

Solar panel installation

BRF Jungfrudansen, Solna



BRF Jungfrudansen tenant-owner association has installed solar panels in order to produce its own electricity.

A solar panel installation from Harju Elekter will enable the tenant-owner association BRF Jungfrudansen in Solna, Stockholm, to reduce its climate footprint, and save money on electricity costs.

BRF Jungfrudansen 1 has 231 apartments divided between two buildings. Since the association was formed, electricity costs for each apartment have been included in the monthly rent, which has not encouraged tenants to conserve electricity. Instead of installing individual electricity meters the association decided to invest in a solar panel installation that will cover a major



An important success factor in the project has been the smooth cooperation between Harju Ekekter and the association's board members.

portion of the association's and the tenants' electricity consumption. Harju Elekter assisted with every aspect of the BRF Jungfrudansen project, from planning and providing data for the building permission application to contact with the authorities and presentations for the association's members.

The solar panel installation supplies climate-smart electricity to all the association's apartments and communal areas. The amount of electricity produced can be monitored via a cell phone app.

With a payback period estimated at about 8 years, depending on trends in electricity prices, the installation has an estimated lifetime of at least 25 years.

The array comprises 528 solar panels which will deliver an estimated total effect of 177 542 kWh/year. The panels are designed for Swedish conditions and to capture light from dawn to dusk. To improve the energy exchange, special roof mounting brackets enable the panels to be installed at an angle on an otherwise flat roof. Harju Elekter is also responsible for installing inverters, switches, ventilavledare, and connection of the installation to the power grid. TV cameras allow remote monitoring of the installation, enabling snow clearing and other roof maintenance tasks to be performed as needed, without delays. A battery storage bank is under discussion as a possible next step to store solar energy that is not used directly. The stored energy could be used during consumption peaks when the association would otherwise need to back up the solar panel installation with purchased electricity.

Technical description

The installation comprises solar panel arrays mounted on two different buildings, inverters, roof mounting brackets and equipment for connection to the electricity grid:

- Solar panels 528 pcs (375 W, tier 1) with a total installed effect of 198 kWp
- Inverters with communication via cell phone app (3 pcs 36 kW, 1 pc 100 kW)
- Breaker boxes, load switches, ventilavledare, and DC cabling for connection to central board
- Roof mounting brackets
- Design and installation drawings
- Assembly
- Connection of the installation to the power grid



Delivery of solar panels.



The roof brackets installed and ready for the solar panels to be mounted.

