

shentongroup Provides CHP Solution for Prestigious Housing Development

Client: Kingsland Wharves

Location: East London

Products & Services Supplied: CHP Maintenance Contracts

Overview

Set within a historical conservation area, Imtech Aqua Building's Kingsland Wharves housing development consists of 207 dwellings, split 58 dwellings in two blocks and 149 in 7 blocks. shentongroup won a contract to provide a combined heat and power solution to the development comprising the newly launched Tedom Centro 100, as well as a Tedom Micro T30 CHP system, along with a CHP maintenance contract to ensure that residents enjoy continuous, trouble-free supply of their cheaper, greener power supplies.

The Problem

The Kingsland Wharves development of new apartment buildings are located around the historic Kingsland canal basin on the Regent's Canal in East London. The area is a conservation zone and has been sympathetically developed to include the restoration of heritage warehouses for commercial, retail and housing use.

A joint development with the local Council, a housing association and property developers, the scheme has been developed to comply with environmental requirements including BREEAM, the World's leading sustainability assessment method for masterplanning projects, infrastructure and buildings, as well as local building efficiency codes. Therefore, a combined heat and power solution was required.

Solution

Two Tedom CHP systems will supply heat and electricity to the development's 207 dwellings. With 58 dwellings in two blocks and 149 in 7 other blocks, a Tedom Centro T100 will be installed in a purpose-built underground plant room and will also serve a surgery at the base of one block, an artist's studio and several commercial units located across the project.

The new Tedom Centro T100 series, marketed by shentongroup under its powertherm label, are natural gas-powered CHP units, producing maximum electrical output of 101Kw, 400V three phase, 50Hz at 1500rpm. They have a maximum hot water output of 147Kw and a standard water off temperature of 90C.

A smaller Tedom Micro T30 natural gas-powered unit was also selected which produces a maximum electricity output of 30Kw, 400V three phase, 0.78 power factor, 50Hz at 1500rpm and has a maximum hot water output of 62Kw and standard water off temperature of 90C.

Geoff Robinson, Contracts Manager at Imtech Aqua Services said: "As the project was novated to give Imtech Aqua Services design responsibility, we had to ensure we had a CHP system that would fully meet the client's



requirements." He added; "Service before, during and at commissioning stages was therefore very important. shentongroup has provided us with support and service through all stages of the project, attending meetings alongside us so that all parties were fully aware of what was required to ensure the successful completion of the project."

"We were restricted with plant noise levels due to the fact that the development is residential and there are neighbouring housing developments which had to be met as part of the planning approvals", added Geoff Robinson. "shentongroup helped us to achieve noise levels that were substantially lower than those specified", he concluded.

To guarantee Kingsland Wharves enjoys continuous combined heat and power supplies, Imtech Aqua Buildings opted for an Infinium24 CHP maintenance contract, shentongroup's remote monitoring technology running 24 hours per day. Infinium24 programme is a scientifically designed and monitored "perpetual renewal protocol" that constantly renovates and re-engineers components before their projected replacement date. Charged at a fixed hourly rate, Infinium24 covers all parts, labour, travel, fuel and engineers' expenses.



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Outcomes

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About shentonggroup

shentonggroup is the UK’s leading technical expert in standby power, uninterruptible power supplies, and combined heat and power supplies. shentonggroup provides power solutions to organisations spanning a broad array of industries that rely on continuous power supplies including; finance, healthcare, telecoms, manufacturing, retail, education, government, utilities, sport and leisure and of course, residential developments.

With the flexibility to support both inside and outside applications, shentonggroup is able to supply a range CHP systems under its powertherm label. The technology recovers waste heat to provide heating, hot water and even air conditioning. This reduces overall energy consumption and enables both commercial and industrial customers to offset gas and electricity consumption. The system’s very low exhaust emissions ensure that powertherm complies with, or exceeds UK regulations.

shentonggroup’s standby generator range includes single and three phase generator solutions, ranging from 10kVA to 3.2MVA. Being all British built to the highest quality and safety standards, shentonggroup generators are ideal for use as prime power or standby power supply usage. All shentonggroup diesel generators include; a full range of weatherproof canopies to meet sound attenuation levels; proven industry-leading control systems and switchgear hardware; integral bunded base-frame fuel tanks and fuel

management systems; containerised modular solutions; custom built drop-over acoustic canopies; skid-mounted ‘open’ sets for specific applications.

shentonggroup’s generator maintenance contracts guarantee peak generator performance. The Infinium24 programme is a scientifically designed and monitored “perpetual renewal protocol”. With strategically placed depots throughout the United Kingdom, shentonggroup’s network of technical engineers and support staff provide rapid response times of around 4 hours, supplying some of the highest standards in uninterruptible power supplies and power generator servicing available.

To find out more about standby power options, contact the shentonggroup technical team on 0844 888 444 5.

About Imtech

Imtech is a large, independently owned and managed technical services provider which delivers for clients across the UK and Ireland. The company specialises in mechanical and electrical engineering, technical facilities management, automation control and real-time IT solutions.