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Fossil energy combustion ignites global warming, due to unbalance between emission and absorption of CO2. On the other hand, rice husk the by-product of rice mill is abundant and waste the environment. It could be renewable energy substitutes coal. Rice husk has energy 12,34 MJ/kg to 14 MJ/kg. To consider biomass energy of rice husk, coal parameter is referred. Rice husk as fuel to empower Biomass Steam Power Plant in Ogan Ilir, South Sumatera. Through fuel consumption, parameters: SFC, Heat Rate and Thermal Efficiency can be represented by load in graphs. It has average SFC 1,40 kg/kWh, Heat Rate 4.501 kcal/kWh and Thermal Efficiency 19,12% at 50-100% of load, this range is the efficient load of generator. This Power Plant is the first Power Plant use rice husk as single fuel in Indonesia. High content of ash in rice husk requires attention in handling and utilization. Global potential of rice husk in Indonesia with 20% of Rice Production, and 80% collection efficiency to used for biomass power plant is 769,20 MW.

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 **Contents**

I. Introduction

Global warming has occurred in recent years. However, there is no downward trend, but rather an increase. The emission of greenhouse gases into the atmosphere is the factor. The gases as result of the decomposition reaction of organic compounds are greenhouse gases. These gases accumulate in the atmosphere, the concentrations increase by the time. Significant increase in all of these gases have occurred in the industrial era: CO₂, CH₄, N₂O [1].

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