Natural Gas Upgrading

Vision
Efficient, sustainable and economical technologies for domestic natural gas utilization

Objectives
• Leverage abundant natural gas reserves by providing domestic options for utilization
• Mature and demonstrate transformational and enabling technologies for domestic natural gas utilization
• Inform development of intensified, modular equipment and processes
• Maximize environmental and economic impact through transfer of technologies and learnings across industries

Key Approaches
• Formulate Natural Gas Upgrading R&D Roadmaps: Indirect, Oxidative, Non-Oxidative, Enabling
• Dedicated Facilities with TRL/MRL continuity establishing efficient commercialization pipeline
• Coordinate, baseline and standardize testing and evaluation across all relevant TRL/MRLs for effective R&D guidance and achievement of RAPID goals
• Integrated efforts with other RAPID Application Focus Areas
• Methodically engage Technical Advisory Board and DOE points of contact
• Annual Roadmap reviews

Expected Outcomes
• Through DOE and Industrial guidance, generate relevant and impactful funding opportunity announcements
• Generate transformational natural gas upgrading technologies that demonstrate significant progress toward RAPID metrics
• Reduce barriers to market entry for expanded use of natural gas as a feedstock
• Provide commercially-ready, FOAK prototypes

RAPID’s focal point for technology development in natural gas upgrading

Contacts

Michael Matuszewski
Lead - Natural Gas Upgrading Focus Area
University of Pittsburgh
Phone: 412-383-2094
E-mail: Michael.Matuszewski@pitt.edu

Levi Thompson, Ph.D.
Co-Lead - Natural Gas Upgrading Focus Area
University of Michigan
Phone: 734-936-2015
Email: ltt@umich.edu