

Implementation of Energy Management Strategy in Terminal 2 Soekarno Hatta International Airport - Jakarta

Bonang Ananta and Farizal
Department of Industrial Engineering
Universitas Indonesia
Salemba, Jakarta, Indonesia
bonang.ananta@ui.ac.id, farizal@eng.ui.ac.id

Abstract

Airport or commonly known as an aerodrome is a specific area on land or water (including buildings, installations, and equipment) designated either wholly or partly for the arrival, departure, and movement of aircraft. In carrying out its operations, an airport requires electricity consumption to power several mandatory facilities that support aviation activities. Airports are also one of the largest energy consumers. The daily electricity and heat energy consumed by an airport are equivalent to a city with a population of 100,000 and are one of the largest energy consumption centers in modern society. Soekarno Hatta International Airport, as one of the busiest airports in the world, particularly in Asia, consumes a considerable amount of electricity to support its operational activities. The high consumption of electricity directly affects the increased cost of electricity subscriptions. Due to the high consumption of electricity at PT Angkasa Pura II, specific energy management needs to be carried out, particularly at the Terminal Building, as it is the largest energy consumer at Soekarno Hatta International Airport (74%). The purpose of this research is to evaluate the equipment in the terminal that consumes massive amounts of electricity and to provide an economic analysis of investments that can be made to save energy.

Keywords

Airport, Energy, Energy Management, Economic Analysis.

Biographies

Bonang Ananta is a second-year postgraduate student at University of Indonesia, Salemba, Indonesia, majoring in Industrial Engineering, minoring in Industrial Management. He earned his B.Eng (S.T.) in Mechanical Engineering at University of Brawijaya, Malang, Indonesia. His research interests include (but not limited to) strategic management and Multi-Criteria Decision Making (MCDM).

Farizal is a senior lecturer in Management System in the Industrial Engineering Department, Faculty of Engineering Universitas Indonesia. He earned Bachelor of Engineering degree from Universitas Indonesia, Master degree from Oklahoma State University and Doctoral degree in from University of Toledo. His research interest in reliability design optimization, renewable energy, supply chain management and techno-economy