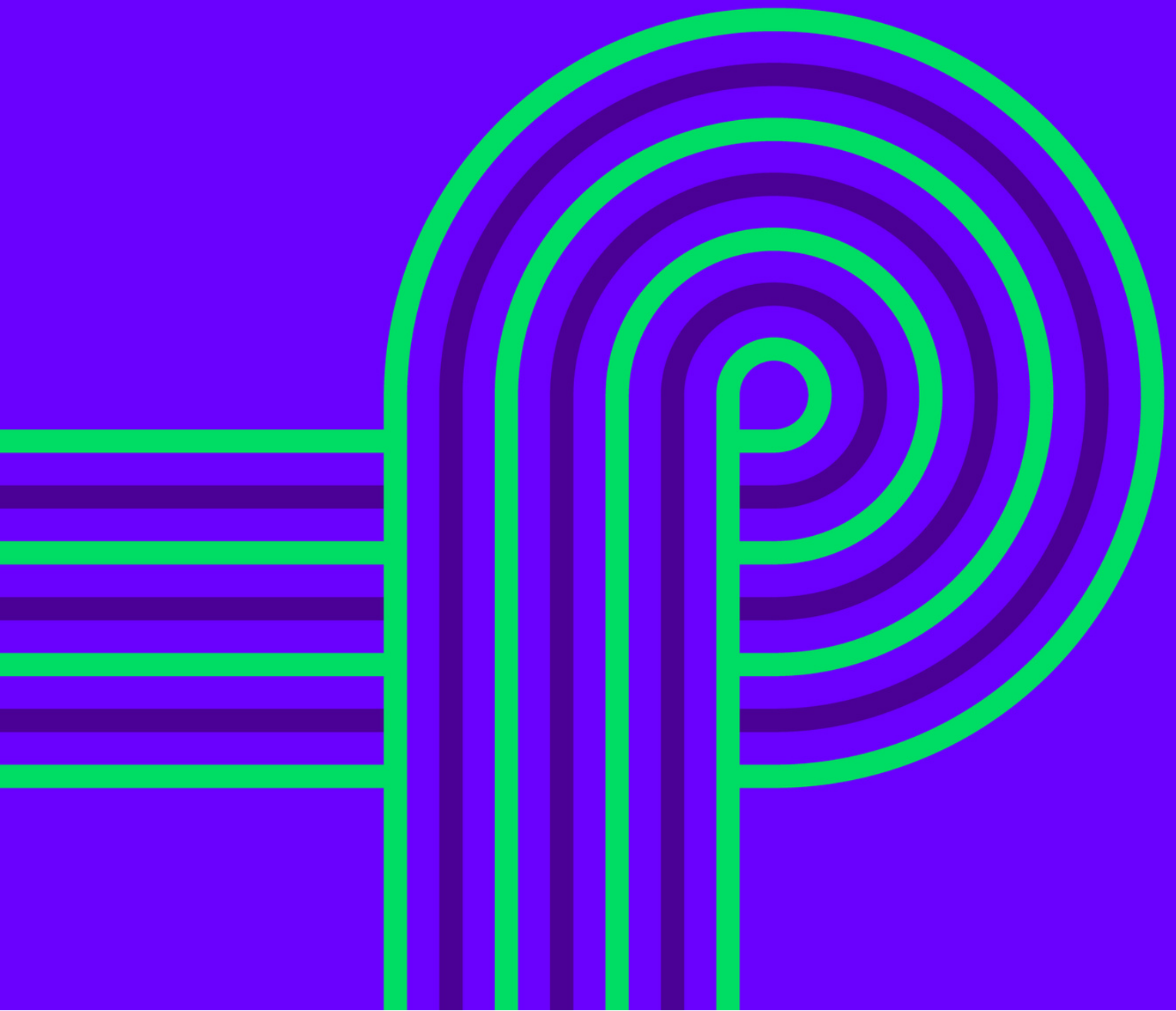


**Global District Energy Climate Awards:**  
*Tallaght District Heating Scheme*



# Tallaght District Heating Scheme

## Summary Overview



## KEY POINTS

- South Dublin County Council initiated this project to exemplify the environmental value and potential of district heating in Ireland. The collaboration between the council, Amazon's engineering teams, Fortum (the contractor) and the Dublin energy agency Codema has resulted in a low-carbon solution, optimising the potential of recyclable heat combined with innovative heat-pump technology – the first example of its kind in Ireland.
- Average age of the equipment is less than one year, with construction finishing towards the end of last year.

