

Master Thesis Brief Description

Thesis Title	The transition from Crude Oil to Natural Gas: The Malta paradigm
Programme of Studies	MSc in Sustainable Energy Systems
Course	MES 580 Master Thesis
Area of Study	Process Engineering
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Semester	Fall Semester 2020
Short Description	<p>In the present globalized economy, business decisions have become challenging due to various domino effects and contagious phenomena. The growth in world energy demand has resulted in significant capital accumulation in shipping and sea transport, with a particular focus on liquefied natural gas (LNG). LNG has found widespread application in the marine, mining, and construction sectors due to its economic advantages, environmental benefits, and technological solutions. Recent investigations indicate a rising trend in LNG usage across different regions worldwide. While natural gas was once considered a byproduct of oil production, it has now emerged as a major energy source. Although LNG transportation was once seen as costly, current costs and short-term forecasts, along with the expanding infrastructure, have alleviated concerns about high expenditures. The objective of this study was to examine Malta's energy sector as an example of electricity production using natural gas and to use it as a case study for Cyprus. The study aimed to understand the conversion of the Delimara power plant from fossil fuels to natural gas and apply basic scenarios to the Vasilikos power plant in Cyprus. Additionally, the study sought to track and record the future economic, environmental, and other benefits that Cyprus can expect to gain by emulating Malta's example.</p>