

"Our Services, Your Satisfaction"

Dear Sir(s)

Greetings!!

We take this opportunity to introduce ourselves as "NS Engineers" – **Power System Protection Service Provider**. We offered vital and reliable Services to Industrial Plants & Utilities for **Power System Protection Services**. Power System Protection Services Include Testing, Commissioning, Retrofitting, Power System Studies etc.

Our Strengths:-

TESTING & COMMISSIONING:-

- We have dedicated team of experts for Testing & Commissioning services of all types of Protection Relays, Control & Relay Panels, Switchgear Panels, Transformers, Motors and Sub-stations up to 400KV.
- Testing & Commissioning of Protection Systems of all types of Relays including Electromechanical to Numerical Relays of all Manufacturers(ABB, Siemens, AREVA, GE, SEL, Woodward etc.)
- Testing & commissioning of all types of Primary Equipments in Substation such as CT, PT, Circuit Breakers, Isolators, Transformers, Motors etc.
- > Retrofitting and Revamping Activities of all types of Protection Systems.
- > Servicing and Maintenance of all type of circuit breaker up to 132KV.
- > Third Party Inspection Services for Pre-commissioning activities.
- Sophisticated Testing Instruments for Testing of Power System Equipments and Numerical Testing Kit for Testing of Protection Relays.

Analysis & System Study:

- > Are you facing any Mal-Operation of Protective devices in your Plant??
- Your plant's Upstream Feeder Trips before your Downstream feeder Trips for fault at downstream??
- > Are you sure about the Capacity of the Electrical Switchgear Equipments in your plant??
- > Have you face any Hazardous accident in your plant??

If answer is positive than here is the solution.

Your plant's Electrical system need to have Analysis in detail. We have,

- Experts in providing solutions for Power Plants, Industrial plants for Protection Audit, Load Flow Study etc. on ETAP Software.
- > Experts in Short Ckt. Study, Relay Coordination Study for Industrial plants.
- > Relay Setting Calculation for all type of Electromechanical & Numerical Relays.
- > Implementation of System Studies and customized solution provider.
- Arc Flash Analysis and Harmonic Analysis along with recommendation for electrical system.

Engineers ELECTRIC AL ENGINEERING CONSULTANTS 68-A, Pushpraj Complex, Near : Jashoda Cross Road, Vatva GIDC Road, Ahmedabad - 38244 E-mail ID : info@nsengineers.co.in , Web Site : www.nsengineers.co.in , Ph: 09601282133

Protection & Automation:-

- Providing services for Industrial Plants & Substations for Protection and Automation Projects includes SCADA, Networking and any customized solutions.
- > Configuration of the IEDs as per SCADA requirement.
- > Implementation of Load shedding application, Maximum demand controller etc.

Design & Engineering:

- Design & Engineering Team provides reliable services in area of Power Plants, Industrial Plants, Sub-stations. Providing Electrical System Design, Layouts of Substations, Cable Schedule etc.
- > Designing of Pumping stations of various voltage levels starting from 0.433KV to 132KV.
- Refurbishing and Revamping of substations with latest technology Relays and SCADA system.



Protection IEDs of "Crompton Greaves" :

We pleased to provide Sales & Service support for Crompton Greaves IEDs. Various types of IEDs include O/C & E/F Relay, Feeder management Relay, Transformer Diff. Relay, Motor Protection Relay, Bus bar Protection Relay, Distance Protection Relay. Product range also consists of Transformer Monitoring Unit, Data concentrator, RTU & SCADA.

Experience of Our Team had been described in brief:

Testing & Commissioning Experience:

- Testing & Commissioning of Substation up to 400KV with Third Party Inspection(Utility Boards).
- Testing & Commissioning of Pumping Stations for 132KV/66KV/33KV/11KV of Various companies such as Jyoti Ltd, Kirloskar Ltd., IVRCL with Third Party Inspections.
- Protection Relays Testing in various Refineries, Industrial plants.
- Protection Relays Testing & Commissioning in various Utilities MSETCL, GETCO, RRVPNL.
- Testing & Commissioning of All Type of Protection Relays (ABB, AREVA, Siemens, GE, SEL,CG) with IEC61850 Configuration, GOOSE Configuration etc.
- Testing, Configuration & Commissioning of all type of relays of Schneider make including Micom P111,P121,P127,P225,P923, P441, P343, P642, P632 etc.



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System Study and Analysis:

- Power System Analysis for Various Industrial Plants, Refineries which include custom solutions, Load Flow study, Short Ckt. Study, Harmonic Analysis, Transient stability, Motor Acceleration study etc. on ETAP Software.
- > Relay Setting Calculation & Relay Coordination Study.
- Executive summary which includes recommendation of the best practices as per Industry standards and support for Implementation.
- Arc Flash Analysis consists of Incident energy calculation, PPE Requirement etc. as per NFPA 70E and IEEE1584 standard.
- Harmonic Analysis of Electrical system with reputed Analyzer and report for recommendation.

