Bedminster heat network

VATTENFALL

Who we are

One of Europe's most experienced heat networks players. We're working for fossil freedom in the UK by building and operating low carbon heat networks.

About Vattenfall

Vattenfall in Bristol

Vattenfall **fully owns and operates** the heat network in Bristol.

It is considered a key strategic city asset and will continue to be developed well **beyond the end of the 20-year Bristol City Leap concession.**

Over **the first five years**, Vattenfall will be investing £475 million to grow the Bristol heat network, providing enough heat to supply the equivalent of 12,000 homes.

BRISTOL city leap

A ground-breaking twenty-year partnership has been created to deliver over £1 billion of investment into Bristol's energy system.

Find out more by clicking here.

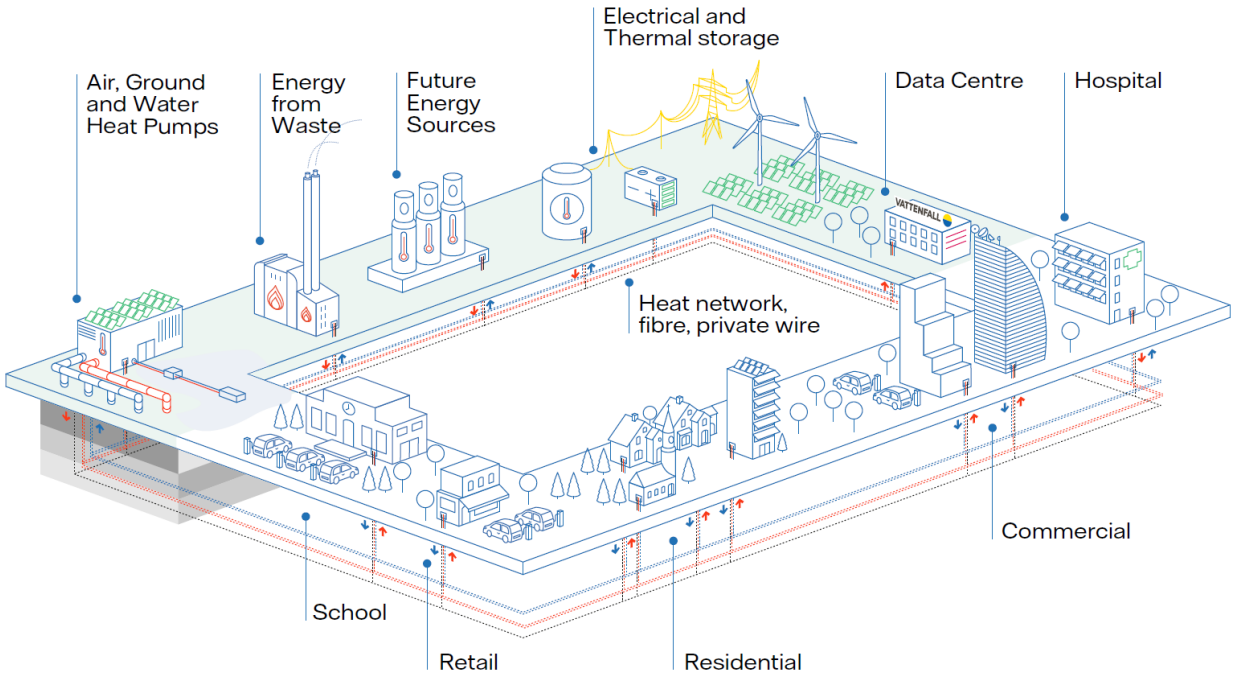
VATTENFALL

BRISTOL CITY COUNCIL

AMERESCO

Heat networks overview

Heat networks provide heating and hot water by linking centralised, low carbon heat sources via a network of underground pipes to groups of homes and businesses.



Heat networks

What are energy centres?

Energy centres generate heat using a range of technologies or by capturing waste heat.

They can be run using renewable electricity and incorporate thermal storage to further reduce carbon emissions.

Vattenfall operate the Castle Park Energy Centre, England's largest harbour-based water source heat pump.

