

ELECTRICAL SUBSTATION DESIGN



OUR SOLUTIONS

ENTRUST Solutions Group has extensive engineering, owner's engineering, and design experience working with major electric utilities. Our experience encompasses the full power delivery system, transmission, and distribution, with an emphasis on system expansion, reinforcement, repair, and modernization. We work seamlessly alongside our utility clients' in-house teams, extending and enhancing their capabilities and working with their standards, work management systems, and design software. We also can develop project-specific standards packages and prepare designs using our own in-house software.

ENGINEERING SERVICES INCLUDE BUT ARE NOT LIMITED TO:

- Physical Substation Engineering & Design
- Protection & Controls Engineering & Design
- Civil/Environmental Site Engineering Services
- Structural Engineering Services
- Foundation Design
- Substation Structural Steel Fabrication Details and Erection Drawings
- Equipment, Steel, and Construction Procurement Assistance
- Contracts and Specification Development
- LIDAR, 3D Scanning & 3D Design Services
- Standards Development Support
- Transmission and Distribution Line Design and Engineering
- Lead Commissioning Engineer Services
- Outage Planning, Implementation, and Management
- Construction Management Services
- Owner's Engineering
- 30/60/90 Conceptual drawing reviews to ensure engineering/design conforms with both client and industry standards

ELECTRIC SUBSTATION DESIGN

ENTRUST's substation capabilities include bulk power, sub-transmission and distribution substation design up to 345kV, greenfield/brownfield designs, replacements on all level substations, owner's engineer, safety & standards analysis and application, bus configuration analysis and design, major equipment design, application, and procurement assistance, grounding design, protective relay settings development, and lightning protection design.

CIVIL AND STRUCTURAL DESIGN

ENTRUST has extensive expertise in providing civil and structural engineering and design services for our clients which meet jurisdictional code requirements and provide safe, reliable, and long life-span solutions while minimizing the cost of construction and maintenance. From site development, grading, and drainage design to full tension dead end structural analysis and design and details, ENTRUST executes these designs as part of full-service projects where we coordinate with our in-house mechanical and electrical team counterparts as well as stand-alone civil and structural projects.

To monitor top quality each substation design goes through a thorough ISO-9001 design/drafting, civil/structural and electrical engineering QAQC review as required. These reviews are executed through deliverable-specific checklists to ensure all aspects of the job are captured to the highest quality level possible.

