

Smaland

Inhabitants: 180,000

Area: 9,430 km²

Energy & CO₂ figures

- Primary energy consumption: 7,5 TWh/y
- Resulting in 774 kt CO₂/y
- Or 4,21 t CO₂ per capita

Regional characteristics:

Average primary energy:

Average heating demand: 160 kWh/m² (incl. domestic hot water)

Average age of buildings / percentage of old buildings: 1/3 of buildings built before 1945, new building rate 1-1.5 %

Cost for new building with dwellings under current building code: 2200 in €/m²

Cost for new building with dwellings and passive house standard: 2500 in €/m²

Degree days in the region: 3715

EE buildings in your region:

Dwellings (heating demand of ≤ 55 kWh/m²/a if electric, otherwise 90 kWh/m²/a, U_m < 0,4 W/m²K)

Commercial buildings (heating demand of 80+29 kWh/m²/a (electric heating, max. 4,5 kW + 25W/(m²) + 22 W/(l/sm²), otherwise 80+45 kWh/m²/a, U_m < 0,6 W/m²K)



Implementation of EPBD:

Name of national directive: [National Building Code – Boverkets Byggregler BBR 19](#)

Other directives supporting EPBD: - regional: Regional Climate and Energy Strategies
- local: e.g. The Municipality of Växjö

Funds and incentives to support EE in buildings:

National: - support to municipalities

Regional: - Energy Agency for Southeast Sweden acts as advisor
- Godahus (30 companies together with university)

Local: - Växjö – local competition between municipality and companies
- Växjö – quality program for new houses incl. energy performance when selling land

Main challenges in implementing EPBD:

Funding problem – life cycle aspects excluded

Lacking knowledge of actors

Communication problem between academic institutions and building area actors

Innovations in EE buildings:

Portvakten – passive houses (energy heat recovery on double flux mechanical ventil.)

Biskopshagen – multifamily house (focus on air tightness)

Araby School (mechanical ventil., heat recovery, PV-installation)