It generates 3MW of energy, providing heat to 2,500 homes.

This award winning facility is the first of similar facilities across the city.

What are heat substations?

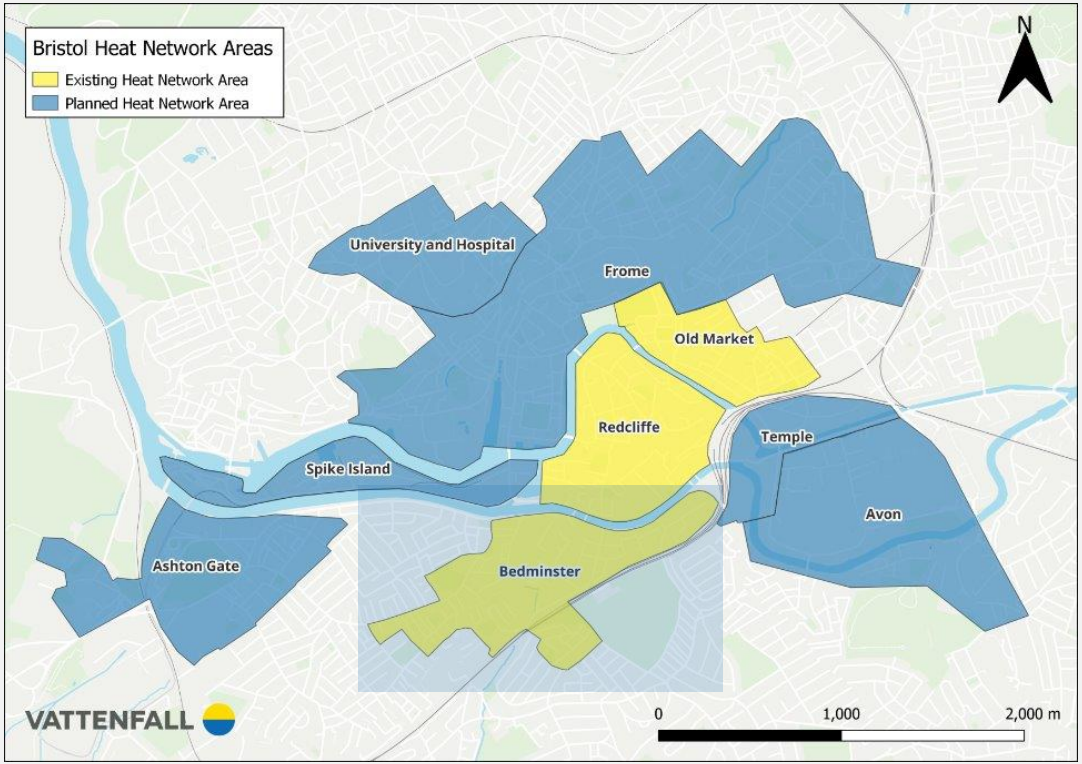
Heat substations are the interface between the heat network and buildings.

They vary in size considerably from a full plant room with platform support for larger buildings, to smaller ones which are similar in size to a traditional domestic gas combi boiler.

A heat substation replaces the need for individual gas boilers and enables a building or group of buildings to connect to a heat network.

These photos are examples of heat substations we have fitted in Hannah Moore Primary School and the Central Health Clinic.

Development to date



Timeline

Operating networks (2024)

- Old Market
- Redcliffe
- Bedminster
- Temple
- Frome
- University and Hospital

Planned networks (2030)

- Spike Island
- Ashton Gate
- Avon

Benefits

The UK Climate Change Committee has stated that heat networks are essential for the UK to reach its Net Zero targets. Heat networks have other benefits both to the customers they serve and to the communities where they are built.

Community

At Vattenfall, we aim to deliver local social value as we build.

