ON-SITE ENERGY

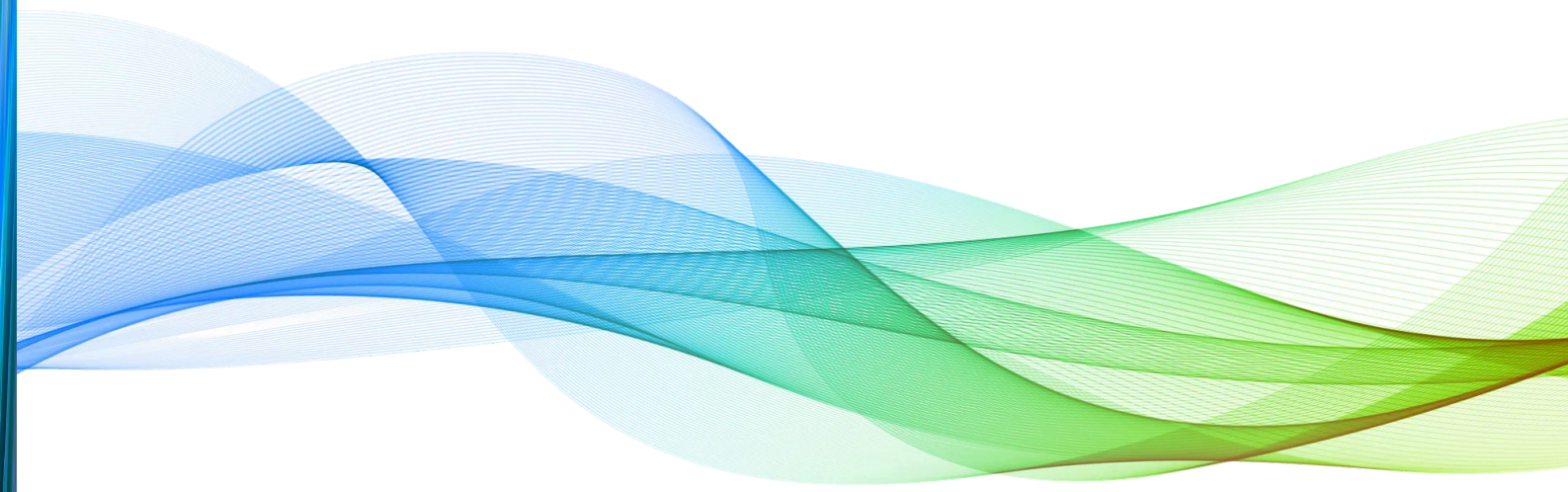
INNOVATION | SUSTAINABILITY | ENABLEMENT

Lower energy costs for meat processing sites

We design, finance, install and maintain on-site energy assets at industrial facilities. You benefit from reliable, efficient energy without any upfront capital investment, paying only for the energy consumed under a long-term agreement.

Email our team | **Call +44 (0)151 271 0037**

On-Site Energy is an Associate Member of the Association of Independent Meat Suppliers (AIMS).



Where a Meat Processing Plant's Energy Goes

Processing facilities consume significant amounts of energy. Refrigeration runs continuously, while steam and hot water are essential for production, cleaning and hygiene. As a result, energy is often one of the largest controllable operating costs on site.

Refrigeration and Chilling

A continuous electrical load operating 24/7 to maintain product quality, compliance and food safety, with no tolerance for downtime.

Steam and Hot Water

Essential for scalding, washdown, sterilisation and hygiene processes, typically generated by gas-fired boilers with high fuel consumption.

Ageing Plant

Older boilers, refrigeration systems and distribution networks become less efficient over time, increasing maintenance costs and wasting energy.

Exposure to Rising Energy Prices

Tight operating margins leave processors vulnerable to fluctuations in gas and electricity costs, directly impacting profitability.

The Opportunity

By generating power and heat on-site, processors can significantly reduce energy costs, improve efficiency and increase resilience against volatile utility prices, all while preserving capital for investment in core operations.

What We Install



Fuel Cells

Highly efficient on-site power generation that converts fuel directly into electricity, with usable heat available for process applications. Fuel cells can provide resilient, lower-carbon energy and are particularly attractive where high electrical efficiency and decarbonisation are priorities.



