

SOLAR & STORAGE

LIVE Zürich 2024



Swiss Solar Market Report

The Swiss solar market is taking off. Demand for electricity generated by renewable sources is at an all time high. Growing concerns around rising carbon emissions have caused the Swiss Government to launch multiple policies regarding the development and deployment of renewable projects in Switzerland.

At its current rate, the Swiss Solar market is expected to register a Compound Annual Growth Rate of 5.1%. A range of policies and objectives have been put into place by the Swiss Government to ensure that this growth continues.

Zurich... a booming economy

With an annual GDP volume of over **120 billion** Swiss francs – which is more than twenty per cent of Switzerland's GDP – Zurich accounts for the greatest economic performance and value added in Switzerland.

90%

Almost **90%** of the Swiss electricity utilities are owned by the public sector, i.e. cantons and municipalities, around **8%** are privately owned by Swiss investors and **2%** by foreign investors.

Market

There are around **5.1 million** electricity customers in Switzerland. Since 2009, the electricity market has been partially liberalised. Large electricity consumers (consumption of over **100,000 kWh**) are free to choose their electricity supplier. That is around **32,500 companies**, which corresponds to **0.8%** of all end customers. All other consumers are only allowed to purchase their electricity from the local electricity supplier.

630

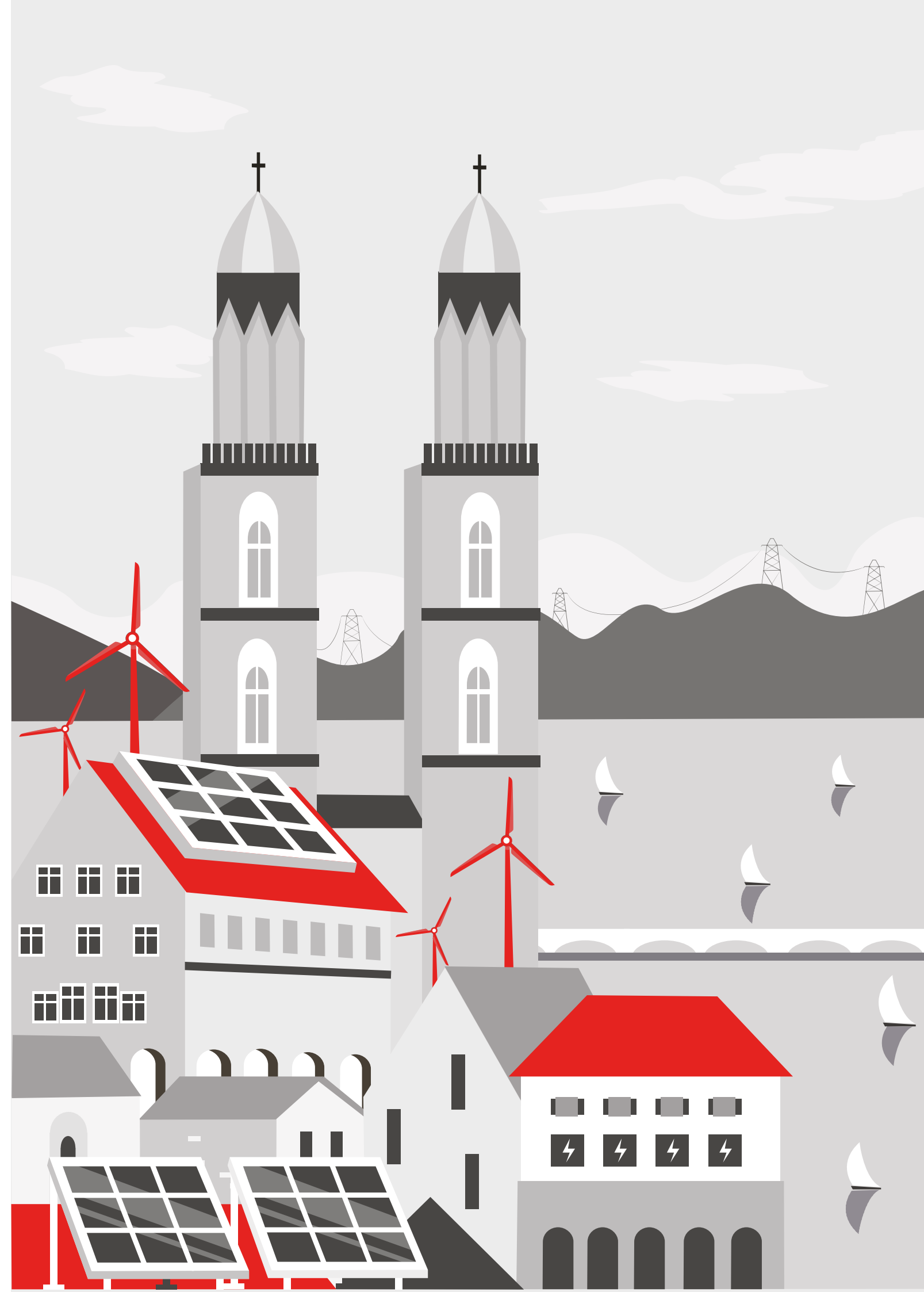
Electricity supply to Swiss end customers is by **630 electricity supply companies**. Many of these are municipally owned. **70%** of these are pure distribution companies.

