Press Release

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Heating plant profits from demand-oriented energy generation with heat-guided wood gasifiers

Wood gasifiers are usually operated on a current-controlled basis. But even heat-controlled operation is possible when Spanner Re² Biomass CHPs are linked with an intelligent buffer management system. The two complimentary systems operate when heat is required and if there is excess heat, the wood gasifier switches itself off or reduces its output.

Neufahrn i. NB. Since 2012, two wood gasifiers from the plant manufacturer Spanner Re² GmbH in Furth near Landshut have been in operation, which additionally supply a biomass heating plant with heat energy. The systems, which are connected in cascade and can be operated both in parallel and independently of each other, supply energy when the consumers need it.

Flexible wood gasification plants supply energy demand in summer

The flexible buffer management system of Spanner Re²'s Biomass CHP has proven its worth. Especially in the summer months when the heat demand is falling and peak loads in the local heating network occur in the morning and evening. A system with a thermal output of approx. 102 kW continuously covers the base load of the local heating network. The second wood gasifier adjusts the output to the required heat demand and throttles the plant output if necessary. Around 150 to 200 kW_{th} is required in the summer months, with strong fluctuations in demand. The heating plant with an output of 800 kW_{th} is not in operation during the summer. Low partial load operation in combination with peak demand can have a negative effect on the service life of a large heating plant. The use of flexible wood gasifiers from Spanner Re² protects the boiler technology of the large plant.

The energy generation with the wood gasifier plants from Spanner Re² is fully automated and according to demand. The plant is fueled with wood chips from the region which means fossil resources can be replaced sustainably. In addition, the wood chip industry creates jobs in the region and strengthens the economy. "Spanner Re² wood gasifiers have a modular design and are particularly flexible in operation," says Wolfgang Pöltl, former plant manager. The needs- based operation of the plants is controlled by special software developed and continuously expanded by the Lower Bavarian plant manufacturer itself.

Electricity is fed into the grid

Unlike a conventional biomass heating plant, a wood gasifier from Spanner Re² not only generates heat from wood chips, but also electricity. The two wood-fired power plants in Furth each have an output of 45 kW_{el}. With around 7,000 operating hours per year, this is over 600,000 kWh of electricity, which is generated every year and fed into the public grid. The electricity fed into the grid is remunerated in accordance with the Renewable Energy Sources Act.

Pictures:
View into the boiler room in Furth, where the two wood power plants of Spanner Re² GmbH are installed. The heat generated from wood chips is fed into the local heating network of the adjoining biomass heating plant, the electricity is fed into the public grid. Source: Spanner Re² GmbH

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