

V8 A GIFT FROM THE SUN

PV PLANT IN TELEBORG SCHOOL

Credit: Henrik Johansson



SYNOPSIS

The municipal housing company Växjöhem has installed a PV plant on the roof of Teleborg school, which enables the building to produce part of its own electricity needs.

BACKGROUND

A long tradition of using renewable energy sources (RES), mainly wood, exists in Växjö. In order to have a diversity in the RES used, solar and wind energies have to be introduced to a higher extent. For now, little research related to the use of solar energy for electricity has been carried out in Växjö, contrary to the use of this RES for heating.

OBJECTIVES

- Demonstrate the on site generation of electricity from PV panels on the roof of a school.
- Show that solar energy has a potential in northern latitudes as well.

PROJECT DESCRIPTION

Växjöhem has installed polytechnic crystal PV panels on the flat roof of Teleborg school. The PV system has a capacity of 69 kW and represents 532 cells with a total area of 528 m². In order to make the installation and its effects more visible, displays have been installed inside and outside in order to show the current production, as well as the total production and CO₂ savings. Along with the PV plant, six education modules have been designed so that the students can use the solar cells for educational purposes in Mathematics, Physics and English; students describe the installation to foreign visitors and journalists.

RESULTS

The installation was completed in January 2008. In two years the plant has been able to produce around 60 MWh of electricity annually which is equivalent to 1/8 of the school's annual electricity need. Thanks to the installation, students have a great opportunity to learn more about RES, and see how it is working in reality. The PV plant has been visited by many foreign guests and media, for example NBC.

NEXT STEPS

The PV installation at Teleborg school was the first one in Växjö, but the good experiences paved the way for further installations, among them one of the biggest in Sweden.

FURTHER INFORMATION

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