## **ABSTRACT**

PT XYZ is a company consisting of kernel crushing plant (KCP) factory and palm oil mill (PKS). The company has 2 factories located in Rokan Hilir, Riau and Kutai Kartanegara Regency, East Kalimantan. KCP PT XYZ Riau has used fiber and shells as energy in fulfilling the electricity needs, while KCP at PT XYZ Kalimantan uses diesel fuel in fulfilling the electricity needs.

Along with the development of the era, the price of oil raw materials for the fulfillment of energy needs will continue to increase, this impact on the cost of production company. In this research will be discussed about feasibility analysis in power plant fuel change for PT XYZ Kalimantan which uses diesel fuel into shell and fiber fuel.

From the results of processing and analysis can be known the feasibility of the use of shells and fiber obtained NPV> 0 is Rp724.735.247.137, BCR = 2,620 while the utilization of diesel obtained NPV> 0 is Rp389.207.798.055, BCR = 1,436. Based on the results of data processing and analysis can be concluded that the branch company is better to use shell and fiber fuel than diesel fuel.