# SERVICES AND ENGINEERING SOLUTIONS YOUR RELIABILITY AND RESILIENCE PARTNER

# **POWER SYSTEM APPLICATIONS AND SEGMENTS**



S&C provides equipment, solutions, and services for the power grid distribution and transmission network. Whether a new installation or a grid enhancement project, S&C has a solution for you.

# APPLICATIONS

- Microgrids and non-wires alternatives
- Smart grids
- Substations
- Renewables
- Automation
- Cybersecurity

# SEGMENTS

- Utilities
- Municipal and cooperative systems
- Grid operations
- Government facilities
- Education facilities
- Data centers
- Commercial and industrial customers



# GRID SOLUTIONS RESILIENCE STUDIES

- Network assessment and solutions
- Project options and feasibility
- Design services
- Interconnection solutions

# **RAPID RELIABILITY**

- Customized reliability improvement plan
- Optimized process and project management
- Programming and installation support

#### GRID-READY INVENTORY PROGRAM

- Managed inventory of gridready, programmed devices
- Spare parts



# **DESIGN AND APPLICATION ENGINEERING**

S&C offers a variety of analytical studies and engineering design services for utilities, transmission operators, governments, and commercial and industrial customers. Ranging from system planning and reliability studies to switching and protection designs, S&C's engineering experts support grid reliability and resilience through all phases of a project life cycle.

# **ENGINEERING DESIGN SERVICES**

- Preliminary designs
- Detailed designs
- Single-line drawings
- Wiring schematics (ac and dc)
- Grounding design
- Lightning protection
- Wiring diagrams
- Control room design
- Physical layouts, sections, and details
- Bills of material
- Protection and control design and logic diagrams
- Bus arrangements and layout drawings
- Relay panel layout

#### SCADA engineering

## **APPLICATION ENGINEERING**

- Automation control settings development
- IntelliTeam<sup>®</sup> Automatic Restoration System settings development
- IntelliTeam system testing
- Network design and configuration
- Radio network design and optimization

## **CYBER SECURITY SERVICES**

- Cybersecurity assessments
- Enhancement and improvement reports
- Federal risk-management framework assessments
- Secure network design and configuration





# **CONSULTING AND ANALYTICAL STUDIES**

S&C's engineering professionals draw on vast industry experience to assist utilities, grid operators, developers, and commercial and industrial customers in evaluating system needs, reliability improvements, resource additions, and performance enhancements. These professionals are ready to share their expertise with you.

## **ANALYTICAL STUDIES**

- Overcurrent protective-device coordination studies
- Short-circuit studies
- Arc-flash studies
- Power-quality studies
- Reliability studies
- Switching-transient studies
- Voltage-stability analysis and model development
- Harmonic studies
- Filter-design studies
- Insulation-coordination studies

#### **CONSULTING SERVICES**

- Project-feasibility studies
- Equipment-selection assistance
- Technical application assistance
- Reliability-improvement studies
- Distributed energy resource (DER) and renewable integration studies
- Project-management services

#### **MICROGRID STUDIES**

- Initial evaluation and concept reviews
- Feasibility studies
- Business-case development
- DER options
- Available incentive and grant review
- Preliminary engineering design
- Detailed engineering design



## **FIELD AND SUPPORT SERVICES**

S&C's field service technicians and factory-support personnel offer peace of mind to customers. Knowing their S&C equipment will be installed and maintained properly, customers benefit from these life-cycle services, which maximize the return and performance of their switching and control assets.

## **FIELD SERVICES**

- Installation support
- Commissioning and testing
- Maintenance
- Upgrades and retrofits
- Replacement and spare parts
- Troubleshooting
- Factory testing

#### GLOBAL SUPPORT AND MONITORING CENTER

- 24/7 support center
  - Remote asset monitoring and support
- Access to technical experts

#### CUSTOMER TRAINING AND WORKSHOPS

- Product training
- Product-application workshops
- Relay and programming training



# S&C ELECTRIC COMPANY Excellence Through Innovation

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