The largest alpine solar plant in Switzerland

The largest alpine solar plant produces around 3.3 gigawatt hours of climate-friendly electricity per year. During the winter months, the plant, 2,500 metres above sea level, produces about three times more power than a comparable facility in the Swiss midlands, benefitting from reflections off the snow and its location above the fog. With the 2.2-megawatt pioneer project, Axpo, IWB and Denner are driving forward the expansion of renewable energies in Switzerland and supplying important winter power.

The largest alpine solar installation with almost 5000 solar modules is located at the Muttsee dam in the Glarus Alps. The plant produces around 3.3 gigawatt hours of electricity per year. The solar plant covers a surface of 10,000 square metres, which corresponds to about 1.5 soccer fields. The dam is part of the Limmern pumped storage plant in the Glarus Alps and the highest elevation dam in Europe.

Contribution to winter power

The alpine location makes the solar plant particularly effective. It generates nearly half of its production during the winter halfyear

> Axpo, IWB and Denner are making a specific contribution to the energy transition with the pioneer project.

because it is over the fog line and has more sun exposure. In addition, solar plants like the cold. The efficiency of solar modules is higher at low temperatures. The high altitude is also favourable for the so-called “Albedo effect”: Sunlight is reflected by the snow cover and results in higher solar powerproduction.

The following production profile shows the difference between solar production in the Midlands and in the Alps:

Optimally situated
The position of the dam toward the south east to south west direction is also advantageous for the solar power production. Due to the existing infrastructure of the Limmern pumped storage, no further grid expansion was necessary during installation.

Local, renewable power for Denner
Denner, the largest discounter in Switzerland, has contracted the alpine solar power during the first 20 years of operation. In doing so, Denner continues to rigorously pursue its ambitious sustainability objectives.

Annual production profile: Midlands solar versus alpine solar

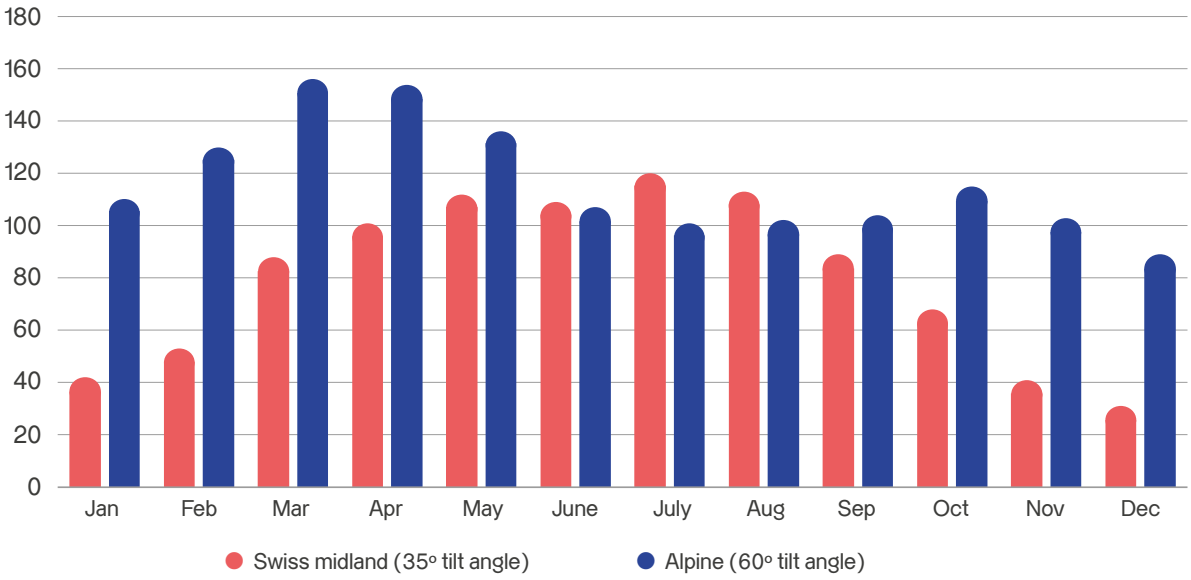

Diagram: During the winter months, the plant produces about three times more power than a comparable facility in the Swiss midlands. Source: ZHAW

Solar power as an important part of the power mix
Solar energy has a great deal of potential that should be urgently used. The only way we can fill the power gap that will occur when the nuclear power plants are taken off grid is to develop renewable energies on all fronts. In addition to solar energy, these natural sources also include hydropower, wind energy and biomass.

The pioneering project in figures:
- Largest solar plant in the Alps
- Solar power at 2,500 m.a.s.l.
- Installed capacity of 2.2 megawatts
- Annual power production of 3.3 gigawatt hours
- 4,872 solar modules
- Solar plant with a surface of 10,000 square metres

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More information on this pioneering project is available at www.axpo.com/alpinesolar