Plainfield Renewable Energy Center

The Plainfield Renewable Biomass project was an engineer, procure, and construct (EPC) contract, constructed on a 27 1/2 acre site located in Plainfield, CT. The $225 million project is now being fueled using a variety of sources, including wood from construction and demolition debris, recycled wood pallets, and land clearing materials to generate 350,000 lb/hr high pressure superheated steam. The steam is used to drive a steam turbine generator producing 37.5 MW net electricity output.

McPhee Electric, Ltd. furnished and installed the following:

- 350kW diesel generator, ATS
- 600V switchgear, panelboards, transformers, and feeders
- Motor control centers
- 4.16kV-480V transformers, 480/277V panels
- 480V switchgear
- 115kV bus, switches, P.T.'s, L.A.'s and supports, SF6 circuit breaker, O.H. & U.G. transmission line with structures, utility interface relaying/ metering/ control panel
- Plant UPS
- DC batteries and distribution panels
- 5kV, 3,000 Amp non-seg bus duct
- Foundations and steel supports for bus ducts
- Power cabling, fiber plant, and control system cabling
- Leak detection systems and lightning protection
- High voltage testing, heat trace, and lighting protection system
- Furnish and install all cable tray, duct banks, station grounding grid
- Complex, fully-integrated instruments and controls package
- Plant and site fire alarm, security and cctv systems

Market:
Market Type

Date:
2013

Location:
Plainfield, CT

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