Introduction from Karen Boswell OBE
Managing Director, BDR Thermea UK and Ireland

No one could have predicted the last two years! If there’s been a positive aspect of the COVID-19 pandemic, it is that sustainability issues, such as mental health and the environment, have been put front and centre of the public consciousness.

For several years now, we have been making plans to be a more sustainable business. It’s the right thing for us to respond to these issues and it’s what our customers expect. So, as you will read later, we have set ourselves some ambitious goals.

Firstly, our environment. This includes the emissions that we produce from our day-to-day business, such as warehouse electricity in operations, the computers we use, general lighting in our offices and our transport. We pledge to be carbon neutral in all our operations by 2030. We will also be working very closely with our suppliers to reduce the emissions that happen during the production of parts and materials that eventually go into our products. We have a target to reduce those emissions by 30% by 2030, which means we will have a carbon reduction plan to work on with each of our preferred suppliers.

The largest contribution we can make is to reduce ‘downstream’ emissions from our products that are installed in homes and businesses. As you will read, we are developing a portfolio of innovative and effective low carbon heating solutions to replace the traditional natural gas boilers we make today.

We also launched our wellbeing programme ‘BWell’, to help our people flourish and achieve their full potential. I’m pleased to say that in 2021 we achieved a Silver accreditation for Wellbeing from Investors in People.

We want our business to be representative of the society in which we operate and that means being more diverse and inclusive. Our aim is to create an environment that is warm, welcoming and celebrates the diversity of our people, where everyone’s thoughts and ideas are valued.

I am very proud of the great strides we have taken and believe we have solid foundations in place to set us on the road to a sustainable future.

Our people are our most valuable commodity, central to the success of our business, and it’s our responsibility to keep them safe and well. Last year we launched our safety strategy - Safety Matters - to help us focus on improving the management of critical risks, the governance of our processes, and operational management.

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Our company

Baxi is a leading player in the British and Irish heating and hot water industry. We have some of the best-known and trusted heating and hot water brands for residential and commercial customers including Baxi, Remeha, Megaflo, Andrews, Heatrae Sadia, Main Heating and Potterton Commercial.

Who we are and what we do

Our UK and Ireland business has led engineering breakthroughs and successfully adapted to be a leader in our industry for over 150 years. Like the rest of the sector, our products have used fossil fuels and we are now committed to being a cleaner, greener business.

We are already supporting our customers by offering them clever heating solutions that keep their homes and businesses warm while reducing their carbon footprint. Our plan is to go much further by developing new technologies that will help customers to heat their homes and businesses without warming the planet.

To help customers through this change, we have a skilled team who are experienced at working closely with those customers to provide the innovative solutions they need.

We are passionate about meeting the needs of customers and the buildings they occupy, no matter how complex. We deliver expert experience and technical help for customers, as well as practical training on the very latest technologies.

As part of BDR Thermea Group, we are globally connected, giving us a wide range of experience from different countries of solutions that are not currently common in the UK.

About Baxi and BDR Thermea Group

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About Baxi

Our mission statement

We bring a sustainable future closer through smart indoor climate solutions.

Our approach

We care about shaping a better future. Therefore, our ambition is to be a leader in the energy transition. The future of heat will be led by a mixture of technologies, including heat pumps, hydrogen and heat networks. We’ll need to listen to, and work with, customers to offer the best solution for their requirement.

Our approach is also to integrate sustainability factors in our strategy and all parts of our business. That will mean reducing the environmental footprint of our operations and solutions and ensuring that we have the right people and skills for the future.

Customer focus

Serving our customers is what makes us tick

We develop the right solutions for a better world together with our customers. We invite our customers to join us as ambassadors on our collective journey to a sustainable future.

One team

We are stronger together

We care about all our people. The diversity of our talent and collective ambition help us learn and grow. We work as one team across countries, business units and functions and celebrate our successes.

Sustainable future

We care about shaping a better future

We continuously improve our business and innovate to bring the energy transition to life. We make a difference in the world of energy every day.
Our sustainability ambitions

We have developed a number of ambitions; this will move us towards being a truly sustainable company. These ambitions have been developed to align with what our customers and society expect from our company. They are the right thing to do. They cover our performance across all Environment, Social and Governance (ESG) factors.

Environment

Our ambitions on carbon reduction for 2030 (compared to 2019):
• Scope 1 and 2 – Reduce emissions (tonne Carbon Dioxide) from our operations by 5% annually
• Scope 3 – Reduce downstream lifecycle emissions (tonne CO2 per unit sold) by 30%
• Scope 3 – Reduce upstream emissions (kg CO2 per unit sold) by 30%

Our ambitions on waste management and circularity for 2025:
• 100% non-hazardous waste is diverted from landfill
• 100% of all combi and system boilers will move from EPS packaging to recyclable pulp packaging
• Where waste cannot be prevented, our ambition is to promote circularity by moving waste disposal up the waste hierarchy

Governance

Policies and Code of Conduct reflecting the 10 principles:
• To have the 10 principles and our values reflected in our policies and Code of Conduct

