

## World first commercial Solar Thermal Power Plant erected in the city of Julich, Germany

The STPP is based on the SolAir technology the power plant is designed to produce 1.5MW electricity and designed to operate 1.000 hour per year.

Potentially the STPP could later be combined with biomass from the local production of beet. Anyone driving in the area knows its extensive production of sugar beet. Such could be added for as much as a total production of 4MW electricity = impressive 25% of the city consumption!



This new-style solar-thermal-power-plant is visible via the 60 meter high tower with the Volumetric-Receiver consisting of 2,500 VR-unit (developed by Stobbe Tech) on the top. Almost 20,000 square meters of sun-tracking mirrors (heliostats) focus radiation on the receiver in which the air is heated to app. 700°C. The hot air generates steam in a boiler, and the steam drives a steam turbine with an electrical capacity of 1,5 MW. Overall thermal efficiency is 25%.



The project was funded by the Federal Ministry of Environment, Conservation, and Reactor Safety (BMU), the Ministry of Economics, Building, Housing, and Transport and the Ministry of Innovation, Science, and Research of the State of North-Rhine Westphalia as well as the Bavarian Ministry of Economics, Infrastructure, Transport, and Technology.

Ceramics developed by Stobbe Tech and manufactured by Saint Gobain.