



## Bachelor Thesis

# Review of policy actions in the Danish heating sector since 1990

Due to several policies and regulations, the Danish heating sector transformed into one of the most energy-efficient heating systems in the world. One example is the 1990 revision of the heating supply law, which intended to decentralise the heating supply. The heat infrastructure was now planned on a project-by-project basis, with local authorities responsible for planning according to national guidelines.

The unusually high penetration of district heating, which covers two-thirds of all Danish buildings, offered ways to produce heat jointly with electricity, industrial products and waste incineration, driving energy efficiency upward. In the 1990s, several policies promoted the use of combined heat and power (CHP) plants.

This thesis is meant to evaluate the policies and policy instruments that have been implemented in Denmark since 1990. The criteria used should cover energy and cost efficiency as well as greenhouse gas reductions. Additionally, an answer should be provided for the question of how which coordination problem was solved.

Furthermore, the relevance of the results to Germany's decarbonization of the heating sector can be discussed. What could German policymakers learn from their Danish neighbours?

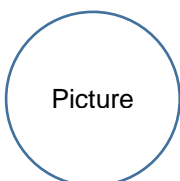
## Key tasks and objectives of the thesis

- Present the development of the Danish heating sector since 1990.
- Identify criteria suitable to evaluate heat-related policy actions.
- Evaluate the key policies and regulations using your criteria.

## Literature

- Johansen, K., & Werner, S. (2022). Something is sustainable in the state of Denmark: A review of the Danish district heating sector. *Renewable and sustainable energy reviews*, 158, 112117.
- Nyborg, S., & Røpke, I. (2015). Heat pumps in Denmark - From ugly duckling to white swan. *Energy Research & Social Science*, 9, 166-177. DOI: 10.1016/j.erss.2015.08.021
- Danish Energy Agency (2015): Regulation and planning of district heating in Denmark

## Contact



**Nicole Niesler**

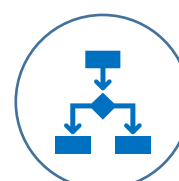
E-Mail: nicole.niesler@ewi.uni-koeln.de

## Topics



- District heating
- Decarbonization
- Energy efficiency

## Methods



- Literature review