



Sustainable innovation in bioenergy

Trebišov, Slovak Republic – 23 152 inhabitants

Biomass - Energy Efficiency – Local energy chain

A relocated centralised biomass boiler sources straw, hay and woody material from the surrounding countryside and turns this into clean renewable energy for homes, creating new jobs and cutting emissions.

Project in a Nutshell

The main mission of the Sustainable Innovation in Bioenergy (SIMBIO) project was to ensure sustainable production of heat from local biomass, thus supporting the local economy within underdeveloped regions.

The SINBIO project was implemented during the period 2014-2016 in 4 districts of Central and Eastern Slovakia, in cooperation with 9 project partners (6 Slovak and 3 Norwegian). The project was financed by the company Trebišovská energetická, Norwegian Grants and the Slovak government under the Green Innovation Program in industry. The entire costs and related investments reached €9,5 million. The project allowed the construction of new central biomass boilers in the towns of Poltár, Tlmače and Trebišov with a total installed capacity of 12,5 MW to replace obsolete systems of central coal and natural gas supply. It aimed at extending and improving the logistic activities associated with the processing of biomass as well as the realization of research on the energy crop suitable for growing on unused soils in eastern Slovakia.

Impact & Next steps

The town of Trebišov has been heated for more than a year with local biomass. The pilot planting of fast-growing crops was also carried out following the opening ceremony of the new boiler facility in May 2016. The SINBIO project helped save more than 7 thousand tonnes of CO₂ per year. It increased energy self-sufficiency, but also supported local economies for around €2 million per year.

In the future, the reconstruction of existing pipelines in the gas boiler circuits into individual collection points is also envisaged.

Replicability: Challenges & Success Factors

One of the main challenges for the development of such project is the state regulatory framework for the energy sector which is quite stringent in Slovakia. Also, such projects require a certain degree of political commitment.



Using locally produced biomass allows to have shorter supply chain but also to market expansion in the area, increasing the buy-in from the local population. The project communication underlined the advantages focusing on the improvement of the quality of life (less pollution, job creation). Educational activities were also put in place in refurbished buildings, targeting both adults and children.

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