

Analisis Pengaruh Debit Dan Head Terhadap Daya Output Pembangkit Listrik Tenaga Mikrohidro Sampean Baru (*Analysis of the Effect of Discharge and Head on the Output Power of the Sampean Baru Microhydro Power Plant*).

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ABSTRACT

Microhydro Power Plant (PLTMH) is a small-scale power plant that uses hydropower as the main medium to drive turbines and generators, the water comes from irrigation canals, dams, rivers or natural waterfalls by utilizing the height of the waterfall and the amount of water discharge. This study aims to determine the effect of discharge and head on power output at the Sampean Baru Microhydro Power Plant. The research method used in this study is to analyze the discharge and head of the output power of the New Sampean Microhydro Power Plant, analyze the efficiency of the New Sampean Microhydro Power Plant and analyze the value of the Capacity Factor and Net Capacity Factor of the New Sampean Microhydro Power Plant. The results showed that the discharge, elevation, and head greatly affect the output power produced by the Sampean Baru Microhydro Power Plant, the higher the discharge and elevation, the greater the output power produced by the Sampean Baru Microhydro Teanga Power Plant and vice versa, the lower the discharge and elevation, the smaller the output power produced by the Sampean Baru Microhydro Power Plant. The head also affects the output power produced by the existing generators at the Sampean Baru Microhydro Power Plant. The Sampean Baru Microhydro Power Plant has a total efficiency value of 69%. The Net Capacity Factor of the New Sampean Microhydro Power Plant is 60%.

Key words : *discharge, head, output power, efficiency*