

ABSTRACT

This project explores the efficiency optimizations of transformer in battery charging process using the measurement method. In this process, most of the energy losses came from the transformer. Energy loss has been the important factor that affected product quality and company operation cost. Therefore, the factor, which was the most concerned with in the battery charging process, was the efficiency of the transformer. In this project, I select the measurement method to analyze data of the existing transformer.

The measurement reveals the result of the existing system that a transformer has 88.2% efficiency, generate energy losses of 20,000 kWh/year or 50,000 Bahts/year. With the new transformer efficiency of 97%, customers can reduce energy loss and save energy consumption at 15,200 kWh/year or 38,000 Bahts/year.