

Pengaruh Variasi Campuran Bahan Bakar Kayu Jati Dan Kayu Sengon Terhadap Unjuk Kerja Tungku Biomassa UB03-01. (*The Effect of Variations in the Mixture of Teak and Sengon Wood Fuels on the Performance of Biomass Furnace UB03-01*).

Pembimbing (Siti Diah Ayu Febriani, S.Si, M.Si)

Runi Setyowati

**Study Program Renewable Energy Engineering
Engineering Department**

Program Studi Teknik Energi Terbarukan
Jurusan Teknik

ABSTRACT

In this study using a combination of two biomass raw materials, namely using teak wood and sengon wood. The use of teak wood will be mixed with sengon wood in order to improve the quality of the combustion carried out so that the flame produced can be stable and last long enough using the UB03-01 biomass stove. One of the aims of this study is to determine the value of FCR (Fuel Consumption Rate), P_{out} (Net Power), P_{in} (Combustion Power), P_{loss} (Power Loss) and Efficiency. Data processing will be presented in the form of tables and graphs. The results showed that the largest FCR (Fuel Consumption Rate) value was 2.31 kg/hour, the largest P_{out} (Net Power) was 0.533 kW, the largest P_{in} (Combustion Power) was 5.31 kW, the largest P_{loss} (Power Loss) was 5.02 kW and The greatest efficiency is 66 %.

Keyword : Teak Wood, Sengon Wood, Biomass Furnace UB03-01