



The Solar & Save Initiative in Germany

With the start of the “**100,000 Watts Solar Initiative for Schools in North Rhine-Westphalia – Energy School 2000+**”, a new approach in energy performance contracting was introduced: climate protection in public buildings as a profitable capital investment by private citizens. The project combines the construction of solar power plants (up to an output of 50 kW) with measures to modernise lighting and introduce other possibilities to save energy (the “Solar & Save” concept). In specially chosen schools, about 50 watts of solar energy per student are installed. Another 50 watts per student are saved by other energy efficiency measures (e.g. energy efficient lighting, heating and ventilation systems). Thus, 100,000 watts are being saved in an average school with 1,000 students.



Aggertal School

Between November 2000 and March 2002, the first project was successfully accomplished at the **Aggertal High School** in Engelskirchen. A four hundred square meter solar power plant was installed on the roof of the Aggertal High School, and the lighting system was refurbished. This solar power plant is the largest in the region to be put into operation yet.

In the meantime, three further projects of the “100,000 Watts Solar Initiative” were started. For example, at the **Willibrord High School** in Emmerich/Rhine, in co-operation with the city-government, the energy supplying-company Stadtwerke Emmerich and the school, the following investments were initiated: establishment of the largest solar power plant with private citizens’ involvement (50 kWp) in the region Niederrhein, modernization of the lighting system, refurbishment of the heating and ventilation systems, and the installation of a small natural gas-fired co-generation plant.

The other two projects are being implemented at the **Gesamtschule Berger Feld** in Gelsenkirchen and at the **Europaschule (Europe School)** in Cologne.

What makes all these projects so different is the fact that they were realized through private citizens’ involvement. The investors could subscribe for shares of the Solar&Spar Contract GmbH & Co. KG as sleeping partners. The company then invested the money in a solar power plant and further measures for saving energy (as described above). In return, the company receives the proceeds from the energy, which the solar power plant provides to the local energy supplier. The company also receives the energy costs saved by the municipality. After considering the running costs of servicing loans and business operating expenses, the surplus will be paid to all participants over a period of 20 years.

The main advantages of this participatory solar & save approach therefore are:

- investors receive a reasonable payment of interest (about 5 percent)
- school and community save on renovation and running costs
- teachers and students experience practical climate protection
- less maintenance work for the caretaker
- local tradesmen receive work orders
- thousands of tons of carbon dioxide emissions per year are prevented.

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