

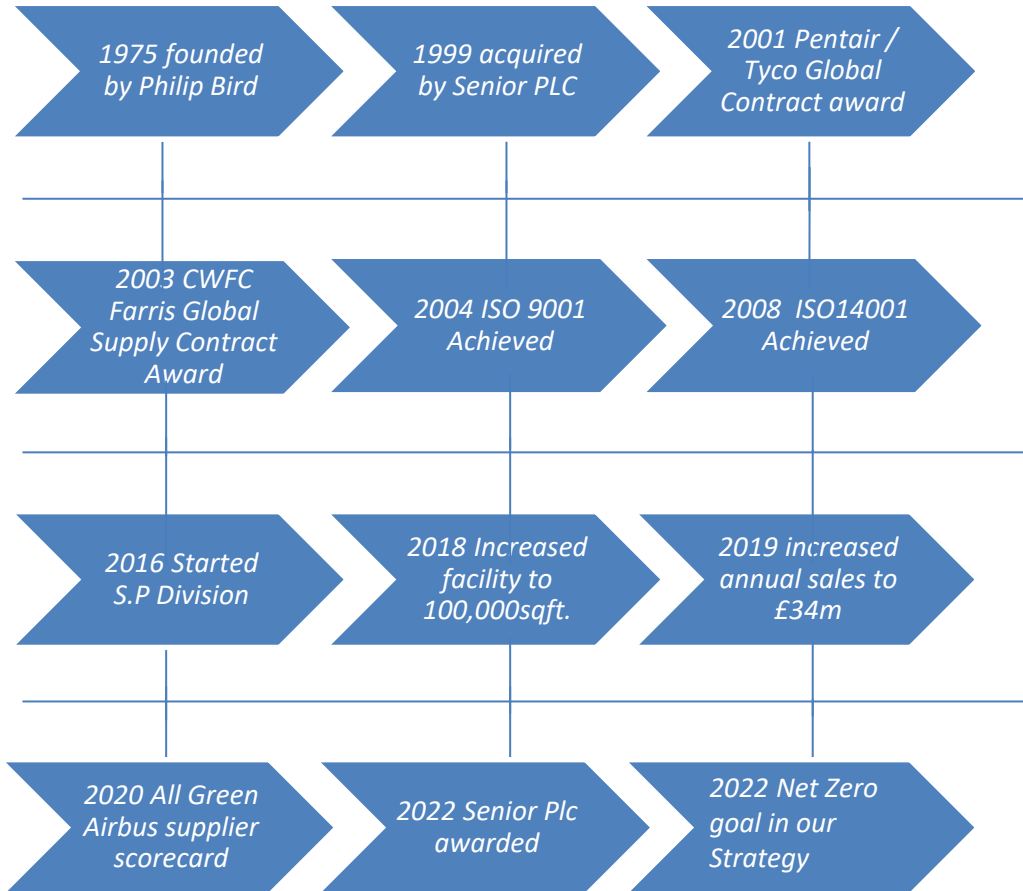
NET ZERO Bird Bellows | Net-Zero Strategy

David Armitage
HSE and Site Services Manager

- Who are we
- The journey so far
- Net Zero

September 2023

Timeline



Based on CDP's thorough assessment of comprehensive climate change data, Senior is the only Company in the Aerospace & Defence Sector to achieve the highest 'A' rating. A total of nearly 15,000 companies were scored, putting us in the top 2% of disclosing companies.



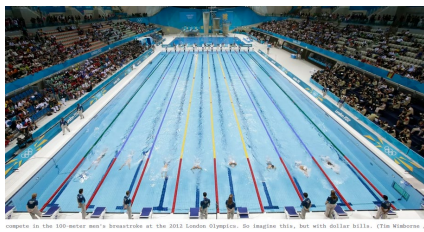
Environmental Continuous Improvement

- 2008 Environmental Management System ISO14001
- 2009 Removal of solvent degreasing processes, move to aqueous degreasing
- 2010 Replacement compressors
- 2013 Cycle to work scheme and car share/Eco scheme
- 2015-17 LED lighting project
- 2016 Replacement of factory radiant heaters with blown air with timers
- 2017 Energy Management software
- 2019 Waterless Urinals (17) reduced water consumption by 2.4 Million Litres per year



