# <u>norrenerqi</u>

# Heating and cooling production at Norrenergi

Norrenergi AB is a Swedish district heating and cooling company situated in Solna, just north of Stockholm. We provide the municipalities Solna, Sundbyberg, and areas in Danderyd and Bromma, with safe and competitive district heating and district cooling. We secure the heat for more than a 100 000 people and make sure that offices, malls, data centers and hospitals are provided with a comfortable indoor climate both summer and winter.

Our services have an important role in the development of sustainable cities. We strive to have the lowest possible impact on the environment and today. Our heating production is 99,7 % renewable and the district cooling 100 % renewable.

Beside heating and cooling we also offer our customers advanced technical services, which facilitate the control of energy consumption in the properties, as well as energy saving.

Our district heating is generated by large heat pumps, where treated wastewater is the heat source, and hot water boilers which mainly are fuelled with wood pellets, a residual product from the sawmill industry. We also have a cooperation agreement with Stockholm Exergi which enables buying heat as well as selling heat when needed. Our heating network is approximately 210 km and connected to the network in Stockholm and Södertälje, which through cooperation enables a more optimal production and an increased redundancy.

District cooling is generated by cold sea water, heat pumps, which use the cold water after the heating production, and cooling machines. Our cooling network is approximately 37 km long and extends in the areas of Solna, Sundbyberg and Bromma.

The environment has an important role at Norrenergi and we constantly look for new, innovative environmentally conscious solutions. We are certified according to ISO 14001:2015 and as the first energy company in Sweden, our district heating obtained the ecolabel Bra Miljöval (Good Environmental Choice) by The Swedish Society for Nature Conservation.



## norrenergi

## Company facts:

Owners: The municipalities of Solna and Sundbyberg

Net sales: 726 MSEK

Annual heating distribution: 950 GWh

Annual cooling distribution: 60 GWh

Number of employees: 85

Vat nr: SE556429-9500

Name	Туре	Cooling towers	Built	MW cooling	Percent of the total cooling energy yearly generated	Area served
Solna värmepump 1-4	Heat pumps	No	1985	20	17	Solna/Sundbyberg
Solna kylmaskiner	Cooling units	No	2002	10	8	Solna/Sundbyberg
Frösunda frikyla	Lake cooling	No	2000	15	36	Solna/Sundbyberg
Frösunda kylmaskiner	Cooling units	No	2010	12	33	Solna/Sundbyberg
Sundbyberg kylmaskiner	Cooling units	Yes	2006	12,5	6	Solna/Sundbyberg
Sundbyberg kylmaskin	Cooling units	No	2006	0,5	0	Solna/Sundbyberg
Sundbyberg värmepump 5-8	Heat pumps	No	2021	5	0	Solna/Sundbyberg

### **Production units cooling**

#### **Prodution units heating**

Name	Туре	Fuels	Built	MW heating (nominal)	Area served
Solna värmepump 1-4	Heat pumps	Treated wastewater, electricity	1985	100	Solna/Sundbyberg
Solna P1-P2	Boiler	Wood pellets	2001	106	Solna/Sundbyberg
Solna P3	Boiler	Oil	1968	83	Solna/Sundbyberg
Solna P4	Boiler	Wood pellets, tall oil	1974, conv. 2014	92	Solna/Sundbyberg
Solna P5	Boiler	Oil	1974	92	Solna/Sundbyberg
Sundbyberg HVP1	Boiler	Bio oil	1968	46	Solna/Sundbyberg
Sundbyberg HVP2	Boiler	Bio oil	1969	46	Solna/Sundbyberg
Sundbyberg HVP3	Boiler	Bio oil	2004	50	Solna/Sundbyberg
Sundbyberg värmepump 5-8	Heat pumps	No	2021	7,5	Solna/Sundbyberg