

## **Implementation of Efficiency and Energy Conservation Concept in Office Building as an Effort to Achieve Green Office Building Case Studies Office Building in Jakarta**

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**Abstract :** The issue of energy crisis for big cities in Indonesia are issues raised in line with the development of the city is rapidly increasing. Various attempts were made by the government in overcoming problems of energy needs in Indonesia. In addition to the efforts of the government required the efforts made by the public to solve this problem. The concept of green building in the design of the building with efforts to use energy efficiently can be one of the efforts that can be applied to solve this problem. Jakarta is capital and the one of the major cities in Indonesia with high economic growth. This leads to increased demand for office space for the people. So that the construction of office buildings in big cities like Jakarta very numerous. Office building is one of the buildings that require large energy consumption. As a building that could potentially require huge amounts of energy, the design should consider the use of energy to help provide solutions to problems of energy crisis in Indonesia. The concept of energy efficient is one of the concepts addressed in an effort to use energy in buildings to save energy needs of the building operations. Therefore, it is necessary to have a study that explores the application of the concept of energy efficiency and conservation in office buildings in Jakarta. In this study using two (2) buildings case study that Sequis Center Building and Sampoerna Strategic Square. Both are office buildings in Jakarta have earned the Green Building Certificate of Green Building Council Indonesia (GBCI). The study used literature review methods to address issues raised earlier. Whether it's related to a literature review on the study of office buildings and green building. With this paper is expected to be obtained on the application of the concept of energy efficiency and conservation in office buildings that have earned recognition as a green building by GBCI. The result could be a reference to the architect in designing the next office buildings, especially related to the concept of energy use in buildings. From this study, it can be concluded that the concept of energy efficiency and conservation in the design of office buildings can be applied to its orientation, the openings, the use shade in buildings, vegetation and building material selection and efficient use of water. So that it can reduce energy requirements needed to meet the needs of the building user activity. So the concept of energy efficiency and conservation in office buildings can be one of the efforts to realize the Green Office Building. Recommendations from this study is that the design of office buildings should be able to apply the concept of energy utilization in the design office. This is to meet the energy needs of the office buildings in an effort to realize the Green Building.

**Keywords :** energy crisis, energy efficiency, energy conservation, green building, office building

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