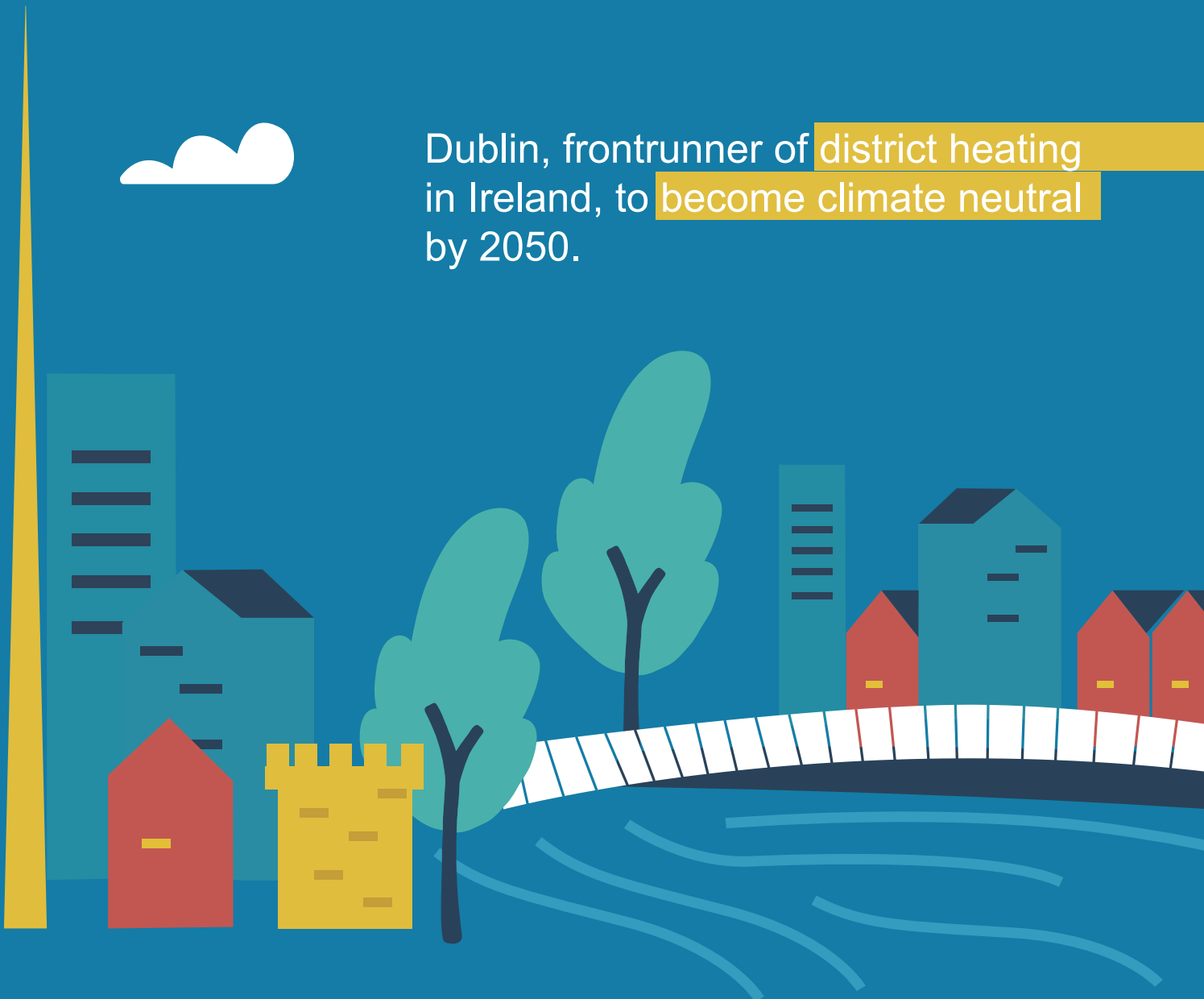


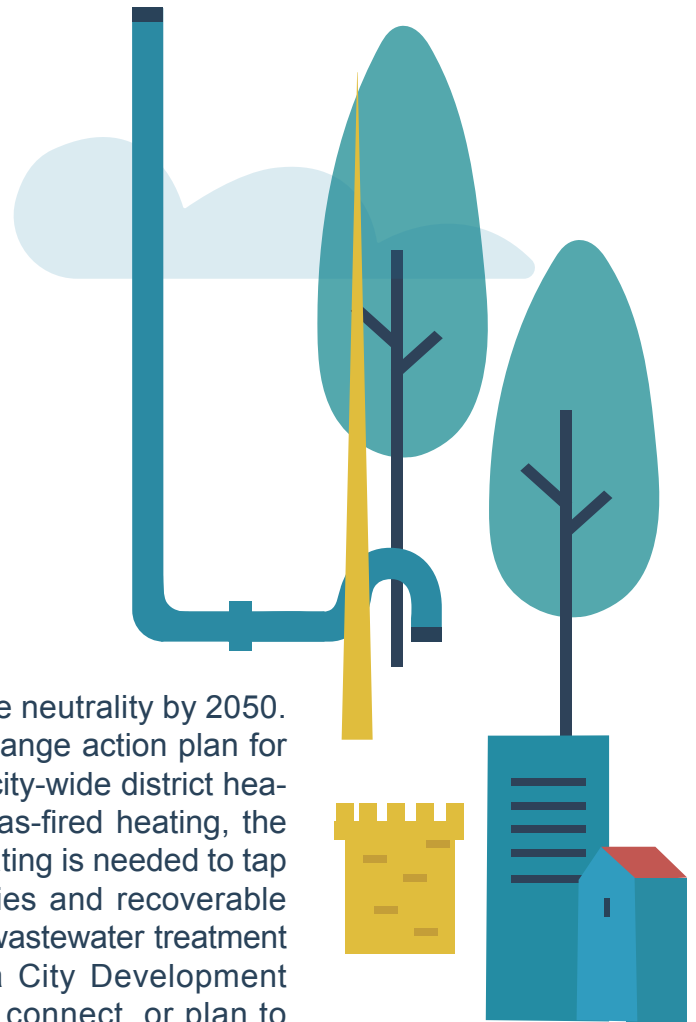
Dublin



Dublin, frontrunner of district heating in Ireland, to become climate neutral by 2050.



District heating: a key infrastructure to become climate-neutral by 2050



Dublin is committed to the nationwide goal of climate neutrality by 2050. The first steps drawn in the "Dublin City Climate Change action plan for 2019-2024" underlined the opportunity to develop a city-wide district heating scheme. So far, most buildings in Dublin use gas-fired heating, the gas grid covering most of the city. Building district heating is needed to tap into the large potential of renewable thermal energies and recoverable waste heat (from data centers, waste incineration, wastewater treatment plants, etc.). In November 2022, the city adopted a City Development plan which provides for an automatic obligation to connect, or plan to connect, to the district heating networks, especially for large sites.


A transition led by an effective and shared leadership

To overcome potential barriers and ensure a relevant low-carbon heating and cooling transition, Dublin has set up local working groups. These groups include stakeholders at all levels, so that anyone involved in the transition out of gas participates in shaping it. Thus, city and county authorities, utilities, national-level departments on environment and climate, the Sustainable Energy Authority of Ireland, sustainable energy communities' representatives, and many other stakeholders, have a seat at the table. Stakeholders have been engaged throughout the development of the heating strategy and through its implementation.

A pioneering city for implementing Irish ambitions to phase out gas



Up to now, Dublin, like the rest of Ireland, has been characterized by a high proportion of gas used in its heating systems, with widespread use of individual boilers. Since 2015, Dublin has focused on the potential of district heating. The South Dublin County Council and Codema (the Dublin Energy Agency), developed the first large-scale district heating scheme in Ireland, in operation since 2021, based on heat recovery from a data center.



This pilot project served as a learning example and validated the strategy. Today, Dublin's strategy is simple - yet no less efficient: fast development of district heating systems for all densely populated areas, covering over 80% of heating needs by 2050. For less densely populated areas, heat pumps are the best low carbon heating solutions. Considering that the heating district currently represents just 1% of the heating market, Dublin faces a major challenge, but the city is already hard at work to ensure that industry interest and capacity is built around district heating.