Protection & Automation:-

- Having hands on experience on all type of IEDs of various make ABB, AREVA, SIEMNES, GE, SEL, CG etc.
- Protection Scheme checking such as Differential Scheme, Restricted Earth fault scheme for Transformer, Generators, Motors.
- > Repair, Service, Modification of any type of circuit breaker at your plant.
- > Protection system analysis for Industrial Plants & Substations and customized solutions.
- > In depth working experience in Protection & Automation including Networking & SCADA.
- > Configuration of the IEDs as per SCADA requirement.
- Implementation of Electrical SCADA, Energy Management Systems with various protocols i.e. Modbus, IEC103, DNP, IEC61850 etc.
- > Implementation of Load shedding application, Maximum demand controller etc.

Design & Engineering:-

Engineering & Design of Various Substations up to 220KV, Designing of Pumping Stations up to 132KV for Jyoti Ltd., Kirloskar Ltd. Engineering includes various types of substation layouts, Preparation of CDR, Single Line

Engineering includes various types of substation layouts, Preparation of CDR, Single Line Diagrams, Equipment Sizing, Earthing Layouts, Lighting Layouts etc.

 Refurbishing and Revamping of substations, Instrumentation SCADA, Electrical SCADA for various industrial plants.

Our Team includes Professionally trained, Focused, Energetic team of Engineers backed by a team of Highly Experienced Experts.

Assuring you our best services forever and look forward to work with your esteemed organization.

Thanking You,

NS Engineers



Few of the clienteles are mentioned below:

> <u>Signet Products Pvt. Ltd.:-</u>

- Revamping of 132KV Transformer C&R Panel at MSETCL, Pune S/S.
- More than 50 Nos. of Numerical Relays(RET670, CSC326, CSC321, REL670 i.e. Distance Relay, Differential Relays, Back up relays) Commissioning & Retrofitting in various substation of MSETCL, Pune.

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- Retrofitting, Configuration, Testing & Commissioning of Distance Protection Relays at MSETCL, Solapur.
- Testing & Commissioning of 33KV Solar Power Plant SS at Katol, Maharashtra.

Honeywell Automation India Ltd.:-

- Commissioning of SCADA system for Synchronization and Process of 7X110MW Hydro Power Plant at <u>APGENCO, Srisailem</u>.
- Engineering & Commissioning support for SCAP Panel for 6X12.5MW STG at <u>CAIRN</u> <u>Energy</u>, <u>Barmer Plant</u>.
- Modification, Testing of RTU Panel & Commissioning of RTUs at <u>RRVPNL</u> for different Substation in Rajasthan which includes data reporting at LDC.

> MBH Power Private Ltd:-

- Testing & Commissioning of <u>400KV GETCO</u>(Gujarat Electricity Transmission Co.) Switchyard at Halvad, Gujarat.
- Testing & Commissioning of Reactor Bay at <u>400KV GETCO</u> Varsana, Anjar Substation.
- Testing & Commissioning of Line Bays at <u>400KV GETCO</u> Varsana, Anjar Substation
- Cable Laying & Termination at 220KV Jarod Substation, Gujarat.
- Testing & Commissioning of <u>220KV GETCO Jarod</u> Substation, Gujarat.
- Testing & Commissioning of <u>220KV GETCO Modasa</u> Substation, Gujarat.

<u>L&T ECC :-</u>

- Testing & Commissioning of 8 Nos. 33KV/11KV Pumping stations at Pali, Rajasthan, Jawai Cluster Project.
- Testing & Commissioning of 33/6.6KV Pumping station at Fatehpur, Rajasthan.
- System Analysis of 33KV Pumping station at "Bisalpur- Jaipur water supply Project".
- Erection & Commissioning of Instrumentation system of 33KV Pumping station at Fatehpur, Rajasthan.

> <u>ABB Limited:-</u>

- Testing of ABB Make Numerical Relays(i.e. Transformer Protection, Feeder protection, Distance protection etc.) at <u>ONGC(Oil & Natural gas Corporation)- Dahej</u> Plant.
- Testing of Siemens make Numerical Relays(i.e. Line Feeder, Transformer Feeder etc.) at <u>Tata Motors Limited</u>, Pantnagar.
- Testing of Energy Meters at <u>Tata Motors Limited</u>, Pantnagar.

