

### INFRARED ELECTRIC HEATING

CAMDEN & ISLINGTON COUNCILS HORNSEY STREET REUSE AND RECYCLING CENTRE

SHADOW Industrial Infrared

www.shadowindustrial.co.uk



# Case Study: Camden & Islington Councils Hornsey Street Reuse and Recycling Centre

### **Project Overview & The Challenges:**

Camden and Islington Councils, embarked on a pioneering initiative to upgrade the heating system at the jointly-owned Hornsey Street Refuse & Recycling Centre, as part of a sustainability project. Teaming up with us at Shadow Industrial (SI), a prominent infrared heating specialist, and Principal Contractor, Vital Energi, the councils aimed to revolutionise the facility's heating infrastructure while aligning with their ambitious Climate Action Plans.

The existing heating system, spanning 300m² and reliant on AmbiRad fan heaters, posed significant challenges in terms of efficiency, cost-effectiveness, and environmental impact. Camden and Islington Councils sought a solution that would not only reduce energy consumption but also advance their objectives for achieving Net Zero operational emissions by 2030.

#### **Key Benefits:**

- Significant Cost Savings: Shadow Industrial's heaters offered a costeffective alternative, with potential savings ranging from 50% to 75% compared to conventional electric heating systems.
- Drastic Reduction in Energy Consumption: Predicted to reduce energy consumption by 80%, Shadow Industrial's heaters represent a significant milestone in the adoption of sustainable heating solutions.
- Environmental Impact: The installation of Shadow Industrial's infrared heating systems aligns perfectly with Camden and Islington Council's Climate Action Plans, contributing to their efforts to mitigate carbon emissions.



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Shadow Industrial's technology impressed us with its capabilities and low operational costs. It's a massive contribution to our emissions reduction efforts.

Graham Hughes, Islington Council

## IMPLEMENTATION OF INFRARED HEATERS:

The installation process, overseen by Vital Energi, was streamlined and efficient, with Shadow Industrial's plug-and-play heaters proving easy to install and operate. With minimal disruption to daily operations, the new heating system was up and running within six weeks, enhancing comfort and productivity across the facility.

CONTACT US TO DISCUSS THE OPTIONS FOR YOUR INDUSTRIAL BUILDING:

T: 01279 466500

E: info@shadowindustrial.co.uk



The successful implementation of Shadow Industrial's infrared heating systems at the Hornsey Street Reuse & Recycling Centre marks a significant milestone in sustainable heating technology. By embracing innovative solutions, Camden and Islington Councils have not only reduced their carbon footprint but also set a precedent for future industrial heating projects.

#### **CEO Questions**

What sort of technologies will SI be providing under the agreement and how long have these systems been on the market?

Under the agreement, Shadow Industrial (SI) will be providing zero-emission, high-performance shortwave infrared heaters. These heaters are designed to deliver instant, targeted warmth with high energy efficiency and low operational costs. Shadow Industrial's role includes surveying, specifying, and supplying the products, which are then fitted by the customers' own electricians. We also provide warranty and ongoing support for their systems.

Shadow Industrial Infrared Heating Systems was established in 2022 to meet the increasing demand for eco-friendly industrial heating solutions. Leveraging over 20 years of experience in the infrared heating sector, we scaled up our technology, which was originally developed for smaller commercial and domestic heaters. This experience comes from our sister company, Heat Outdoors, which has long been an established market leader in the industry.

Has the company worked with other local authorities in supplying its systems and what sort of projects or type of buildings does it believe its systems can be most effectively used in as an alternative to fossil fuel heating?

From our understanding, the project with Hornsey Street Refuse & Recycling Centre is the first collaboration with local authorities for industrial settings. Although the use of Shadow Industrial infrared heating technology in such environments is still in its early stages, we are currently in discussions with several government bodies and local authorities.

We believe our systems are most effective when used in large industrial facilities, warehouses, workshops, and other public sector buildings where traditional fossil fuel heating is inefficient. The technology is particularly suited for spaces with high ceilings and frequent drafts, offering targeted and efficient heating solutions.



Were the respective councils able to claim any grant funding or lower carbon incentives to sue the technology provide by SI?

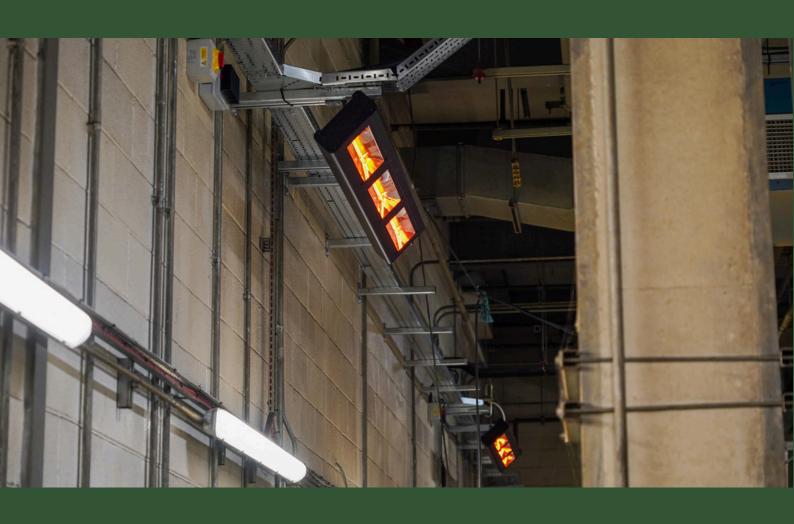
The specifics of grant funding or lower carbon incentives were managed internally, by Vital Energi, on behalf of the councils.

With regards to the technology, what sort of capacities of heat are available for these systems and what were some of the main requirements for the project?

Our systems are modular and completely scalable, which suit projects of any size and scale without limitation, provided there is a sufficient electricity supply. These systems have demonstrated up to 90% energy savings when converting from gas to electric heating.

The main requirements for the Hornsey Street Refuse & Recycling Centre project included:

- Reducing energy consumption by approximately 80%
- Aligning with the sustainability goals of Camden and Islington Councils
- Ensuring low operational costs and high energy efficiency
- Providing effective and instantaneous heating for workers, tailored to the specific needs of a large industrial facility with vast open spaces and frequent drafts from open doors and shutters.



### SHADOW Industrial Infrared

Unit 9 Stort Valley Industrial Estate
Bishop's Stortford
Hertfordshire
CM23 2TU

### **CONTACT US**

E: info@shadowindustrial.co.uk
W: www.shadowindustrial.co.uk
T: 01279 466500