

## CASE STUDY



# POWERING THE UK'S FIRST ECO TOWN

SSE Heat Networks Limited operates the Energy Centre and heat network for Elmsbrook, a pioneering zero carbon community in Bicester, Oxfordshire

Elmsbrook is the flagship first phase of the North West Bicester eco town development led by residential property group A2Dominion. The exemplar phase at Elmsbrook features 393 zero carbon homes, a primary school, local shop, eco pub and community centre. This revolutionary eco development is part of a wider ambition to create up to 6,000 new zero carbon properties for North West Bicester.

### A THRIVING COMMUNITY

- 400 zero carbon homes
- Primary school
- Local shop
- Eco pub
- Community centre

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[sseenergysolutions.co.uk](https://sseenergysolutions.co.uk)



For a better  
world of energy

SSE Heat Networks Limited will take responsibility for the long term maintenance of the Combined Heat and Power plant and provide full customer support.

## TRULY SUSTAINABLE COMMUNITY HEAT

### Greener living

At the heart of the low carbon design is the Energy Centre and district heating plant which provide heat and hot water to the community and its surrounding facilities. The Energy Centre accommodates a Combined Heat and Power (CHP) Unit which generates electricity whilst capturing heat produced as a by-product during the process. The heat is then transported as hot water to taps and radiators in each property removing the need for individual boilers and producing significantly less carbon emissions than conventional heating methods. This core technology supports Elmsbrook and helps it achieve its zero carbon status.

SSE Heat Networks Limited has operational ownership of the Energy Centre (including the heat network) and is responsible for its successful long term management including full customer service for residents.

### Trusted partner

SSE Heat Networks Limited has designed a robust solution for Elmsbrook which features the strong environmental performance whilst delivering lower household energy bills. The Energy Centre is deliberately sized to serve a significant portion of the planned North West Bicester development and reflects the best practice principles of the Chartered Institution of Building Services Engineers (CIBSE) and Association for Decentralised Energy (ADE) code of practice for district heating networks. SSE Heat Networks Limited provided developer A2Dominion with end to end development support; from creating initial concepts and navigating the planning process; to monitoring construction and commissioning and managing the operation and customer service requirements.

SSE plc has a strong track record in delivering low carbon housing solutions and developed its own zero carbon living research project, Greenwatt Way, in Chalvey, Slough. Greenwatt Way was a development of ten zero carbon homes where each home powers itself entirely from renewable energy. The project won the prestigious ADE Innovation Award in recognition of its ground-breaking approach.

## PUTTING THE CUSTOMER FIRST

Our goal was to ensure that residents were fully informed about the energy efficiency of the district heating scheme and the cost benefits it would bring.

SSE Heat Networks Limited worked closely with A2Dominion to develop and shape an energy partnership with customer welfare as the top priority. SSE Heat Networks Limited's project managers and customer service teams actively engaged with A2Dominion's sales team to ensure prospective residents had comprehensive and clear information about the district heating scheme. This included instructive sessions with guidelines for system users and advice for optimum energy efficiency.

As heat networks are not formally regulated, it was vital to ensure that customer rights were protected and their service needs met. SSE worked closely with A2Dominion to devise a tariff structure that was simple, transparent and reflected excellent value for money in comparison to traditional forms of heating. The scheme is also registered with the [Heat Trust](#), an independent consumer protection scheme which sets a common standard in the quality and level of customer service expected from heat energy suppliers. SSE Heat Networks Limited is a founding member of The Heat Trust and is committed to improving standards for heat customers across their developments.

*"Elmsbrook is setting the benchmark for zero carbon homes of the future by demonstrating how sustainable living can bring investment, employment and improved lifestyles for all without compromising on quality or comfort. The district heat network and Energy Centre are an integral feature of the vision for Elmsbrook and we are delighted to be working with SSE, a company which shares our core values of sustainability and customer service excellence."*

Gerry Walker || Regional Development Director at A2Dominion



## READY FOR CHANGE

### 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 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.

### HEAT TRUST



The Heat Trust is an independent, non-profit consumer champion for heat networks that holds suppliers to account for the benefit of everyone involved.

# 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.

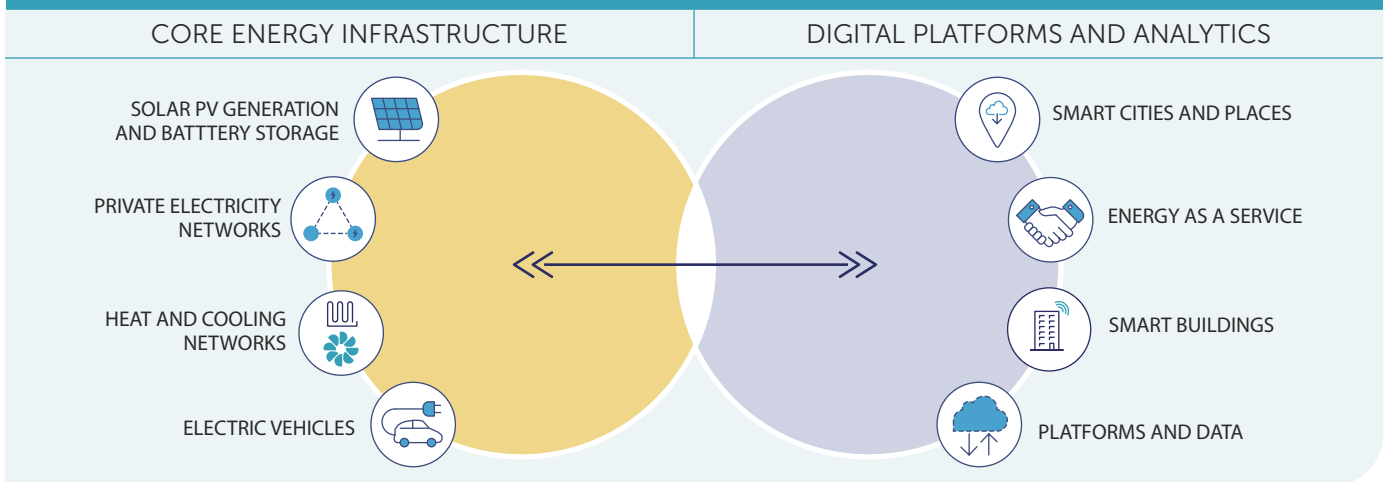
Our Distributed Energy business teams adopt a whole system approach by investing in, building and connecting your localised, flexible energy assets to accelerate your path to net zero and create a more resilient energy system for the long-term.

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
- 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



## FOR A BETTER WORLD OF ENERGY

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

[distributedenergy@sse.com](mailto:distributedenergy@sse.com) || 0345 070 2019 || [sseenergysolutions.co.uk](http://sseenergysolutions.co.uk)

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