



COMBINED HEAT AND POWER EDUCATIONAL SERVICES

San Diego State University

OWNER

San Diego State University

LOCATION

San Diego, California, USA

PRODUCT

Two Taurus™ 60 (5.2 MWe) Gas Turbines

CUSTOMER VALUE

Sustainable, Low Cost Energy Production

San Diego State University (SDSU) was seeking to manage its energy costs in a deregulated electricity market, while at the same time ensuring ultra-reliable, high-quality power to keep pace with its continuing growth. SDSU decided to install a combined heat and power (CHP) facility powered by two 5.2 MW Taurus 60 generator sets with SoLoNOx™ combustion systems. The waste heat from the turbines provides additional steam to existing steam chillers and to the existing plant primary process steam loop, generating power for a 4 MW steam turbine. The waste heat is used to provide cooling and heating for the campus. The plant provides 95% of the current and future needs for the 1,000 acre campus.

The elements of the project included a 10,000 square foot two-story building designed to blend in with the existing SDSU architecture, an environmentally clean power generating station, operating flexibility with three separate primary feeds and the turbines to run independently or in series, the ability to either export power to or import power from the grid depending upon the specific demands of the campus mechanical and electrical systems, and a state-of-the-art control room.

In May 2002, SDSU was recognized as an environmental leader by the San Diego City Council and named the Climate Wise-Energy Star Partner of the Year. The university was recognized as a user of innovative energy-saving technologies for the CHP plant.

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