

## **ABSTRACT**

*The demand for power electricity in Indonesia is still shortage. According to Kompas Newspaper 4 August 2008 in Chatib Basri's article LPEM University of Indonesia (UI) stated that Indonesian economic growth was only 1 %, therefore power supply is needed as much as 1.5 – 2%.*

*PT. Medco Ethanol Lampung (MEL) a subsidiary of PT. Medco Energi Internasional Tbk. (MEI) has an asset of 5 Mega Watt (MW) of Coal Fired Power Plant (CFPP) in Kotabumi, Northern Lampung, Indonesia. The CFPP is being operate for the Bio-Ethanol Plant since December 2008. Another MEI's subsidiary PT. Medco Power Indonesia which is in Power industry, has instructed to acquire the power plant in order to upgrade into 15 MW.*

*The objective of this group field project is to identify, analyze, and to provide recommendation to the company on the investment options that is suitable for the company's needs and condition.*

*The analysis in this project is done by the capital budgeting combined with real options valuation method. This analysis is used to help determine the proper financing options.*

*The result of the analysis shows that in the current period of the project, the Company shall take the first phase to run, which is the power plant of 5 MW. It is suggested that the Company should re-appraise the additional investment to run the next phase, which is the power plant extension of 10 MW.*

***Keywords: Investment, Capital Budgeting, Real Options, Sensitivity Analysis, and Scenario Analysis.***