

ABSTRACT

There are many approaches to electricity supplies and steam energy to factories. The power producers face a lot of configurations of power plant and the alternative routes of supplying to customers. The difficulties are how to get the optimum alternative or the best solution so that the company gets the most benefit in terms of business. It is not easy to make a decision on the big project of which many possible alternatives are there.

This project is one of the power plant configuration studies. Cogeneration is the simultaneous generation of electricity and steam (or heat) in a single power plant. Cogeneration is not usually used by large utilities, which tend to produce electricity only. Cogeneration is advisable for industries and municipalities if they can produce electricity cheaper, or more conveniently, than that brought from utility. From an energy-resource point of view, cogeneration is beneficial only if it saves primary energy when compared with separate generation of electricity and steam (or heat).

To find the best location of energy customers to be supplied, engineering economy is conducted in this project. Engineering economy study is one of the tools to solve the problems. It is about determining the economic factors and economic criteria utilized when one or more alternatives are considered for selection. Since decisions affect what will be done, the time frame of engineering economy is the future. The use of engineering economy study is the economic analysis for the best estimates of what is expected to occur.