

Bedminster heat network

The [Bristol City Leap](#) partnership between Bristol City Council, Ameresco and Vattenfall will accelerate investment in Bristol to help meet the city's ambition to be carbon neutral by 2030.

Vattenfall is responsible for expanding the city's existing heat network and developing new network areas with the goal to interconnect them to serve the city with reliable, low carbon heat.

About Vattenfall

[Vattenfall](#) own and operate the Bristol heat network. Three network areas are already in operation in Redcliffe, Old Market and Bedminster.

Vattenfall bring investment and unrivalled know-how to design and deliver a large-scale, resilient heat network that achieves low carbon heat, creates jobs and boosts the local economy in Bristol.

Vattenfall is currently supplying heat and hot water to Bristol customers, with over 5,000 homes and around 180m² of commercial space being serviced. Vattenfall is expanding heat networks in Temple and Bedminster to support new residential and commercial developments.

Frequently Asked Questions (FAQs) related to the Bedminster heat network are below. If you have a question that isn't answered here, please send them to bristol.enquiries@vattenfall.com

About heat networks

A heat network (also known as district heating) is a system of insulated pipes that transports heat from centralised sources to multiple buildings, where it is used to provide heating and hot water to residents and businesses in each building.

For a heat network to maximise its potential, it provides heating and hot water (and in some cases cooling) to all the properties connected to it. This means that there is one heat network operator for the development and so you can't switch to a different supplier for heat.

Heat networks provide a more efficient way of heating by using a larger central heating source instead of lots of small individual heating systems. Customers connected to a heat network benefit from an all-inclusive service as repairs and maintenance are all included.

Vattenfall were selected to supply the heat for the entire Bristol heat network, so customers won't be able to switch supplier once connected to the network. But heat network customers have full control of their energy consumption, in the same way as traditional heating systems.

In Bristol, Vattenfall currently provide this service to the building boundary. This means a building owner is the customer. The building owner takes the heating and hot water we provide to them to supply the occupants of the building which can be resident or businesses.

As part of the Bristol City Leap concession agreement, we have committed to fair and transparent pricing, benchmarked against a comparison to the costs of an individual air-source heat pump, with tariffs made publicly available. The heat network will also be regulated by the energy regulator Ofgem within a year.

More information can be found on our website: [What is a heat network? - Vattenfall Heat UK](#).

1. Bedminster heat network

What is the delivery plan for Bedminster?

To meet the demands of the Bedminster heat network as it develops, low carbon heat will be generated using temporary and interim heat sources, ahead of us developing a permanent energy centre in the future.

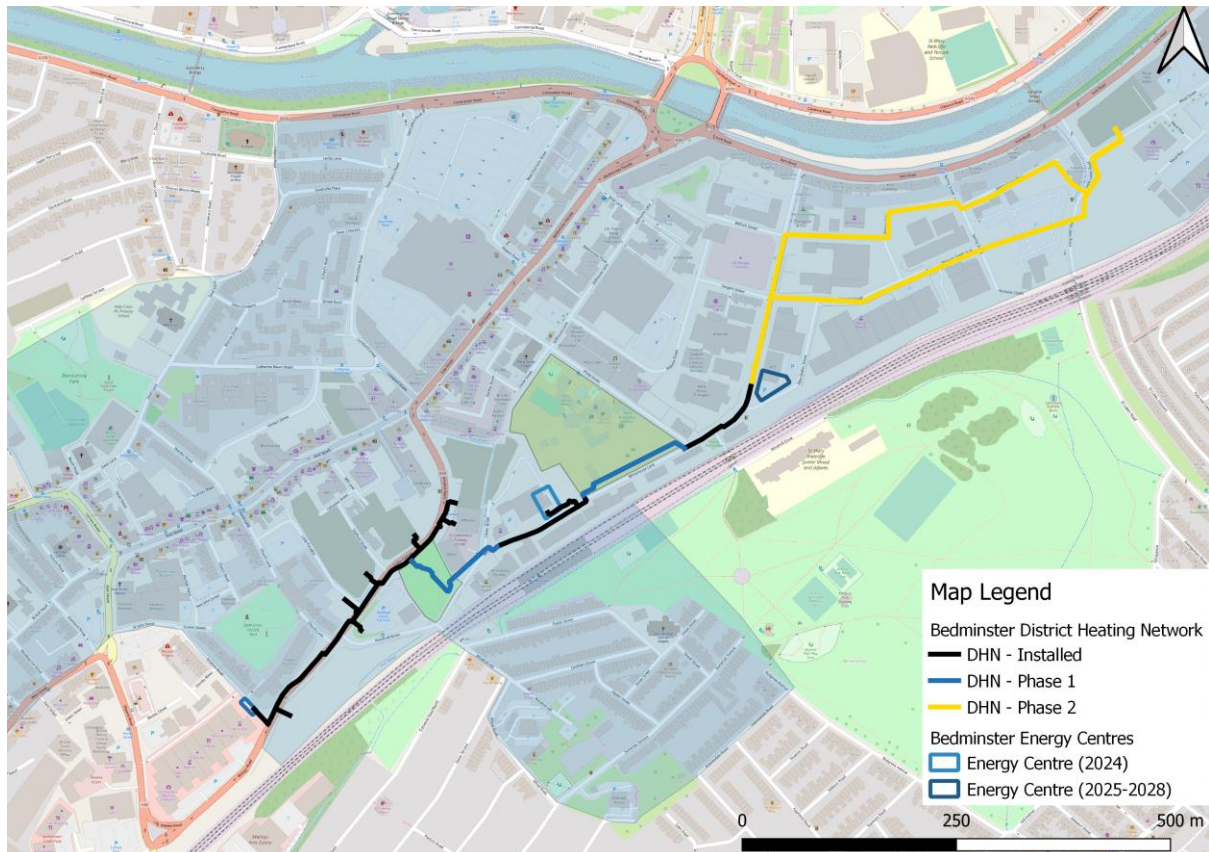
We have a three-phased approach:

- Phase 1 - temporary energy centre located on the highway of St John's Road in 2024.
- Phase 2 – interim energy centre located on Whitehouse Lane from 2024/2025.
- Phase 3 - permanent low carbon energy centre located near Whitehouse Street from 2030.
Phases 2 and 3 are subject to planning permission.

What is the proposed route for the Bedminster heat network?

The map below provides a view of the buried pipework delivered to date (shown in black), alongside planned construction works as part of Phase 1 (shown in blue).

Our longer term plans to extend the Bedminster heat network are referred to as Phase 2 (shown in yellow). The team are continuously evaluating the route, which will develop in accordance with feasibility studies and demand from new buildings that are required to connect.



If you're involved in developing a new building or refurbishing an existing one, the team are happy to discuss your low carbon heat solutions - even if we're not building the network there yet, it's critical we know sooner rather than later so we can support you. Email bristolbusdev@vattenfall.com.

What are the proposed timelines for construction of the Bedminster heat network?

To complete Phase 1 of the Bedminster heat network, we will be installing two separate sections of underground pipework: crossing Bedminster Green and through Windmill Hill City Farm. We are aiming to complete Bedminster Green construction works by summer 2025 and Windmill Hill City Farm construction works during winter 2024/2025. This will ensure minimal disruption to the farm's growing season.

How long will we (residents/businesses) be disrupted for and what will the level of disruption be?

We have made every effort to pick the least disruptive routes for our upcoming plans. The Bedminster Green crossing will cause visual disruption from approximately August 2024 to Summer 2025 – this includes the groundwork investigations, tunnelling construction works and pipe installation of the buried network.

Windmill Hill City Farm works will be visible along Whitehouse Lane between November 2024 to February 2025 – we expect this to generate some highways congestion, but there will be no full road closures.

2. St John's Road temporary energy centre

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.

Why was the temporary energy centre located on St John's Road?

We went through an extensive exercise with stakeholders and Bristol City Council to assess multiple sites and St John's Road was identified as the right solution when taking account of ongoing development works, proximity to existing pipe network, minimising road closures and avoiding the utilisation of green spaces.

Did the temporary energy centre go through planning approval?

As the energy centre is temporary, planning permission is not required. We required a licence from the Council's highways authority, which we obtained.

How long will the temporary energy centre on St John's Road be in place?

We are working to bring forward the Phase 2 energy centre solution as soon as possible which will be located at a different site and mean the Phase 1 energy centre on St John's Road can be removed. We will confirm dates as soon as possible. Once the energy centre is removed, St John's Road will be returned to its original condition.

What fuel source is the temporary energy centre using?

We are using a bio-mass fuel called HVO, which is Hydrotreated Vegetable Oil.

How are you mitigating the noise?