ASM Power Ltd.:-

- Tan- Delta, SFRA & Winding Resistance tests of Power Transformer at <u>400KV GETCO</u> <u>Jetpur SS.</u>
- Tan- Delta, SFRA & Winding Resistance tests of Power Transformer at <u>400KV SS of</u> <u>Ideal Energy Pvt. Ltd, Nagpur.</u>



Hitech Engineers:-

 Configuration, Testing & Commissioning of AREVA make Numerical Relays(i.e. Transformer Protection, Line Protection, Busbar Protection) at <u>400KV GMR SS</u>, <u>Nagpur.</u>

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Vardhman Associates:-

• Configuration & Testing of AREVA Make Numerical Relays at IOCL, Kandla and Reliance Industries Ltd., Jamnagar.

Electromech Engineers:-

• Retrofitting & Commissioning of AREVA Make Relays at GAIL(Gas Authority of India Ltd.), Guna.

> <u>BipinKumar Electric Corporation:-</u>

- Configuration, Testing & Commissioning of SCHNEIDER Make Numerical Relays at M/s. Sterling Powergen, Daman.
- Configuration, Testing & Commissioning of SCHNEIDER Make Numerical Relays at M/s. BPCL, Bharatpur.
- Configuration, Testing & Commissioning of SCHNEIDER Make Numerical Relays at various substation of <u>RRVPNL</u>, <u>Rajasthan</u>.
- Retrofitting of Schneider make Relays at M/s. Cipla Ltd., Goa.

J.D. Engineering :-

- HV panel Testing & Commissioning at ONGC(Oil & Natural Gas Corporation) Petroproducts Ltd.- Dahej.
- Testing & Commissioning of HV Panel Including CT, PT, Relays etc. at Essar Jamnagar.
- Testing & Commissioning of HV & LV Panel Including CT, PT, Relays etc. at Simens, Goa.
- Testing of all types of Relays in annual Shutdown work at <u>IOCL(Indian oil Corporation</u> <u>Ltd.), Mathura.</u>
- Testing of all types of Relays in annual shutdown work at Vedanta, Orissa.

Simon India Ltd.:-

• Testing & Commissioning of LT Panels at <u>IFFCO(Indian Farmer Fertilizers Cooperative</u> <u>Limited)</u>, Paradip.

Sterling & Wilson Ltd.:-

- <u>Power System Analysis</u>(i.e. Load Flow Study, Short Ckt. Study, Relay Coordination) of <u>M/s. Bosch Rexroth Ltd</u> Plant.
- <u>Power System Analysis(</u>i.e. Load Flow Study, Short Ckt. Study, Relay Coordination) of <u>M/s. Ford India Ltd</u>. For their Sanand Plant.
- <u>Power System Analysis(</u>i.e. Load Flow Study, Short Ckt. Study, Relay Coordination) of <u>M/s. Sintax India Ltd</u>. For their Rajula Plant.
- Configuration & Testing of Numerical Relays at GETCO, Dhuvaran Power Station.

> <u>Alpha Corporation :-</u>

- Testing & Commissioning of 66KV Pumping Station at Khaddi, REWA(M.P.).
- Testing & Commissioning of 66KV Pumping Station at Tyonther(M.P.).



> Asia Telecom :-

Testing & Commissioning of 66KV Pumping Station at Gadhada, Gujarat.

\geq Ashirvad Electrical & Engineering Services :-

• Power System Analysis(i.e. Load Flow Study, Short Ckt. Study, Relay Coordination) of M/s. Bosch Ltd Plant, Jaipur.

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Ohmkar Engineers :- \geq

 Engineering, Retrofitting & Commissioning of Siemens/ABB make Numerical Relays (Distance Protection, Bus-bar Protection, Back up protection) at 220KV Reliance(Jamnagar) & GETCO Substation.

Gujarat International Finance Tec-City Company Limited :-

- Power System Analysis(i.e. Load Flow Study, Short Ckt. Study, Relay Coordination) for GIFT City, Ahmedabad.
- Configuration of the relays & support for communication to SCADA.

Raviraj Foils Limited :-

 Supply of Numerical Protection relay & Retrofitting of Numerical relay in existing panel.

AEPL Engineering Pvt Limited :-

Testing & Commissioning of ABB Make Numerical Relays at Cairn India Ltd., Barmer Plant.

> Jyoti Limited :-

- Testing & Commissioning of 66KV Pumping station at Rapar, Sardar Sarovar vidhyut Nigam Limited.
- Power System Analysis and Relay Coordination for 66KV Pumping Station at Rapar.
- Operation & maintenance of Pumping Station with Electrical, Mechanical & Instrumentation package at Pumping Station, Rapar.

> Ford India Ltd. :-

- "Arc Flash Analysis" for <u>M/s. Ford India Ltd</u>. For their Manufacturing plant at Sanand.
- Testing of 220KV Switchyard Equipment CT, PT, CB, Transformers at Sanand plant.
- Oil Testing analysis of 40 Nos. of Power/Distribution Transformers.