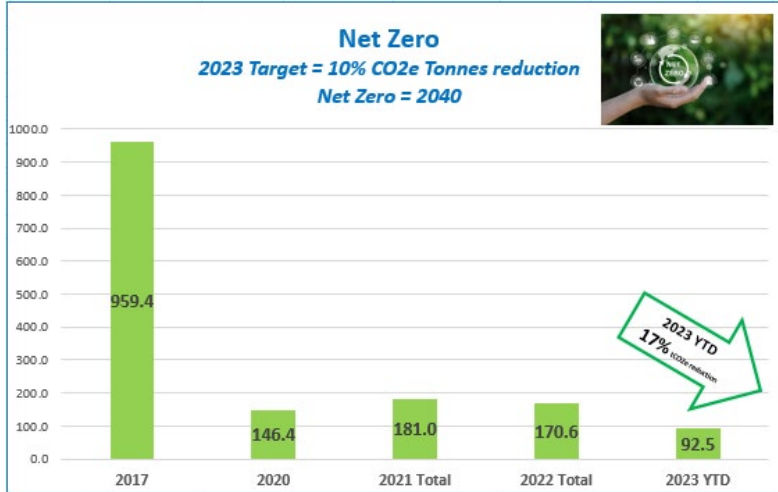
Car Share

Travelling to work doesn't have to cost the earth!



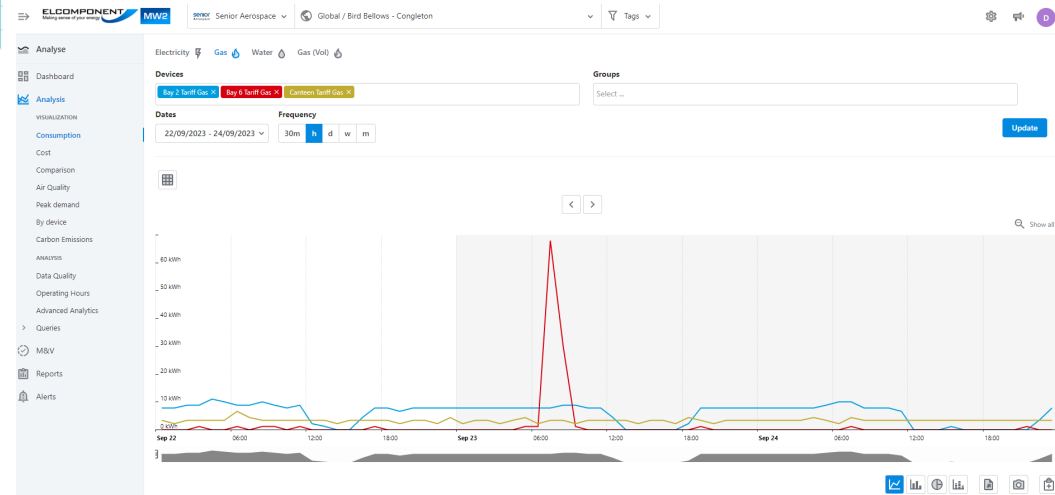
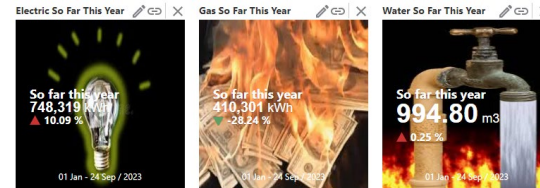
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Energy and Water Management



Staff and attendance hours:

- 30% increase in staff
- 18% increase in attendance hours
- 4 day working week



Carbon reduction

- 90% reduction since 2017 (renewable energy)
- Software application monitors and alerts abnormal utility consumption
- £13,000 investment with an ROI of 6 months



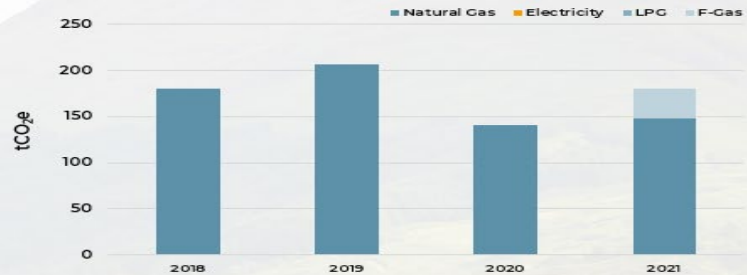
Bird Bellows Greenhouse Gas Emissions

Scope 1
Direct emissions generated on-site from gas consumption, LPG use and F-gas leakage from refrigeration units.
181 tCO₂e

Scope 2
(market-based*)
Indirect emissions associated with electricity consumption. Bird Bellows has purchased 100% renewable electricity since 2018.
0 tCO₂e

Scope 3
Indirect emissions occurring within Bird Bellows value chain, both upstream and downstream of your operations. This includes emissions from suppliers and customers.
This Scope is made up of 15 categories. The most significant category for Bird Bellows is 'Purchased Goods & Services', which includes emissions embedded in all products & services purchased by the company.
3,734 tCO₂e

Operational Emissions 2018 - 2021



*Market-based reporting of Scope 2, allows businesses to report 0 tCO₂e for their electricity emissions when they invest in 100% renewable energy.

