ENERGY
CENTER
REPLACEMENT

CORTLAND REGIONAL MEDICAL CENTER

Cortland, NY

CLIENT
Cortland Regional
Medical Center

COMPLETION
2014

COST
$6 M

REFERENCE
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CRMC's nearly 100 year-old boiler plant was long overdue for an upgrade, their cogeneration system was costing more to operate than buying electricity off the grid, their chilled water plant was unreliable on high load days, their domestic hot water system was experiencing drastic swings in delivered temperature, and we found their emergency power systems to lack code required separation of life safety, critical and equipment branches.

IPD's team, went to work educating key hospital decision makers of their options, including costs, longevity, efficiency and maintenance requirements. Due to a number of factors, a decision was made to remove the cogeneration plant. To help make this decision less painful, we found buyers for the (used) equipment and assisted with the negotiation of the sale and removals. We suggested the space that remained from the cogeneration equipment be used to install new steam boilers, a new surge tank, deaerator and boiler feed pumps. This allowed construction and commissioning of the new boiler plant while the existing system remained operational, and limited the eventual steam outage to less than 2 hours for the switch over.

Some key features of the boiler plant included investigation and re-use of the existing stack, implementation of exhaust economizers, which improve steam boiler efficiency by several percentage points and a control system that can be monitored from the head plant managers home. An inefficient and unreliable steam driven absorption chiller was replaced with a high efficiency electric chiller of greater capacity and reliability. The domestic hot water system was retrofitted with a pair of electronically actuated mixing valves that now provide a consistent hot water supply temperature regardless of the system demand. In tandem with all of this, we designed proper separation of emergency power via transfer switches and distribution systems complete with a detailed plan for minimizing downtime during the change-over.

Not only is the hospital operating a much easier to maintain set of systems, they are paying less to operate the plant. IPD helped CRMC obtain incentives from National Grid and NYSERDA for the improvements in efficiency. We are very proud to have helped CMRC put all of these plaguing issues behind them so that they may focus on their mission.