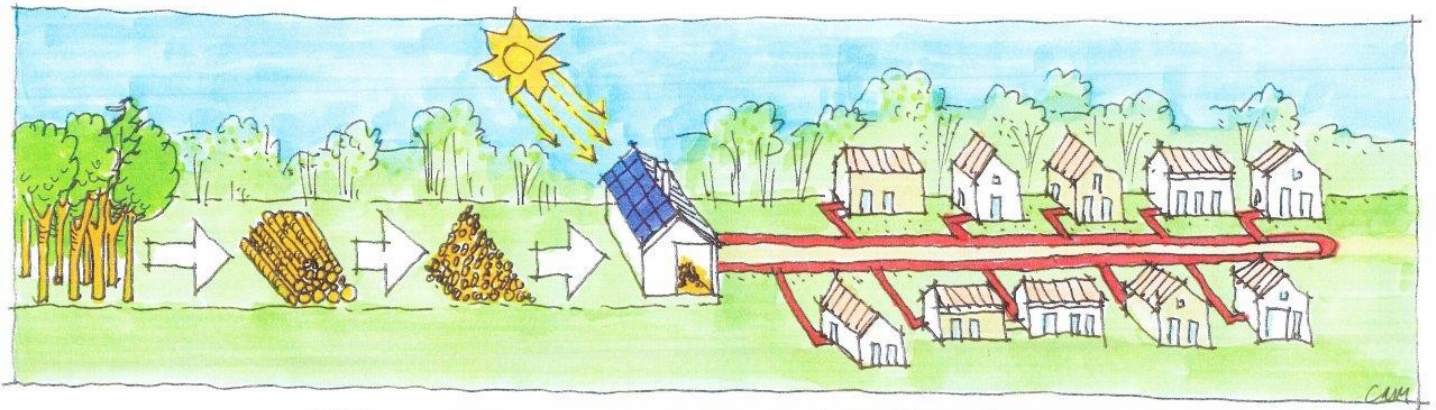


New Energy Plan for ZEGG



Wärmeerzeugung aus regenerativen Energieträgern

A new **energy plan** is being **implemented by ZEGG GmbH** after it decommissioned the old biomass heating system which had served the community well for its first 20 years on the Bad Belzig site. The new plan is based around a new solar-assisted biomass heating plant with the following components:

- **240m² thermal solar plant**
- **a new woodchip storage hall**
- **a new woodchip-fired boiler with 500kW heat output**
- **a log-fired boiler with 350kW heat output**
- **3 combined heat and power (cogeneration) plants, which have already been installed in the basement of the Restaurant building, delivering both heat and electricity**

In addition to the CHPs, some ZEGG residents have joined forces to install and operate a photovoltaic solar power plant with a rating of c. 29 kWp.

This energy mix means that 86% of ZEGG's thermal energy requirements will be met from regenerative sources.

The combined heat and power plants produce electrical energy in a CO₂-friendly way because the excess thermal energy produced by the power generation is used directly for heating water and buildings. This leads to CO₂ savings of 66,000 kg per year!

The combination of CHP and PV power plants meets more than 87% of ZEGG's electricity demand.

ZEGG GmbH is also completely renewing the site heating network. The deteriorating condition of the pipes had led to heat losses of up to 15% (c. 150kW), which will now be reduced to around 4%. Reducing energy losses through insulation and renewal is as important as building new plants and converting to regional regenerative sources: after all, the energy lost could be used to heat around 20 modern detached houses. For this reason, the existing buildings on the ZEGG site are also being insulated. At the rate of one building per year, full thermal installation is applied, including work on the facades, windows, roofs and floors. The measures being taken to implement the energy plan make significant construction and groundwork necessary around the site. In spite of this, the community is making every effort to ensure that its guests still have an enjoyable and comfortable stay, for example, by building bridges over any open pipe trenches. However, we do apologise for any unavoidable inconveniences and thank you for your patience.

These investments ensure that ZEGG GmbH continues to be a trailblazer when it comes to the use of renewable and regional energy sources. The previous woodchip-fired boiler had an output of 850kW, so it is being fully replaced by the new boilers. It had been visited by some 1000 people from universities and other institutes of higher education as well as politicians since it was a pioneering example of its kind – the first woodchip boiler in its output class (over 100kW) to be installed in the German federal state of Brandenburg. The implementation of the new energy plan is being supported by the promotional bank of the state of Brandenburg ILB and the German development bank KfW. The financing bank is the Berliner Volksbank. The consulting engineers are IG Schiller & Drobka mbH from Bad Belzig. They are active throughout Germany as specialists for regenerative energy systems and water recycling systems.