



Scalable LNG Production REFRIGERATION SOLUTIONS FOR SMALL SCALE LNG

OWNER
Applied LNG

LOCATION
Midlothian, TX and Topock, AZ, USA

PRODUCT
Centaur 40 and Electric Motor with C33 Compressor

CUSTOMER VALUE
Reliable Refrigeration Solutions for LNG Production

In 1995, Applied LNG built the first North American LNG facility for the transportation industry at Needle Mountain located near Topock, AZ. Almost 20 years later, Applied LNG has doubled capacity at Topock and has built another plant at Midlothian located near Dallas, TX. Small scale distributed LNG promises to play a significant role in lowering costs and reducing emissions. At the heart of Applied LNG's mixed refrigerant process is Solar Turbines' C33 centrifugal gas compressor. The Midlothian and Needle Mountain plants use the same liquefaction technology, with the main difference being the driver for the refrigeration compressors. Midlothian uses a variable speed electric motor powered by the utility and Needle Mountain uses two Centaur™ 40 gas turbines running off the same gas being liquefied. Both plants are highly automated with 24/7 production year round. The Midlothian plant has the potential to expand up to six liquefaction trains using Solar's modular compressor solutions.

Solar Turbines

A Caterpillar Company

REFRIGERATION SOLUTIONS FOR SMALL SCALE LNG



PLANT DATA

Mixed Refrigerant Cycle (MRC)

Midlothian: 86,000 Gallons Per Day

Build-Out Capacity: 6 Trains Producing 516,000 GPD

Motor Drive: 5,000 HP with Variable Speed Control

Needle Mountain: 172,000 Gallons Per Day

Build-Out Capacity: 4 Trains Producing 344,000 GPD

Gas Turbine Drive: 2 Centaur 40 (Total 9400 HP)



OUR PRODUCTS & SERVICES

Gas Turbine Driven Compressors

Electric Motor Driven Compressors

Gas Turbine Generator Sets

Design and Construction Services

Maintenance

**HIGH AVAILABILITY AND
RELIABILITY**

INCREASED PRODUCTIVITY

REDUCED MAINTENANCE

COST-EFFICIENT SOLUTION

Solar Turbines offers gas turbines packages from 1–22 MW. These products play an important role in the development of oil, natural gas and power generation projects around the world, both onshore and offshore. Solar Turbines' products include gas turbine engines, gas compressors, and gas turbine-powered compressor, mechanical-drive and generator set packages.

Solar's customers put the company's products to work in many areas including production, processing and pipeline transmission of natural gas and crude oil and generation of electricity and thermal energy for processing applications. The units are designed to operate in harsh environments and are capable of operating on a variety of liquid and gaseous fuels. In addition, these versatile gas turbines are available with dual fuel and triple fuel systems allowing them to operate interchangeably on multiple fuels for even greater operating flexibility.

Solar Turbines Incorporated
Tel: +01 619-544-5352
Mail: infocorp@solarturbines.com Web: www.solarturbines.com

Caterpillar is a registered trademark of Caterpillar Inc. Solar and Centaur are trademarks of Solar Turbines Incorporated.
Copyright 2015 Solar Turbines Incorporated. All Rights Reserved
dslng-al/1015/eo

Solar Turbines
A Caterpillar Company