Some key initiatives we're delivering in partnership with Bristol City Leap:

- **Using local supply chain** – so far, we've spent £3.3m in BS1-BS16 postcodes
- Creating over **1,000 new jobs**
- Offering a range of funding initiatives within the first five years – like our **£1.5 million Community Energy Fund**

Customers

As well as decarbonising heating, heat networks have multiple benefits to customers, including:

- **All-inclusive service** – We provide a comprehensive heating and hot water service at a fair price. All maintenance, servicing, and where necessary, replacement is included.
- **Dedicated monitoring and support** – Because we're responsible for the whole network, our engineers monitor the network to make sure we keep the heat network running at its best.
- And many more benefits. Find out more on our website here.

Heat networks

Our commitments

As part of Bristol City Leap, Vattenfall has made contractual commitments to:

a) not install any **new permanent gas / fossil fuel assets** in Bristol following Vattenfall's purchase of Bristol Heat Networks Ltd in January 2023.

b) decommission all currently existing gas plant by 2030**.**

Vattenfall is also committed to operating fairly for customers, including:

- Guaranteed standards of customer service and protection
- Registering with Heat Trust , the consumer protection scheme where we are delivering heat to individual properties.
- Fair and transparent pricing, benchmarked against a comparison to the costs of an individual air-source heat pump.

Heat networks

Community Energy Fund

A £1.5million Community Energy Fund has been created as part of Bristol City Leap.

We can support community groups on their heat related fund applications including:

- Develop models for communities to finance connections
- Facilitate a route to market for community owned heat generation assets
- Provide a clear and standardised process for communities to engage with the heat network

Find out more:

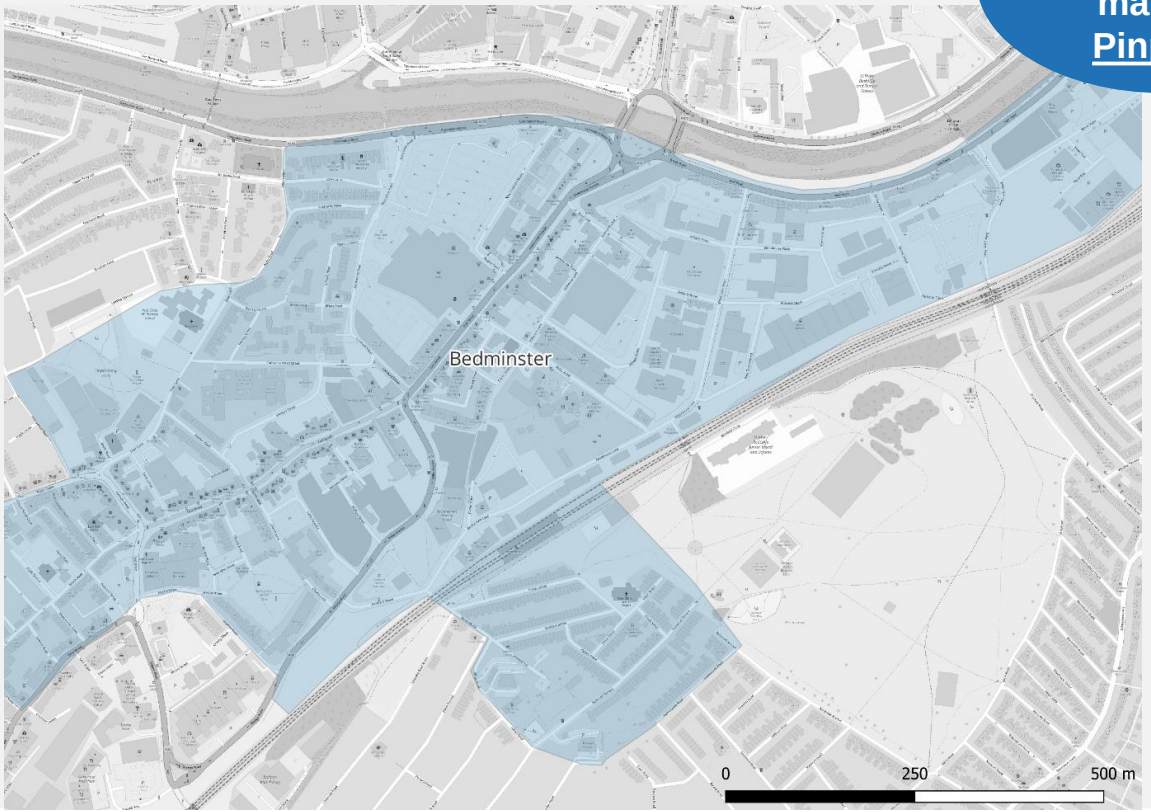
- Access a digital copy of our community heat guide here
- Email our business development team if you have a project in mind at bristolbusdev@vattenfall.com

