

Plant for utilization of waste biomass for heat and electricity generation with nominal heat capacity of inlet 43.5MW

One of the last successfully implemented projects of Svilosa is the construction of Plant for utilization of waste biomass for heat and electricity generation with nominal heat capacity of inlet 43.5MW”.

By this investment the Company provides its energy independence. The surplus of electricity production will be sold on the free market. The new project will contribute to the green energy production at the region.

Biomass plants in Bulgaria serve as a balancing capacity that compensate the fluctuations in the power grid load caused by photovoltaic and wind plants operation. Besides the regulation of power grid load the biomass plants create new work places, help waste biomass utilization and reduce emissions of greenhouse gasses.

At the end of 2023 all construction and installation activities under the new plant have been completed followed by check and equipment setting for all control systems commissioning.

The new Biomass plant's capacity is 65t steam and 16MW electricity per hour. These amounts will save more than 200 000t/year CO₂ emissions. Advanced technology for incineration called “circulating fluidized bed” is used. The latter allows better incineration for the used fuel thus reducing the emissions of greenhouse gases. Emissions parameters corresponding to the best European technologies will be achieved.

New Biomass Plant has been designed only for biomass incineration. The waste wood barks generated by the wood processing for bleached sulphate pulp production at Svilocell is 100% utilized.

Besides wasted wood barks from Pulp production as a main fuel could be utilized wastes from the forestry (branches, waste wood) and agriculture as well as waste wood from the construction.

The Biomass plant will consume about 120 000t/a waste biomass or about 15,131t/h biomass with 35% moisture content.

The Biomass plant has been constructed in compliance with the technical regulation for environmental protection as well as with the regulations of Bulgaria and European union.

The new Biomass plant has the following advantages:

- Energy independence of Company;
- Utilization of waste barks and chips generated by wood processing.
- Solving the problem with barks treatment. The waste biomass has a big energy capacity which could be used for electro and heat production. Without being utilized this product is a source of big greenhouse gases amount thus causing a serious environmental problem. Due to this reason and according the Bulgarian legislation this product could not be landfilled.
- The implementation of technology for combined production for electro and heat energy is the most efficient and proper method since near by are located consumers of the generated energy.

- Prevention of fossil fuels usage

The Company corporate policy corresponds to the global efforts for negative environmental impact decrease and complies with the idea for energy efficiency sustainability and reduction of industry carbon footprint. By saving carbon emissions the Company follows its environmental policy thus including in the world efforts to limit the human impact over the climate changes resulted by the greenhouse effect.

Thus, Svilosa carried out the green idea or the most important purpose of the European green deal – full energy decarbonization up to 2050.

We believe that the policy of Svilosa influences the real benefits as well as sets a good example of our partners and generations following us. The big companies are responsible for making trends not only in its activity field but in the community. They have to take care for the fast implementation of new technologies concerning climate protection worldwide.