

Schönau's revolutionists



It's the year 1998, 150 years after the 1848 revolution, which had its origin here in the south of Baden. In remembrance of those days, citizens of Schönau and Wieden are on their feet with drums, horse-drawn carriages, scythes and axes.

OK, this time they are not trying to overthrow a monarchy. But they also oppose the authorities: They mount the first solar panels onto the church roof of Bergkirche – without previous permission. In fact, heritage protection authorities had rushed to declare the only 70 years old church a listed building to prevent the permission. Fortunately, this time no blood is spilled to settle the matter. The permission is issued retroactively.



Schönau's "Creation Windows": Since 1998 they are a visible sign for the protection of creation.

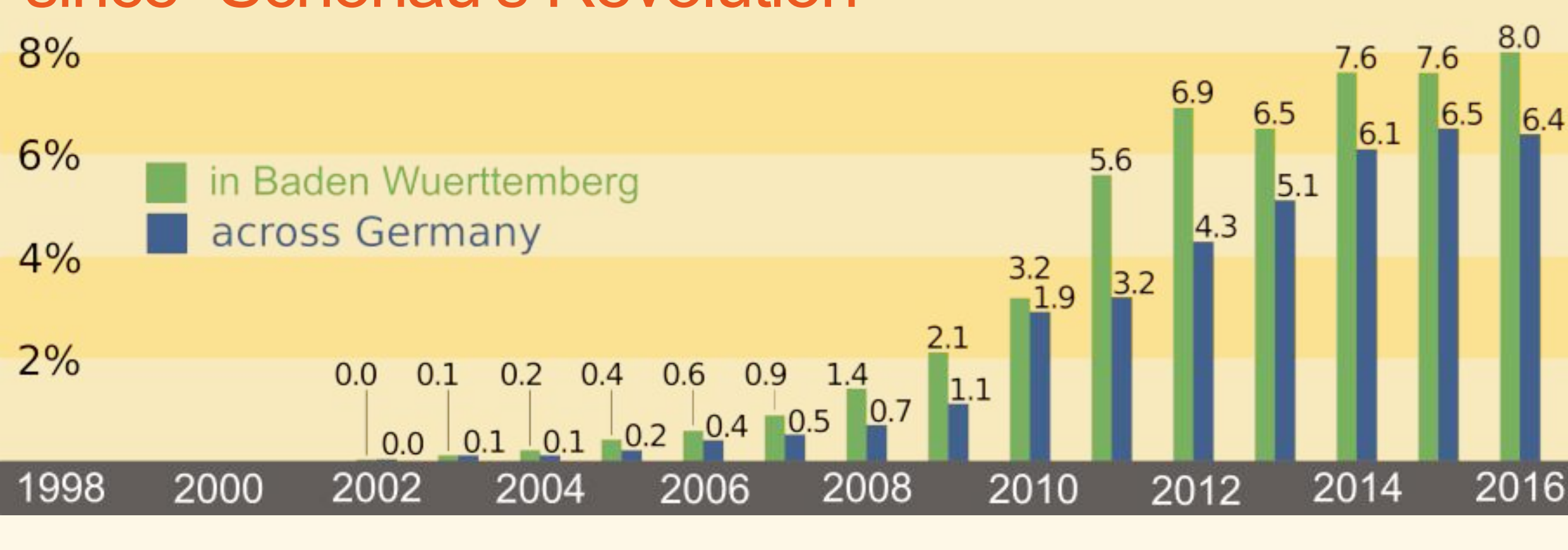
This was the beginning of an ambitious project: 51 kW maximum output should be generated by the photovoltaics on the roofs of the church and the parish hall. At the time, this was very expensive: 719,000 Deutsche mark, that is about 400,000 €, or 8000 € per kW power. Within one year the project was completed with donations and a subsidy from the church: pioneering work at a time when only 8.7 ct/kWh was compensated for solar power fed into the grid.

The German Renewable Energy Sources Act changes everything

But in 2000 the Renewable Energy Law came into effect, which secured a compensation of 50.6 ct/kWh for 20 years and the photovoltaics started to return profit.

Less than 20 years later, a lot has changed: While solar energy was generated for 15,000 four-person households in Germany in 2000, in 2016 it was 9.5 million – 7.4 % of the overall energy consumption.

Share of photovoltaic in the overall power generation since "Schönau's Revolution"



The price of a new photovoltaic setup had sunk to 1600 € per kW in 2016, though the compensation for electricity fed into the grid fell, too. For Schönau's "Creation Windows" it would only be 10.61 ct/kWh today.

Despite all these achievements, there is still a long way to go until 25 % of energy is generated from solar power, as required for a successful exit from nuclear and fossil-fuel energy.

...nature has been doing it for a long time: To capture energy from sunlight. Plants, for example: Their green pigment chlorophyll collects sunlight. However, plants do not use the light to generate electricity but to convert water and carbon dioxide (CO₂) to energy-rich matter such as sugar, which they need to grow.

This process is called photosynthesis. The byproduct is oxygen, which we need to breathe! That's why plants are so very important for people and animals.

Take the Greek word for light – photo (Phōs) and the name of the Italian electricity researcher Alessandro Volta and the term photovoltaics is born. It stands for "electricity from light"

