



The largest alpine solar plant in Switzerland

Axpo and IWB are building the largest alpine solar plant on the Muttsee dam at an altitude of 2,500 m.a.s.l. Denner has contracted all the generated alpine solar power for a term of 20 years. With the 2.2-megawatt pioneer project, Axpo and IWB are driving forward the expansion of renewable energies in Switzerland and supplying important winter power.

More solar power thanks to the alpine sun in Glarus: Axpo and IWB are making a contribution to the energy turnaround with the pioneer project.

The solar plant comprising nearly 5,000 solar modules on the dam in the Glarus Alps has been under construction since summer 2021. After complete commissioning in August 2022, the plant will produce some 3.3 gigawatt hours of electricity per year – corresponding to the consumption of 740 average four-person households. The solar plant will cover 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 half-year 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 power production.

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 construction of a solar plant on the Muttsee dam. The existing infrastructure belonging to the Limmern pumped storage plant makes additional grid expansion unnecessary and because the plant will be installed on the dam itself, no additional open space will be needed for construction.

More solar from Alpin-Solar, especially in the winter months

Annual production profile: Midlands solar versus alpine solar

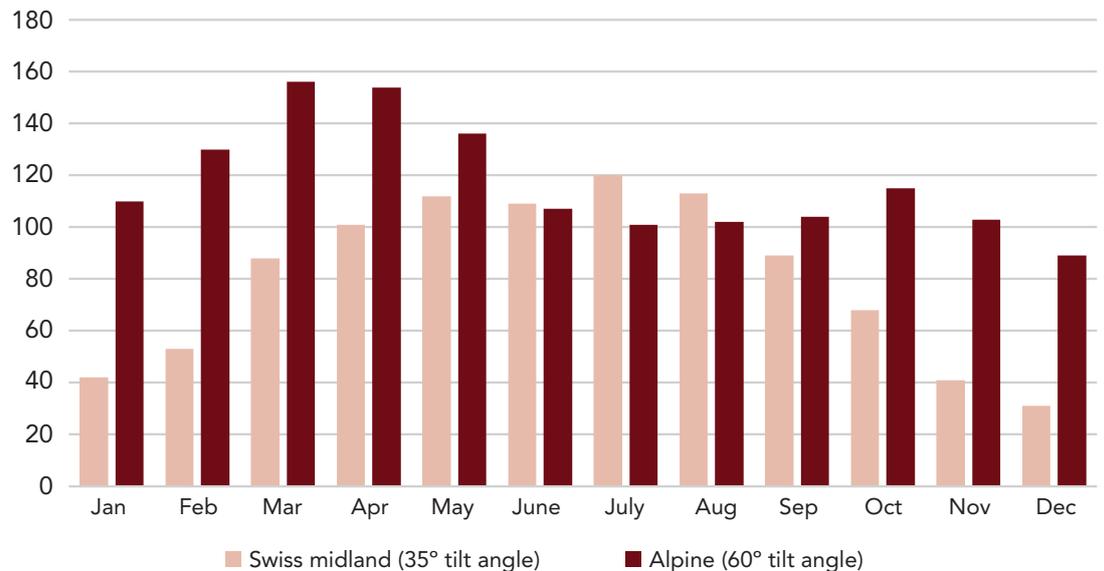


Diagram: During the winter months, alpine solar plants generate significantly higher power volumes than solar plants in the Midlands. Source: ZHAW Wädenswil

Construction in summer 2021

Construction will last from the beginning of June to the end of September 2021, starting with assembly of the steel substructure in the dam wall. Aluminium module tables will then be attached to the substructure, with around 5,000 modules pre-wired in the tables and ready for connection. In the last phase, approximately 100km of cable will be pulled. Due to the nature of the terrain, the material is transported by helicopter. All work is carried out with the greatest respect for nature and wildlife.

Local, renewable power for Denner

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

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