250,000km

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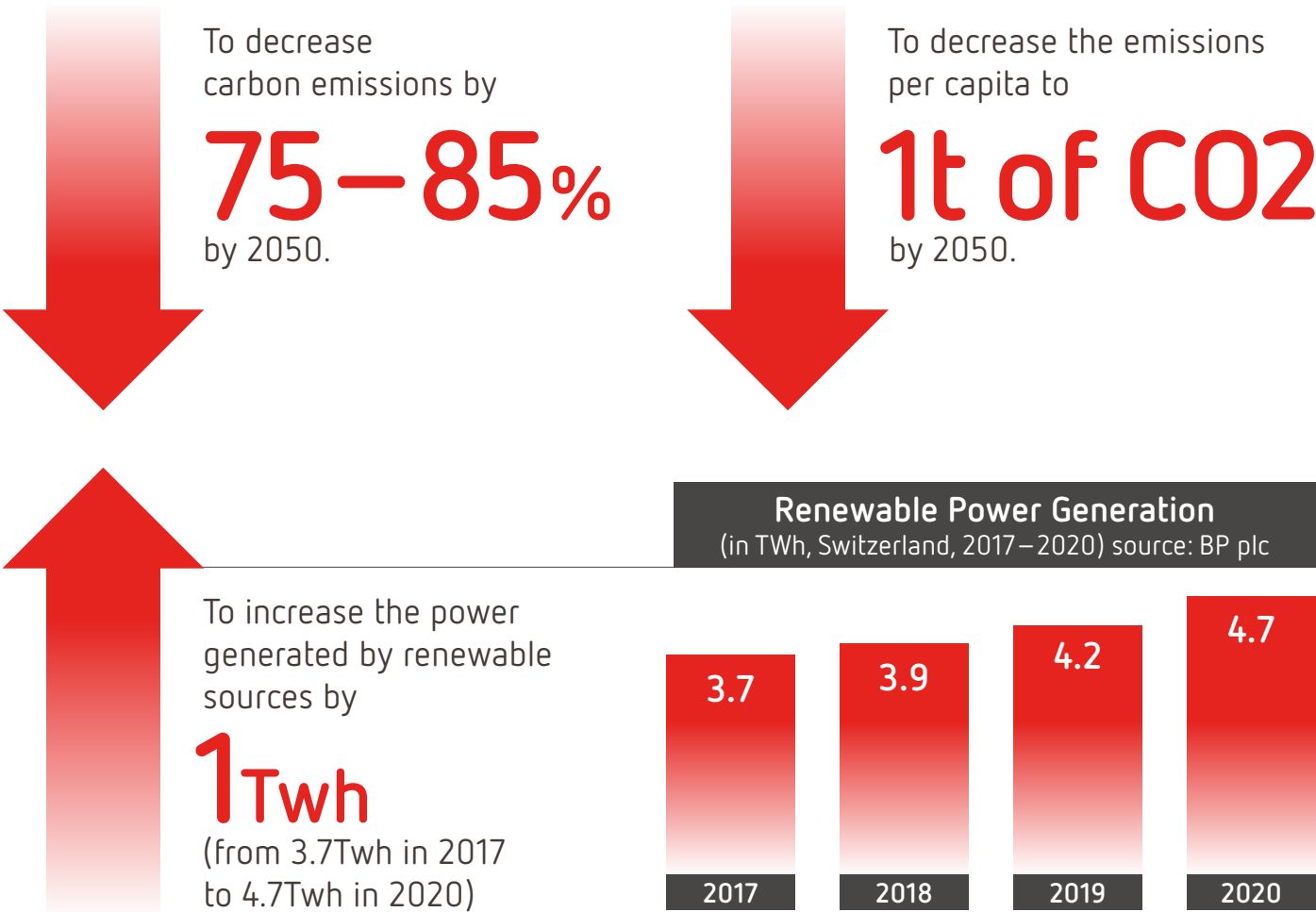
Electricity hub

Switzerland is Europe's electricity hub. The country counts **41 cross-border connections** to neighbouring countries. In addition to its central location, it also owes its important role to its hydropower, which is available in seconds. Today, around **10% of the electricity** exchanged between the **34 countries** in Europe flows through Switzerland.