Crompton Greaves Ltd.(ZIV Automation) :-

- Authorized Sales & Service of Numerical Protection Relays.
- Testing & Commissioning of 132KV CRP at Manoharpur PGCIL Substation, Jharkhand.
- Testing & Commissioning of 132KV CRP at Manchar Substation, Pune.
- Testing & Commissioning of 132KV CRP at Khedi MSETCL Substation, Bhusaval.

And much more....



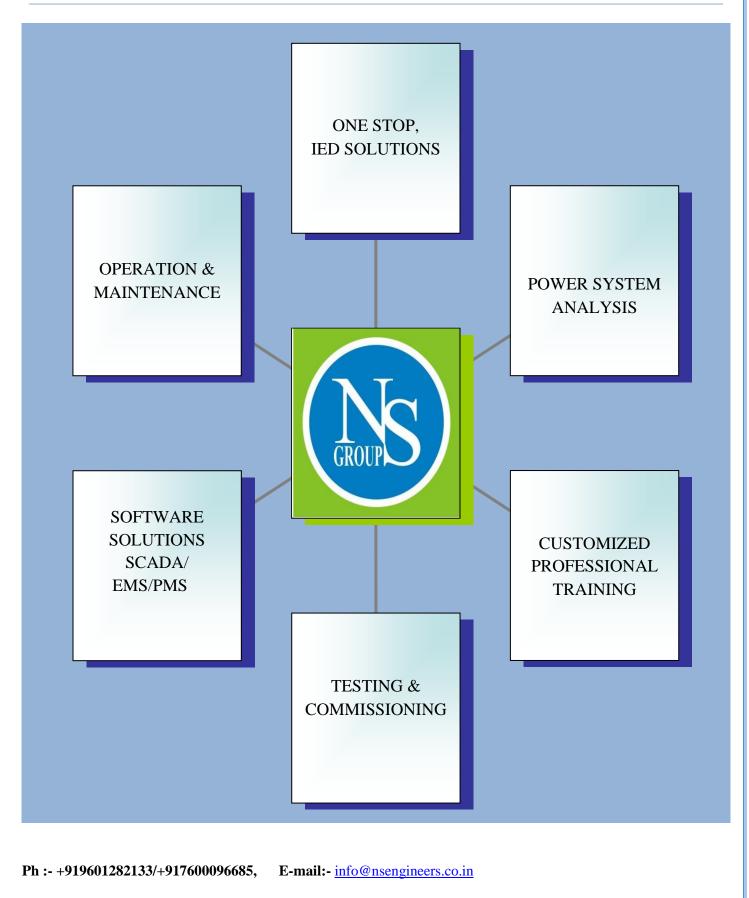
Our Ongoing Projects:

- Power System Analysis & Relay Co-ordination of M/s. Sintax Infra Ltd., Rajula.
- Power System Analysis of M/s. Jyoti Ltd. for 8MW Hydro Power Project of M/s. NTPC at Singrauli.
- ◆ Power System Analysis of **M/s. ASF Ltd.** for ASF Insignia SEZ plant at Gurgaon.
- Power System Analysis of M/s. GAIL for their Gandhar Plant.
- Annual Testing & Calibration of Numerical Relays at M/s. IOCL, Viramgam.
- Annual Testing & Calibration of Numerical Relays at M/s. ONGC, Mehsana.
- Testing of Traction Numerical Relays at 7 Nos. Substation at "<u>Indian Railway" Jhansi</u> <u>Division</u>.
- Testing & Commissioning of CRP, Numerical Relays at various 400KV/220KV/132KV substations at MSETCL, UPPTCL, MPSEB, BSEB, PSEB etc. for more than 30 Substations.
- Testing of Numerical Relays during Annual Shutdown activity at "M/s. Shree Cement Ltd.", Chhattisgarh.
- Testing & Commissioning of RTU Panel at RRVPNL.
- Erection & Commissioning of Instrumentation system at **33KV Pumping Station** at Fatehpur, Rajasthan for M/s. L&T ECC.
- SCADA commissioning for Synchronization & Process system for 7X110MW Hydro Power Plant at APGENCO, Srisailam.
- Commissioning of SCADA System at NTPC, Barh Plant for Integration of ABB & GE make Numerical Relays on IEC61850 Protocol.
- **Operation & Maintenance** of Pumping Station, Rapar, Bhuj for M/s. Jyoti Ltd.
- 220KV Switchyard Equipment Testing at M/s. Ford India Ltd., Sanand Plant.
- Testing of Numerical Relays at Solar power plant, Charnaka for M/s. Tata Power Solar.
- * **Rectifier Transformer Testing at** M/s. Sterlite Copper Ltd., Silvasa for M/s. ABB Limited.
- Testing & Protection Audit of 66KV NC-33 & NC-28 Pumping Station of GWIL, Surendranagar for M/s. Megha Engineering & Infrastructures Ltd.



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Our Footprints are available almost across India in each state:-





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