

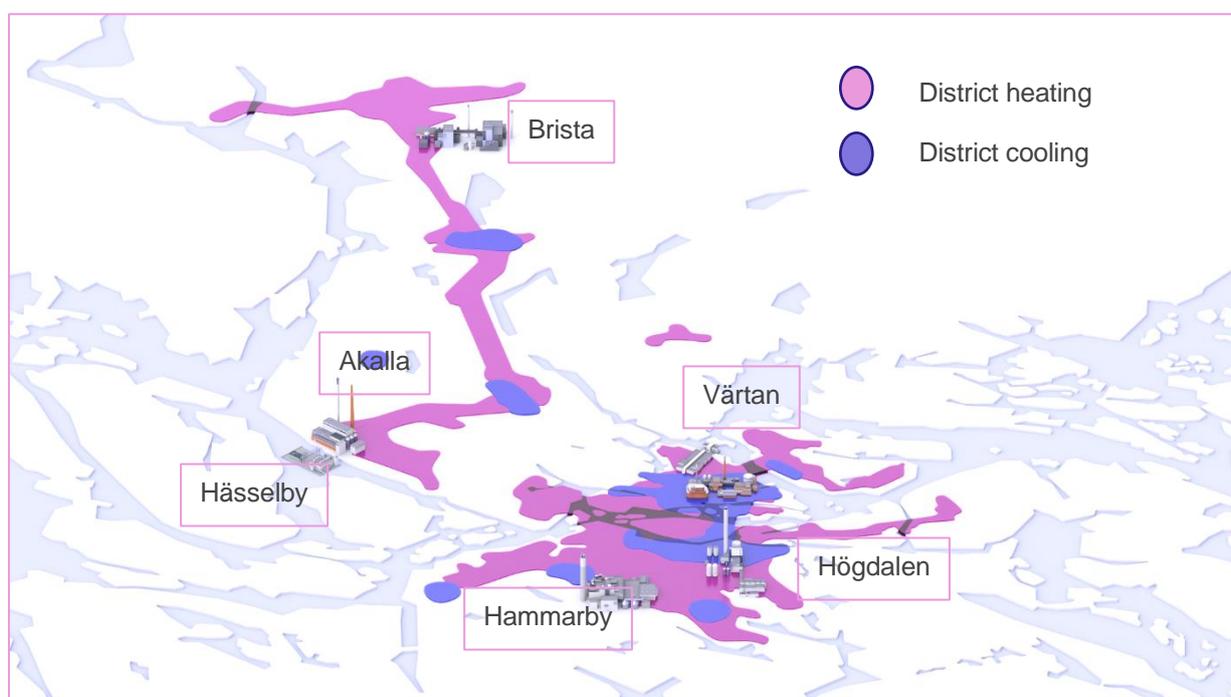
Stockholm Exergi production narrative

Stockholm Exergi is Stockholm's largest energy company. We secure the growing need of heating, cooling, electricity and management of waste services of the Stockholm region. Today there are more than 800,000 Stockholmers and just over 400 hospitals, data centers and other activities connected to the district heating network, connected to our heating and cogeneration plants from Högdalen in the south to Brista in the north, about 45 km. With joint force we drive Stockholm forward with the potential to become the world's first climate - positive capital.

Owners: City of Stockholm and Fortum, 50 percent each

Area we heat: 73 million square meters

Proportion of renewable or recycled energy in district heating: 99 percent



About 30 production sites with a total capacity of 3 700 MW heat, 700 MW electricity and 370 MW cooling. In total the grids add up to 2900 km district heating pipe lines, 250 km district cooling pipe lines.

The heating grids are connected with other district heating companies which through cooperation enables a more optimal production and an increased redundancy.

Some cooling sites uses heat pumps which heat delivers in wintertime to the closest district heating grid. The cooling network are very small in comparison with the heating networks and therefore the heat from the cooling production is supplied to a much larger area.

