

**Best Practice #2: Appropriate legal framework for local authorities to develop heating and cooling policy**

<b>Name:</b>	Appropriate legal framework for local authorities to develop heating and colling policy
<b>Geography:</b>	Denmark
<b>Organization interviewed:</b>	DBDH
<b>Organization interviewing:</b>	Energy Cities
<b>Website:</b>	/
<b>Category:</b>	Normative rules
<b>Description:</b>	<p>In Denmark, city councils have the authority to regulate both district heating and natural gas networks, providing a strong legal mandate for municipalities. This regulatory power allows city councils to make significant decisions regarding the energy infrastructure within their jurisdictions.</p> <p>City councils can mandate compulsory connection to district heating systems for both existing and new buildings within designated collective heat supply areas. They also have the authority to prohibit certain heating systems in these buildings, ensuring alignment with broader energy and environmental goals.</p> <p>By exercising these powers, municipalities can offer a long-term vision for their energy systems. This not only promotes sustainability but also helps ensure the economic viability of local energy projects. The ability to enforce such regulations enables municipalities to plan strategically for the future, fostering a stable and efficient energy supply that benefits residents and businesses alike. Furthermore, this regulatory framework supports Denmark's commitment to reducing carbon emissions and enhancing energy efficiency on a national scale.</p>
<b>Questions:</b>	<p>1. Could you briefly explain what legal mandate is given to municipalities in Denmark regarding district heating and heating systems per district?</p> <ul style="list-style-type: none"> <li>- In the 1980s, Danish local authorities were given the task of <b>zoning their municipalities to determine the best heating technology</b> for each area: district heating, gas networks, or individual solutions like oil boilers.</li> <li>- To assist with this, the Danish Energy Agency and the State provided a simple tool to calculate the best options for each zone. They also offered a technology catalogue detailing prices and conditions for each technology.</li> </ul> <p>The chosen technology had to meet three main criteria:</p> <ol style="list-style-type: none"> <li>1. It must be the cheapest option for the end consumer.</li> <li>2. It should economically benefit existing district heating companies.</li> <li>3. It should show overall benefits for Danish society through socio-economic calculations.</li> </ol>

<ul style="list-style-type: none"> <li>- Local authorities were responsible for selecting the most suitable technology for each zone based on these criteria.</li> <li>- A significant mandate was the <b>requirement for mandatory connection</b>, which included two key obligations:             <ol style="list-style-type: none"> <li>1. All houses and buildings had to connect to the chosen technology within 8 years.</li> <li>2. The heating company had to ensure the delivery of heat to each zone.</li> </ol> </li> <li>- While this mandate removed individual choice and created a monopoly on heat connections, it also provided important consumer protections by ensuring the delivery of the cheapest heat, benefiting Danish society as a whole. This mandate was generally well-received, especially during a time of falling oil prices.</li> <li>- In recent years, legislation has changed, reducing the legal power of local authorities. While they still perform local planning, they no longer have the authority to enforce it.</li> <li>- However, with rising gas prices, the Danish government introduced a new rule: in <b>zones where district heating is identified as suitable and feasible within the next five years, residents can no longer receive subsidies for individual solutions</b> like boilers or heat pumps. This rule aims to support the expansion and creation of district heating networks.</li> </ul>
<p>1. What does it change for municipalities? What does it enable?</p>
<ul style="list-style-type: none"> <li>- This zoning methodology has intentionally created a technology monopoly for each zone, preventing the need for double investments in both gas and district heating grids. It also avoids investing in gas grids today (and oil in the past), as Denmark aims to phase out these energy sources.</li> <li>- The dual legal mandate—zoning and mandatory connection—has promoted the growth of district heating, which is well-established and highly competitive compared to individual solutions.</li> </ul>
<p>3. What are the improvements still needed?</p>
<ul style="list-style-type: none"> <li>- This mandate given to local authorities is one of the key factors that facilitated the growth of district heating, but it was supported by a series of regulations. Notably, the prohibition of new oil boilers and restrictions on renovating existing ones. A positive and logical progression from this was the eventual ban on all fossil fuel boilers.</li> <li>- Following a similar approach, Denmark has also prohibited the expansion of new gas infrastructure, with plans to gradually strengthen this legislation to fully ban fossil gas.</li> <li>- These measures contribute to the development of a market for renewable energy, particularly in the realm of district heating.</li> </ul>
<p>9. Can you list at least 3 key success factors that have made this legal framework successful?</p>
<p>Key success factors identified in the interviews include:</p> <p><b>Legislative Empowerment of Local Authorities:</b> The legislation grants significant authority to local governments, enabling them to regulate district heating companies and consumers based on their heat zoning plans.</p> <p><b>Transparency and Local Ownership of District Heating Companies:</b> District heating companies are characterized by transparency and local ownership, often being small entities owned by local authorities. This model promotes price transparency and helps keep heat prices affordable.</p>

**Non-Profit District Heating Companies:** In the district heating sector, there is no competition on heat prices due to the non-profit nature of these companies.

**Favourable Geopolitical and Economic Context:** High oil and gas prices create favourable conditions for the development of district heating systems, driving market demand.

**Awareness and Understanding of Technology by Public Authorities:** Public authorities demonstrate a good understanding of district heating technology, enabling effective measures such as recent initiatives to prevent the development of individual solutions where district heating is feasible, thereby preserving its market viability.

10. What would your advice for its replication in another Member State?

- Several countries are experiencing evolving legislation, particularly those with district heating companies owned by public entities.
- It's imperative to establish mandates for local governments to engage in this planning process. Additionally, a comprehensive regulatory framework is needed, encompassing measures such as the prohibition of fossil fuel boilers, regulating gas development, implementing taxes and subsidies to foster a market for district heating and renewable energies.
- Urgent action is required to implement these local zoning plans, preventing the proliferation of individual solutions that could undermine the market potential for district heating.