## **MarTREC UTC Project Information Form**

USDOT Tier 1 University Transportation Center Agency ID or Contract Number 69A3551747130

Project Title: Liquefied Natural Gas Phase III: Export Competition in a Well Supplied, Flow-Shifting Global Economy

Project Abstract (Brief Description): With trillions of cubic feet of shale reserves, the United States' (US) abundance of natural gas has prompted an increase in production of Liquefied Natural Gas (LNG) as an export commodity. While the Trump administration is taking strides to loosen policy set by the Federal Energy Regulatory Commission (FERC) in order to streamline US LNG export facility permitting, UNOTI has reasoned that policy focused too heavily on LNG as an export is misguided. A more robust energy policy acknowledges the higher value of natural gas to the petrochemical manufacturing industries as well as the development and commercialization of new LNG technologies in the maritime industry, particularly as a marine fuel. Furthermore, US energy independence fueled by shale mining could potentially alter how the US acts in the global market place, thereby destabilizing the system in place since the Bretton Woods Agreement in 1944. However, competing natural gas rich nations like Australia, Qatar, and Russia have similar goals to expand production indicating US LNG export growth will not be without competition. In addition to potential increases in US LNG exports and what this implies for global markets, this paper discusses current transportation developments in LNG powered marine vessel refueling technology allowing for waterside refueling as an alternative to shore side bunkering, as well as an overview of what increased US shale frac'ing and LNG export implies for US roadway infrastructure and how short sea shipping may provide an alternative to trucking and rail movements.

Describe Implementation of Research Outcomes (or why not implemented) - Place any photos here *To be determined upon conclusion of the project*:

Impacts/Benefits of Implementation (actual, not anticipated)

To be determined upon conclusion of the project:

Web Links: martrec.uark.edu

Budget (Funding) Amounts & Source(s) (US DOT +Match(s) =Total Costs): USDOT: \$87,039 + Match: \$23,238 = Total Cost: \$110,277

Project Start and End Dates: March 2018 to November 2019. Project complete

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Principal Investigator Institution (University): University of New Orleans