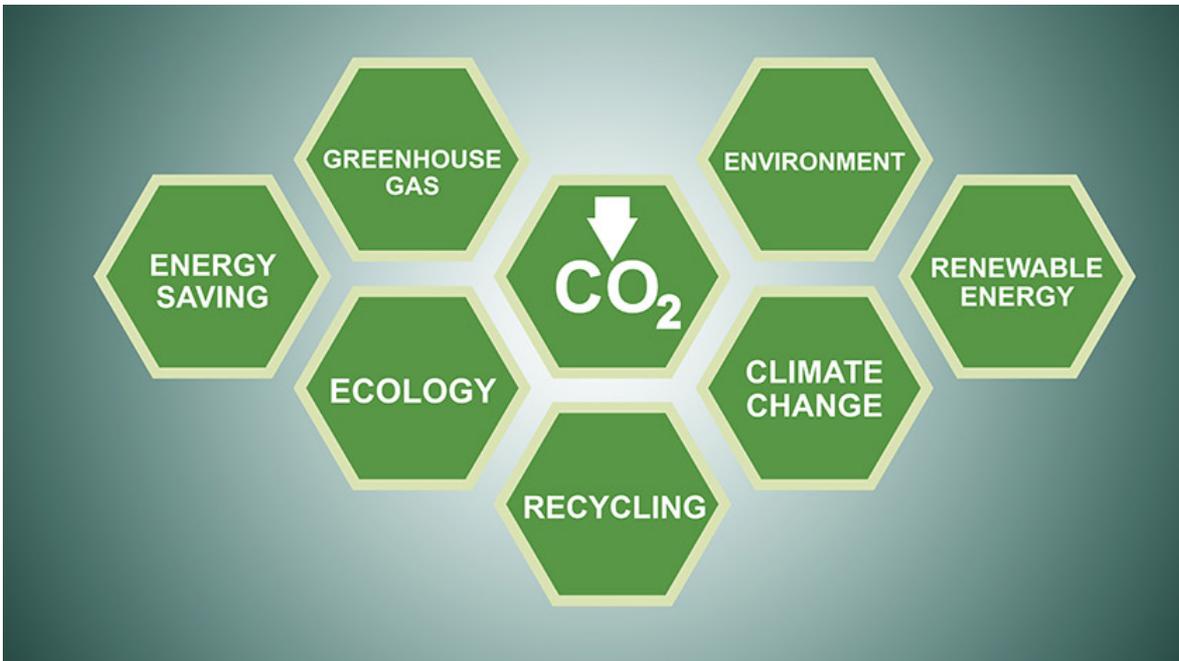


Bioenergy villages wave goodbye to fossil fuels

Seven communities in south-eastern Europe plan to install biomass-based district heating systems thanks to an EU-funded project designed to reduce reliance on fossil fuels and strengthen local economies.



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Replacing fossil fuels with renewable energy sources can be a daunting prospect, especially for rural communities still reliant on traditional technologies. But where local potential exists, one solution is to become a 'bioenergy village'.

'A bioenergy village is a village, municipality, settlement or community – or a part of it – which produces and uses most of its energy demand from local biomass sources,' explains Jens Adler of GIZ, a German agency for international cooperation which coordinated the EU-funded BIOVILL project. It was implemented by a consortium of nine organisations working to establish bioenergy villages in south-eastern Europe.

The concept, which has been strongly promoted in Germany and Austria since the 1990s, encourages communities to develop renewable energy sources, principally from biomass, while strengthening rural economies in a sustainable way.

'BIOVILL has proven that, with some adjustments, this concept is applicable in the south-east European partner countries, too,' Adler says.

Bioenergy for district heating

The region was chosen for the project as many communities still rely on coal and oil for heating and power. A shortlist of 32 towns and villages was considered from which seven were selected: Lekenik and Perušić in Croatia, Estelnic and Ghelina in Romania, Dole Pri Litiji in Slovenia, Kichevo in North Macedonia and Kostojevići in Serbia.

The BIOVILL partners then engaged with local stakeholders and organisations to design suitable bioenergy systems. 'Every community is unique,' Adler says. 'The aim of the project was to work out, together with the partners and with technologists, an individual solution for each village up to the investment stage.'

One feature all seven locations will have in common is district heating, where water is heated centrally and distributed to consumers around the community. Six of the villages will invest in new biomass-fuelled systems, using wood residues from local forests, agriculture and wood processing, while the seventh will replace an oil-fired boiler with a biomass boiler in an existing system. Heat will be supplied to schools, municipal and other public buildings as well to some businesses and, at a later stage, private homes.

Three of the communities are also planning to generate electricity from combined heat and power plants.

Local commitment

'In the next two to five years, the planned investments in modern bioenergy district heating systems will generate around 83 GWh of heat and 16 GWh of electricity per year,' Adler says. 'More than 110 new jobs will be created and emissions equivalent to more than 30 000 tonnes of carbon dioxide per year will be saved.'

He notes that local small and medium-sized enterprises, such as forestry SMEs, wood processors, and plumbing and heating companies, are heavily involved in the projects either as service providers or as partners in the future implementation and management of the energy schemes.

The project finished early in 2019, too soon to see the schemes through to completion. Most are still at the planning and financing stage, although some building work has begun. Local leaders and stakeholders in all the villages have signed letters of commitment to follow through on their plans.

However, the influence of BIOVILL extends beyond the seven communities. 'The BIOVILL outreach activities have supported the transfer of the bioenergy village idea to other villages and neighbouring countries, such as from Romania to Moldova,' Adler says.

'This is an initiative that is really worth spreading as there is so much potential. Everybody now knows that we have to do something about renewable energy production.'

Project details

- Project acronym: BIOVILL
- Participants: Germany (Coordinator), Austria, Croatia, Romania, Serbia, Slovenia
- Project N°: 691661
- Total cost: € 1 998 917
- EU contribution: € 1 998 917
- Duration: March 2016 to February 2019

See also

Project website: <http://www.biovill.eu/>

Project details:

<https://cordis.europa.eu/project/rcn/199956/factsheet/en>

View the article online:

http://ec.europa.eu/research/infocentre/article_en.cfm?artid=51125

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