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## **WOOD WASTE AS A RENEWABLE SOURCE OF ENERGY**

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### **Abstract**

The renewable sources of energy represent a viable alternative for satisfying the energetic needs of humanity in case the fossil fuels reserves are exhausted, which is estimated to occur in maximum 25 years if the current rate of exploitation is maintained. Nowadays, there are several concerns about the valorization of the energetic potential of these resources (wind, water flows, solar, geothermal energy etc.), but also a series of extremely beneficial practical uses (i.e. wind parks, photovoltaic cells systems, production of biofuels - biogas, organic solvents (bioethanol) or biohydrogen, polyhydroxyalkanoates or other hybrid biocarburant product). The use of wood waste as a renewable energy source, replacing fossil fuels, was demonstrated to be technically feasible and economically attractive. Aligning to this new direction of ecological valorization of wood waste, the companies specialized in the production of equipments and installations for the combustion of wood waste continue to improve their design, while increasing their technical performance in order to achieve an almost complete combustion, thus obtaining a higher amount of energy and simultaneously reducing the ash quantity and the gaseous emissions of toxic compounds. These targets suppose the reduction of production costs in parallel with the necessity of increasing the overall costs involved. Wood waste includes broken pallets, crates, and waste timber from building and demolition works. The aim of this article is to present an overview of the opportunity of using wood waste as a renewable energy source.

*Key words:* environment, green house emission, renewable energy, wood waste

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