Solar PV

Rooftop or ground-mounted solar arrays supplying low-cost daytime electricity to refrigeration, processing and ancillary loads.



Steam and Boiler Upgrades

Modern, high-efficiency boilers, steam distribution systems and condensate recovery solutions that improve reliability and reduce operating costs.



Aquifer Thermal Energy Storage (ATES)

Uses underground aquifers to store thermal energy seasonally, enabling heat and cooling to be recovered when required. ATES can significantly reduce heating and cooling costs for sites with suitable geology and long-term decarbonisation objectives.



Combined Heat and Power (CHP)

Generates electricity on-site while capturing usable heat for steam and hot water production, improving overall energy efficiency and reducing grid reliance.



Waste Heat Recovery

Captures otherwise wasted heat from refrigeration systems, compressors and CHP plant to preheat process water and reduce fuel consumption.



Heat Pumps and Electrification

Lower-carbon heating technologies suitable for sites with the right electrical infrastructure and heat demand profile.



Metering and Energy Monitoring

Advanced telemetry and monitoring systems that provide visibility of when, where and how energy is consumed across your facility.

Technology-Agnostic by Design

We are not tied to any particular manufacturer, fuel or technology. Our role is to identify the combination of solutions that delivers the best technical, commercial and environmental outcome for your site. That may be fuel cells, CHP, solar PV, heat pumps, ATES, waste heat recovery, steam upgrades or a combination of technologies working together.

Designed Around Your Site

Every project is engineered using your site's half-hourly electricity and gas consumption data, operational profile and process requirements. We develop solutions that maximise efficiency, resilience and cost savings, with projected performance and savings validated through detailed engineering analysis before implementation.

Case Study: UK Pork Processing Site

The client processes pigs through to chilled and refrigerated products for retail and food manufacturing customers. Prior to the project, annual energy expenditure exceeded **£4 million**, with a significant proportion attributable to steam generation and hot water used for washdown and hygiene processes.

On-Site Energy (OSE) designed, funded and installed a **2.5MW containerised CHP plant** to generate electricity on-site and recover waste heat for beneficial use. The recovered heat is used to preheat process hot water, significantly reducing the site's steam demand and associated fuel consumption.

In addition, OSE installed advanced telemetry and monitoring systems, providing greater visibility of site-wide energy usage and enabling more informed operational decision-making.

OSE is responsible for the operation, maintenance and availability of the CHP plant and associated plate heat exchangers. The project was delivered under a **10-year Energy Services Agreement (ESA)**, requiring **no upfront capital investment** from the client.

Results

£7.4m

estimated saving in energy costs over the first 5 years of operation

2.5MW

containerised CHP providing both on-site electricity generation and useful heat recovery

£0

client capital investment, delivered under a fully funded 10-year ESA

Reduced steam demand

through hot water preheating using recovered CHP heat

Improved energy visibility

through real-time monitoring and telemetry

How the Energy Services Agreement works

1

Review

We look at your bills, half-hourly data and site layout to find projects that work.

2

Develop

We engineer and price the project and agree terms with you under a Project Development Agreement.

3

Build

We fund, procure and install the plant, planned around your production schedule.

4

Operate

We own, run and maintain the plant for the agreement term. You pay for the energy it delivers.

About On-Site Energy

On-Site Energy works exclusively with energy-intensive manufacturers, helping them reduce energy costs, improve resilience and accelerate decarbonisation without upfront capital investment.

We have delivered more than £70 million of on-site energy projects and have a further £120m+ in development through our funding partnership with Downing. Our experience spans some of the UK's most energy-intensive sectors, including food and beverage manufacturing, where we have successfully delivered projects for meat processing, seafood and bakery facilities.

By combining engineering expertise, flexible funding and a technology-agnostic approach, we design, finance, install and maintain energy infrastructure tailored to each site's operational and commercial objectives.

Delivered
£70m+ of on-site energy projects

Pipeline
£120m+ in development

Focus
Energy-intensive manufacturing sites

Sectors
Meat processing, seafood, bakery and wider food & beverage production

Talk to us about your site

Tell us where your site is and what it spends on energy, and our team will come back to you.

Email aims@on-site.energy | **Call +44 (0)151 271 0037**

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