

## Case Study

# JEA Hogan's Creek

**Solution:** District Cooling

**Market:** Hospitality, Retail & Commercial

**Design:** Field Erected

**Scope:** Turnkey/EPC



## CHALLENGE

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 mission-critical standby chilled water service in the event of a power outage.

## SOLUTION

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 (3) 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.

## QUICK FACTS

Owner:	Jacksonville Electric Authority
Location:	Jacksonville, Florida
Plant specs:	12,000 TR chilling system with 33,600 GPM tower capacity
Project schedule:	Completed in 2003



With the success of the Hogan's Creek District Cooling Plant, JEA retained Stellar Energy for two subsequent District Cooling projects: JEA Downtown District Cooling Plant and the JEA Shands Hospital District Cooling Plant.



"I would like to personally commend you and your project team for the tremendous effort that was made to successfully complete the Hogan's Creek Chilled Water Plant. The level of commitment and dedication to meeting the schedule was greatly appreciated. In addition, the overall level of the design and construction exceeded my expectations. Everyone that has visited the plant so far has been very impressed with the overall quality.

Because of this dedication and commitment, and the success of the Hogan's Creek project, it was without hesitation that I recommended Stellar be awarded the design-build contract amendment for JEA's second chilled water plant, the Downtown Plant."

*Chuck Bond  
Manager, Project Management  
Jacksonville Electric Authority*

Stellar Energy is a global leader in the design, fabrication, installation and operations of a range of energy systems, including Turbine Inlet Air Chilling, District Cooling, Central Utility Plants and Combined Heat & Power. Learn more at [www.stellar-energy.net](http://www.stellar-energy.net).

