STUDY BASIC DESIGN LNG TERMINAL IN BALI

Nama Mahasiswa : Yogi Presetyo
NRP           : 4205 100 041
Jurusan       : Teknik Sistem Perkapalan
Dosen Pembimbing : 1. A.A.B. Dinariyana D.P, ST, MES, PhD
                      2. DR. Ketut Buda Artana, ST, MSc

Abstract
The need to fulfill demand on electricity in Bali becomes the basic thought in designing a LNG terminal in Bali. This study presents an initial design of a LNG terminal in Celukan Bawang Bali. This study covers basic design LNG storage tank, regasification unit, boiled off gas (BOG), power plan unit, and design mooring facilities used during unloading cargo. LNG storage tank is designed by means of Excel Solver to optimize incurred costs. Design of the LNG storage tank is influenced by the demand of LNG in Bali and the availability of the LNG vessels. Some alternatives of tonnage are evaluated to determine the most economical cost of the storage tank and the LNG vessel used to transport LNG. The regasification unit is designed by considering the send out capacity of LNG in Bali. This capacity determines the unit pumps and vaporizer unit. Furthermore, BOG rate will very much determine the capacity of the compressor. After designing shore LNG terminal facilities then we could design berthing facilities by considering the dimension of the ship and the condition of water level, especially the depth and sea current at the port of Celukan Bawang Bali.

keyword : Design LNG terminal, LNG storage tank, regasification unit, BOG, Jetty
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