**LCA for LNG: PART TWO**

**ISO-COMPLIANT SCOPING TEXT**

[This ISO-related text will follow discussion of objectives of the IGU study and the definition of the study’s development of a life cycle inventory (LCI) supporting LCAs.]

**Goals of LCA Conducted Under This Study**

1. **Range of Application: The goals of LCAs conducted using this study are intended to characterize air emissions from LNG operations comprising the value chain from receipt of natural gas for liquefaction to delivery of regasified (“regas”) LNG for pipeline distribution as natural gas or liquid delivery of LNG directly to end use applications. Air emissions covered include point source and area source emissions of conventionally-regulated air quality pollutants (including particulates, carbon monoxide, oxides of nitrogen) and major “greenhouse gases” (including carbon dioxide and methane). Emissions-related LNG activities addressed include steady state operations, energy transfer operations, storage operations, and onsite and offsite point source power supply operations supporting the LNG chain.**
2. **Interest of Realisation: LNG chain emissions characterization data is intended to provide the basis for comparison of LNG value change emissions to other competing energy forms and to provide the basis for improved performance in air emissions reductions achievable through new technology applications, operational changes, and other LNG chain modifications.**
3. **Target Groups: LCAs conducted using this study may be conducted by industry participants and associations, governmental authorities, non-governmental organizations (NGOs), or individuals.**
4. **Publication or Other Accessibility for the Public: LCAs conducted using this study may be made publicly available for review and use or retained for private and proprietary use. However, the data developed for LNG chain characterization in this study will be freely available for public use through IGU in report and digital form.**

**Product System**

**LNG chains addressed by this study include large-scale [size?] LNG trade operations involving marine transfer of produced LNG, originating at the receipt of natural gas at liquefaction facilities and terminating at the point of regas send out to a natural gas pipeline system or deliver of received LNG directly to end use customers via land transportation. The product system is limited to production, transportation, and delivery of primary energy in the form of natural gas in its composite form (principally as methane) and does not address secondary energy products or co-products of LNG operations that feasibly could be included within LNG facilities and operations.**

**Technical System Boundaries**

**Product system boundaries (natural gas receipt for liquefaction to delivery of natural gas to pipelines or LNG to end use customers) comprise the linear system boundaries of the LNG chains covered. Upstream natural gas production, gas processing, or other operations as well as downstream natural gas transport and end uses are not within the system boundaries. Emissions associated with product modules are covered, and point source power generation emissions (onsite and offsite) are included. Emissions covered include point source and area source emissions of conventionally-regulated air pollutants and greenhouse gases discussed above. Emissions from production, transport, construction, commissioning, repair and maintenance, and decommissioning of LNG chain technologies and facilities are outside the system boundaries and are not covered. Emissions from module startup, shutdown for major maintenance, and retirement are outside the system boundaries and are not covered [include or not?]. Module operations ongoing between these events are within the system boundaries and are relevant throughout the operating life of the module.**