Value Chain Emissions 2021



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By Inspired

Operational Decarbonisation Actions

An energy survey was undertaken at Bird Bellows' property in Congleton, Cheshire to support ESOS Phase 3 compliance. Below are the recommendations from the survey, which will support operational (Scope 1&2) decarbonisation.

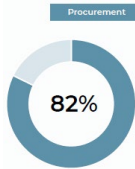
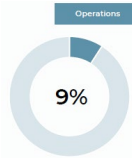
Improvement Action	Installation Cost (£)	Payback Period (years)	Year 1 Cost Saving (£)	Year 1 Energy Saving (kWh)	Year 1 Emissions Saving (tCO ₂ e)
Solar PV	£257,888	2.10	£19,558	246,628	47.7
VSDs for finish extractors	£9,700	0.14	£67,239	134,477	26.0
Compressed air heat recovery	£20,000	0.81	£24,771	140,744	25.7
Compressed air leak detection	£10,000	0.51	£19,739	39,479	7.6
VSDs for Breeze Air system	£7,600	0.55	£13,889	27,778	5.4
De-stratification fans Bay 6	£19,520	6.07	£3,218	18,283	3.3
Compressed air pressure reduction	£1,000	0.20	£4,964	9,929	1.9
PIEs for Bay 5 electric radiant heaters	£1,000	0.33	£3,000	6,000	1.2
7-day timers for water heaters	£135	0.07	£1,871	3,741	0.7
Adjust office heating from 23°C to 21°C	£100	0.22	£464	929	0.2
Consider VSD for hydraulic power packs	£1,000	2.22	£450	900	0.2



Solar PV

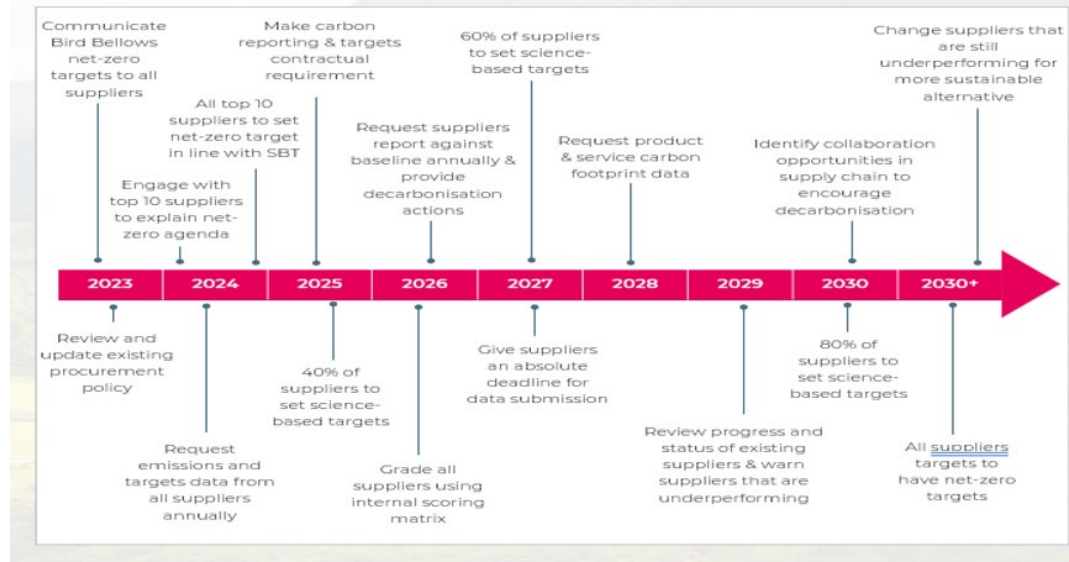
2 x 99kw systems

ROI 4 years



Value Chain Decarbonisation Actions

To decarbonise Scope 3 emissions, the key is to collaborate with your supply chain to encourage them to reduce their own greenhouse gas emissions. Below are some examples of the actions Bird Bellows will be taking over the next few years to engage with suppliers and encourage them to achieve net-zero.



Thank You

Questions?

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