Dublin's decarbonization strategy needs an adequate national framework

As district heating is a newly implemented technology in Ireland, Dublin's transition depends on a lot of national policy changes to create a smart and efficient framework for its development.

The city's involvement in the development of the National Climate Action Plan has already achieved some results: the Plan aims at achieving the transition to 100% heat pumps or district heating for 2050. The national government has also set up regulatory frameworks for new buildings to mainstream nearly zero-energy building standards. To go further, Dublin recommends creating a funding mechanism for district heating, spreading awareness and engagement on this new technology, prohibiting the renewal of fossil fuel boilers in existing buildings, and implementing efficient spatial energy planning.

A transition that benefits everyone, from citizens to local authorities

Dublin's transition to decarbonized heating and cooling system has many positive outcomes.




Of course, it will improve air quality for all and lower GHG emissions, enabling Dublin to reach its targets and contributing to national ones. For citizens, phasing out fossil fuel means more safety in many ways, including preventing their exposure to energy price shocks, as the use of local heat sources increases energy security. For local authorities, as district heating consumers, energy costs will be lower, especially when associated with the increase of energy efficiency in public buildings. This technology also represents a new revenue stream for the local council as owners of the

district heating system. Dublin also expects that the development of this decarbonized heating system will increase local employment.

Dublin lessons: identify, plan, and engage

With the Decarb City Pipes 2050 project, the city learned three main lessons and hopes that they can be useful for cities wishing to do the same. Firstly, identifying heat demand and potential local heat sources is key to develop heat planning. Secondly, the identification of the relevant energy sources and their development should be integrated into the city development plan. Finally, Dublin learned the importance of engaging all stakeholders (the different municipal departments, local businesses, and residents...) from the early stage and throughout the entire process. For Dublin, one thing is clear: public awareness and engagement with new technologies are fundamental to enabling the transition.





Want to know more about Dublin?

- ➡ [Dublin Transition Roadmap](#)
- ➡ [Dublin City Council Climate Change Action Plan 2019-2024](#)
- ➡ [Dublin City Development Plan 2022-2028](#)



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