

## **ABSTRACT**

*The majority of Indonesian households using LPG as a fuel source their stove. Without us knowing use of LPG has begun to reach its limits (Adi Nugroho, 2008). Therefore conducted a study of energy especially LPG conducted in the laboratory of biomass campus of the University of Telkom by way of perfecting the burning and will affect the savings of LPG, the tools used for the study was a gas generator HHO with the variation of the electrolyte concentration of NaOH at 3 grams, 4 grams, 6 grams, 10 grams and 12 grams, the use of the HHO gas by mixing the HHO gas to LPG as cooking water which will result in faster cooking process which tested each - each electrolyte three times. Electrolyte solution of NaOH most optimal impact on the cooking process to be faster in the amount of 6 grams by 26.849 and the consumption of LPG for cooking water only amounted to 0.297 kg were spent at 8.917 minutes, on the other side of heat energy from the combustion of LPG also increased by 2008,1 kJ/kg compared with no use HHO spent LPG cooking water by 0.406 kg by spending time at 12.17 minutes.*

*Keyword: HHO, LPG, NaOH Electrolyte, H<sub>2</sub>O, Calor Energy*