Introduction
Ireland has the lowest share of renewable heating and cooling in Europe. At 5-6%, with district heating (DH) making up less than 1% of Ireland’s heat market. National policy adopted in recent years has recognised the contribution that district heating can make to Ireland’s energy and climate goals. This is underpinned by the findings of the Sustainable Energy Authority of Ireland’s National Heat Study 2022, which found that up to 54% of heat demand in Ireland could be provided by DH powered by renewable heat. The Climate Action Plan 2023 commits to a delivery target of up to 2.7TWh by 2030, with up to 0.8TWh by 2025.

The District Heating Steering Group was established further to Action 187 in the Climate Action Plan 2021 to coordinate the development of district heating policy and to report to Government. The Steering Group brought together subject matter experts in renewable heating/energy; land use planning; energy regulation; local government; and finance. Detailed information on the membership and structure of the Steering Group is contained in the report, which is available at www.gov.ie/en/publication/3f132-district-heating-steering-group/.

Summary of Key Recommendations
The Climate Action Plan 2023 commits government to implementing the recommendations of the District Heating Steering Group Report, making its recommendations a key indicator of future government action for the sector. Those recommendations are summarised below and can be read in full in the full text of the report.

1. Legislative underpinning
Legislation is needed as a priority to support the development and expansion of DH networks and to attract investment. This includes primary legislation to,

1. Give developers legal powers (vires) to operate in the sector.
2. Facilitate regulatory protections for consumers.
3. Establish licensing and consenting provisions for DH operators.
4. Mandate that,
   a. Public sector buildings connect to available DH networks (where technically & economically feasible).
   b. Industrial facilities supply waste heat to DH where total rated energy input is at least 1MW.
5. Provide for a single technical standard that facilitates,
   a. Growth and strategic interconnectivity of DH systems
   b. State ownership of district heating infrastructure in the longer term.

2. Single Entity/Utility
The Steering Group considers that, in the long-term,

1. DH should develop nationally as a sector under central direction of a single State entity or a utility overseeing the development and expansion of networks (Ref: Department of Communications, 2015).
2. Provide a regulatory model allowing for State ownership of DH infrastructure in the longer term.
3. DH should continue to be delivered through the accelerated delivery of existing and planned projects until the appointment of a central body overseeing the sector.
4. Advice and support from National District Heating Centre of Excellence,
   a. Under the remit of the Sustainable Energy Authority of Ireland.
   b. In partnership with relevant expert organisations.
   c. Corporate governance oversight by the DECC.
   d. Ensuring a coherent and standardised approach to DH roll out. This will also support a future move to a single State entity or a utility.
5. Private sector involvement in the industry to be encouraged and facilitated as much as possible.

3. National District Heating Centre of Excellence

Until a decision is made on establishing a single entity to oversee the sector, the District Heating Centre of Excellence would,

1. Support project sponsors to accelerate delivery of existing and planned district heating projects.
2. Support DECC in developing a longer-term strategy to expand the sector, including establishing an entity to oversee the sector in the long-term.
3. Examine how to leverage existing State funding and support development of supplementary investment streams.
4. Further research & analysis to focus on,
   a. How to ensure those for whom connection DH feasible do not install an individual heat pump.
   b. How to support or deliver heating and cooling plans for relevant local authority areas, as required under the Energy Efficiency Directive recast of 2023.
   c. National level assessment of the most suitable candidate areas for district heating in Ireland to, *inter alia*,
      i. Support policy and regulations.
      ii. Provide standardised data to local authorities.
      iii. Facilitate stakeholder engagement.
5. DECC and the District Heating Centre of Excellence to engage with InvestEU Advisory Hub to explore a scope of work to assist with establishing a viable district heating roll out in Ireland.

4. Financial supports

Total capital costs to deliver 2.7 TWh of district heat are expected to be in the region of €2.7 - €4 bn and, like electricity and gas networks, some of these costs would be financed over the long term and repaid as part of the heat price. Financing should be predominantly market based, but It is, likely that, while the industry is nascent, State support will be required.

