

TRANS PED

TRANSFORMING CITIES
THROUGH POSITIVE
ENERGY DISTRICTS

Brunnshög is a new sustainable neighbourhood that is currently being developed on the outskirts of Lund, a city of about 100,000 inhabitants in the south of Sweden. With the two world-leading research installations MAX IV and ESS at its core, the new neighbourhood is where up to 40,000 people will live and work by 2050. While Brunnshög will be a green district with large parks, courtyards, and pedestrian and cycling infrastructure, the project also aims to create a range of sites that support new connections and collaboration between researchers, entrepreneurs, and businesses. Brunnshög has a strong sustainability agenda, aiming to produce more energy than it needs, while promoting cycling, walking, and public transportation over other mobility options.

BRUNNSHÖG

POSITIVE ENERGY DISTRICT PROFILE

📍 LOCATION	LUND SWEDEN
📏 SIZE	220 HA
⚙️ FUNCTION	MIXED-USE
🏠 TYPE	NEW BUILD
🕒 DURATION	START DATE 2010 END DATE 2050
🌱 STATUS	15% CONSTRUCTED 10% UNDER CONSTRUCTION 75% IN DEVELOPMENT
🌐 WEBSITE	WWW.LUND.SE/BRUNNSHOG



ENERGY HIGHLIGHTS

CITY AS A POWER SOURCE

The neighbourhood will produce more energy than it consumes through renewable energy generation and waste energy re-use.

SCIENCE HEAT

Brunnshög will feature the world's largest low-temperature district heating network, using excess heat from the neighbourhood's science facilities.

MOBILITY MANAGEMENT

Sustainable mobility is at the core of the development plans. A new tram line is already in operation, while pedestrians and cyclists are prioritised on roads and in all public spaces.

OTHER ENERGY-RELATED IMPACTS

LOW-ENERGY BUILDINGS

All upcoming buildings in the Brunnshög neighbourhood will be low-energy and some will even be plus-energy buildings.

GREEN INFRASTRUCTURE

The new district puts a strong emphasis on green spaces, with all public parks being built in the early development stages, providing a green environment even before the first residents arrive in Brunnshög.

CREATING A NEIGHBOURHOOD

Brunnshög will be much more than a collection of buildings. The project combines many different functions, supports mixed-use concepts, and increases the variety of buildings to create a lively neighbourhood.

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PROJECT SETUP

The Brunnsög district is a joint project of the City of Lund, two world-class research institutions, the Skånetrafiken public transport provider, as well as 23 individual real estate developers. The municipal-owned energy utility Kraftringen is in charge of building the innovative district heating system and providing PVs and battery solutions to the developers,

while Skånetrafiken runs the new tram line. All 23 real estate developers have committed to the overall district plan.

The consortium operates within the framework of a covenant in which specific goals have been defined, without specifying exactly how this will be done.

OPPORTUNITIES

SOLAR CELL TECHNOLOGY

Brunnsög will extensively use solar cells, maximising capacity by installing them on all available space, including roofs, facades, balcony fronts, and even on the ground. Together with industry partners, new innovative approaches to solve energy generation and storage will be identified.

REDUCING ENERGY USE

Equally as important as producing electricity is saving it. The most sustainable kWh is the one Brunnsög will provide via lots of opportunities to reduce energy consumption through energy efficient and smart buildings.

SUSTAINABLE MOBILITY

Brunnsög wants to influence mobility behaviour of residents and commuters alike. Measures like convenient bicycle parking, biking service stations and quality cycling lanes are complemented by reduced parking availability and urban planning prioritizing pedestrians, cyclists, and public transport.

CHALLENGES

LOCAL ENERGY PRODUCTION

At this point, not enough electricity is produced locally to cover energy consumption within the new district.

CAR MOBILITY

There are still too many car owners living and moving to the neighbourhood.

DISTRICT MANAGEMENT

To successfully run the positive energy district of Brunnsög, a district management team will need to be established to manage the neighbourhood after construction is complete.