

Can solar energy be used in Switzerland?

Although the proportion of solar heat to overall consumption in Switzerland is still relatively low, its potential is considerable. If all existing buildings were to be optimally improved in terms of energy efficiency, it would be possible to meet the heating requirements of all Switzerland's households through the use of solar collectors.

How much does solar energy cost in Switzerland?

In Switzerland, the price paid for solar energy added to the grid varies widely, ranging from less than 4 cents to as high as 21.75 cents per kWh in 2022 in one canton alone. In 2022, Switzerland derived 6% of its electricity from solar power.

What type of energy is used in Switzerland?

Most energy consumed in Switzerland is in the form of petroleum and motor fuels (43%), followed by electricity (26%) and gas (15%). Most of this energy is used by private households and transport (each one third), while manufacturing and services each account for just under one fifth.

What is the energy transition in Switzerland?

The energy transition is currently being implemented in Switzerland through the Energy Strategy 2050, with the goal of climate neutrality. Only 4 of Switzerland's 5 nuclear power plants have been in operation since 2020 and renewable energies' share of total final energy consumption rose to around 28% in 2021.

Is Switzerland able to store energy?

The global challenge is not only to produce more energy from renewable sources, but also to be able to store it. With its hydroelectric power plants in the Alps and innovative projects, Switzerland is contributing to the search for solutions for the efficient, long-term storage of electricity.

What is Switzerland's energy strategy?

Switzerland's energy relies mainly on hydroelectric, nuclear, and natural gas, as well as imported petroleum for cars since Switzerland produces no fossil fuels. Launched in 2011, the 2050 Energy Strategy aims to shift towards sustainable energy practices, achieving climate neutrality and reducing reliance on fossil fuels.

Switzerland's energy policy includes measures targeting CO₂ emissions, such as the implementation of a CO₂ tax in 2008. Furthermore, in 2021, legislation was passed to reinforce the expansion of domestic renewable energies, aiming to enhance the country's supply security.

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In Switzerland, renewable energy is predominantly used to produce electricity (80%). While the share of solar power in Switzerland's total production mix is still low, it has increased in absolute terms more than any of the other "new" renewables.

In 2020 about 29,000 m² were sold in Switzerland. In contrast, the PV market is at its highest level ever with a market grow of 48% in 2020 compared to 2019. It is obvious that homeowners are tending to invest more and more in PV and less in solar thermal applications.

With dynamic system simulations (TRNSYS) different systems and demand situations in Switzerland were examined. As expected, hot water systems achieved the highest solar coverage with up to 80%. In combination systems that contain space heating, the solar share is typically ...

The Federal Act on a Secure Electricity Supply from Renewable Energy Sources was approved by Parliament in autumn 2023. The bill lays the foundations for a rapid expansion of Switzerland's energy production from renewable sources such as hydropower, solar, wind and biomass.