About the Bedminster heat network

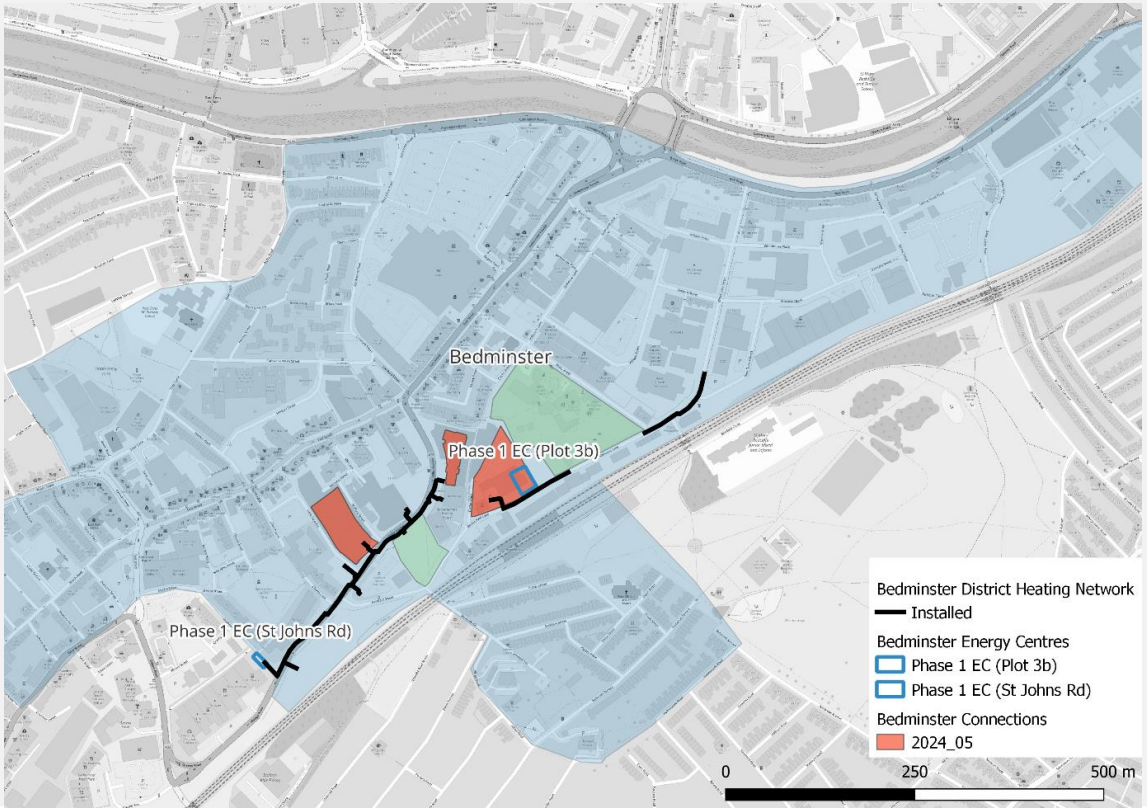
Bedminster heat network

Area view

View the heat network map via Pinpoint

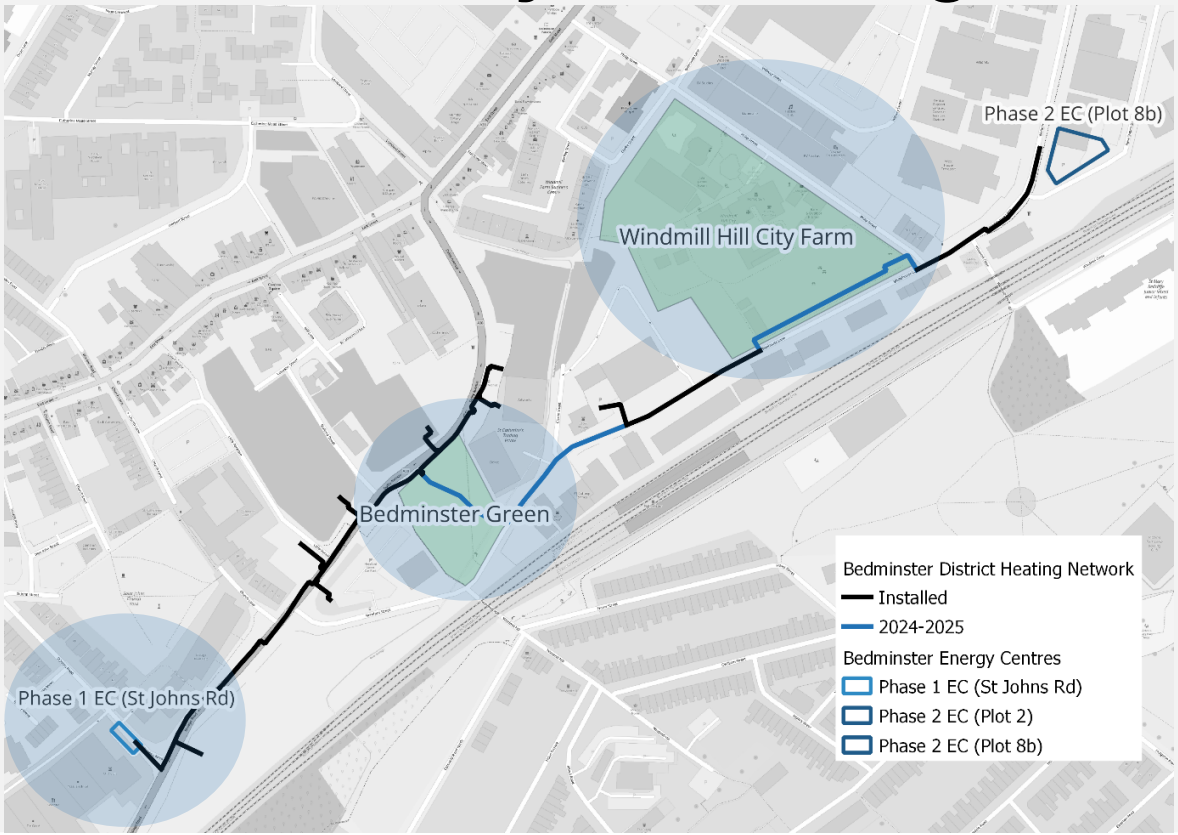


Where is the heat network currently in Bedminster?



Bedminster heat network

Which new areas are you working in this year?