The Tallaght District Heating Scheme (TDHS) is the first large-scale district heating network of its kind in Ireland. The scheme went live early in 2023 and operates under Heat Works, Ireland's first not-for-profit energy utility, fully-owned by South Dublin County Council.

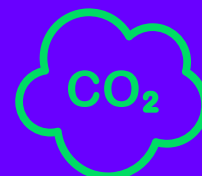
The scheme will make a significant contribution to reducing carbon emissions in the area, saving almost 1,500 tonnes of CO<sub>2</sub> each year and establishing Tallaght as a leader in innovation in the area of climate change. The TDHS delivers a high level of innovation, as waste heat from the nearby Amazon data centre will supply the heat to the network. During normal operation, heat demand will be 100% covered from the data centre waste heat.

The network initially will provide heat to 32,800m<sup>2</sup> of public buildings. Customers of Heat Works include South Dublin County Council and the Technological University Dublin, Tallaght. Buildings heated by this project include County Hall, Tallaght County Library, the council's Innovation Centre and 133 affordable apartments, which will connect in early 2025. The university buildings include the Main Building, the Sports-Science, Health and Recreation Building, followed by the new Catering College, to be completed in 2024.

1ST

NOT-FOR-PROFIT

energy utility in Ireland, saving 1,500 tonnes of CO<sub>2</sub> each year



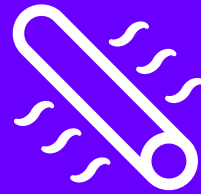
# Background Info

The Tallaght District Heating Scheme operates under Heat Works, Ireland's first not-for-profit, local authority-owned heat utility. Heat Works intends to be an exemplar heat network business in Ireland, delivering economic, environmental, and social benefits for residents and businesses. It will become a prominent part of the county's identity, supporting the local and national climate action plans by reducing its carbon footprint and helping make South Dublin a better place to live, work and visit.



## SYSTEM HISTORY

Oct 2020 - Contract signed  
2021 - Construction begins  
Oct-Dec 2022 - Testing phase  
Jan 2023 - Heat delivered  
April 2023 - Official launch



## SYSTEM CONFIGURATION

Heat is collected through heat recovery coils in the air handling units of the data centre. This heat is brought to the energy centre where it is raised from circa 25C up to between 70C and 85C using a 3MW heat pump installation



