

DESIGN

Eaton provides you with expert engineering support to ensure a proper and safe design

Engineering and consulting services focus on understanding your requirements and setting strategies for your power system in order to satisfy your business needs.

Traditional engineering and advanced analysis offerings

- · Short-circuit analysis
- Arc flash analysis
- Protective device coordination
- · Load flow analysis / power factor correction study
- Motor starting study
- · Harmonic analysis study
- Power quality site surveys and disturbance monitoring
- · Substation and ground grid design
- · Field harmonic measurements

Benefits

- Modular integrated transportable substation—a turnkey engineering substation solution
- Microgrid design, engineering and installed system
- Substation and power system design
- Alternative power generation design, engineering and grid integration

Automation engineering: advanced and custom applications

- Electrical power monitoring systems (EPMS)
- Full monitoring software and systems integration
- · Industrial communications system design

- Transient stability study
- · Protection and control design
- · Advanced design and analysis
- Distribution system design
- · Switching transient analysis
- · Distribution systems reliability analysis
- Dynamic simulation
- Specialized applications
- Training
- Mission-critical facility / data center energy design and efficient upgrades (including modular data centers)
- · Lighting assessment and savings analysis
- Design and installation of energy management and monitoring systems
- Multi-source automatic transfer systems for LV and MV switchgear; new and retrofit
- Generator paralleling systems
- Peak shaving/load management systems
- · Remote control for arc flash avoidance



BUILD

Eaton provides cost-effective, on-time system improvements with a single point of contact

Modernization and turnkey power system services deploy personnel in the field to complete projects, whether upgrading an existing installation or building a brand new facility.

OEM equipment services and upgrades

- · Westinghouse/Cutler-Hammer/Eaton/Cooper
- Square D
- · General Electric
- ITE/ABB
- · Allis-Chalmers/Siemens
- Federal Pacific/Federal Pioneer
- Others

Benefits

 Turnkey modular solutions, hydroelectric and synchronous condenser projects

Electrical equipment life extension and modernization

- · Class 1 breaker reconditioning LV and MV
- · Solid-state LV trip unit retrofits and upgrades
- LV air replacement breakers
- MV vacuum replacement breakers
- LV-VSR (breaker to motor starter replacements)
- MV-VSR
- · Upgrade equipment front door metering and relaying
- · Horizontal main bus upgrades
- · High resistance grounding systems
- RPR-2 remote power racking systems

Turnkey project and construction management

- · Single-point responsibility throughout the entire project
- · Centralized project management group
- Standardized documentation practices including scheduling, reporting and project closeout
- Installation services including nationwide subcontracting capability of all trades with on-site supervision

SUPPORT

Eaton can maximize your uptime, reliability and safety with ongoing services

Contract and support services provide the maintenance, parts and service needed to get the best performance from your existing power systems.

Turnkey solutions

- · Multi-vendor equipment supply chain
- · Supply of the complete range of Eaton products
- Coordination and purchase of all third-party customer preferred components
- · Prefabricated control house
- Modular collector substation
- · Utility grid management and monitoring systems
- · Demand management

Start-up and commissioning

- Acceptance testing and installation certification
- · Ground fault certifications
- · Interconnect confirmation and commissioning
- Utility integration
- · Warranty extension
- · Installation support and supervision
- · Start-up and training
- · Ground grid testing

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Preventive and predictive maintenance

- · PM program design and implementation
- · Periodic testing and PM services
- · Thermographic survey
- Troubleshooting/testing
- DC power systems
- · Predictive diagnostics / partial discharge
- Transformer oil processing

Maintenance and emergency services

- Complete scope of testing, repair and evaluation
- · Short/long-term maintenance contracts
- 24/7 remote monitoring support
- Crisis response personnel dispatch
- Monitoring of relaying, metering, HV, MV and LV equipment and transformers

For more information, please contact:



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