

Electrode Boiler Installation – 6 MW

Gaston Memorial Hospital, Gastonia, NC

The Opportunity

As a major regional healthcare provider, Gaston Memorial Hospital had seen its energy costs almost doubled over the last couple of years due to the increase in natural gas costs. Hospital management was dealing with an energy budget that was out of control and unpredictable. Peregrine collected the hospital's historical gas usage and pricing and approached the City of Gastonia's electric utility department to help develop an electrical rate for the electric boiler.

The Solution

Peregrine offered a lump sum turn-key contract to implement the project. A savings analysis using the cost of gas and the cost of power was developed. This analysis showed that the project would save enough money by reducing the hospital's dependency on high cost natural gas to pay for itself in less than eighteen months.

The following is an overview of the scope of work:

- One of the existing gas boilers was removed in order to make room for the new electric boiler.
- A Precision HVJ Model 128 electric boiler rated at 6 MW was installed. This boiler was modified (made shorter) in order to fit under the existing boiler room roof structure.
- The electrical disconnect switch was located in the adjacent parking lot and housed in an outdoor enclosure.
- A 13.2 KV line was installed from the disconnect switch to the electric boiler.
- An existing 480 volt panel was used to provide power to all of the electric boiler auxiliaries. A Siemens controller along with touchscreen HMI was installed to control the boiler.

