SUMMARY

Ema Pratnya Paramita, Department of Urban and Regional Planning, Faculty of Engginering Brawijaya University, January 2014, *Achievement Of Energy Self-Sufficient Village Use Manure Livestock*, Lecture : Dr.Tech. Christia Meidiana, ST., M.Eng. dan Ir. Ismu Rini Dwi Ari, MT., Ph. D.

Biogas is the result of fermentation of organic matter under anaerobic conditions , because naturally processed gas is a mixture of several gases are classified as fuel in which the dominant gas is CH4 and the other is a much smaller CO2 , NO2 , SO2 , and others. Biogas has a calorific value is quite high, in the range of 4800-6700 kkal/m3 , being pure methane gas calorific value 8900 kkal/m3 (simanjuntak , Melvin Emil , 2005) .

In this study focuses on identifying the availability of biogas energy potential in the Jarak Village, fulfilling household needs (cooking and lighting), facilities, and street lighting. In the utilization of biogas energy needs to know the level of community participation . To evaluate the level of participation of farmers and non - farmers. The analysis used in this study , namely supply and demand analysis , rate of participation , logistic regression

The results of this study showed that the biogas production in 2014 to 2018 amounted to 5.629.176 [Kwh / year] . The fulfillment of needs of people in Jarak Village for household needs, facilities, and street lighting are 1.516.549,50 [Kwh / year]. The level of participation of farmers and non - farmers in the village of distance is classified in the low participation rate . Biogas energy development can be noticed that there is a variable 5 Education Level (X4) , Level of Participation (X5) , income (X1) , Number of Cows (X3) , Energy Utilization (X2) .

Keywords : The Energy-Self Sufficient Village (ESSV) , Biogas , supply and demand analysis , rate of participation , logistic regression