ECSAC'18

EUROPEAN CONFERENCE ON SCIENCE, ART & CULTURE

Antalya – Turkey, April 19-22, 2018

OP-144

Biogas and Electric Power Potential Analysis for Hakkari Region

***ERŞAN ÖMER YÜZER*[1], *ALI ERDUMAN*[2], *ALI DURUSU*[3], *ERDAL BİNGÖL*[1], *ADNAN YOLDAŞ*[1]**

[1]: *Hakkari University, Çölemerik Vocational School, 30000, Hakkari-Turkey*

[2]: *Hakkari University, Department of Electrical and Electronic Engineering, 30000, Hakkari-Turkey*

[3]: *Yildiz Technical University, Department of Electrical Engineering, 34220, Istanbul-Turkey*

ABSTRACT

Energy is an essential ingredient for economic growth and even in socio-economic development. In developing countries, around 2.6 billion people rely on traditional biomass such as fire wood, charcoal, animal dung and agricultural residues, while 400 million use coal as their primary cooking fuel. Biomass plays an important role in reaching the future renewable energy target of Turkey. In this study, biogas potential of Hakkari region is analyzed. The analysis is performed using cattle population data. Cattle population data is taken from the Hakkari Directorate of Provincial Food, Agricultural and Livestock. Biogas production potential is calculated according to the amount of annual fertilizer of a total of 1000 cattle in settlements close to each other in Hakkari province and districts. The amount of biogas potential is calculated according to accepted rates. In addition, electrical power potential of biogas is calculated considering biogas potential. As a result of the analyses in the Hakkari region, biogas and electrical power from biogas potentials are presented.

Keywords: *Animal Dung, Biogas, Elektrical Power, Hakkari Region*