Integrated (annual) reporting:
• Transparent reporting on all material topics for BDR Thermea Group that confirms our purpose and commitment

Stakeholder dialogue, accelerate and innovation:
• This means having active dialogue showing how we’re accelerating our activity to become a more sustainable organisation, supporting our customers to become more sustainable organisations through product innovation
• Being future proof and recognised in our efforts and role in the energy transition to create shared value

Social

Safety
• Our ambition is to have no product safety incidents by 2025
• Our ambition is to have no Lost Time Incidents by 2025

Wellbeing
• We will achieve Investors in People (IIP) Silver by 2022; aiming for Gold by 2025
• Achieved IIP Wellbeing Silver award; aiming for Gold in 2024

Training
• All our employees undergo sustainability training
• Increased trained installer base on low carbon products – ambition to be developed

Equality, Diversity and Inclusion (EDI)
• EDI employee driven network groups in place by end of 2022
• Graduate and apprentice programme framework and new intake 2022 to improve overall demographics, including 30% women representation at senior level

Engage and seek partnerships with our suppliers for 2025:
• 100% of preferred suppliers involved in improving our sustainability performance and score >55 points in Ecovadis

Understanding the communities where we do our business:
• Our company enhances social value by supporting and/or engagement of the communities we serve
• Develop STEM networking at schools level – “Primary Engineer” and other initiatives
We have made progress on reducing our Scope 1, 2 and 3 emissions.

- Our 2021 Scope 1 and 2 emissions are 35% lower than 2019 despite our revenue growth during the same period.
- Our Warwick and Preston sites moved to renewable electricity supply in July 2021.
- We changed our company car policy to electric vehicles (EV) and plug in hybrid vehicles only.
- We run a fleet of vans used by our engineers and we are trialling two that are electrically charged.
- Our biggest employment sites at Warwick and Preston now have electric charging points.

Reducing carbon emissions in our operations is a key part of achieving our overall target to be carbon neutral by 2030. We aim to reduce carbon emissions by 5% every year (starting in 2019).

Since 2019 we have reduced carbon emissions in our operations by more than a third. A significant contribution to this amazing result is buying electricity for our Preston and Warwick sites only from renewable sources.

Provided through E.ON, the supply is guaranteed to match our energy consumption with energy from a zero-carbon UK renewable source.

Over a 12 month period, we will save 951 Tonnes in CO2 emissions (based on usage for July 20 – June 21). We expect to see further emissions savings in our Preston site following the transfer of manufacturing of Heatrae Sadia products from Norwich, which accounted for 280 tonnes of CO2 over the same period.

Focus on:
Renewable Electricity

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Focus on:
Company Car Policy

Our company car fleet is going green, and our colleagues can now order only electric or hybrid vehicles. It’s our aim that by 2025 all new vehicles will be fully electric.

A ‘green fleet’ is part of our target of reducing carbon emissions from our operations by 5% every year. In fact, if our total car fleet became fully electric, our carbon emissions from cars would reduce by 70%, or approx. 602 tonnes CO2e per year*.

*Based on 2021 mileage and current electricity generation carbon intensity.

Pictured is the first fully electric vehicle being delivered to Cameron Brown, Regional Sales Manager.

*(based on 2021 mileage and current electricity generation carbon intensity).
Future of Heat

We are working to reduce our upstream and downstream emissions, including those from the appliances we manufacture. The UK and Ireland governments have set legally binding targets to achieve net zero greenhouse gas emissions by 2050. To achieve this, heating will be the next important challenge of our generation.

Today, 85% of UK homes are heated by natural gas*. To meet our 2050 net zero targets means decarbonising virtually all the heat used by homes and businesses. With a diversity of houses and buildings, there is no silver bullet to make energy transition happen and we believe a mix of technologies will be needed including heat pumps, hydrogen and heat networks. Most of Britain’s 29 million homes have a C or D energy efficiency rating**, which represents a huge draw on heating resources.

Our customers, whether they are businesses, installers, contractors or homeowners will be looking to us for help. One of our strategic ambitions is to ‘drive the energy transition’ and to move forward as a provider of sustainable heating solutions. We will work closely with customers to find the right solution for them.

Baxi air source heat pumps are being used in a pioneering project to implement low carbon heating in new houses.

Progress Report
Scope 3 Emissions

We are also focusing on reducing the emissions in our supply chain and from our customers.

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Case Study: Project 80

Baxi Managing Director Karen Boswell is pictured with one of our heat pumps at Project 80.

Case Study: Hy4Heat

Before Hy4Heat, UK policymakers didn’t know for sure that it would be possible to replace the natural gas that is piped into most of our homes with hydrogen. We become a partner in this programme which aimed to demonstrate how hydrogen would work in a real life setting and that it was safe.

Our role was to provide the prototype boilers that would provide the evidence to decide does hydrogen work and is it safe? This has been a ‘one team’ effort between colleagues in UK and Bassano, Italy, to develop the trial boiler.

From 2025, the proposed Future Homes Standard will ban gas boilers in new build homes and require more stringent building energy efficiency requirements – all with the aim of reducing carbon emissions by 80%.

