

## Biogas As Intermediate Commodity Chemical – A Feasibility Study

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The energy and climate policies shaping out worldwide are supporting the use of renewable fuels. Anaerobic digestion of waste and residues from agriculture, industry, municipal, sewage, etc. has emerged as one of the most attractive and promising renewable energy source. Biogas, so generated, finds its applications in energy generation, such as electricity, heat and fuel, with additional economic, environmental and climate benefits. With the advent of dry reforming process for the production of syngas—which serves as intermediate step for numerous chemicals and fuels of industrial & domestic importance, biogas has gained renewed attention of researchers in recent years. European Union alone produces more than half of the world biogas production in 2015. Techno-economic analysis of different plausible routes of biogas to commodity chemicals such as methanol were studied using Aspen Plus and are partially presented here. Gas purification and injection in natural gas grid, and tri-reforming to produce methanol emerged as the best options for future work.