



QUICK FACTS

Market:	Hospitality, Retail and Commercial
Design:	Field Erected
Scope:	Turnkey/EPC
Owner:	Jacksonville Electric Authority
Location:	Jacksonville, FL
Project Completed:	2003
Plant Specs:	12,000 TR chilling system 33,600 GPM tower capacity

JEA HOGAN'S CREEK

District Cooling



When the city of Jacksonville launched a public initiative to invest in infrastructure and public facilities, a new events arena and baseball park were constructed at the city's sports center downtown. The Jacksonville Electric Authority (JEA) planned a district cooling plant near the complex to efficiently supply chilled water to the sports facilities through underground supply and return distribution pipes. The chilled water would then be used by each client facility to provide comfort cooling via air-handling units and cooling coils within the facilities. Additionally, JEA was required to provide missioncritical standby chilled water service in the event of a power outage.

Stellar Energy provided comprehensive design-build services for the JEA Hogan's Creek Chilled Water District Cooling Plant, including engineering, design, equipment procurement, construction, mechanical services, fabrication, installation and commissioning for the project. The project included three chillers for a total capacity of 12,000 TR. The field-erected tower has a capacity of 33,600 GPM.

To address the requirement for mission-critical cooling in the event of a power outage, Stellar Energy designed and installed a one million-gallon Thermal Energy Storage tank and a 600 KW emergency generator at the plant. This solution allows the plant to continue to supply chilled water to the arena even during a power outage at the plant. The tank is a stratified chilled water design and is maintained at the design water temperature prior to an event at the arena. When power is lost, the emergency generator will automatically activate and run the necessary pumping and controls to supply the arena's air conditioning during an event.

