Press release

29.10.2020

Kirchschlag community sets course for an energy independent future

After implimenting its innovative energy solution, the Lower Austrian municipality of Kirchschlag is a leading role model for many other regions in the country. With a CHP cascade from Spanner Re² and two biomass boilers, the municipality generates electricity and heat from regional wood chips,supplying hundreds of households with CO_2-neutral energy.

Kirchschlag, Austria /Neufahrn i. NB, Germany. Kirchschlag municipality's goal was to find a climate- and environmentally friendly energy solution, where the added value remains in the region. They decided on the domestic and renewble resource of wood as their future energy source. In order to make the best possible use of this fuel, the community leaders opted for a technology that can generate both electricity and heat from wood chips.

Wood-based combined heat and power plants from Spanner Re²

During 2020, five wood-fired power plants from the Lower Bavarian company Spanner Re² have been in operation in a combined heat and power plant built especially for the project. The total output of the plant is 340 kilowatts of electcicity and 615 kilowatts of heat. The proven Re² plants produce parallel electricity and heat according to the principle of combined heat and power (CHP). A thermochemical process is used to produce a particularly clean wood gas from the wood chips, which is converted into electricity in a downstream combined heat and power unit (CHP).

The modular design of the plants guarantees maximum operational safety. This is because the multiple plants also supply energy during maintenance work. In addition, the output range can be adjusted according to demand. The municipality of Kirchschlag has integrated two 400-kilowatt woodchip heating systems into the new energy concept. Approximately 6,000 MWh of heat and 2,700 MWh of electricity are generated annually in the municipal combined heat and power plant. Around 2,750 tons of wood chips, are exclusively purchased from regional suppliers within a radius of 30 kilometers, are used as fuel. This has enbled he city municipality to supply up to 675 households with green electricity and 250 households with CO_2-neutral heat. The heat is provided via a district heating network with a length of more than 3,400 meters of pipeline.

Municipality of Kirschlag takes on a pioneering role

"The project in Kirchschlag is exemplary for sustainable energy production", reports Bernhard Seiler, project manager at Spanner Re². "Our plants work decentralised and supply CO_2-neutral energy - and that, adapted to the demand. We are pleased that we were able to contribute our many years of know-how and our mature technology to this highly interesting project", Seiler continues. With the new energy concept, Kirchschlag is taking on a pioneering role that will serve as a model for the whole of Austria. The municipality has invested more than three million euros in the project. Deputy Mayor Karl Kager explains the decision to put the energy supply of the municipality on an environmentally and climate-friendly footing as follows: "The future lives on how we shape the present".

Figure 1: The new combined heat and power plant in the community of Kirchschlag supplies electricity and heat from wood chips for several hundred households.
Picture 2: Five wood-fired power plants of the Lower Bavarian plant manufacturer Spanner Re² generate electricity and heat from regional wood chips in the Kirchschlag CHP plant according to the principle of combined heat and power generation. Source: Spanner Re² GmbH

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