

Solar® Turbines

A Caterpillar Company

Generating Results for Your Business

Industrial Manufacturer Chooses Energy Service Contract

Location: Deer Park, Texas, U.S.A.

Installed: August 2001

Operator: Solar's Asset Management Services



COGENERATION PROJECT

Faced with expensive electrical substation and system upgrades, a leading industrial manufacturing plant in Deer Park, Texas, turned to Solar Turbines for a more economical and flexible solution. Solar's involvement - from engineering specification to asset management - provided a complete energy solution.

The combined heat and power plant was commissioned in less than 13 months from contract signing and was completed within budget. Solar managed the entire project under an energy service contract.

- Providing construction services (feasibility, design, construction, installation and interconnection)
- Financing the project (off balance sheet tax lease eliminating any capital outlay until commercial operation)
- Manufacturing and packaging the generator sets
- Operating and maintaining the plant

Four *Taurus*™ 60 gas turbine generator sets were installed to provide reliable heat and power to support the company's operations and to protect against power outages. These ISO-rated 5.5 MWe generator sets were combined with four heat recovery steam generators to provide approximately 18 MWe of power and 480,000 pounds per hour of process steam.

The installation provides 33% more steam than required, which results in the benefit of equipment redundancy. If one of the turbines is taken off-line for maintenance, the plant is still running at 100% of its steam requirement. The plant's overall efficiency is 90% and both natural gas and plant off-gas are used.

The installed costs were reduced and the air permitting process was expedited by choosing Solar's 15 ppm dry low NO_x, *SoLoNO_x*™, combustion system and duct burners, which

eliminated the need for SCR systems.

Solar's Asset Management Services group handles the operation and maintenance of the facility around the clock. By developing a life-cycle partnership with Solar, this customer was able to focus on its core business and lower its energy costs.

If you find it makes economic sense to install onsite heat and power generation capacity and are looking for a complete energy solution, please contact:

Solar Turbines Incorporated
Power Generation Group
P.O. Box 85376; MZ SP3-Q
San Diego, CA 92186-5376 U.S.A.
Telephone: +1(619) 544-5352
Fax: +1(858) 694-6715
E-mail: powergen@solarturbines.com
Or register at:
www.solarturbines.com