

POTENTIAL OF COFFEE LEATHER AND RUBBER WOOD WASTE BRICKETS AS ALTERNATIVE FUEL IN VISDRYER FURNITURE

Yuli Hananto S.TP, M.Si (Thesis Counselor)

Rika Khoyriyah

Study Program of Renewable Energy Engineering

Department of Engineering

ABSTRACT

Biomass is a very promising energy source which can reduce dependence on fossil energy which is now in short supply. One of the sources of biomass that has not been utilized optimally is waste from plantations, one of which is coffee plants. The skin of coffee that comes from the coffee processing process is still abandoned where it can cause environmental pollution. In 2021 PDP Kahyangan Jember Sumberwadung Plantation with a coffee plantation area of 222.98 Ha, the total amount of coffee production is 627,762 tons and produces 285.63 tons of coffee husk waste while the waste waste used for briquette raw materials is coffee husk, which is 128, 7 tons. Coffee husk waste can be used as charcoal briquettes through briquetting technology. Where the parameter test results have met the standard of SNI 01-6235-2000 except for the density value of water content of 5.86%, density of 2.2732 g/cm³ and calorific value of 5.585 cal/g and compressive strength of 14,316 kg/m². Calculation of Energy Results obtained from the manufacture of briquettes is 725,419,423,637 kcal, indicating that briquettes are suitable for use as alternative energy in the visdryer furnace and saves rubber wood fuel as much as 86%.

Keywords: *Briquettes, Coffee Leather, Rubber wood sawdust, Sugarcane Drops.*