

## Master Thesis Brief Description

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<b>Thesis Title</b>	<b>Cyprus energy system demand in natural gas and renewables</b>
<b>Programme of Studies</b>	BSc in Mechanical Engineering, Stream Oil and Gas, Frederick University
<b>Course</b>	ASOG 405 Senior Project
<b>Area of Study</b>	Sustainable Energy Technologies – Biomass assessment
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<b>Semester</b>	Spring Semester 2019
<b>Short Description</b>	<p>The purpose of this study is to examine the forecasted demand and supply of the Cyprus energy system, by taking the case study of Egypt, a neighbouring country with similar energy profiles, as an example. Over the past decade, Cyprus has become one of the countries planning to enter the natural gas industry because of the first discovered natural gas field, "Aphrodite". This field was the island's motivation to start searching for more natural resources in order to be competitive in the natural gas industry. Although attempts have been made in the past to import gas from a proposed FSRU in the Vassiliko area in the southern part of the island, the plans have remained unmaterialized. For this reason, Cyprus is not currently a gas-consuming country and so far it is not supplied with natural gas either from a pipeline or from seaborne imports.</p> <p>At the same time, a neighboring country, Egypt, one of the biggest exporting countries in the Mediterranean, stopped exporting natural gas and returned to importing country due to the Arab spring until 2015. After all, a large discovery called "Zohr" returned Egypt again to a natural gas exporting country. All the above was the reason for both countries to change the overall supply and demand in natural gas and was the cause to further analyze the NG market and the need to have new partners and co-operators. Furthermore, Egypt's experience of extracting natural sources and liquefying was the reason for the first contact between the two countries.</p> <p>The supply and demand for natural gas are one of the main analyzes that any country should do before extracting the natural gas in order to consider the quantity needed and how can be used commercially.</p> <p>In order to understand how the NG industry works, is important to know the supply and demand balance in each country. Taking into consideration, that Cyprus is a European country and is necessary to cover part of the Energy needed by RES.</p>