



POWER GENERATION TRANSMISSION & DISTRIBUTION SERVICES

Acceptance Testing | Commissioning | Preventive Maintenance
Transformer Assembly & Oil Processing | SF6 Gas Handling | Engineering Services

ABOUT NORTH CENTRAL ELECTRIC

North Central Electric (NCE) is a full spectrum electrical contractor service that provides unique solutions for clients ranging in industry and size. From start to finish, we exceed customer expectations in design, engineering, constructing, testing and commissioning, project management, and more. As a leader in technical services, we pride ourselves in helping you to avoid unplanned outages from ever occurring. NCE utilizes state of the art equipment, technology, and practices to implement innovative designs that increase efficiency and maintain functionality for the long run.

We partner with the most trusted manufacturers to ensure that the equipment being installed and tested is safe for operation and is of the highest quality. NCE operates under strict regulations to ensure that our procedures and practices fall under the codes and standards provided by OSHA, ANSI/NETA, NFRA 70E, IEEE, and the National Electric Code.

In an ever growing and evolving electric utility and power generation industry, NCE has proven to grow and evolve with advancements. Our highly trained and qualified technicians stay on the cutting edge of emerging technologies and operations in the industry, and their expertise and experience has enabled NCE to continually succeed and meet project demands. As industry masters, our technicians have a constant desire to learn. Our company has regular training sessions to ensure that every NCE employee are well trained in the most up to date regulations in equipment operation, testing procedures, and most importantly, employee safety.

NCE is a client-focused company that's committed to providing the highest standard of professionalism. We work intimately with our clients to schedule maintenance and testing programs, and we deliver clear and concise reports on the present condition of equipment in order to recommend any corrective action that may be needed. We are always prompt in preparing proper documentation for your safety, insurance, and management reports.



QUALITY ASSURANCE QUALITY CONTROL

NCE is a fully accredited NETA company. NETA has extremely stringent membership standards which all companies must continually meet to maintain active certification. Through rigorous field and classroom experiences, and a collection of examinations and certifications, our annual recognition from NETA signifies to our customers that NCE operates with the leading procedures and offers the highest quality assurance.

NCE is ISO 9001:2015 certified. This is a quality management system certification that enhances our overall capabilities and processes. It enables us to exceed the expectations of every customer, and do so on a consistent basis.



OUR CUSTOMERS

ABB
Amtrak
Atlantic City Electric
Black & Veatch
Burns & McDonnell
Calpine
CGIT
Colonial Pipeline
Don Ed Development
Con Edison
Conoco Phillips
CPPV Energy Group
Dashille Corporation
Delmarva Power
DuPont
Exelon
First Energy-Jersey Central Power & Light
Met-Ed, Potomac Edison
GE Prolec
Henkles & McCoy
Kupper Engineering, Inc.

Matrix NAC
Miller Bros.
MJ Electric
NAAES Corporation
National Conductor
New River Electric
New Jersey Transit
Northeast Utilities
Old Dominion
PECO
Pepco Holdings
PPL
Port Authority Of New York & New Jersey
Public Service Electric & Gas
Quanta Services Group *(Multiple Companies)*
S&C Electric
Sargent Lundy
Schweitzer Engineering Laboratories, Inc.
Siemens
SolarCity
UGI



INDUSTRIES SERVED

Power Generation
Electric Utility
Renewable Energy
Industrial
Manufacturing

Health Care
Education
Data Centers
Commercial
Contractor

ACCEPTANCE TESTING & COMMISSIONING

To ensure that you meet industry and manufacturer standards and to prove all protection controls, NCE provides impeccable acceptance testing and commissioning for your electrical apparatus.

SERVICES

NCE offers complete testing and commissioning services for both new substations (green field) and existing in-service substations (brown field). NCE's technical expertise and experience on systems 480 V to 765 KV will assure our customers that their systems function as their designs were intended. Our test personnel is made entirely of NETA certified technicians, and each project that we work on is assigned one of our NETA Level III or higher technicians to lead strategy and implementation.

