This abstract will be presented during LNG2023 conference on 10-13 July in Vancouver, Canada among many other innovative projects, ideas and outlooks. LNG2023 will provide a unique platform for the global LNG industry and key stakeholders to discuss, debate, and showcase the latest industry developments and opportunities.

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MAKING END FLASH COOL AGAIN

End flash units have been included in many LNG plants. These units remove excess N2 from LNG, improve process efficiency by reducing the refrigeration required at the coldest part of the liquefaction process, provide a convenient source of fuel gas, and optionally recover helium present in the natural gas feed.

Recent trends in the LNG industry have introduced new needs for the configuration of end flash units. Electric motor driven plants may have low or no fuel demand, complicating the picture for traditional end flash units which produce fuel. On the other hand, proposals to blend hydrogen into natural gas pipelines reinforce the need for removing light components from LNG, as does the continuing rise in demand for helium.

This paper will explore the challenges and opportunities posed by these and other trends, and the innovative ways that end flash can be adapted to solve them. It will look at the advantages and disadvantages of various options with respect to efficiency, operability and equipment robustness. This paper will also explore some innovative extensions of proven technology which capitalize on the unique features of coil wound heat exchangers to better integrate the end flash system. These innovations reduce CAPEX while improving efficiency and operability.



