

NET
ZEROSUSTAINABLE
PLACESINCLUSIVE
GROWTH

SFT Outcomes 2021/22

Demonstrating progress with impact

PRIMARY OUTCOME

10

**INFRASTRUCTURE-RELATED
CARBON DIOXIDE EMISSIONS
ARE REDUCED**

SECONDARY OUTCOMES

02



Net Zero expertise supports development of UK's largest water source heat pump

Queens Quay is the site of the historic John Brown shipyard in Clydebank, Glasgow.

The 23-hectare site has been derelict for a number of years, but is now undergoing extensive redevelopment as a residential led, mixed use waterfront development. The site masterplan includes 1,200 houses, alongside retail, commercial and leisure use, and a new health centre and care home.

Development of the site began in 2017, and was followed by enabling and infrastructure works. One of the aspirations for the site was to use the significant renewable energy available in the River Clyde, which runs alongside its southern boundary to provide a low carbon heat supply to the development and wider area.

West Dunbartonshire Council (WDC) acted as project sponsor, secured funding from Scottish Government's Low Carbon Infrastructure Transition Programme (LCITP) and procured a delivery partner (Vital Energi) to design, build, operate and maintain the heat network.

The network was commissioned in December 2020, and is now operational, providing a resilient and cost-competitive heat supply to a range of public buildings, including WDC offices, a business centre, a leisure centre, and a care home. The energy centre and network have been designed with significant capacity for future expansion that will allow the network to serve the on-site homes and commercial facilities as they are built over the next 10 years.

It also has capacity to supply heat to a number of buildings outwith the site, including a college, hospital and social housing in Clydebank.

At the early stages of the project SFT's Net Zero Buildings Team helped identify and gain the buy-in of key local stakeholders. SFT was also a core partner in Scottish Government's LCITP programme, which provided capital funding to support the first phase of the project.

The Team is now supporting the development of a business case for the next phase of the project, to enable the heat network to extend and provide a cost-competitive, secure and low carbon heat supply to a range of public buildings close to the Queens Quay site, including a number of high-rise residential blocks owned by WDC.



10

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NET
ZERO



SUSTAINABLE
PLACES



INCLUSIVE
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The multi-award-winning Queens Quay heat network is the largest water source heat pump scheme in the UK. It saves carbon and improves air quality compared with traditional fossil-fuelled heating systems. When fully built out, it is estimated that the heat network will save approximately 1,900 tonnes of carbon per year, rising to approximately 5,700 tonnes per year by 2040 as the electricity grid (which powers the water source heat pumps) further decarbonises.

Partners

- Scottish Government – the project received capital support from the Low Carbon Infrastructure Transition Programme.
- Vital Energi – design & build contractor, and operations & maintenance contractor.
- Star Renewables – manufacture and supply of water source heat pumps, the primary heat generation technology for the heat network.

