

# News Release

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## Alpine solar plant at Muttsee supports grid stability

**Switzerland's largest alpine solar installation will provide balancing energy to the national grid operator, Swissgrid, from August 2025. The 2.2 MW facility forms part of the pioneering PV4Balancing pilot project, contributing to grid stability by helping to balance fluctuations in supply and demand.**

AlpinSolar, located on the Muttsee dam wall, is participating in Swissgrid's PV4Balancing pilot initiative. The project aims to harness electricity generated by photovoltaic systems as tertiary balancing energy, supporting the reliable operation of the Swiss power grid. Until now, solar power has represented a largely untapped resource for balancing energy requirements.

### Photovoltaics as part of the solution

Solar power generation is inherently weather-dependent, making accurate production forecasting a challenge. This variability poses a significant hurdle for grid stability, as supply and demand must be continuously balanced. PV4Balancing is designed to demonstrate that photovoltaic installations can also provide solutions for managing grid fluctuations. When there is surplus electricity in the grid, the Muttsee solar plant will reduce output at Swissgrid's request. As PV installations typically have a smaller capacity compared to conventional balancing power plants, the pilot project aggregates multiple PV systems for joint marketing and participation.

AlpinSolar's involvement in this innovative project highlights the commitment of its pioneering partners – Axpo and IWB as owners, and Denner as the long-term electricity off-taker – to advancing the energy transition and safeguarding grid stability. Through close collaboration with Swissgrid, the full potential of solar energy can be realised and its integration into the overall energy system further enhanced.

### What is balancing energy?

For the electricity grid to function reliably, production and consumption must always remain in perfect balance. Only then can the grid frequency be maintained at a stable 50 hertz. When fluctuations occur, Swissgrid, the national grid operator, deploys balancing energy – an essential reserve that can either inject additional electricity into the grid or absorb excess power as needed.

Balancing energy is classified into three categories: primary, secondary, and tertiary. In the event of imbalances, primary balancing energy is automatically activated within fractions of a second, followed by secondary balancing energy after just a few seconds. If the fluctuation persists, Swissgrid manually activates tertiary balancing energy after 15 minutes.

So-called “pooling” makes it possible to aggregate numerous smaller units such as combined heat and power plants, battery storage systems, or flexible consumers into a virtual power plant. The combined capacity can then be traded on the balancing energy market and deployed in a targeted manner to stabilise the grid. In this way, even smaller installations can make a significant contribution to grid stability while generating additional revenue.

Pooling has seen remarkable growth in recent years. In 2017, Axpo Group’s pool included just 41 installations; by 2025, this number had soared to over 1,700 units across 15 different technologies. Axpo’s subsidiary CKW operates Switzerland’s largest virtual power plant through its Flexpool, which now boasts a capacity exceeding 1,400 MW – surpassing even the output of the Leibstadt nuclear power plant.

### **About Axpo**

Axpo is driven by a single purpose – to enable a sustainable future through innovative energy solutions. Axpo is Switzerland's largest energy producer and an international leader in energy trading and the marketing of solar and wind power. Axpo combines the experience and expertise of more than 7,000 employees who are driven by a passion for innovation, collaboration and impactful change. Using cutting-edge technologies, Axpo innovates to meet the evolving needs of its customers in over 30 countries across Europe, North America and Asia.

### **About IWB**

IWB is a provider of electricity, heat, water, mobility, and telecommunications solutions. Serving customers in the Basel region and beyond, IWB is committed to delivering services with dedication, expertise, and reliability. As a pioneer in renewable energy and energy efficiency, IWB is working towards supplying all customers with 100% renewable energy, enabling a climate-friendly, efficient, and economically viable approach to energy use. Today, IWB already generates more renewable electricity in its own facilities than is consumed by customers in Basel. The company is making targeted investments in modern infrastructure and is continuously developing new business models.

### **About Denner**

Denner is Switzerland’s leading discount retailer, providing affordable everyday essentials wherever our customers live and work. With over 6,500 employees at more than 880 locations, Denner offers a wide range of competitively priced products for daily needs, as well as weekly special offers to help customers save even more. Denner’s growth goes hand in hand with environmental responsibility. We set ambitious targets for resource conservation and invest in innovative projects that promote responsible practices both within and beyond our company.

**Additional information**

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