APPARATUS

- Auto-Transfer Switches
- Battery Bank
- Cables (*Medium and High Voltage*)
- Capacitors
- Cap Banks
- Circuit Switchers
- Coupling Capacitor Voltage Transformers (*CCVT*)
- Circuit Switchers
- Disconnect Switches
- Generators
- GIS Bus and Switchgear
- Ground Grid
- Metalclad Switchgear
- Metering
- Moto Operated Devices
- Motors
- Power Breakers
- Protective Relays
- Reclosers
- SF6 Gas Breakers
- Surge Arrestors
- Transducers
- Transformers (*Power, Distribution, and Instrument*)

COMMISSIONING

- End to End Testing
- Factory Acceptance Testing
- Functional Apparatus Testing
- Point to Point
- Protection and Control Schemes
- SCADA Systems
- Start-Up
- Utility Interconnects
- Witness Testing



PREDICTIVE & PREVENTIVE MAINTENANCE PROGRAM

A well-established preventive maintenance program is the best way to predict equipment failure and minimize costly repairs. Our maintenance programs are designed to predict electrical equipment failures before they happen. Electrical equipment failures not only cause costly downtime to companies, but put the health and safety of their personnel at risk. NCE's predictive maintenance program can be customized to meet the needs of every customer and is personalized based on your scale, industry, and energy needs.

SERVICES

24/7 Emergency Services
Backup Generators
Infrared/Thermal Scan *(Electrical and Mechanical)*
In-Service Load Readings
Lockout/Tagout Procedure
NERC Compliance

Offline Electrical Testing
Oil and DGA Samples
Online Partial Discharge Analysis
Revenue Meter Calibration
Visual Inspection

TRANSFORMER ASSEMBLY & VACUUM FILL

NCE offers our customers turnkey solutions to their most critical substation asset, power transformers. Our technicians have been trained and certified by the leading transformer manufacturers from all over the world and only use state of the art oil processing rigs. NCE owns and operates its own oil processing rigs, 50-ton crane, line trucks, man lifts, and generators. You can similarly be confident that our own NCE staff members are certified crane operators and are fully-trained specialists.

INSTALLATION

Turnkey Installation
Assembly
Vacuum Fill
Oil Circulation
LTC Inspection
Electrical Testing

REPAIR & MAINTENANCE

Oil Processing
Degasification
Dehydration
Regasket
LTC Inspection, Maintenance,
and Repairs/Replacement

Accessory Installation/Replacement
Bushing Replacements
Transformer Disposal
Oil Diagnostics and Analysis

GAS HANDLING

NCE can handle all your major SF6 gas handling projects. Our technicians are trained and qualified to fill new SF6 breakers, degas existing SF6 breakers for maintenance/decommission, transport SF6 to and from site, and properly dispose of SF6 safely and efficiently. We have worked on large scale GIS projects requiring these services and we are well versed in ABB, Alstom, Mitsubishi, S&C, and Siemens switchgear. NCE holds a deep knowledge of all the requirements, EPA regulations, and safety hazards when it comes to handling greenhouse gas.

SERVICES

SF6 Gas Fill

- Circuit Breaker up to 765 KV
- GIS Bus up to 500 KV

SF6 Gas Reclamation

SF6 Disposal

SF6 Gas Analysis

HIGH VOLTAGE CABLE TESTING

NCE completes the most advanced high voltage cable diagnostics for both new age and in-service cables. We utilize the industry standards for high voltage cable testing and we partner with the top cable diagnostic companies in the world. High voltage cable systems are typically tested using either AEIC, ICEA, IEC, and/or IEEE standards, and Siemens switchgear. NCE has years of experience and a deep understanding of the requirements, EPA regulations, and safety hazards while dealing with potentially dangerous high voltage cables. The safety of your staff is of paramount importance to our technicians.

ENGINEERING

NCE offers complete protection and control electrical design packages for both new and retrofit installations. We provide services for power generation, transmission, and distribution applications. We employ the latest in power system study software to perform immersive engineering studies. Our engineers can perform a wide range of studies for your organization, including ASPEN, ETAP, and SKM.

