LNG CARRIER SHIPS PROVIDING OPTIMATION FOR LNG DISTRIBUTION FROM KALIMANTAN TO JAVA WITH FUZZY LOGIC APPROACH

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Abstract

Ship determining which will be used for LNG transportation is important matter for LNG transportation planning. LNG carrier ships analyzed based on important things as, ships age, cargo tanks, accommodating capacities, ships velocity, transportation cost, ships compatibility, etc. Providing optimization LNG carrier ships for LNG distribution from Kalimantan to Java Island will be a prime matter for this final project. Optimization go with transportation model that is with Bontang Plant as an origin Point and Muara Angke as a destination point. Content in this analysis is 1.5 MTPY LNG. LNG carrier ships optimization will go with several ships comparison which served Bontang Plant. Fuzzy Logic approaching will be used for the optimization in this final project, which it will used ships age, ships compatibility value, transportation time, and transportation cost as the criteria. From the analysis, it obtained that the most optimum ship from the several carrier ships is “Dwi Putra” ship with optimum value as 70,831 %. The other ships which have the optimum value below it in a row is “Golar Mazo”, “Surya Satsuma”, “Eka Putra”, “Surya Aki” and “LNG Capricorn”. With optimum value in a row that is, 69,551%, 63,927%, 62,998%, 62,314%, and 55,451%.

Key Words : Optimization, Liquefied Natural Gas, Distribution, LNG Carrier, Fuzzy Logic