

Krisada Preechaborishutkul 2010: An Economic Feasibility Study of the Very Small Biomass Power Plant in Tambon Udomsub Changwat Nakhon Ratchasima.

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The objective of this study is to analyze the economic possibility of investment on very small biomass power plant at Udomsab district, Nakhon Ratchasima province. This microbiological fuel is categorized into 3 types :rice husk, cassava stems and eucalyptus scraps. This study used the secondary data from different sources for financial analysis. Regarding the capital and financial benefit analysis, the indicator is considered from the net present value, dividend yield within the project, duration of return on investment and the profit capital ratio at 5 percent deduction rate of the 25-year project using the fuel from rice husk, cassava stems and eucalyptus scraps. The base price is 700 baht, 400 baht and 500 baht per ton accordingly throughout the analysis of sensitivity very small biomass power plant project, which is divided into 2 cases : first is under the deduction rate at 4 percent, 8 percent and 10 percent ; second is that the capital cost of building microbiological electricity plant will be reduced 20 percent. Furthermore, the economic analysis of dividend yield, in the case of microbiological electricity plant, which helps reduce carbondioxide gas occurred from the electricity plant using fossil fuel and enables to sell carbon credit, is divided into 3 cases : first, the cost of selling carbondioxide is equal to 7 USD per ton (the basic case) , second, the cost of selling carbondioxide is equal to 15 USD per ton ; and third, the cost of selling carbondioxide is equal to 20 USD per ton.

The results of this study , compared between the financial worth whileness on the basic case and the economic worth whileness among the 3 types of very small biomass power plant, show that the very small biomass power plant using fuel from eucalyptus scraps is better to create economic and financial worth whileness than the very small biomass power plant using rice husk and cassava stems for fuel

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