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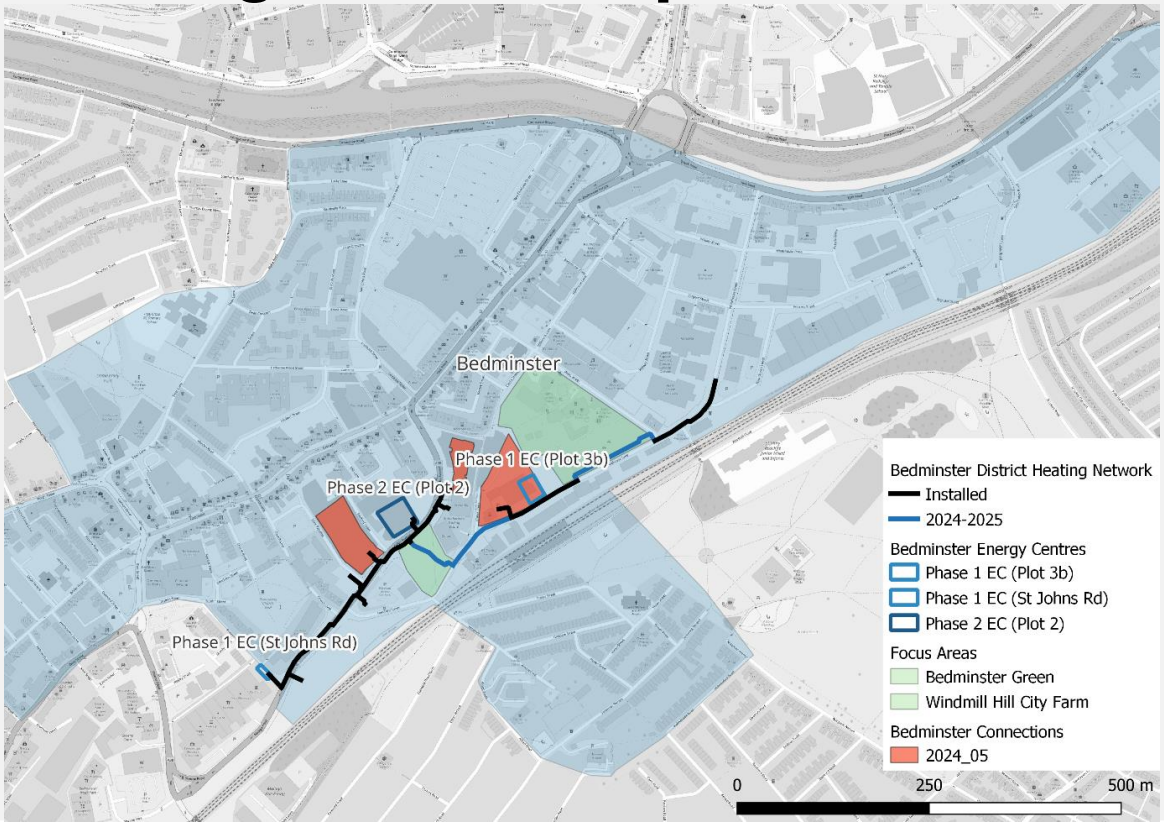
What upcoming works are planned in 2024/2025?



