

## Highlights

Treated wastewater is abstracted into a new energy centre at a water treatment plant where low temperature heat is extracted and channeled through 3.7km of underground pipes.

The state-of-the-art measures adopted in the design in relation to embedding low carbon principles resulted in an upfront emission reduction of more than 35%.

The ambient loop system provides a carbon reduction of over 95% over the 40-year lifecycle of the project.

The District Heating Network is an important part of the package attracting investment and jobs into Scotland's home of manufacturing innovation AMIDS.



# Renfrewshire Council: AMIDS District Heating Network

Renfrewshire Council is a local authority leading a partnership delivering an innovative low-carbon energy network to provide a cost-effective route to sustainable energy. The first of its kind in Scotland, the fifth-generation renewable energy network extracts heat from treated wastewater to provide heating and hot water to facilities at the Advanced Manufacturing Innovation District Scotland (AMIDS) - where sustainable solutions and green technology are being developed.

Renfrewshire Council declared a climate emergency in 2019, which included pledging to make Renfrewshire net-zero by 2030.

### Category description: Partnership Scotland

The Partnership Scotland Award recognises organisations with the strategic vision to acknowledge that working in partnership can enhance their overall contribution to sustainable development.

Building on this pledge the network not only supplies sustainable energy to facilities at AMIDS, but demonstrates its wider potential and sets the standard of using low carbon energy. Delivering this innovative energy solution at district level helps alleviate the challenges and costs for occupiers supporting their journey towards net-zero and reducing the risk of disjointed approaches to energy generation.

Renfrewshire Council partnered with Buro Happold the designers, and FES the construction company to deliver this project. To identify a deliverable solution for sustainable energy, a series of studies were undertaken to develop the concept from feasibility through to detailed design and delivery.

The project aims to contribute to a Just Transition, such as providing opportunities to learn new skills, for example the use of HDPE pipework in the design means local workforce employability. They are disseminating the concept by engaging with other local authorities and developing online STEM sessions which will allow other public bodies to look at providing this technology.

The ambient loop energy efficient system provides businesses with an incentive to base themselves in AMIDS – other big names are now interested which will bring high value employment to the area – and allows businesses to reduce their own footprint. The aesthetics of the whole area are improved for the current residents, and the active travel corridors opened up will benefit everyone.

The judges were impressed by Renfrewshire Council's project and its potential for replicability around the country.



Quote from the company:

*“We’re really proud to be recognised at this year’s VIBES Scottish Environment Business Awards for the exciting work to develop the first renewable energy heating network of its kind in Scotland.”*

*“The District Heating Network at AMIDS is supplying heating and hot water which is 90% greener than a traditional gas boiler to the businesses and research centres at Scotland’s home of manufacturing innovation.*

*“Delivering the cost-effective system has been a real team approach right from the outset. It supports our net zero ambitions and demonstrates the fantastic potential of this cutting-edge low carbon technology.”*

Barbara Walker, City Deal and Infrastructure Programme Director at Renfrewshire Council.