

Abstract for CRADA between the National Energy Technology Laboratory (NETL) and the Korea Institute for Energy Research (KIER) (AGMT-0885)

KIER and NETL will collaborate to study hydrate-based technologies to enhance desalination, gas separation, and hydrocarbon flow through pipelines and wellbores. With optimized selections of hydrate formers and reactors, gas hydrates can be effective and economic mechanisms of separation for solid-water and gas mixtures, and gas hydrate formation or dissociation can be significantly delayed or expedited with suitably selected additives. Comprehensive laboratory studies, including identifying novel hydrate formers or inhibitors to control temperature and pressure requirements and understanding their working mechanism or developing reactor systems for production of large quantities of hydrates, will be performed at both KIER and NETL either parallelly or serially.