In 2013, DCP Midstream ordered the first pair of several Taurus 70 compressor trains to be installed in the DJ Basin in Colorado to serve as gas gathering compressors at their Rocky Mountain Booster Compressor Station. Solar Turbines supplied two Taurus 70 compressor packages driving C41 and C33 compressor trains (LP/HP) in tandem to achieve the required compression ratios greater than 11:1.

DCP has found great success in running the two Taurus 70 compressor packages base loaded in a 2 x 50% capacity due to their high equipment reliability and availability, increasing operational efficiency and dependability as they gather and distribute their customers’ gas for processing.
REDUCED EMISSIONS FOOTPRINT

Solar has been fielding dry low emissions (DLE) gas turbine engines since the 1980s and is the industry leader for experience, reliability, and dependability.

DCP Midstream’s pair of Taurus 70 compressor sets can move +92 MMSCFD at their design point while allowing the compressor stations to stay under 40 tons/year NOx without the need for a catalyst.

RELIABLE POWER AND HEAT

Solar Turbines offers gas turbine packages ranging from 1590 to 31,900 HP. 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 packages. Solar also manufactures a complete line of electric motor driven (EMD) compressor packages supporting the oil and gas industry’s compression needs.

Solar’s oil and gas customers put the company’s products to work in production, processing and pipeline transmission, and in the generation of electricity and thermal energy for processing applications. The units are designed to operate in harsh environments and 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.

PROJECT DETAILS

Two Taurus 70 Two-Shaft Gas Turbines
- Gas Fuel
- SoLoNOx (DLE) Combustion System
  - <15 ppm NOx, 25 ppm CO, 25 ppm UHC
- 11,150 ISO HP (8320 kW)

Available Heat (ISO):
Exhaust Flow: 215,990 lb/hr (97,970 kg/hr)
Exhaust Temp: 935˚F (500˚C)

Driven Equipment:
- C41 and C33 Compressors Driven in Tandem
- C41 Low Pressure Compressor:
  - Max Head - 90,000 ft-lb; Max Flow - 18,000 acfm (510 M3/min)
- C33 High Pressure Compressor:
  - Max Head - 86,000 ft-lb; Max Flow - 9000 acfm (226 M3/min)

OPTIMIZED ENGINE AND COMPRESSOR CONFIGURATION
REDUCED FUEL CONSUMPTION AND EMISSION LEVELS OVER 99% RELIABILITY