



SUCCESS STORIES

SOUTHERN UTILITY

PRESSURE PART REPLACEMENT

CONTRACT PRESSURE PART REPLACEMENT

CAPACITY 662 MW_N

PROJECT OVERVIEW

Babcock Power Services (BPS) designed, supplied, and installed replacement pressure parts for a Southern Utility. This was a coordinated effort from the BPS ESS Projects Group which handled the design and supply of pressure parts and TEI Construction Services, a division of Babcock Power Services, which performed the installation. The project scope included the design, material supply, fabrication, and delivery of all materials ten months after receipt of order (ARO) Installation and commercial operation completed within 15 months ARO. Scope of supply included the following:

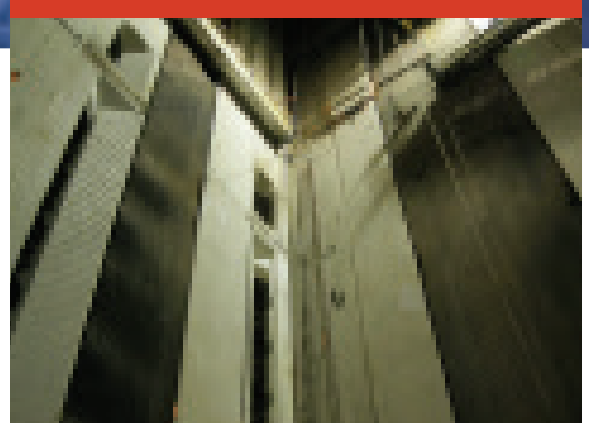
- » Upper waterwall and radiant reheat wall assemblies
- » Middle waterwall and burner corner tube panel assemblies
- » Lower waterwall front, rear, and side tube panel assemblies
- » Middle (center) division wall assemblies
- » Horizontal primary superheater and economizer upleg assemblies

UNIT DESCRIPTION

CE Eight Corner Tangential Coal Fired Boiler

Unit Output	662 MW _N
Steam Flow	4,650 kpph
SH Steam Pressure	2,650 psi
SH Steam Temperature	1005°F
RH Steam Pressure	516 psi
RH Steam Temperature	1005°F

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PERFORMANCE RESULTS

- » All material was delivered ahead of schedule
- » Little to no significant quality or fit up issues during construction
- » Installation was complete ahead of schedule

PROJECT RESULT SUMMARY

Design and Fabrication

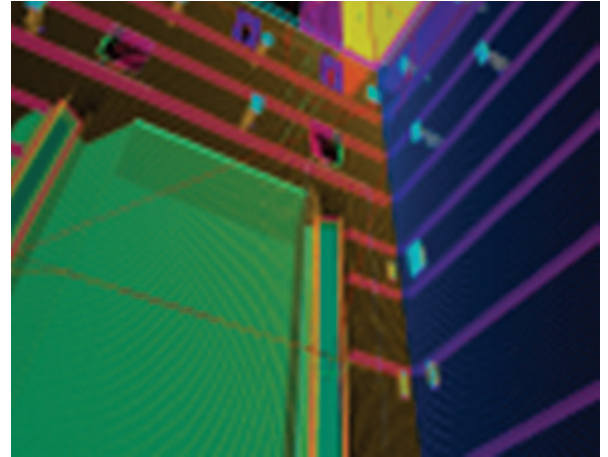
- » Material delivery to site less than 10 months ARO
- » 167 panels fabricated, largest 65 feet long
- » No significant quality or fit up issues during installation

Installation and Operation

- » Installation complete 3 weeks ahead of schedule
- » 11,626 pressure welds with 96% acceptance
- » 0 recordable accidents
- » Commercial operation 15 months ARO

BABCOCK POWER SOLUTION

- » Use 3-D model for design, demonstrating an understanding of the scope, showing complexity of the components, facilitating installation
- » Perform multiple unit inspections to gather missing information, verify assumptions, and confirm existing unit conditions
- » Design for constructability insured through BPS practice of conducting joint constructability review integrated in the ESS design and fabrication by involving TEIC at the inception of the project
- » Utilize high capacity foreign fabrication shop with staged component releases
- » Include client in design and fabrication activities



^ 3D Model