Swiss Government Policy for Solar Growth

In 2019, the Swiss Government announced that Switzerland would reach net-zero gas emissions by 2050. To do this, a planned climate policy has been put into place and will be assessed in 10-year intervals. The main objectives of this policy are:



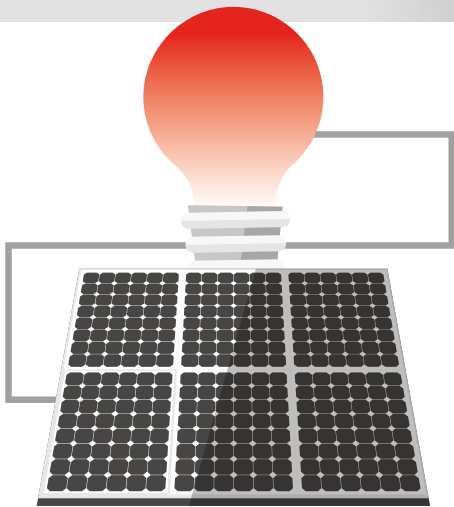
With such policies in place, the Swiss government have placed an emphasis on the most cost-effective technology in renewable generation. The declining cost of Solar PV and Solar installation started to drive up the market demand for Solar generation in Switzerland.

Solar PV modules are now 80% cheaper than what they were in 2009 and such a shift has enabled the Swiss Solar market to skyrocket

What technologies are being deployed?

The current technologies the Swiss Solar market is focusing on deploying are Solar PV modules and Concentrated Solar Power (CSP). Both technologies are being deployed at residential, commercial and industrial (C&I) scale and at utility scale to maximise Solar generation on Switzerland.

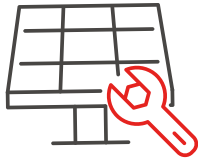
There are around **70,000** photovoltaic plants in Switzerland



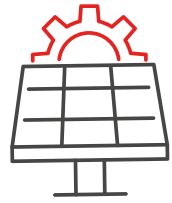
In 2018, domestic electricity generation (net) amounted to **63.5Twh**

ALPINE GEOGRAPHY
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SOLAR PV GOLD

Solar panels at lower altitudes are often under fog or cloud during winter months. At high altitudes there is much less fog and thus more solar radiation. In addition, solar panels like it cold. The efficiency of solar modules is higher at low temperatures than when it is hot. And finally, the sunlight is reflected by the snow cover, which leads to a higher solar power yield. This is called the “albedo effect”. In addition, there are naturally occurring South facing slopes in abundance.

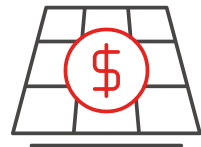


Now that the solar technology has been deployed, Solar PV based panels represent the largest segment of the Swiss Solar energy market. This is due to the increased installation of modules at both commercial and residential scale.



Solar PV technology is predicted to dominate the Swiss Solar market in the coming years. A particular emphasis is being placed on thin-film PV modules.

The technology is being considered a breakthrough technology by many because of its increased Solar power sector share.



The Worldwide price decline of Solar PV has been a major factor in the growth of the Swiss Solar market. The cost of electricity generated by Solar assets has decreased by

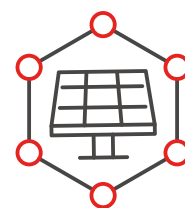
75%

between 2015-2019 and have continued to decline with the technological developments, mass production and increased efficiency of Solar PVs.

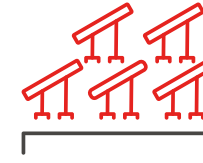


In addition to this, the levelized cost of electricity produced from utility scale Solar PV plants is estimated to have fallen by

82%



New supply chains for the Swiss Solar market are essential to the future success of Solar's development and deployment in Switzerland.



In 2021, the average price of Solar PV modules decreased by 68%. This decline has increased the number of solar capacity installations across Switzerland by

53.9%

Decreased price and increased solar capacity installation has led to the rising demand of Solar PVs in Switzerland.

