

# POWER GENERATION: PLANT ENGINEERING AND DESIGN SERVICES

## OVERVIEW

The driving forces in power generation and delivery are market competition, growing consumer demand for energy through the power grid and the requirements of regulatory and infrastructure standards. At ENTRUST Solutions Group we understand these forces and help our clients meet the challenges that they present. We offer a national team of engineers drawn from the industries we serve. Our approach is client-focused and collaborative to help utilities and developers meet pressures to upgrade for competitive or demand reasons.

Our experienced team has the ability to assess the existing condition of facilities, inspect the efficiency of operations and map out budget-conscious solutions in the face of growth and modernization pressures for our power generation clients. To implement these modernization and upgrade solutions, ENTRUST offers a comprehensive array of engineering services from feasibility studies to detailed design through startup and commissioning. Our engineering and design professionals provide innovative solutions to help our customers meet the challenges that they face. Our solutions are customized, engineered, and delivered with a focus on exceeding expectations and building long-term relationships with our clients.



## SYSTEM & EQUIPMENT EXPERTISE

- Balance of plant systems engineering
- Natural gas & fuel oil systems
- Water treatment systems
- Flue gas desulphurization (FGD)
- Selective catalytic reduction (SCR)
- Heat recovery steam generator (HRSG)
- Tanking systems
- Piping systems
- Power distribution and instrumentation systems
- Motor control centers and switchgear
- Grounding systems
- Substations
- Access & egress systems
- Cooling towers
- Safety systems
- Pressure relief systems
- Material handling systems
- Boilers
- Condensers
- Pumps
- Heat exchangers



## OUR SERVICES (CONT.)

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### ENGINEERING, DESIGN & DRAFTING SERVICES

- Electrical
- Instrumentation & Controls
- Mechanical
- Civil
- Structural
- Process / Chemical
- Power system / Arc flash studies
- Process simulation
- Pipe design & stress analysis
- Vessel specifications & analysis

### ON-SITE SERVICES

- As-built support / drawing updates
- Project management / Owner's engineer
- Construction oversight
- Outage support
- Certified welding inspections
- Commissioning & startup
- Data collection
- P&ID walkdowns
- 3D laser scanning & modeling
- Drafting support
- Document Control



### OTHER SERVICES

- Turbine consulting services
- NERC compliance services
- Generator excitation services
- Process safety management
- Document control systems