

CHARACTERISTICS AND GEOGRAPHICAL DISTRIBUTION OF AGRICULTURAL RESIDUES FOR ENERGY PRODUCTION IN GREECE

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ABSTRACT: Agriculture is a source of considerable quantities of biomass that can be used in regional biomass power facilities. In this study the residues produced during the cultivation of food and fibre crops in Greece have been analysed in terms of quantities, energy potential and spatial distribution, in an attempt to identify the most promising biomass feedstocks for energy production and the most promising regions for this kind of installations. The theoretical biomass potential of the different agricultural residues was evaluated using statistical data on the production of the main agricultural products. In a further step the available quantities were assessed taking into account the percentages already used, and were surveyed in thematic maps at a regional level. The energy content of the different types of agricultural residues was evaluated by means of their Higher Heating Value. Agricultural residues represent an attractive alternative source to fossil fuels in Greece and the quantities that can be considered available have been evaluated up to 4,304,117 dry tones/year. A first analysis at a regional level pointed out two regions in Central Greece in which the total available quantities of crop residues exceeded 250,000 dry tones/year.

Keywords: agricultural residues, bioenergy, regional distribution