh per annum

Reducing electrical consumption by **21.4%** (would be 27% for 2022/23 consumption)

169.6 tCO<sub>2</sub> reduction per year

25-year projection of: 8,320,320 kWh saving

\* Dependent on the feasibility of implementing Solar PV





#### ESOS Scope 3 and Net Zero Gap Analysis

The project was undertaken for Falcon Foodservice Equipment (FFE) by JRP solutions Identified priority intervention areas in the development of an appropriate Net Zero carbon strategy whilst simultaneously ensuring compliance with ESOS Phase 3 and SECR for the '22/'23 financial year.

Scope 1 and 2 emissions were covered within an ESOS-compliant site audit conducted on February 28th, 2023.

Data collected relating to site emissions associated with purchased electricity and other fuels also covers by default Scope 3 category 3 (fuel and energy-related activities).

A request for information for all relevant ESOS Scopes was returned to JRP to allow them to complete their assessment

Audits of the site energy usage and transport were also carried out



# ESOS Scope 3 and Net Zero Gap Analysis

The total carbon footprint (Scope 1,2,3) including site energy and upstream/downstream calculations was **3,205 tCO**<sub>2</sub>**e** 

Category	Annual tCO <sub>2</sub> e	Comments
Purchased goods and services	2,606	Scope 3, category 1, relates to the top suppliers which should ac- count for 80%+ of supply chain emissions.
Site energy	531	Excludes F-gases (not material)
Annual road haulage	50	Primarily diesel (scope 3, category 4)
Air travel	18	Scope 3, category 6
Total	3,205	

- The bulk of site energy consumption (60%) is associated with heating, ventilation and air conditioning (HVAC), with a further 8% for lighting, and 24% is associated with manufacturing activities.
- The sites total annual emissions arising from this consumption are  $530.5 \text{ tCO}_2 \text{e}$ , of which gas (scope 1) is 52%, electricity (scope 2) 47.7% and propane (scope 1) 0.3%.



kWh Energy Balance



Propane



With our headquarters located in Stirling, at the foot of the Ochil Hills in the shadows of the Wallace Monument we understand more than most how important our environment is.

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# Identified Savings Opportunities

The impact of identified opportunities and the Solar PV could reduce our on-site carbon footprint by up to 261 tCO<sub>2</sub>e (49% reduction).

	Electricity		Gas			
Recommendation	Saving (kWh)	tCO <sub>2</sub> e Saving	Saving (kWh)	tCO <sub>2</sub> e Saving	Total tCO <sub>2</sub> e Saving	% tCO <sub>2</sub> e Saving
Solar PV Reduction*	360942	169	0	0	169	31.8%
Energy Management / Awareness	26915	5.2	29376	5.4	10.6	2.0%
Lighting & PIR Improvement	13619	2.6	0	0	2.6	0.5%
BEMS	7145	1.4	282130	51.5	52.9	10.0%
Destratification	-1187	-0.2	66566	12.2	12	2.3%
Control of Motors	41559	8	0	0	8	1.5%
Building Fabric Improvements	0	0	34028	6.2	6.2	1.2%
Totals	448993	186	412100	75.3	261.3	49.2%

\* Dependent on the feasibility of implementing Solar PV









# Further Carbon Reducing Opportunities

Development of energy saving products for our customers to reduce our "Downstream" carbon footprint

- Hydrogen products projects ongoing
- Efficient electrical products (Induction/Heat Zones)
- Innovative food waste reduction products

Energy utilisation initiatives

- Lighting surveys to assess where lighting can be reduced
- PIR adjustment to allow the benefit of natural light in certain areas
- Setting emergency lighting to "non-maintained"
- Switching off equipment when not in use
- Energy efficient machinery & equipment

On site green hydrogen production

Engagement with suppliers to reduce their carbon footprint by reducing our "Upstream" carbon footprint



Flexibility is one of our greatest strengths. Our modern factory and experienced, highly-skilled workforce enable us to react quickly to changing market needs by reallocating tasks and priorities as and when required. We've invested in state-of-theart equipment to ensure we can manufacture products more rapidly and efficiently, while maintaining the highest quality controls.

Installed March 2024

# The Journey Never Stops

New energy efficient Salvagnini L5 3KW Laser being installed March 2024 replacing a less efficient model.

This offers the following energy savings:

•	Power Reduction during cutting	88.5%
•	Power reduction during standby	93.1%
•	Estimated annual reduction in electricity	220,000kWh*
•	Annual reduction in site electricity	16.3%*

Additionally, the new machine doesn't use nitrogen gas, saving 8,000,000m<sup>3</sup> per year

\* Based on 50% stand-by time during production hours



#### Renewables

Part of Falcon's Net Zero Journey is to procure renewable energy for use on-site

This may be assisted in the future by the Solar PV installation, should this be adopted

Falcon is part of the AFE Group who procures their gas and electricity as a group

In September 2023, the AFE Group procured 100% renewable electrical energy from their supplier

This has been purchased and is supported Renewable Energy Guarantee of Origin (REGO certificate

This means that we can reduce our site carbon footprint by an estimated 260.2 tCO2e - an estimated 49% reduction on the site's 2023 emissions





#### Our Net Zero Hierarchy Model



falconfoodservice.com



### Our Net Zero Journey Plan





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