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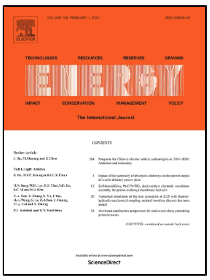

District heating and cooling in Sweden

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Abstract

The purpose with this review is to provide a presentation of the background and current position for district heating and cooling in Sweden. The review structure considers the market, technical, supply, environmental, institutional, and future contexts. The main conclusions are high utilisation of district heating in Swedish buildings, commitment to the third generation of district heating technology, high proportions of heat recycling and renewable supply, high compliance to European definition of efficient district heating, considerable reductions of fossil carbon dioxide emissions, strong national driving forces from high fossil fuel taxes, and soft district heating regulation based on transparency. District cooling systems are small compared to district heating systems. From strong legislative driving forces, the Swedish heat market became a testing ground for a market situation when fossil fuels are expensive in a heat market. The long-term market solutions have then become district heating in dense urban areas and local heat pumps in suburban and rural areas.

Keywords

District heating, district cooling, Sweden, carbon dioxide emissions, regulation

Highlights

- High utilisation of district heating in Swedish buildings
- High compliance to European definition of efficient district heating
- Considerable reductions of fossil carbon dioxide emissions
- Strong national driving forces from high fossil fuel taxes
- Soft district heating regulation based on transparency