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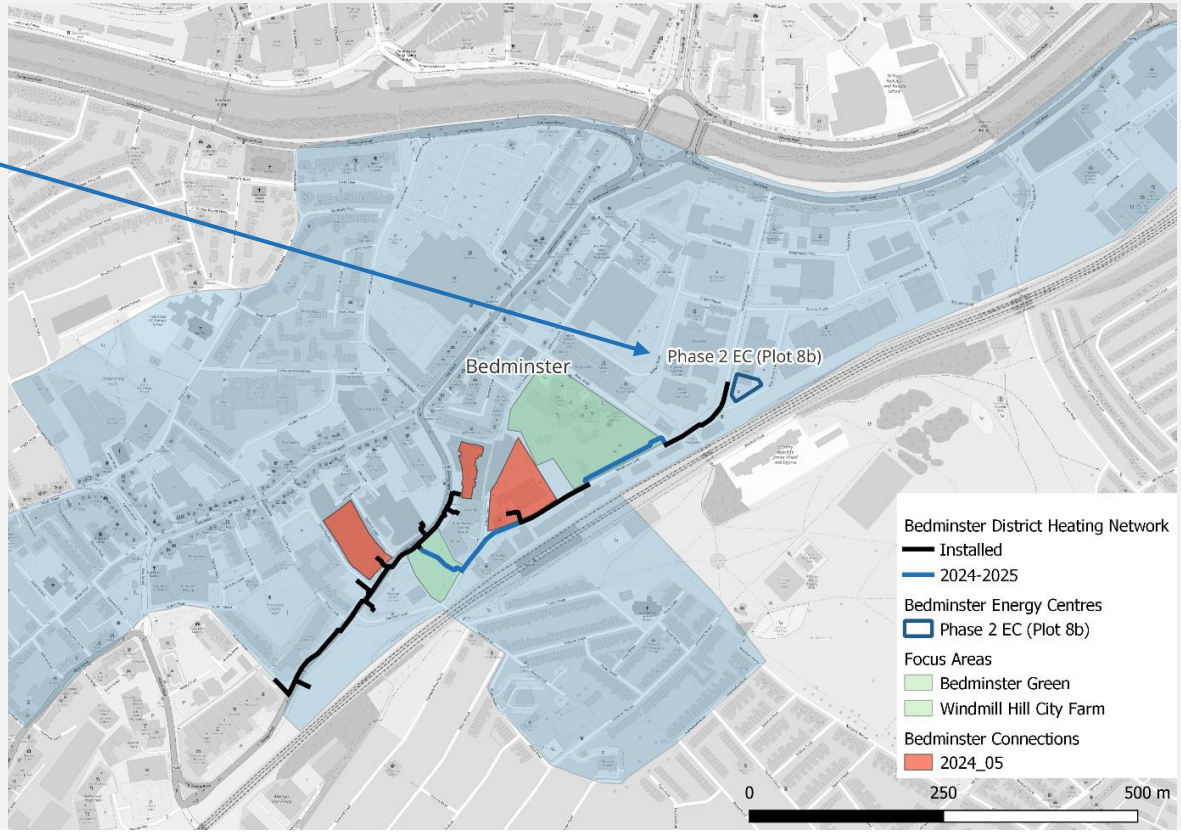
Where will the interim (phase 2) energy centre be?