City Southern cooling grid

Delivers cooling to:	Delivers heating to:	Cooling site	Type	Cooling towers	Built	MW cooling	MW heating
City Southern	City Southern	Ropsten	Heat pumps and free cooling from lake	No	1986/1994	126	100
City Southern	City Southern	Nimrod	Heat pumps and cooling units	No	2001	40	48
City Southern		Hornsberg	Rock storage	No	2010	70	
City Southern		Akviferen	Aquifer reserves	No	1998	5	
City Southern	City Southern	Hammarby	Heat pumps and cooling units	No	1986-1991	60	250

City Southern grid supplies: Norrbacka, Vasastaden, Gärdet, Östermalm, Norrmalm, Kungsholmen, Gamla stan, Södermalm, Årsta dal, Sickla, Hammarby sjöstad, Johanneshov

Kista Akalla cooling net

Delivers cooling to:	Delivers heating to:	Cooling site	Type	Cooling towers	Built	MW cooling	MW heating
Kista / Akalla	Northwestern	Akalla	Heat pumps and cooling units	Yes	2003/2004	28	22

The cooling towers are only used in cooling mode and therefore the energy supplied to the Kista Akalla grid. Heat delivered from heat pumps does not use cooling towers, the heat is directly delivered to the district heating system

Skärholmen cooling net

Delivers cooling to:	Delivers heating to:	Cooling site	Type	Cooling towers	Built	MW cooling	MW heating
Skärholmen / Kungens kurva		Skärholmen	Cooling units	Yes		11	

Farsta cooling net

Delivers cooling to:	Delivers heating to:	Cooling site	Type	Cooling towers	Built	MW cooling	MW heating
Farsta	City southern	Farsta	Heat pumps and cooling units	Yes		4	0,3

The cooling towers are only used in cooling mode and therefore the energy supplied to the Farsta grid. Heat delivered from heat pumps does not use cooling towers, the heat is directly delivered to the district heating system

Vilunda cooling net

Delivers cooling to:	Delivers heating to:	Cooling site	Type	Cooling towers	Built	MW cooling	MW heating
Vilunda / Infra city	North western	Vilunda	Heat pumps and cooling units	Yes		16	22

The cooling towers are only used in cooling mode and therefore the energy supplied to the Vilunda grid. Heat delivered from heat pumps does not use cooling towers, the heat is directly delivered to the district heating system

Larsberg cooling net

Delivers cooling to:	Delivers heating to:	Cooling site	Type	Cooling towers	Built	MW cooling	MW heating
Larsberg / AGA	NA	Lidingö	Free cooling lake	No		7	

Älvsjö cooling net

Delivers cooling to:	Delivers heating to:	Cooling site	Type	Cooling towers	Built	MW cooling	MW heating
Älvsjö	NA	Älvsjö	Cooling units	Yes		8	

Larger heating sites

Delivers heat to:	Production site	Type	Fuels	Built	MW heating	MW power production
North western net	Brista	CHP	Municipal waste, wooden chips	1997 / 2013	177	62
North western net	Hässelby	CHP / boilers	Wooden pellets, bio oils	1959	185	58
City southern net	Värtan	CHP / Heat pumps	Wooden chips, bio oils	1976-2016	1720	485
City southern net	Hammarby	Heat pumps / boilers	Bio oil	1986-1991	416	
City southern net	Högdalen	CHP / boilers	Municipal waste, bio oils	1970-2004	298	94
				TOTAL	2796	700

CHP – combined heating and electrical power production

Heating grids:

- City southern grid supplies: From Lidingö / Norrbacka / Ulvsunda / Sickla down to Skärholmen / Hagsätra /Farsta
- North western grid supplies: Sigtuna, Märsta, Upplands väsby, Sollentuna, Kista Akalla, Tensta, Lunda, Hässelby, Vällingby
- The North western grid and the City southern grid are not connected to each other.