Two complete Baxi Assure air source heat pump systems are installed at ‘Project 80’ in Handsworth, Birmingham, which aims to meet the Future Homes Standard three years ahead of schedule.

The houses are lived in by families and are a ‘living lab’ to test how they manage in their futuristic homes. The evidence gathered is already helping us understand how customers live with their heat pumps.

Air source heat pumps are a low-carbon energy technology that reverses the refrigeration process to take the warmth from the air outside (even when it’s freezing) and use it to heat homes.

The homes were completed in Easter 2022, three years ahead of the Government’s target.

Footnotes:
* https://www.nationalgrid.com/stories/energy-explained/heating-our-homes-hydrogen

We have helped to establish major public facing trial sites such as HyStreet, Spadeadam and HyGrove, Low Thornley, where our prototype boilers are working today to demonstrate the end user experience and prove the viability of hydrogen as a fuel source for a sustainable future.

Now the focus will move towards larger scale demonstration projects which will see a neighbourhood scale hydrogen demonstration next year in Fife then two village scale trials by 2025 as determined by the UK Government Hydrogen Strategy.
Progress Report
Waste

We have a target to reduce the waste we produce by 50% by 2025 and for the packaging of all our products manufactured in the UK to be recyclable.

This will be a considerable challenge as there is a considerable amount of waste metal, cardboard and plastic produced from our operations. As a business we recycle more than 98% of our waste and divert 100% from landfill with our partner Recycling Lives. We have robust data on how much waste we are producing.

While this represents progress, reducing our waste and ensuring our packaging is recyclable is a priority for our business. This will require a ‘one team’ approach across our business and we have commenced a War on Waste company-wide programme. This started with a workshop with people across our business to understand the big issues.

We’ll update on progress in our next sustainability report.

We’ve started a trial to replace Polystyrene packaging – which is almost impossible to recycle – with packaging made from waste cardboard. Up to now, more than 100 tonnes of Polystyrene every year is used to protect our boilers as they make their journey from the warehouse to the customer. Most ends up being taken to landfill.

In the trial, polystyrene packaging in some of our products will be replaced with a packaging created from cardboard pulp. In the future we plan for this pulp to be made from our own waste cardboard.

If successful, we will move away from polystyrene packaging for our key boiler lines over the next year.

Progress Report
Social

To become a truly sustainable company we need to improve the sustainability of our relationships with our colleagues, and the society in which we operate.

Our people are central to the success of our business. We need to keep them safe and well. Last year we launched our safety strategy ‘Safety Matters’ to help us identify and manage potential risks.

Our wellbeing program ‘BWell’ was launched to create an environment that allows people to flourish and achieve their full potential, which benefits our people, our organisation and our communities. Towards the end of last year we achieved a Silver accreditation for Wellbeing from Investors in People. The assessors cited some great wellbeing activity from mental health awareness campaigns to also supporting men’s health throughout Movember.

Our focus on wellbeing continues this year and beyond as we aim for a Gold accreditation in 2024. We also want to be representative of our society and that means being more diverse and inclusive. We’ll be reporting on our Equality, Diversity and Inclusion strategy in our next report.

Case Study: Safety

Our Safety Matters strategy aims to get us to Zero Harm by 2025 by focusing on improving the management of critical risks, the governance of our processes, and operational management.

We’ve made good progress reviewing our risks; establishing improved processes and improving the management of critical risks. Our lost time injuries in 2021 reduced by 65% compared to 2020.

We are now focusing on changing the cultural mindset across our organisation. This will involve embedding seven habits that should be observed across our organisation. We will be implementing programs to encourage these habits at all levels of the business so that safety becomes a habit.
The timeline for the future of heat

1930s First electric heaters introduced

1960s First gas boilers introduced

1985 Building Regulations require condensing boilers in UK dwellings

2009 Britain’s 10-Point Plan for a Green Industrial Revolution calls for more hydrogen production

2020 Baxi installs its hydrogen boiler at two purpose-built vacant homes near Gateshead to demonstrate the safe and efficient use of hydrogen

2021 Baxi sells its first Air Source Heat Pumps into the public sector

2021 Government publishes Heat and Buildings Strategy and Hydrogen Strategy

2024 Baxi hydrogen-ready and 100% hydrogen boilers will be available

2025 All Baxi UK and Ireland products to be compatible with low carbon energy

2025 For existing homes, new natural gas boilers might only be sold if they are hydrogen-ready - that is, they are easily convertible to work with hydrogen

2028 Government projects 600,000 heat pump installations every year - 10 times current installation rate of around 60,000 per year

2029 Government projects 600,000 heat pump installations every year - 10 times current installation rate of around 60,000 per year

2030 Government projects 100GW of low carbon hydrogen production capacity for industry, transport, power, and homes. The first UK town heated entirely by hydrogen

2035 The government is targeting the end of sales of new natural gas boilers

2050 All rented non-residential buildings are expected to reach Energy Performance Certificate band A to improve energy efficiency

2030 By 2050 The UK’s emissions are net zero

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