

**PEMBUATANA BIO BRIKET NON PEREKAT DENGAN TEMPURUNG  
KELAPA DAN KOTORAN SAPI**  
(*MANUFACTURE OF NON ADHESIVE BIO BRIQUETTES WITH COCONUT  
SHELL AND COW DUNG*)

Dr. Ir. Bayu Rudiyanto, ST, M.Si

**Muhammad Naufal Rasyid**

*Study Program Renewable Energy Engineering*

*Majoring of Technique*

Program Studi Teknik Energi Terbarukan

Jurusan Teknik

**ABSTRACT**

*In Indonesia, energy demand increases every year, but the energy available in Indonesia is not comparable. Thus, new renewable energy is needed as an alternative solution that can exchange fossil energy as fuel. Based on the problems of the above events, a study was conducted with the title "Making Non-Adhesive Bio Briquettes with Coconut Shell and Cow Dung". This study has the aim of knowing the quality of the results of making briquettes with the main ingredient of coconut shell with a mixture of cow dung. Testing of briquette characteristics includes moisture content, density, ash content, volatile matter, fixed carbon, combustion rate, and calorific value. This study made three compositions with the age of 1 day, 4 days, 7 days and each ratio of the main ingredients and the mixture of 1 day 50%: 50%, 4 days 50%: 50%, 7 days 50%: 50%. The results showed that the best composition that meets SNI briquette no 01/6235/2000 is 1KH1 with cow dung age of 1 day (cow dung 50%: coconut temperung 50%) with an average moisture content of 5.95%, average density of 0.45 gr/cm<sup>3</sup>, average ash content of 0.7%, average volatile matter 2%, average fixed carbon 91.41%, average burning rate of 0.20 gr/min, average calorific value of 6,985 cal/gr.*

**Keywords:** *Briquettes, Coconut Shell Charcoal, and Dairy Cow Manure*