



# NEXIGEN

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Far Infrared Heating For Commercial & Industrial

# Introducing NexGen – World's First '3D' heating system using Far Infra-Red

NexGen is an Electric Graphene Ceiling paper designed to efficiently heat homes and buildings using Far Infra-Red (IR) wavelengths. The IR technology delivers unique heating emittance, 70%+ IR radiant & 30% conductive. The Company's innovative solution is an ultra safe, low voltage, low-temperature system, precisely engineered to emit Far Infra-Red waves that replicate the radiant and comfortable warmth of sunshine.

NEXGEN CAN BE FITTED ON WALLS , FLOORS & CEILINGS



## Sustainability in Action: Diverse Metrics, Unified Impact



### Technical

- ✓ Suitable for any property archetype regardless of fabric level – Not affected by air changes
- ✓ Replicating simplest energy form known to humans – ‘sunlight’
- ✓ Warms people first, stores excess energy in fabric, like a ‘thermal battery’;
- ✓ NexGen engineered a highly complex nanocarbon IR heating element that in volume production, is as simple as making paper;

### Economic

- ✓ Cutting energy consumption & spend through precise agile heating of people not spaces
- ✓ Improving staff wellbeing & comfort in the workplace is proven to increase staff retention

### Through-life cost

- ✓ Exponentially lower through-life-costs for low CO<sub>2</sub> heating than heat pumps
- ✓ Simple installation
- ✓ No annualised maintenance
- ✓ Reduced failures & downtime - plug and play rectifications
- ✓ No lifetime replacement cycle, low recycling and/or disposal cost

### Through-life-CO<sub>2</sub> Footprint

- ✓ Low CO<sub>2</sub> ‘sustainable green-tech’ (from initial raw materials and component supply to assembled and transported product, to energy usage and wastage, and final disposal).
- ✓ Completely reusable/redployable solutions maximising capital investment

### Well-being

- ✓ Far Infrared is a proven medical therapy improving cell repair, blood circulation & joint pain
- ✓ Academically proven to remove & prevent mould, improve air quality and reduce the spread of airborne particles
- ✓ Improving staff comfort in hard to heat environments

**c.20%**

Of space in industrial buildings in the UK are human-occupied workspaces

**40%**

Of the UK workforce engages in remote working and therefore not in the office

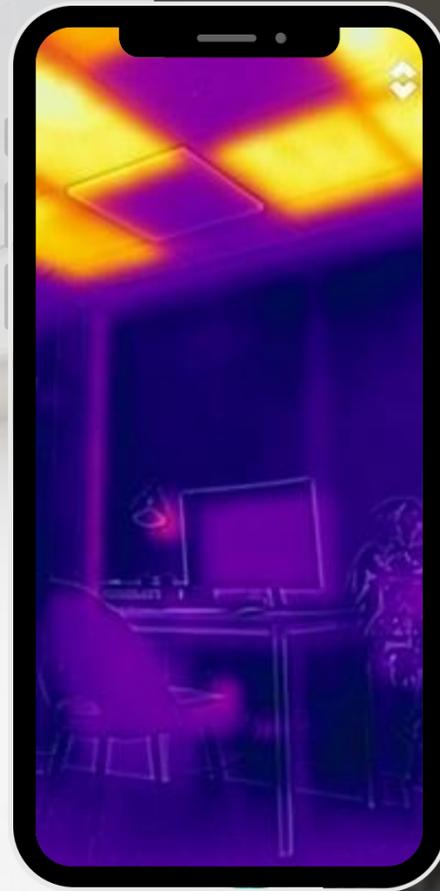
Far Infra-Red Heating

## Combining NexGen with Renewables

**NexGen, Zenergy & Renewables:** NexGen's agile system aligns perfectly with renewable energy, battery storage and overnight off-peak low tariff energy, enhancing its value as a low demand heating technology.

