



Marina Thermal Facility
Atlantic City, NJ
CCHP Plant Expansion/Engineer of Record

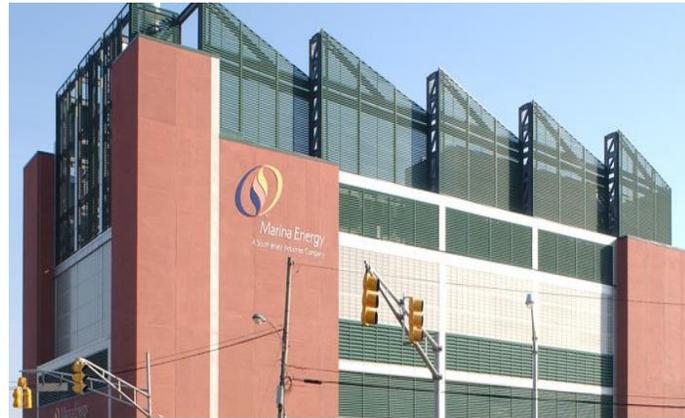
ABOUT THE CLIENT

The Marina Thermal Facility is a 26,000 square-foot utility plant located in the Renaissance Pointe section of Atlantic City, constructed in 2003 adjacently to the Borgata Hotel Casino and Spa. Owned by Marina Energy, a wholly-owned subsidiary of South Jersey Industries, in addition to being developed and operated by DCO Energy, the facility provides chilled and hot water along with electricity to meet the Borgata's demand for energy. In the event of an emergency outage, power can be generated by the plant to meet the casino/hotel's electricity needs.

REFERENCE

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CONSTRUCTION COST:

\$40 Million

YEAR COMPLETED:

2003 / Addition 2010

Concord provided all Mechanical, Electrical, I&C Engineering for the original plant construction and subsequent chiller plant and cogeneration additions.

Concord provided engineering services for the construction of the original Marina Thermal Facility which has been successfully operating since 2003. The plant was originally designed with 12,000 tons of chilled water cooling capacity, 200 MMBTU's of high temperature hot water and 8MW of emergency generation.

As part of the first expansion project, the Marina Thermal Facility added 5,200 tons of chilled water cooling capacity including additional chillers, pumping capacity, cooling towers and system controls. The distribution network was extended to serve the new construction at the Borgata site; this included over 8,400 linear feet of chilled water and hot water supply and return piping as well as electrical duct bank extension to serve the new areas.

At the close of 2010, a \$27MM capital investment made to the Marina Thermal Facility came online in the form of a cogeneration plant. This second expansion project consists of one 7.5MW natural gas-fired Solar Taurus™ 70 gas turbine generator set manufactured by Solar Turbines, a waste heat recovery unit with an ammonia based selective catalytic reduction system and two 900 ton hot water absorption chillers.

This energy project emphasizes the long-term vision and capabilities of the centralized heating and cooling systems that have been instituted for the Renaissance Pointe area of Atlantic City.

