

Master Thesis Brief Description

Thesis Title	Environmental Assessment of Natural Gas liquefaction Plants
Programme of Studies	MSc in Oil and Gas and Offshore Engineering
Course	MOE 518 Master Thesis
Area of Study	Processes Modelling and Simulation – Life Cycle Assessment
Student's Name	Demetris Georgiou
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Supervisory Committee	Dr George Karagiorgis, Assoc. Professor, Mechanical Engineering Department Dr Antonis Papadakis, Ass. Professor, Electrical Engineering Department
Semester	Fall Semester 2014
Short Description	<p>The use of Liquefied Natural Gas (LNG) can contribute to lower greenhouse gas (GHG) emissions (and carbon footprint) than traditional petroleum products. However the material and resources consumed in producing LNG from exploration to liquefaction and transport stages do contribute to global warming impacts.</p> <p>This study focussed on the Life Cycle Assessment and the potential GHG emissions produced by Natural Gas liquefaction processes associated with LNG production. Data for installation/deinstallation of the liquefaction facility was based on environmental NETL Life Cycle Inventory Data. The results analysis was based on the International Reference Life Cycle Data System (ILCD).</p>