

# Things We Shale Consider - Unique Aspects of Recent Small Scale LNG Facilities

## Presenters

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## Abstract

LNG has been a hot market since the 'shale revolution' began in 2008 and has been red hot since the European energy crisis began in summer 2021. Kiewit alone has several smaller scale LNG projects in engineering through startup. These facilities have most of the design concerns of their larger capacity cousins but are designed using a fraction of the budget.

This presentation will address some of the more recent developments in small-scale facilities. While larger facilities spend considerable time in the early design phases agonizing over the liquefaction arrangement, smaller facilities spend this time determining what gas treatment systems to employ, or what pre-investment to consider. Recent efforts included these questions: What pre-investment enables LNG production from hydrogen blended feed gas? What design would best enable production of both conventional and the high purity LNG required for spacecraft fuel? How can an amine unit be avoided for CAPEX/OPEX savings and significant CO<sub>2</sub> emissions reductions, while considering decreasing 'reject' pipeline usage? Can secondary pipeline maximum instantaneous contaminant limits rise above averages, to enable adequate regen gas equipment design?

These more recent considerations have made development of small-scale facilities exciting and challenging for producers and contractors, and 'shale' be considered to avoid costly extensions during facility start up.