

SUMMARY

ARINA HIDAYAH, Departement of Urban and Regional Planning, Faculty of Engineering, University of Brawijaya, June 2016, *Factors Determinant The Acceptance of Renewable Energy Biogas In Pandesari Village Pujon District Malang*, Academic Supervisor: Dr. Tech. Christia Mediana, ST., M.Eng dan Wawargita Permata Wijayanti, ST., MT

Indonesia is one of the countries with the highest energy consumption in the world with growth of energy consumption by 7%. If we assume that oil production is relatively constant each year, then the oil in Indonesia can only fill up energy needs until about 12 years later. Because of that, it is needed the development of the environmentally friendly and sustainable renewable energy usage through biogas.

Pandesari village is located in Pujon District Malang Regency. Pandesari village is one the villages that has the potential in developing biogas with ± 3000 livestock and 919 breeders. But, which historical biogas development started since 1981 and there are potential of waste livestock, only 349 breeders who have used biogas at the moment. This research is use slovin method with signification 7%, so obtained 205 sample of breeders. For developing the renewable biogas energy in Pandesari Village, there are some factors that influent rural acceptance of biogas should be known through regression logistic method. The result of regression analysis is $Y = 1.134 - 0.302 x_1 - 0.44 x_3 + 0.333 x_5 + 3.152 x_6 (1) + 1.444 x_6 (2) + 1.230 x_7$. Which X_1 is the numbers of the cows, X_3 is the age of the heads of households, X_5 is the numbers of the members of family, X_6 is the availability of land, and X_7 is the knowledge about biogas.

For developing the renewable biogas energy, it is needed to do the preparation of the recommendation based on the significant variable that influent rural acceptance toward biogas. There are some recommendations for the breeders who are accept biogas. (1) Some of them are giving socialization and media communication such as brochures, banners, calendars, promotional videos including testimony from the breeders who have used biogas. (2) Guidance and socialization the use of biogas at least 6 months and making of study appeal to village who have successfully in implementation biogas or independent energy village example Bendosari Village. (3) The construction of the underground biodigester. (4) Training and socialization and model of biogas underground construction model. (5) Development of communal biodigester with nearest neighbors who have the appropriate number of cows. Meanwhile, for the breeders who are not accept biogas, the recomandation is based on reason why the breeders not accept biogas. The recomandation for the breeders who are not accept biogas are (1) allocating the aid from government for biogas non user who have obstacles in the issue of fund. (2) Procurement of workshop for creation biogas. (3) Guidance and socialization the use of biogas related to the underground construction model of biogas. (4) Socialization of biogas utilization related issues and solutions of biogas development.

Keyword: Biogas, Rural Acceptance, Regresion Logistic