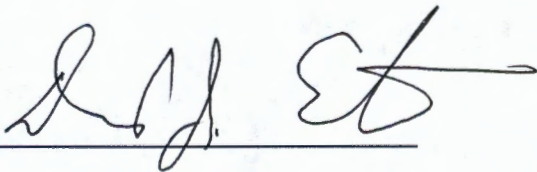


ECONOMIC ANALYSIS AND RISK MANAGEMENT FOR THE SOUTH SUMATRA NATURAL GAS PIPELINE PROJECT IN INDONESIA

Dong Hyun Kim

ABSTRACT

The objective of this thesis is to analyze economic and risk factors for the South Sumatra Natural Gas Pipeline Project in Indonesia. The economic analysis aims to support Korea Gas Corporation (KOGAS)'s decision regarding next steps, such as a feasibility study or front end engineering design for the project. In scenario analysis, WACC ought to be less than 9 percent and the growth rate of gas demand is larger than 3 percent to meet KOGAS's requirements for an investment. Monte Carlo simulation showed that the project has a project NPV of 90 million USD and project IRR of 11 percent on Scenario 1. It means that KOGAS might proceed to further steps, but there is a 36 percent probability not to meet KOGAS's minimum project IRR. A sensitivity analysis indicates that a toll fee has the greatest impact on the project IRR among six variables. This thesis establishes preventative measures against the South Sumatra Natural Gas Pipeline Project's significant risks, including general risks and project risks.

A handwritten signature in black ink, appearing to read 'D. J. Eaton', is written over a horizontal line.

Advisor: David J. Eaton