



# Newcastle Helix

**EQUANS was awarded a 40-year contract by the regenerate Newcastle partnership to develop an energy centre at the Helix and to develop the network and connections to sites in Newcastle.**

## **Key facts and figures:**

- *The JV Partnership is responsible for the design, construction, O&M, supply and billing and customer service.*
- *732m<sup>2</sup> purpose-built energy centre connected to multiple buildings at the HELIX site.*
- *A unique, 24-acre collaborative ecosystem and innovation hub with residential, business, and public buildings.*
- *Currently being extended from the original 5.2km of pipework at the HELIX*

In 2018, a JV partnering agreement was entered into by Newcastle City Council and EQUANS which established a structure for joint investment and development in energy related projects in the area.

The HELIX district energy scheme was developed to supply low cost, low carbon heating and chilled water (CHW) to buildings across Newcastle and surrounding areas, improving the living standards of the residents and businesses of Newcastle.

The partnership can be used by multiple bodies within the Newcastle upon Tyne boundary, including NHS, educational centres, housing providers and developers and emergency services buildings. There are future plans to extend and densify the district energy system across Newcastle, the partnership can also supply fabric improvements and energy efficiency services to reduce the heat demand required throughout Newcastle and bring huge benefits to the area. As part of the form of agreement with the ODA, new developments on-park are obligated to connect to the district energy system.

The current Heat Network:

- a tri-generation, CHP led scheme
- 110m<sup>3</sup> of thermal storage
- Provides 10MW of heating
- 5MW of cooling
- 8MVA of power to the connected buildings on the site

At the time of completion, the scheme was projected to save 30.650 thousand tonnes of carbon over its lifetime.

## **Decarbonisation**

The partnership has written a decarbonisation plan and are looking to both optimise the current system and to introduce low carbon technology as the route is extended and densified. Heat mapping has already been completed and heat extraction from water and geothermal sources are being explored. Feasibility studies are being commissioned on both and techno-economic modelling is planned to identify the optimal roadmap to net zero emissions from the QEOP energy network

## **Ongoing Development**

EQUANS have a dedicated resource working within the Partnership to extend and densify the network further; and are actively engaged with other stakeholders in the Partnership, developers, and consultants of both residential and commercial buildings. Newcastle is undergoing significant, large scale redevelopment.

