

SUMMARY

Aminah Nur Firdaningsih, Departement of Urban and Regional Planning, Faculty of Engineering, University of Brawijaya, Desember 2015, *The Utilization of Biogas as an Alternative Energy for Households and Home Industries (Case Study: Kecamatan Pujon, Kabupaten Malang)*, Academic Supervisor: Dr. Tech. Christia Meidiana. ST., M.Eng and Dimas Wisnu A. ST., MY., M.Env.Man.

This research aims to to determine the benefits of manure waste that can be used as an alternative energy biogas which can then be used to household and household industries. This research was conducted in Pujon, Malang which has a great potential for large domestic poultry. With the potential for large domestic poultry, it will produce biogas that is high. To show supply biogas, obtained from the amount of manure waste is generated every day. The method used in this research is the analysis supply and demand. To find out the benefits of the manure waste, can be done with megkombinasikan between supply and demand analysis.

Biogas is a renewable energy that can be used as an alternative fuel to replace fosil fuel. The use of biogas can reduce the consumption of non renewable energy recoures, such as petroleum and natural gas. The manure production is 25.864 m³ / day. Meanwhile, from the calculation of biogas demand discovered that the need of energy for cooking of each household in Kecamatan Pujon is 9714.59 m³ / day. The rest of the biogas energy can be used to replace wood and LPG cooking fuel and sourcefor energy of home industry in Kecamatan Pujon. Based on biogas demand calculation biogas demand for household industry amounted to 268,75 m³ / day. Indicating about 15.881 m³ / day is potential to be distributed to more household. Potential residual biogas of Kecamatan Pujon is 15 881 m³ can fulfill the needs of biogas for cooking until 2015. Nevertheless, different from Desa Pujon Kidul, Desa Pandesari and Desa Wiyurejo that can fulfill the needs of biogasfor cooking until 2016. Meanwhile, Desa Sukomulyo has residual biogas that is enough to fulfill the needs of biogas for cooking until 2017. In addition to reduce the consumption of energy sources of natural gas, biogas can help to reduce environmental pollution as well.

Keywords: *Supply Biogas, Demand Biogas, Home Industry*