



QUICK FACTS

Market:	Liquefied Natural Gas
Design:	Modular
Scope:	Design and Fabrication
Owner:	Corpus Christi Liquefaction (Cheniere Energy)
Location:	Corpus Christi, TX
Project Schedule:	June 2015 - April 2017
Chilling Capacity:	36,900 TR
Design Inlet Temperature:	45°F / 7.2°C
Gas Turbines:	18 - LM2500 + G4 DLE

CORPUS CHRISTI LIQUEFACTION

Turbine Inlet Air Chilling



Owned and operated by Corpus Christi Liquefaction, a subsidiary of Cheniere Energy, the liquefaction facility is designed with an expected production capacity of up to 13.5 million tonnes per annum of liquefied natural gas (LNG).

In June 2015, Stellar Energy was awarded a contract by Bechtel Oil, Gas, and Chemicals, Inc. to supply a **turbine inlet air chilling (TIAC)** system for the Corpus Christi facility to increase horsepower and stabilize production. Although original bid specifications called for a propane refrigeration TIAC system using a screw compressor package, Stellar Energy demonstrated to Bechtel and Cheniere that a modular air-cooled TIAC system using centrifugal compressors would be a better solution. Stellar Energy assessed the design inputs of ambient design condition, turbine inlet temperature and site footprint, and designed a system that will provide a constant inlet temperature to the turbines. In addition, the packaged chillers allowed for the use of a non-flammable hydrofluoroolefin refrigerant instead of propane.

Stellar Energy's solution, which is the first of its kind for the LNG industry, implements design principles common to power plant applications that offer a number of advantages over traditional LNG inlet air chilling systems using propane refrigeration. The result is increased horsepower, increased output and predictable LNG production for Corpus Christi Liquefaction. First gas is expected in 2018.



20+ years in the industry • **130+** projects in **14** countries • **1.2 million+** tons of refrigeration delivered
3,000+ megawatts recovered • **475+** modules fabricated • **100%** performance tests passed

