

Electrical

Date Completed:

2014

Construction Cost:

\$70 Million

Client or Owner's Rep:

Mr. Brent Nicholas, PE
CDM Smith

Highlights:

- ✓ **12.47 Kv Medium Voltage Electrical Switchgear**
- ✓ **Site Electrical**
- ✓ **Planning, Study, PER, Design Phase and Construction Phase Services**
- ✓ **On Budget and Schedule**
- ✓ **Cost Savings/Innovations**

3-D Rendering: Medium Voltage Main Electrical Switchgear Building and Transformers

City of Sugarland Surface Water Treatment Plant

City of Sugarland | Sugarland, Texas

Project Description | The project includes a new 9.0 mgd (30.0 mgd future capacity) Surface Water Treatment Plant consisting of Raw Water Intake and Pump Station, Forebay, Low Lift Pump Station, Pretreatment including Rapid and Flocculation, Plate Settler Sedimentation Basins, Low Pressure Membrane Filtration, Granular Activated Carbon, Disinfection, Transfer Pump Station, Ground Storage Tank, High Service Pump Station, Chemical Building and Tank Farm, Maintenance Building, Primary Electrical Building with Standby Power System, Sludge Processing Facilities including Backwash Clarifier, Sludge Thickeners, Thickened Sludge Pumps, Sludge Dewatering Building, and on-site SCADA system..

Services Provided | As a sub-consultant to CDM Smith, KGI was responsible for all of the electrical during preliminary engineering of the project. In final design, KGI was responsible for primary power to all the units, standby power generators and coordination with CenterPoint Energy (Power Company). Some of the major improvements included:

- 12.47 kV electrical service from CenterPoint Energy.
- Main 12.47 kV switchgear.
- Underground duct bank and manhole system for 12.47kV electrical distribution system.
- Primary selective 12.47kV switchgear and pad mounted transformers at buildings and structures.
- Standby Generator and Automatic Transfer Switch for power during loss of normal power.