1. Contractual and financial arrangements to be explored by Centre of Excellence, e.g., concession contracts or Public Private Partnership models.
2. Supports (underpinned by data from economic analysis by the Centre of Excellence), to include,
   a. Existing funds, e.g., Climate Action Fund, in short to medium term to develop projects and capital costs.
   b. Adapting existing decarbonised heating grants to include DH connection costs/heat exchangers e.g., Warmer Homes Scheme free upgrades, residential retrofit grants, business support grants.
   c. Potential for a distinct DH fund to pool and provide DH project sponsors with Capex supports for technical and financial expertise.
   d. Including all DH equipment on Accelerated Capital Allowance scheme (and any other commercial sector incentives).
Full List of Recommendations

**Recommendation 1:** Establish a National District Heating Centre of Excellence within SEAI in partnership with relevant organisations and under the remit of the Department of the Environment, Climate and Communications, to:

- Co-ordinate, support, and drive delivery of existing and planned DH projects by public, private and utility developers in as timely a manner as possible.
- Provide technical support and staff upskilling to local authorities to,
  - Support or develop existing and planned schemes.
  - Build a wider skillset in the sector.
  - Increase resourcing and ensure consistency is brought to DH development.
- Support public awareness raising at a national level.
- Support DECC in preparing legislation, economic analysis and development, and implementing a long-term strategy for DH in Ireland
- Support project sponsors in identifying and sourcing EU funding, and,
- Develop a 2030 technology roadmap to identify barriers faced by the sector and facilitate development of the long-term implementation strategy.

**Recommendation 2:** Local authorities should, with the support of the District Heating Centre of Excellence, continue developing existing projects to progress towards the 2025 DH targets set out in CAP 23. To maximise development opportunities, policies and supports must facilitate private and utility developers in delivering DH schemes.

**Recommendation 3:** The District Heating Centre of Excellence should undertake detailed economic analysis of the feasibility of:

- Centralised models of network development, ownership, and operation, with consideration to be given to the involvement of utilities in the sector.
- A distinct and tailored DH fund to provide potential DH project sponsors with CapEx and expert technical and financial support.
- To continue using existing funds, such as the Climate Action Fund, in the short to medium term, for project development and capital costs.
- Adapting existing decarbonised heating grants (e.g., residential retrofit grants and business support grants) to include DH connection costs / heat exchangers.
- Including DH connection on Warmer Homes Scheme free upgrades and all DH equipment on the Accelerated Capital Allowance scheme (and any other commercial sector incentives).
- Ensuring those for whom connection DH is feasible do not install an individual heat pump.
- Supporting or delivering heating and cooling plans for relevant local authority areas, as required under the Energy Efficiency Directive recast of 2023.

**Recommendation 4:** DECC to bring forward proposals for legislation to provide for issues such as:

- A regulatory and legal environment for the sector, including appropriate customer protection mechanisms.
- Licensing and consenting provisions for all stages of DH scheme development, as appropriate.
- Powers to acquire DH pipe networks, where required, in line with other infrastructure networks.
- A single technical standard that facilitates the growth and strategic interconnectivity of the DH system.
- Mandating public sector buildings to connect to available DH networks where technically and economically feasible.
- Mandating industrial facilities whose total rated energy input is at least 1MW to supply waste heat to DH companies where technically and economically feasible.
- Amendments to Section 32 of the Multi-Unit Development Act, 2011, to enable energy management contracts of longer duration where significant capital investment has been made.
**Recommendation 5:** DECC and SEAI to review supports for renewable heat production, such as the Support Scheme for Renewable Heat, and redesign, where appropriate, to facilitate suppliers connecting to a DH scheme.

**Recommendation 6:** DECC and the District Heating Centre of Excellence to engage with InvestEU Advisory Hub to explore financing options for a viable DH roll out in Ireland, including potential European Investment Bank supports.

**Recommendation 7:** That DHLGH, as part of the upcoming review of the National Planning Framework, strengthens the reference to DH to reflect its role in meeting climate targets. Additionally, the Department of Housing, Local Government and Heritage should undertake a review of relevant legislation to examine and address barriers therein, including addressing the legal matters of vires.

**Recommendation 8:** The District Heating Centre of Excellence, with DECC, to develop a Long-Term Strategy for DH, to provide the guiding principles for the development of DH in Ireland. The Long-Term Strategy should include approaches to increasing national support (technical/financial etc) expertise, use of renewable and waste heat technologies, sectoral integration, and capacity building. The Long-Term Strategy will also address any further policy measures required.

**Recommendation 9:** That a national level assessment of the most suitable Candidate Areas for DH in Ireland be completed by SEAI that will, *inter alia,* support policy and regulations, provide standardised data for developers, and facilitate stakeholder engagement.

**Recommendation 10:** Establish a funded grant programme for Feasibility Studies Development to allow further investigation into potential DH schemes identified as part of the ongoing Candidate Areas Identification work.

**Recommendation 11:** SEAI to undertake research in relation to awareness, current views, experience of current users, preferences and levels of uptake expected based on:

- a) DH characteristics including heat source type.
- b) Population characteristics.
- c) Location/ dwelling characteristics.
- d) Interventions that could boost uptake.