



## Developing 4<sup>th</sup> generation district heating and cooling in cities: **Recommendations for policy makers**

*The aim of this document – developed in the framework of the INTERREG project HeatNet NWE – is to extract the key learnings from the national policies in the 5 countries participating in the project: Belgium (Flanders), France, Ireland, Netherlands and the United Kingdom. We aim to provide policy makers with pragmatic recommendations from local practitioners, be they involved with district heating (DH) development, especially with 4<sup>th</sup> generation district heating and cooling (4DHC) at any levels of governance: local, regional, national or European.*



May 2018, Edited by Kristina Dely and Peter Schilken, Energy Cities

## Legislative proposals

1. **Clear national legislative policies, acknowledging the benefits of district heating** need to be in place. These policies should protect all parties for developed and developing heat networks, including ensuring a fair price for heat and standing charges, opting out of a network, and an independent mechanism to investigate poor practices.
2. **Analysis of heat and energy system options** from a societal perspective and in terms of long term planning - at the moment it is concentrated around short term economics (suited to the political parties' length of time in government).
3. **Obligatory energy planning carried out at a local and regional level** with obligation to evaluate the feasibility of DH in spatial planning and urban developments. For doing so, **more resources and autonomy should be given to local authorities** to develop DH networks.
4. **Clear planning guidance and technical standards for DH**, including secondary and tertiary distribution, commissioning, allowing future-proofing.
5. **Encourage CHP** when building a power plant; it should be an obligation to recuperate the heat.
6. **Need for a regulating framework for heat metering**, but also for social pricing, unpaid bills, energy security.
7. **Ensure that legislation favours, instead of prohibits the use of waste heat.** Allow renewable and waste heat from DH networks to account for the renewable energy requirements in building regulations.

## Financial / economic recommendations

1. **Low-cost loan facilities, start-up grants or guarantee funds** for financing DH is needed in a market where DH plays a marginal role in heat supply (almost all NWE Europe).
2. **Increased carbon tax** to allow DH systems using RE and waste heat to be cost competitive. **Raise cost of natural gas** for the end consumers in order to lower relative cost of district heating.
3. **Incentivise local heat plans favouring district heating**, when feasible.
4. **Internalise environmental costs on heating** by measuring sustainability, and integrating financial and environmental costs.
5. **Harmonise subsidies and increase tax incentives for DH schemes**; consider introduction of **greater incentives for connection** (or future-proofing) in building regulations, in order to establish proper density of heat demand to make it profitable.

## Other proposals

### 1. *Prioritize DH in local strategy:*

- **Create opportunities for the establishment of local heat or energy supply company;** moving away from national energy supply to local energy supply.
- **Start construction of heat networks** in parts of the city with **high density urban developments**. Preference for communal heating should be given over individual heating systems.
- **Prioritize retrofitting and connecting of tertiary buildings** (especially older and public buildings) by starting with the buildings that use no renewable energy (or not connected to district heating).
- **Heat balancing in heat networks** should be encouraged, underlined with studies on heat demand and supply for today and future forecasts.
- **Take advantage of opportunities for "drastic" changes**, e.g. very old gas lines, city developments, laying down fibre optic cables.

### 2. *Engaging local stakeholders*

- **Continue work on understanding consumer behaviour**, consumer protection and best practice and support better engagement with consumers.
- **Better engagement with local stakeholders** through a roadmap process that will showcase the heat energy system; location and sizes of potentials and links between resources and uses.

### 3. *Foster technological development and pilots*

- **Intensify technology development with storage** needs to be made especially regarding possible links with electrical intermittent renewable energy.
- **Increase 4DHC pilots and reward pioneer developers** - not 'presenting them the bill'.

### 4. *Raise awareness and strengthen local governments' skills and leadership:*

- **Political courage and consistency;** strong political signal from local government will be followed by developers.
- Educating, **raising knowledge (esp. legal) of staff at governmental institutions** could support shorter implementation of DH projects. A roadmap could be a solution to overcome that.