



BRINGING HEAT TO HACKNEY

SSE Energy Solutions is helping to deliver a low carbon housing development in the heart of the East London Borough of Hackney by installing a district heating scheme using energy efficient technologies.

The freehold owners of the site, London and Quadrant (L&Q), a Registered Social Landlord, has selected SSE's Heat Networks business to be its long term partner by providing an on-site energy supply using Combined Heat and Power (CHP). SSE's reputation for first class customer care was instrumental in L&Q's decision to put their trust in us to provide heat services to the site under a long term contract.

LIST OF SERVICES

2 Energy centres
200 kWe gas fired CHP plant

Heat and hot water district heating infrastructure

Hydraulic interface unit and heat meter per dwelling

HEAT AND POWER SOLUTION

SSE owns and operates the two energy centres along with a district heating infrastructure that provides heat and hot water for the development.

Gas-fired CHP plant

The two sites, Haggerston and Kingsland, are situated a short distance apart, separated by the Regent Canal. Therefore, the design incorporates an Energy Centre and district heating network in each part of the development which will operate independently.

PRP Architects designed the development and Taylor Wimpey is the main contractor on the project. Homes range from stylish modern two person flats up to five bedroom eight person houses.

The Energy Centres each contain a 200KWe gas fired CHP plant, as well as gas boilers for standby and peak loads.

Our 'operator perspective'

SSE carried out the design for the heat network which was then constructed by Taylor Wimpey and its contractors. SSE then adopted the network in phases following construction. By providing the design for the energy centre and heat network, SSE is able to bring the "operator perspective" to the heat scheme. This enables us to ensure proper plant size selection, optimise plant and network efficiency, develop robust maintenance and replacement schedules and devise "whole system" commissioning plans. Crucially this results in significant construction cost saving for the client and lower heat bills for our customers.

Our ESCo approach means that customers are protected from unexpected fluctuations in energy prices, system inefficiency and early plant failures – these are all SSE's risks to manage.

SSE's responsibility extends from the Energy Centres up to and including the individual hydraulic interface units (HIU's) and heat meters within each dwelling.



The on site combined heat and power engine (CHP) provides electricity to the chillers and a highly competitive electricity supply direct to the landlord on site. This is a highly efficient way of using electricity generated on site.

Working together

Throughout the design and construction phase, our experts worked with the client team to ensure the network was designed for optimal efficiency. We also developed safe and effective maintenance and replacement strategies and worked with the clients team to ensure these were embedded in the design for the site.

A complex system such as this, requires comprehensive testing and commissioning so SSE worked closely with Taylor Wimpey, supplying detailed commissioning specifications to be reflected in the client's supply chain obligations.

If individual plant and management systems are tested in isolation, problems may arise after commissioning, so the SSE specification ensures 'whole system' testing is carried out with full demonstration of all equipment working together on a fully automated basis.

During the construction, our highly experienced design, commissioning and project management team worked onsite with the Taylor Wimpey team to ensure the installation met the agreed design and commissioning specification. They were also able to assist with snagging to ensure any defects were corrected.

SSE takes an 'asset operator' perspective during the construction process and absorbs long-term project risk, so clients have confidence in the infrastructure they are investing in.

PUTTING CUSTOMERS FIRST

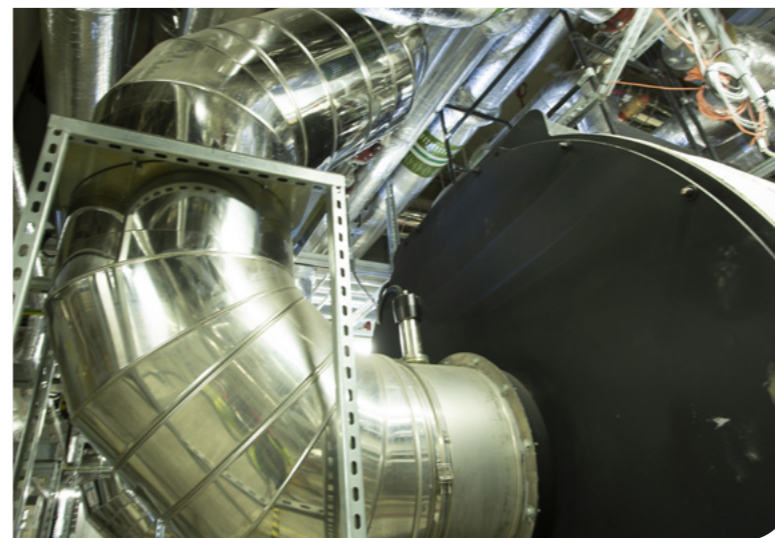
Our Customer Service team do everything they can to provide the customers at Haggerston and Kingsland with all the care and facilities they need for a comfortable time with us.

Community engagement

We provide a variety of ways for our customers to get into contact with us. Our dedicated call centre work 24/7/365 to answer any queries or issues and we have several social media channels set up with the added benefit of being able to convey information and updates when needed.

As often as possible, team members hold Community Engagement Roadshows, where members of the community can come out, sit down with us, discuss issues or request information and receive direct responses from our trained and experienced team.

Information is key and we do all we can to ensure customers have all the relevant information they need whenever they need it. All customers receive a welcome pack providing full details of our service, together with energy saving tips when they first move into the property. Our website also hosts downloadable and online content for customers to peruse through: sseandme.co.uk.