Phase 2
energy centre



Project updates

Bedminster heat network

St John’s Road

What are we doing?

We have installed a temporary energy centre situated on St John’s Road, off Malago Road, to provide heat to new residential developments in Bedminster that are connecting to the heat network.

Due to a delayed mains power connection, a generator was in place at the site, which is now turned off. Additional noise and air quality assessments have been conducted.

Site assessments

- Multiple locations reviewed but due to ongoing development works these were not feasible
- Only suitable location to connect to our existing pipe network, minimise road closures and avoid utilising green spaces

Benefits

- Enable the first buildings to connect to the heat network
- First step in decarbonisation roadmap for Bedminster heat network area

Next steps

- Installation of acoustic noise barriers
- Bring forward Phase 2 energy centre solution as soon as possible, which would mean we can remove St John’s Road energy centre.

Bedminster heat network

Bedminster Green

What works are planned?
We will need to create a tunnel underneath the surface and install buried pipe network to join the existing networks along Whitehouse Lane and Dalby Avenue. Once completed, the Green will be maintained as normal.

Route assessment
- The Green crossing has least interference with future road improvements and road closures
- No need to divert existing utility pipes
- Alternative routes included Providence Place and Hereford Street which had significant utility congestion, increased tree removal and additional highway disruption

Benefits
- Enables operation of only one energy centre
- Planting 20 new trees offsite as part of our Biodiversity Net Gain commitment (*removal of 3 trees will be required along proposed route)*

Next Steps
- Groundwork to test soil conditions (aimed to be done by Aug 2024)
- Create tunnel and construct pipe route
- Completion projected in Summer 2025

Bedminster heat network

Windmill Hill City Farm

What works are planned?
We need to install buried pipe network to join existing networks along Whitehouse Lane to provide a continuous route through Bedminster and to enable the operation of one energy centre. This will be situated on the corner of Whitehouse Street and New Queen Street.

Route assessment
- Through the farm has least interference with future road improvements and road closures
- Alternative routes included along Whitehouse Lane and via Philips Street/Percy Street, which would have required full road closures and diversion of services

Benefits
- Significant enhancements to farm and opportunity for heat connection
- Resurfacing of vehicle path and improved entry gates
- Enhanced walkways providing improved accessibility
- Replacement of perimeter fencing

Next steps
- Construct pipe route during farming offseason

Contact us

Project enquiries – bristol.enquiries@vattenfall.com

Community Energy Fund enquiries - bristolbusdev@vattenfall.com

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