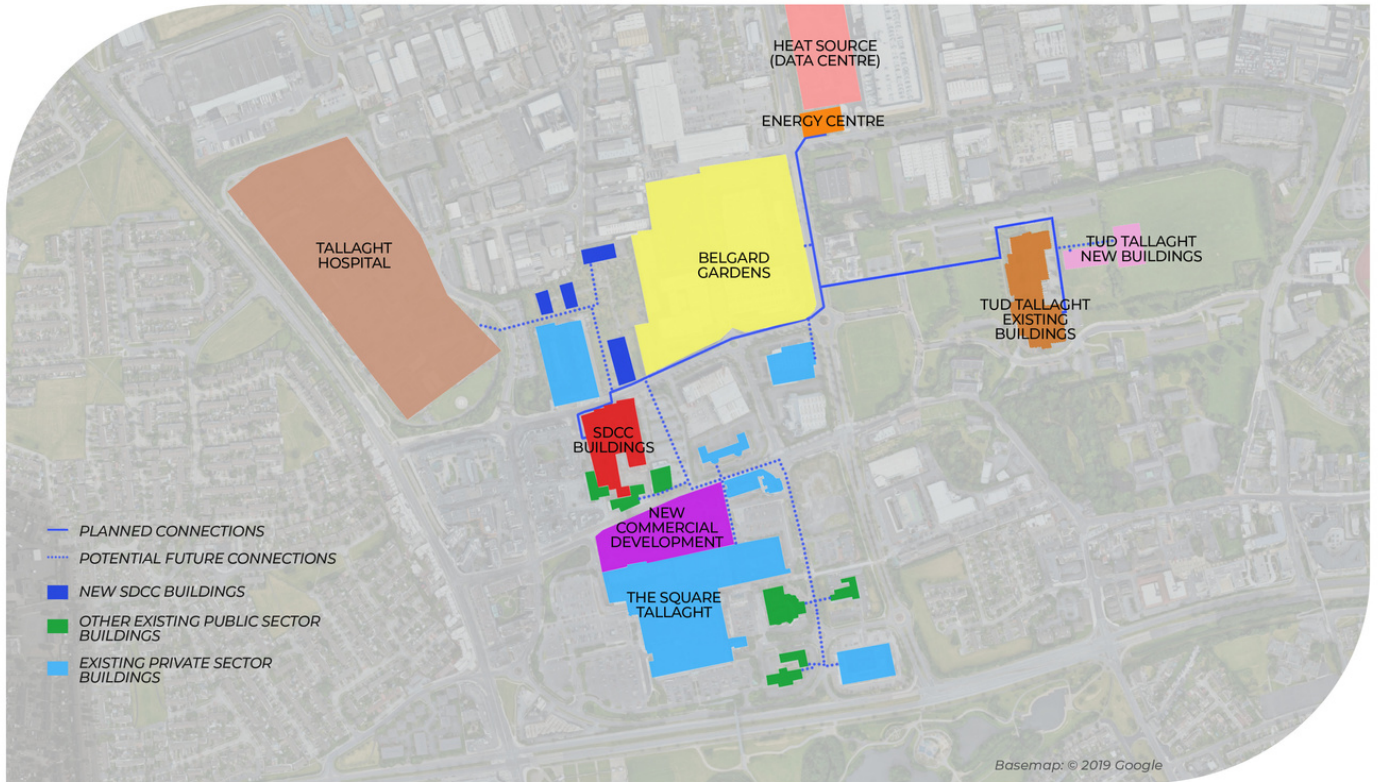
## DELIVERY OF HEAT

Heat is then delivered through the DH network, which is constructed from insulated steel bonded pipework fitted with a leak detection system.  
A 3MW electric boiler provides the backup heat supply.  
Fully fossil free solution.



## BUILDINGS CONNECTED

Initially providing heat to 32,800m<sup>2</sup> of public buildings (municipal and university buildings), with further expansion planned to public and private customers in late 2023, 2024 and 2025.

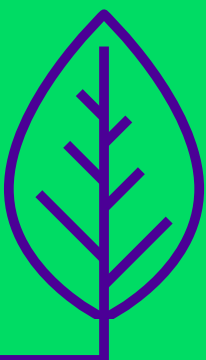
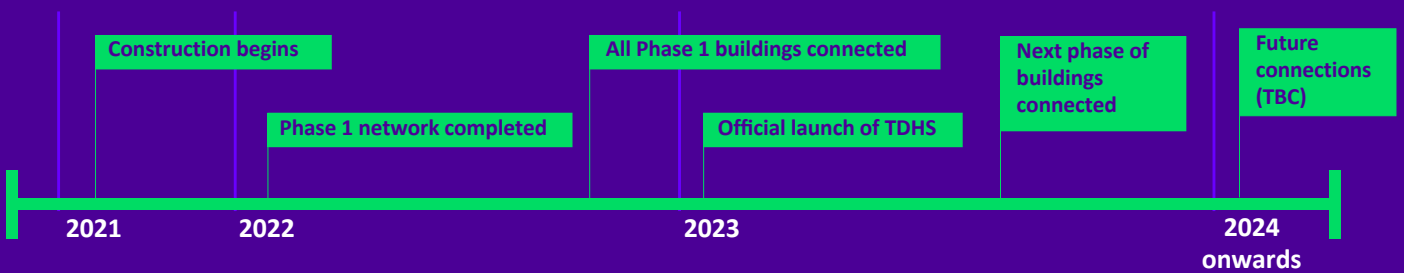


TDHS Route Map

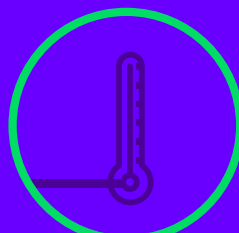


Route map of the Tallaght District Heating Scheme

## Timeline of the Tallaght District Heating Scheme

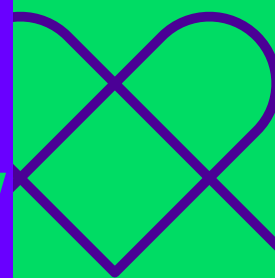


**1,500**  
Tonnes of  
CO<sub>2</sub> saved  
per year



**1st**

Not-for-profit energy  
utility in Ireland



**100%**  
Fossil fuel-free  
heating system



*Thank you for considering our application.*

