# Well positioned and ready...

Our steam and electric thermal energy management capabilities enable us to deliver solutions that decarbonise industrial thermal energy use and account for >5% of global carbon emissions today.



How we help customers deliver on their net zero requirements

These charts show the sources of industrial thermal energy use and the operating capabilities of steam and electric solutions. Steam is typically utilised at temperatures between 100°C and 350°C, in applications where higher power loads are required. It is also more versatile in its uses and remains the most efficient method of transferring thermal energy from point A to point B. This is why steam remains critical to our customers' processes.

Electric solutions are utilised where higher temperatures are required, typically with lower power loads and where greater control is critical.

As a global leader in industrial thermal energy solutions, there is huge value to be unlocked from our combined expertise. That is our unique proposition. To help our customers reach their net zero goals through electrifying the generation of steam and replacing the direct burning of fossil fuels through direct electric technology. When combined with access to green electricity customers can reduce their scopes 1 and 2 emissions to zero.

And, as we highlighted on page 17 of the Report, this unique capability creates an additional £6.6 billion of annual addressable market opportunity for Spirax Group and highlights why ETS is so important to our future evolution and growth. Through its proprietary technology, proven track record in new product development, along with differentiated design engineering and bespoke manufacturing expertise, ETS' capabilities are critical to the decarbonisation opportunity of:

1. Steam generation through our TargetZero solutions



Steam Battery





Electrofit & SteamVolt

2. Replacing fossil fuel-fired direct heat with electric through our PoweringZero solutions







Industrial **Process Heaters** 

### ...to lead in energy transition through decarbonisation

#### How an 'element' became indispensable to modern life

**TargetZero** and **PoweringZero** solutions all reply on one seemingly simple component. The electric heating element.

Our heating elements consist of four primary parts:





5

The Nichrome Resistance Wire, which provides the necessary heat

These components are

core to our range of Low and Medium Voltage heating solutions that enable decarbonisation of thermal energy use



2 Magnesium Oxide Insulation, which offers dielectric strength to contain the electricity while being an excellent thermal conductor



3

The Metal Sheath, which allows the element to be directly immersed in industrial processes



The Termination, which seals the element and provides the electrical connection

4



#### Powering the engineered solutions we all rely on

Our ability to transform these raw materials into highly engineered, mission-critical heating systems is what sets us apart as global leaders in both traditional Low Voltage and Medium Voltage electric heating technology. The element may seem simple, but the technology behind it is complex and highly engineered to deliver solutions essential to everyday life.



Supporting healthcare



Growing food



Powering technology



Heating homes



Putting cars on the road

### Our LV and MV manufacturing is undertaken at our Ogden facility in Utah, USA, which has already delivered:

**10,000** Medium Voltage

heating elements



137 systems





You can read more about how Ogden production is pivotal to the decarbonisation of thermal energy use and the work of our team there to increase throughput on pages 50 and 51.

#### Investing further in our unique capabilities

As part of our evolution to capture the significant opportunity from decarbonisation, we are also investing further in our skills, capabilities and technologies.

This also includes the next generation technologies required to serve sector specific needs, building on our current capabilities across Low Voltage and Medium Voltage technologies that currently serve sectors with temperature requirements between 400 and 700°C, and increasing these to address sectors with temperature requirements of 700°C and above.

#### Heating temperature requirements of key industries

#### <120°C 1000°C **Building &** O&G Food & Gypsum & Energy Petrochemical Metal Construction Processing Processing Board Beverage Storage **Delivering today Existing LV** up to 700°C Technology **Delivering today Existing MV** up to 400°C Technology **Next Generation** Coming soon (2025-2026) **MV** Technology up to 700°C **Next Generation LV** Longer term

and MV Technology

(2026+) >700°C

## Powering Growth through Powering Zero

ETS has the capability to become a significant growth engine within Spirax Group. The combination of its market leading expertise in its targeted high growth sectors and applications combined with its complementarity to STS, will support delivery of mid-single digit organic growth over the medium term with a clear pathway to a 20% margin. We have a track record of solving customer problems within their critical applications using our proprietary technologies and we have strong demand tailwinds and a record orderbook in both our Industrial Heating and Industrial Equipment segments.

In combination, the total decarbonisation opportunity we have across Spirax Group is material and that is why we are investing in these capabilities for the pursuit of multi-decade growth.

Read more about the operational improvements and investments we are making in our manufacturing capabilities to support this growth on pages 50 and 51.

#### **Evolution in action**

#### A trusted decarbonisation partner

We recently produced a 43-page assessment report following a visit by an ETS sales engineer to a speciality material manufacturer, producing high-end chemical additives.

Our report identified numerous opportunities across our TargetZero and PoweringZero solutions portfolio to decarbonise the manufacturing footprint and improve energy efficiency through electrification linked to a green electricity source.

And these results are quite typical when taking a holistic approach to thermal energy. Our report identified opportunities to electrify all facets of process heating in their single production plant, including the electrification of steam production through our TargetZero solutions, as well as electrification of their direct process heating and heat tracing needs through our PoweringZero solutions.

In total, we identified opportunities to reduce this plant's carbon footprint by 9,211 tons of  $CO_2$  per year and to reduce their operational energy consumption for thermal processes by 19%.

This is the power of ETS within the Spirax Group. It's what happens when you combine the world's leading steam company with the world's leading electric heating company. You get the world's leading thermal energy capability, able to transition industrial process heating towards a more sustainable future.

	Target	t Zero	Powerin بخیا رخیا	ng Zero
	Steam Systems		Process Heating	
Output	<b>Carbon</b> (CO <sub>2</sub> /yr)	Energy (MWh)	<b>Carbon</b> (CO <sub>2</sub> /yr)	Energy (MWh)
Spirax Group solutions	0	38,128	0	3,091



Strategic Repor