NexGen is tracking to deliver over 80% of its future projects paired with renewables and energy storage – this is also the catalyst to attracting third-party funding options for client decarbonisation and ESG projects, where the technology's simplicity, longevity and low through-life costs are critical to ROI.

NexGen has funding options available to council, public sector and commercial organisations where ESG and social impact are core deliverables – current partners could deliver circa £2bn per annum of project funding.



## NXG Infra-Red Ceiling Tiles

A simple, integrated & reusable heat source.

**Design Requirements:** Providing a plug and play heat source for 600 x 600mm suspended ceiling frameworks. Zonal & Combined control tailored to occupancy of spaces.

**Material Composition:** Combines our core ceiling paper technology with 25mm phenolic insulation for extremely fast and direct warm up.

**Power Source:** Operates on 24-30 volts, ensuring ultra-safe, comfortable warmth. Surface temperature of 45-55 degrees Celsius.

**Infrared Emission:** Engineered to emit the specific wavelength of infrared light from sunlight that the human body responds to best.

**Form Factor:** Delivered in tile form with simple plug & play connections, supplied in 595 x 595 x 25 mm

**Manufacturing:** Scaled production takes place in Romsey, UK.

**Installation:** Installed into existing suspended ceiling frameworks with electrical feeds and connections between tiles. ULV cabling to be hidden within the ceiling void.

**Ideal Use Cases:** Any application with a suitable suspended ceiling framework up to heights of 2.8 meters.



## Proven to combat – Energy wastage

NexGen's infrared solutions offer a low-carbon heating solution ideal for a multitude of building types and spaces. By using far infrared technology, the system efficiently warms people and surfaces directly, minimising energy waste associated with heating air.

Paired with smart building controls, including occupancy and CO<sub>2</sub> sensors, NexGen enables automated setback temperatures in unoccupied rooms and dynamically boosts heating when spaces become occupied. This intelligent zoning ensures energy efficiency while supporting personalised comfort—whether at a workstation, a meeting room or within an open plan office space.

This targeted approach not only reduces operational CO<sub>2</sub> emissions and running costs, but also enhances comfort and wellbeing in the working environments.



## NXG Infra-Red Suspended Rafts

Revolutionising comfort warmth in open space

**Design Requirements:** Providing targeted warmth to individuals occupying or working within wide open or hard to regulated spaces

**Material Composition:** Combines our core IR heating technology with 25mm phenolic insulation, aluminium framework, integrated LED lighting

**Power Source:** Operates at 36 volts, ensuring ultra-safe, comfortable warmth. Surface temperature of 55-65 degrees Celsius.

**Infrared Emission:** Engineered to emit the specific wavelength of infrared light from sunlight that the human body responds to best.

**Form Factor:** Delivered as a boxed product with simple plug & play connections, supplied in 2400 x 1400 x 150 mm or 2400 x 650 x 150 mm.

**Manufacturing:** Scaled production takes place in Romsey, UK.

**Installation:** Suspended or mechanically fixed with an operational range of 3 meters. Hard wired into 240v plug socket / fuse spur. Fully modular to allow linking of multiple units.

**Ideal Use Cases:** Directly over work benches in industrial and warehouses, reception areas in atriums, meeting rooms, retail spaces.

## Focused Heat – Superior value

Heating large workspaces like factories and warehouses can be prohibitively expensive—especially in winter—due to the high ceilings and the natural rise of warm air, which often renders traditional heating methods inefficient and wasteful. NexGen's raft offers a smarter solution by providing comfortable warmth directly to the area beneath it. Using gentle infrared energy, it heats people and surfaces rather than the surrounding air, minimising heat loss through convection.

Just one raft can effectively warm a specific workstation within an otherwise unheated, open warehouse. This targeted approach allows organisations to reduce energy costs by heating only the areas in use, rather than the entire facility. The raft heats up in minutes, making it ideal for on-demand use and eliminating the need to preheat the space before it's occupied.

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