

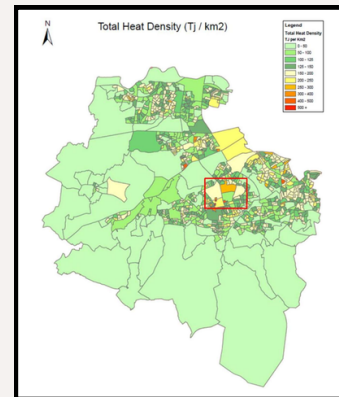


Tallaght Ireland



Challenges

The Tallaght district heating system is Ireland's first large-scale, low-carbon network, supplying customers with waste heat from a nearby data centre. As a pioneer in a young sector, it faces several challenges: high capital costs, reliance on public funding (and the associated political uncertainties), regulatory barriers, and dependence on waste heat sources. Expanding the network while maintaining efficiency is complex, as data centres often operate on different timeframes than district heating systems and may shut down or deliver less heat than expected. This makes assessing and securing additional heat sources essential.



South Dublin Spatial Energy Demand Analysis Map
Source: IrDEA

Opportunities

The development of a state-of-the-art district heating network brings many opportunities. OPTIT and IrDEA, members of ENABLE DHC, are in talks with the South Dublin County Council for developing the next steps for the network's expansion. The first phase of the works will see the addition of thermal energy storage systems, helping to balance supply and demand, and facilitate the connection of new customers. In the second phase, special attention will be given to optimising the waste heat provided by the data centre by installing an additional heat pump. Investigation of other sources of waste heat that can feed the systems will also be conducted. All in all, the Tallaght DH system has a great growth potential and can set the example of efficient DHC in Ireland, supporting the country in its decarbonisation pathway.

Key facts

- Population: 81.022
- Network size: 3.8km
- Customers served: 6
- Heat produced: 4.88 GWh/year
- Heat sold: 4.33 GWh/year
- Supply/return temp.: 70°C/50°C

 enabledhc.ambienteitalia.it

 Co-funded by the European Union

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

