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APPLICATION OF PILOT TECHNOLOGIES FOR ENERGY UTILIZATION OF AGRICULTURAL RESIDUES IN NORTHERN GREECE

ABSTRACT

The enormous potential of agro biomass can be exploited to produce sustainable bioenergy. Proper management and further exploitation of this potential could lead to economically profitable approximations and solutions for the agricultural industry and even energy production industry. Gasification in-situ with energy production or pyrolysis of the above mentioned residues, under a non-oxidizing atmosphere for alternative fuels production could be a solution to the environmental problems that land filling or conventional combustion could create. The present work focuses on combustion and pyrolysis of cotton gin residues in Greece, as an alternative way of energy production. The purpose of presentation of a case study of the two alternatives methods (combustion and gasification or pyrolysis), by using cotton ginning waste as biofuel, is to show the appropriateness of new bioenergy sources by coupling them with energy production technologies. These technologies can be applied in northern Greece as well as in other Balkan or Mediterranean countries.

KEYWORDS

[biomass](#), [biomass residues](#), [energy](#), [combustion](#), [pyrolysis](#), [gasification](#)

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