

Exeter Energy Network

Energy Centre site – land off Clapperbrook Lane

A new heating system for Exeter

Heating the UK's properties and industry accounts for 37% of the UK's carbon emissions. Most of this heat comes from fossil fuels, so developing more sustainable heating systems in our cities is a priority to meeting the UK's legally binding 2050 net-zero target.

The Exeter Energy Network is a heat network supplying low carbon heat to buildings in central Exeter, allowing them to make significant strides in helping Exeter do its part in meeting this common goal. The Grace Road Energy Centre is planned to generate this low carbon heat from a variety of sources including heat pumps and utilising waste heat from a data centre and the adjacent Energy Recovery Facility.

By connecting to a centralised energy centre:

- Buildings can remove the need for individual gas boilers
- Exeter will enjoy cleaner air with less reliance on imported fossil fuels
- We can help Exeter meet its commitment of becoming net zero by 2030

It is a more efficient, and eco-friendly way of heating buildings and it is already used successfully in many countries around the world, as well as across the UK.

Where is the proposed energy centre site for the Exeter Energy Network?

We are planning to build the energy centre on land between Marsh Barton railway station and the Exeter Ship Canal. Part of this site was used as a laydown area when the railway station was being constructed.

Why have you chosen this site?

An assessment of 14 potential energy centre sites across the city was carried out with the proposed location found to be the most suitable for several reasons. The most important of these is the proximity of the site to a number of potential sources of low-carbon energy: an energy from waste facility which currently produces significant amounts of waste heat; a council-owned solar farm; and the River Exe – latent heat from the river could be used as a source of renewable energy for the project. Connecting to at least one of these sources of low carbon energy will reduce the emissions associated with the Exeter Energy Network, whilst at the same time reducing the cost of heat for our customers.

Other reasons for choosing the site include:

- The proposed site is adjacent to the Marsh Barton Trading Estate, so the Energy Centre will sit alongside the existing light-industrial context.
- it is land that has been designated for strategic mixed-use allocation by Exeter City Council in the emerging Local Plan.
- the site allows a practical route to connect the Energy Centre to the city via a network of underground hot water pipes; and,
- it is close to proposed housing developments west of the River Exe which will all require low-carbon heating systems to meet building regulations.

How will the energy centre affect the Riverside Valley Park?

Views into the site from the Riverside Valley Park will be obscured by the line of mature trees which stand along the canal towpath, and there will be further tree planting as part of the development. Our planning application will include views of the Energy Centre from multiple vantage points, and we will work closely with key stakeholders to ensure the development is sensitive to the local environment and heritage, with screening and landscaping as appropriate.

The project is committed to increasing biodiversity around the site by 20%, which is twice the statutory requirement for developments of this sort. We will be working with partners such as Exeter City Council and Devon Wildlife Trust, which manages Exeter's valley parks, to achieve this.

The project will also help improve air quality right across Exeter by enabling organisations with large buildings to decommission their gas boilers and replacing them with low carbon heat from our network of pipes. We estimate the heat network will save 13,000 tonnes of carbon emissions a year, helping Exeter build on its reputation as a city which is playing a leading role in tackling the climate emergency.

We will ensure the public continue to have access to the area of the park managed by the Devon Wildlife Trust during the construction of the energy centre. In addition, the energy centre will include an education space so people can come along to learn about the project and the importance of reducing our carbon emissions.

Is this site in a flood zone?

The Energy Centre site is within a category 3 flood zone. As such special measures need to be taken to ensure that the Energy Centre would not increase flood risk elsewhere during a flood event. We have designed a scheme that will meet the Environment Agency's requirement for this.

The site will also need to be able to continue to operate in a flood event. All critical elements of the Energy Centre will be raised above flood levels, and the Energy Centre will be able to continue to operate unstaffed to provide heat to customers across Exeter.