

## **ABSTRACT**

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*Title* : *Power Generation Model PV and Biogas on Cloused House Chicken at PT. ASEP POULTRY HULDAY*

Biogas potential in closed house chicken farms PT. ASEP POULTRY HULDAY, Sukasari Village, Mandirancan district, Kuningan Regency is estimated to produce  $16.38 \text{ m}^3/\text{day}$  of methane gas from 1 chicken coop, while the potential for solar energy in the area is  $5.09 \text{ kWh/m}^2/\text{day}$ . The aim of this research is to build a hybrid on grid power plant model using PLTS and PLTBg in a chicken farming area with a closed house system. The method used in this research is model analysis using the HOMER application to find out the result of hybrid electricity generation from PV and Biogas. The results obtained in this research are that with energy consumption of  $41.33 \text{ kWh/day}$ , PLTS and PLTBg can produce electrical energy of  $47.1 \text{ kWh/day}$  with a solar energy density of  $0.1748 \text{ kW/m}^2$  and biogas energy density. of  $0.139 \text{ kW/m}^2$ .

*Keywords:* HOMER, PLTS, PLTBg, *Hybrid, Energy Potential*