DEDICATED CALL CENTRE



Our Customer Service team works round the clock, and is there for tenants providing the confidence that issues will be tackled quickly and effectively.

READY FOR CHANGE

Developers in London must meet stringent carbon saving targets for new build sites. Typically, these targets are higher than in other parts of the country, so on many schemes, heat and cooling networks save more carbon than conventional gas boiler systems.

Heat network regulation

Any long term infrastructure development project like this must be ready to adapt to changes in the market and regulations. SSE is an ideal partner in this regard and we have played an active part in helping to develop the market frameworks around heat, liaising with both BEIS and the Scottish Government in plans for regulation of the sector and also contributed to the CIBSE Code of Practice for technical standards for heat networks.

In addition, we took a key role in the development of the consumer champion Heat Trust so we are ideally placed to advise, influence and act to ensure that networks can be adapted effectively so clients and customers can maximise the benefits afforded by new policy and regulation.

Experience and credibility

As an organisation we have key relationships with all major stakeholders in the sector and can ensure we influence using our deep experience and credibility in the industry.

As the UK moves to a net zero carbon future, the decarbonisation of heat is a significant challenge. We are working with our clients to develop energy strategies for new build sites and retrofit solutions for existing sites, which help ensure they are low carbon and ready for the UK's zero carbon future. This includes incorporation of waste heat, addition of heat pumps, use of storage to enable demand side management together with the incorporation of green gas and renewable electricity through "sleeved" supply arrangements.

Many heat networks also have the potential for expansion and with our engineering and commercial expertise, SSE is always looking at ways we can expand our heat and cooling networks to serve other sites in the area, bringing benefits of low carbon heat and cooling at affordable costs for our clients and connected customers.

SMART DISTRIBUTED ENERGY INFRASTRUCTURE SOLUTIONS

Designed to meet local energy needs and drive Net Zero.

SSE Energy Solutions is part of SSE plc, a UK based FTSE 100 company with 75 years' experience operating in the fast-changing energy industry.

SSE Energy Solutions plays a major part in the emerging consumer-led energy system, and provides key services to enable users to benefit from new ways to optimise and manage their low carbon energy use.

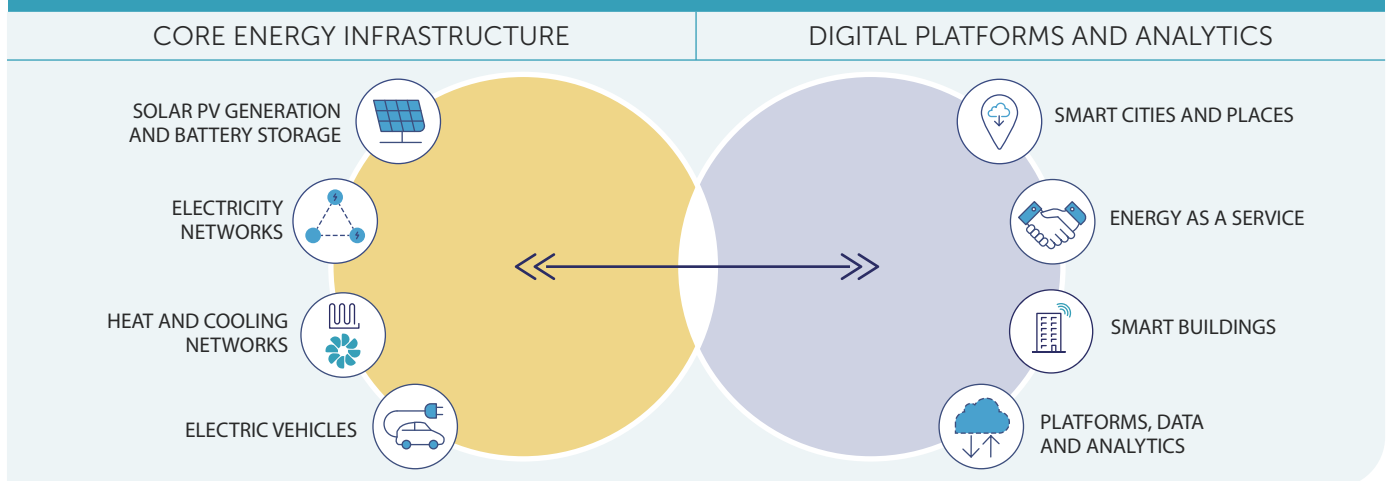
Our Distributed Energy business teams adopt a whole system approach by investing in, building and connecting your localised, flexible energy assets to accelerate your path to net zero and create a more resilient energy system for the long-term.

Right now, your decision to pick SSE Energy Solutions, part of an established renewable energy company investing in all our futures, will be the right choice for you and for our environment.

Our energy solutions include:

- Electric vehicle infrastructure for public transportation and vehicle fleets
- Local electricity infrastructure including building, owning and adopting private HV networks
- Heating and cooling networks for residential, commercial and industrial consumers
- Local energy generation, including funded offsite/ onsite solar PV
- Energy storage solutions, including battery storage
- Optimising building energy consumption and use
- In-house digital twin engineering team for modelling optimised energy flows
- Data platform services to support smart buildings, places and cities
- SSE Enhance, our aggregation and trading platform for small energy assets
- A growing suite of green energy supply solutions, including corporate power purchase agreements.

WHOLE SYSTEM THINKING – ACCELERATING THE JOURNEY TO NET ZERO



Get in touch with our team to find out how we can help you

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