

Markets for the commercial use of biomass for heat and power generation – the cases of Bulgaria, Rumania and Turkey

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Although biomass resources are abundant in many CEE/SEE countries, assessment of their potential and commercial use, for heat and power generation, are mostly nonexistent or incomprehensible.

This contribution will define three main types of biomass, describe key supply chains and assess the markets for the countries Bulgaria, Romania and Turkey.

Sources of biomass for heat and power generation can be categorized into forestry products, agricultural products and waste products. Forestry products include harvesting residues, firewood, rotten stems, round-wood for energetic use and forest industry residues. Agricultural products include manure from livestock, residues of crop production (including horticulture) as well as the production of energy crops or energy wood from short rotation plantations. Waste products include organic, solid municipal or industrial waste. Such waste can be used as follows; directly at the industrial site; collected and distributed to utilities or disposed on landfills, where it can further utilized. Waste products include also sewage sludge.

Main supply chains in forestry describe the production chain of woody chips and their use in CHP plants or the production of woody pellets and their export. Agricultural supply chains include local manure utilization in biogas plants, the production of energy crops or short rotation biomass and its use in biogas or CHP plants, the utilization of straw residues, their pelletizing or use in CHP plants. Waste supply chains include the production of pellets from sawmilling residues, the utilization of landfill gas or sewage gas in biogas engines, the collection and incineration of MSW in CHP plants.

In the **market assessment results** we focus on the markets for supply, distribution and use of biomass. This includes also an overview on the legal and regulatory framework affecting the above markets and opportunities. This allows for a scaling of the use of biomass as well as an assessment of the social impacts of biomass use.