SERVICES

Load Flow Study

Short-Circuit Study

Short-Circuit Study

Coordination Study

Arc Flash Hazard Analysis & Mitigation

Protective Relay Setting Creation

Protection and Control Design

Relay Package and Upgrades/Retrofits

NERC Studies and Programs

Maintenance Programs

SCADA and Communications Systems

Factory Acceptance Testing

Commissioning Services

Project Acceptance Test Procedures and Specifications

Witness Test

Power Quality and Harmonic Analysis

Data Logging

CAD Service

SERVICES

VLF Hipot Testing up to 138 KV Cable (200 KV_{peak})

AC Resonant Hipot

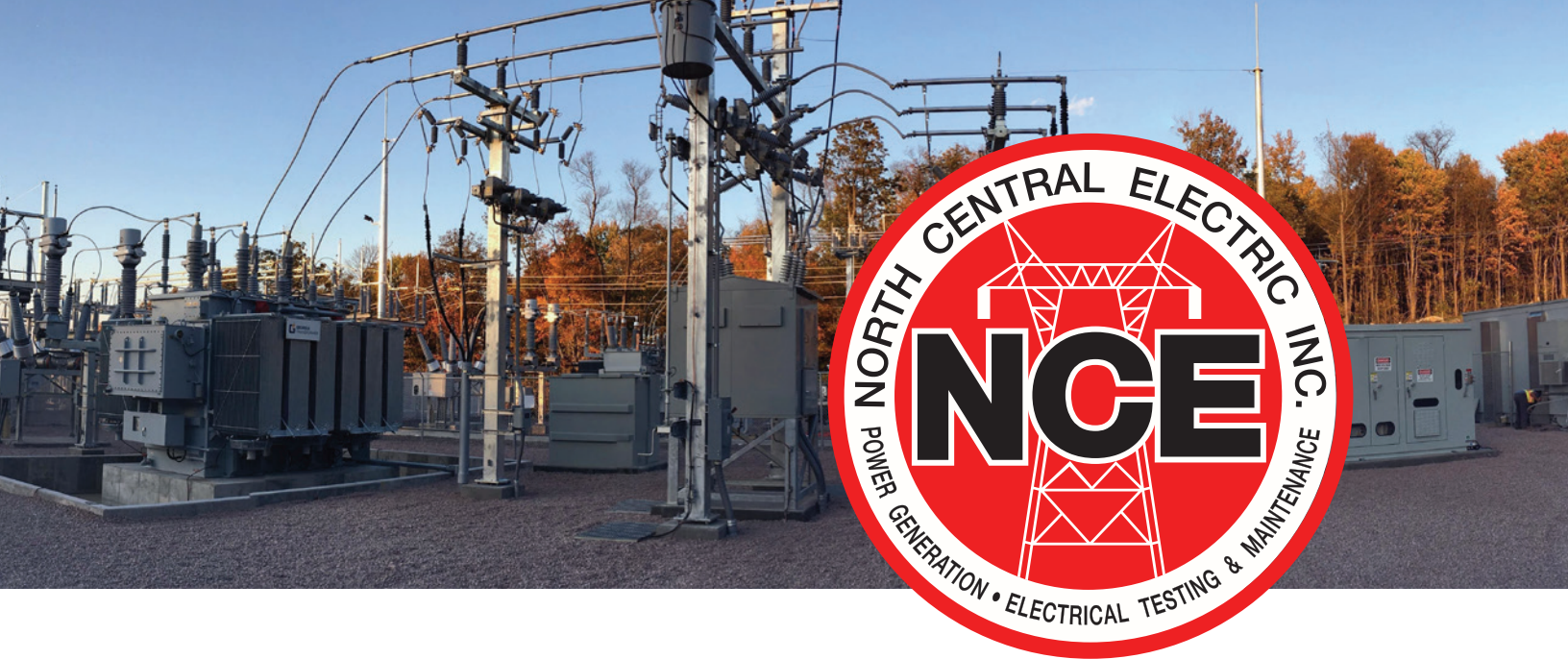
DC Hipot Testing (Up to 600 KVDC)

Partial Discharge Analysis (Offline and Online)

Tan Delta Analysis

Time Domain Reflectometer (TDR)

Fault Locating



NCE is a leading service provider in the power generation, transmission, and distribution industry, offering specialized testing, commissioning, transformer oil processing, and engineering services. We pride ourselves in consistently and efficiently meeting a wide array of project demands for our customers in the Northeast region and beyond. By working with the NCE team, our customers can expect an unparalleled level of expertise gained from NCE's 30+ years in business. Our highly experienced management team and field technicians offer support for routine tasks to the most specialized projects.

LET'S GET TO WORK

NORTH CENTRAL ELECTRIC, INC.

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