Noise impact assessment have been conducted to ensure operations are in line with industry standards. Noise curtains have been installed to reduce noise for nearby residents. Permanent acoustic barriers will be installed to further reduce noise. Other equipment located closer to residents (fuel tank and plant room) do not generate noise. The boiler is in constant use, but may work harder at times of higher demand, however the noise assessment accounts for the maximum noise.

Are you considering air pollution?

We have conducted air impact assessment and the energy centre is operating in line with industry standards. Pollution filters are in place and we will continue to monitor this.

Will there be more road works?

No further highways works are required for St John's Road. New road works on the A38 Southbound are not related to the heat network.

How often will the temporary energy centre be refuelled?

This will be dependent on demand but on average we expect 1-2 times a week during summer, and 3-4 times a week in colder months. Refuelling access will be from Malago Road and will take about 40 minutes, avoiding rush hour.

What are your working hours?

In line with the council's permit guidelines, our contractors operate between 07:30-23:00 Monday to Saturday, and 09:30-23:00 on Sunday.

Is the energy centre secure?

We have the energy centre securely locked and have a security system in place.

If you have any questions regarding activity on St John's Road, please email bristol.enquiries@vattenfall.com.

3. Bedminster Green crossing

We will need to create a tunnel underneath the surface of the green 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.

When is this work happening?

Our immediate next steps are to complete ground investigations to test soil conditions in August 2024. We are aiming to complete construction by June 2025.

How was the route through the Green chosen?

An extensive route assessment was conducted. This considered the existing buried utility pipework that cannot be moved, ongoing highways work, and future regeneration plans. It also considered alternative routes in Providence Place and Hereford Street, but these locations have significant utility congestion, required increased tree removal and would cause additional highway disruption. The Bedminster Green crossing provides the least disruptive route against all other alternatives.

How many trees are being removed on Bedminster Green?

Three trees will be removed as part of this work. In line with the adopted Tree Replacement Strategy, we will provide 20 new trees offsite.

Why is removing trees unavoidable?

We consulted an arborist on this matter, and the results found that there is no route through the Green, with the technical constraints we have, that could avoid all tree roots. The route proposed has the least disruption to trees compared to other alternative routes.

Where will be the new trees be planted?

The Council's arboriculturists have determined the locations for each of the 20 replacement trees offsite in line with the Tree Replacement Strategy.

Why can't you replant the existing trees with specialist support?

We have instructed an arborist (tree specialist) to review the root maturity and likelihood of a successful replacement. This review concluded that due to the size of the trees and root length, the trees would not survive being moved and create a significant risk to others through falling. We also considered that the size of machinery required to remove these trees and it was determined that this would impact the ground biodiversity and would require additional trees to be removed to allow access. Therefore, the net effect would be greater impact than that proposed.

Will the Green be impacted for maintenance?

No, once installed, maintenance is limited to specific access points similar to other utilities.

4. Windmill Hill City Farm works

We need to install the buried pipe network to join sections along Whitehouse Lane to provide a continuous network through Bedminster and to enable the operation of one energy centre (to be situated on the corner of Whitehouse Street and New Queen Street).

If you're building through the farm, will trees be protected?

Yes the trees will be protected and we will not be removing any trees from the farm. The route through the farm was carefully selected to avoid the roots of the trees.

Will you be doing any upgrades?

We have a large enhancement package for the farm which will include resurfacing the vehicle path, new entrance gates, enhanced walkways, improved accessibility and replacement of perimeter fencing. We will fund a feasibility study via the Community Energy Fund to ensure infrastructure is in place for the farm to connect to the network at the most suitable time.

5. Community benefits

Are there plans and timelines to connect existing houses onto the network?

Connecting existing homes is something the UK as a whole is still working on and our immediate focus is connecting new build properties to the heat network. This allows us to put infrastructure in the ground and fit appropriate substations within the buildings. We are exploring pilot projects for connecting existing homes locally to demonstrate technical and economic viability. If you're interested in being involved in a pilot project, please email bristolbusdev@vattenfall.com.

How can residents benefit?

The heat network in Bristol is a critical component for Bristol's decarbonisation plan and will provide low carbon heat and hot water to the equivalent of 12,000 local homes within five years.

We are committed to using the local supply chain through our works and are estimated to deliver £55m worth of contractors locally. The Bristol City Leap partnership will create 1,000 new full time jobs.

With our partners Ameresco, we have co-created the £1.5m Bristol City Leap [Community Energy Fund](#) and we would encourage people to get involved and explore ideas for heat connection or heat generation projects.

The Bristol City Leap partnership also offer a range of wider home improvement measures and you can find more information on this via their website [here](#).