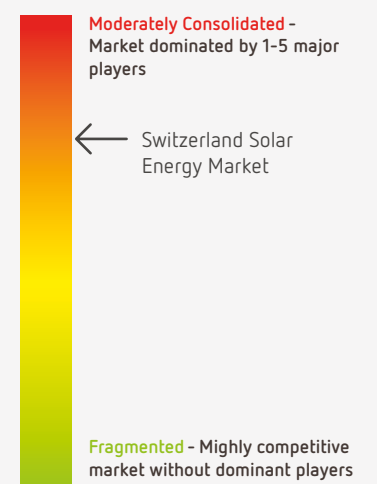
The continuous rise in demand and deployment of Solar PVs in Switzerland provides an opportunity for more companies to enter the Swiss Solar market.



The Swiss Solar energy market is a partially consolidated market with a small number of major players supplying and deploying Solar PV projects in the country. The key players include, **Swiss Solar AG, Anergdy, APAK Energy, ARS Solaris Hachler, and Solaronix SA.**

The partially consolidated Swiss Solar market, eventually, will need an increased amount of supply to keep up with government policies in place around reaching net zero targets and renewable energy generation.

Market Concentration



Solar Market trends in Switzerland

What is happening in Switzerland?

In May 2021, The Swiss Government allocated close to

470million

Swiss Francs for Solar rebates in 2021. This figure represents 20% of the investment costs of Solar projects in Switzerland.

In February 2022, Alpiq announced plans to build the Gondostor bifacial power plant at an approximate cost of

42million

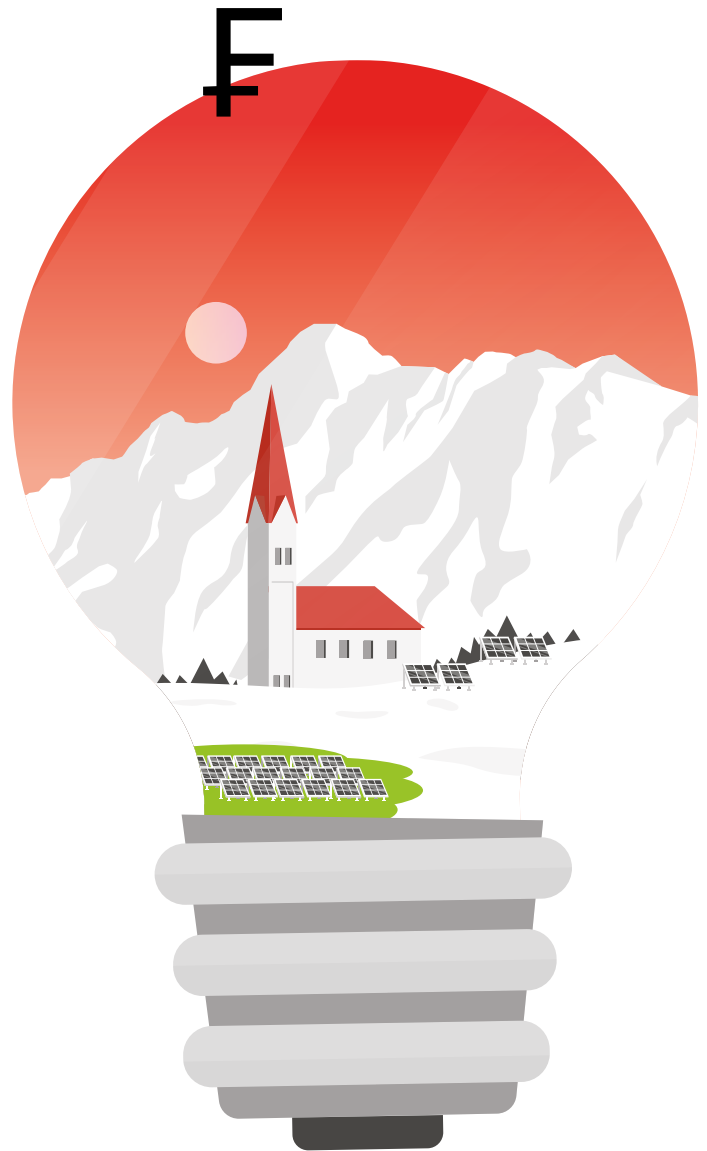
Swiss Francs. The objective is for the plant to generate

23.3million Kwh

of electricity per year.

In the same month, Megosol Energie AG also announced the launch of the 500w bifacial solar module with an estimated power conversion efficiency rate of

23.2%



Conclusion

The Swiss Solar market is in an upward trajectory with Government objectives on target to being achieved in the short term. However, without new supply chains, Switzerland's supply of Solar PV may not be able to keep up to demand in the long term. Increased supply will help continue the positive growth of renewable electricity generation in Switzerland for years to come.

Source for figures:

<https://www.mordorintelligence.com/industry-reports/switzerland-solar-energy-market/market-share>

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