

Energy storage

Vattenfall, Uppsala



The facility has a battery capacity of 5 MVA / 20 MWh and is connected to the 12 kW distribution network.

Rapid growth in the Uppsala region requires an increased supply of electricity. To meet this need, as a research and innovation project, Sweden's largest battery storage park has been installed and integrated into the local distribution network. With this, Vattenfall aims to find out if a battery storage park, as one of many short-term solutions to the shortage of power capacity in the region, can meet electricity needs in Uppsala.

Alfens battery storage park is Sweden's largest to date. Its capacity of 5 MVA / 20 MWh would be sufficient for connection of approximately 1 700 new villas. During periods when there is a surplus of electricity in the network the batteries are charged. When consumption is higher, the stored electricity is fed into the network.

Harju Elekter has delivered technical shelters with switchgear to Alfen, also handling design and construction work. Alfen is the main contractor and has supplied other equipment.

Technical description

The facility has a battery capacity of 5 MVA / 20 MWh and is connected to the 12 kW distribution network. It will also be capable of handling frequency regulation (FCR) or sale of energy.

Harju Elekter's scope of supply:

- CombiFLEX primary station 12/0.4 kV with SNC MV switchgear, LV 1-3 DC cabinet, KA1 SCADA system, VHC distribution board and back-up transformer, 250 kVA
- SCADA system for control and monitoring of the battery park
- Planning, design and engineering
- Site preparation, pipe and cable work
- Setting up and lifting-in of the technical shelters



Back-up transformer, 250 kVA.



The battery storage park is equivalent in area to half a football pitch.



Battery storage in containers from Alfen.



Harju Elekter's scope of supply has included switchgear and SCADA systems.