

Stavanger (Østre Hageby), Norway

In Norway, a new passive house project with 66 dwellings, consisting of both apartment blocks and terraced houses, was built between 2012 and 2014. The houses will be provided with space heating and domestic hot water heating from a ground-source heat pump system, distributed by a small-scale district heating network.

Table 1. Key data for the Østre Hageby case study.

Parameter	Value
Year of construction	2012-2014
New development/renovation	New development
Type of houses	Apartment blocks
Number of houses	66 dwellings
Supply temperature (design)	55-50 °C
Return temperature (design)	30-35 °C

Supply-side technologies/System solution

- The system is operated as a stand-alone network.
- Ground-source heat pump system with 200 m vertical boreholes in bedrock will cover most of the annual heating demand.

Demand-side technologies

- Flat substations.
- Instantaneous DHW preparation. Small volume approach: the hot water volume is less than 3 litres in order to avoid Legionella.
- Radiators and underfloor heating.
- Washing machines and dishwashers will be supplied with domestic hot water.