



# SOURA SARKAR

Electrical Licensing Holder (Government of West Bengal), Registered No. 29222

Electrical Engineering | Electrical Project Management | Operations Management

**Location Preference:** Kolkata, Bihar, Jharkhand and Orissa

**Industry Preferences:** Engineering & Power Plant



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## Profile Summary

- An accomplished professional offering 12 years of experience in Project Erection & commissioning, Operations & Maintenance, Quality, Inspection, Testing, 220 KV Transmission Line Installation & Commissioning and Project Management & SCADA system.
- Contributed in ensuring optimal utilization of human, financial, technological, informational, quality, automation, process enhancement, and material resources to ensure smooth operations & maintenance of Power Plants
- Rich experience in planning maintenance schedule, formulating budgets, annual shutdown planning, troubleshooting, manpower planning and risk assessment analysis
- Excellent in planning and effectuating preventive shutdown, breakdown and predictive maintenance schedules of Electrical Systems of Power Plants and its components to ensure zero/minimum breakdown as well as machinery increased uptime and equipment reliability
- Expertise in performing installation & commissioning, operations and maintenance of Switchyard, Battery Room, Switchgear Room, Control Room, Pump House and LT Panel Boards for ensuring operational effectiveness of electrical systems
- Highly skilled in managing site operations, quality service and timely completion of projects along with testing and commissioning of various power system products in compliance with HSE guidelines
- Front-led end-to-end project planning & implementation including scope management, activity sequencing, cost estimation, risk analysis, quality management and performance management; successfully managed various projects including Power Grid Corporation of India Limited, Electrical Rural Electrification RGGVY Project, NTPC Vidyut Vyapar Nigam Limited under National Solar Mission, Solar Energy Corporation of India Ltd., and Urgent Water Supply and Sanitation Rehabilitation Project
- Effective in identifying gaps by conducting Failure Investigation Analysis; analysing and resolving issues related to Electrical, Mechanical, Instrumentation and Utility Systems
- Successfully implemented various improvement measures with excellent analytical, team building, interpersonal & coordination skills

## Core Competencies

Project Planning & Management

Testing & Inspection

Troubleshooting & Maintenance

Safety and Quality Management

Electrical Operations & Maintenance

Erection & Commissioning

Power System & Machines Management

Team Management & Leadership

## Organizational Experience

Since Feb'16 with Azure India Power Pvt. Ltd., Jodhpur, Rajasthan as Assistant Manager (O&M)

Mar'14 – Jan'16 with Technofab Engineering Ltd., Zimbabwe as Senior Engineer

Nov'12 – Dec'13 with ANI Instruments Pvt. Ltd., Rajasthan as Electrical Engineer

Apr'11 – Nov'12 with Azure India Power Pvt. Ltd., Nagaur, Rajasthan as Electrical Engineer (Projects)

Jun'10 – Apr'11 with A2Z Maintenance & Engg. Services Ltd., Bihar as Project Operation & Maintenance Engineer

Aug'08 – Jun'10 with L.B. Engineering, Kolkata as Testing Engineer

### Key Result Areas:

- Designing, maintaining, implementing, and improving electrical instruments, systems, facilities, components and equipment systems as per the project requirements for Power Plants
- Performing a wide range of engineering tasks by operating engineering software and equipment
- Ensuring installation and operations conform to standards and client requirements by preparing electrical systems specifications, technical drawings of **AC & DC circuit**.
- Establishing erection of HT, **LV & MV Systems switchgear with distribution System**, commissioning and installation specifications by performing a wide range of detailed calculations; ensuring compliance with specifications, codes, or customer requirements by directing all the project procedures, documentation, support and testing activities

- Developing project plan conveying the continuous delivery of project outcomes from cross-functional teams with focus on controlling quality of work, formulating budgets, schedules and project reports
- Formulating financial view of project in terms of cost, budget and duration; ensuring timely completion of projects
- Partnering with internal technical teams and client teams to identify the various roles required by the project to meet project delivery goals; consulting with client on best processes for delivering and maintaining solutions
- Ensuring compliance with Health & Safety guidelines at site; maintaining a clean working environment
- Identifying and quickly resolving project roadblocks; managing risks and issues related to projects
- Facilitating scope management across the project; leading the team in identification of project roles and responsibilities; monitoring project progress and control plans by reviewing design & specifications and changes
- Studying product design and technical specifications, mapping customer requirements and performance standards; developing remedies to issues by bringing the right people into the resolution process at the right time
- Controlling & assuring quality by adhering to applicable codes, practices and guidelines
- Mapping requirements & providing best solutions involving evaluation and definition of scope, client's management, quote integration, scheduling, budget and resources of projects; leading projects from inception to implementation
- Suggesting corrective action plans in order to support projects; identifying needs for training and conducting knowledge sharing sessions with team members on product and its modules
- Coordinating with cross-functional teams to resolve issues and managing escalations; spearheading various functions to ensure on-time delivery and deployment procedures as per the SLAs and KPIs
- Managing the implementation phase by formulating project plans, planning resources and resolving issues arising due to scope creep or other technical matters
- Gathering & analysing functional/non-functional requirements, mapping solutions based on the requirements; formulating requirement and various other project documents

#### Highlights:

- Received **Highest Generation (71754848.85 Units) Target Achievement Award** in FY 2017-18 for Azure 100 MW Jodhpur Plant

## Academic Details

- 2014: M.Tech. (Electrical Engineering) from Karnataka State Open University
- 2008: B.Tech. (Electrical Engineering) from West Bengal University of Technology

## Trainings

Organization: Durgapur Projects Limited  
 Scope: Study of Overview of Durgapur Steel Plant  
 Period: December 2006 - January 2007

Organization: Durgapur Projects Limited  
 Scope: Study of Overview of Thermal Power Plant  
 Period: June 2007 – Jun 2007

## Personal Details

Date of Birth: 31<sup>st</sup> December 1985  
 Language Known: English and Hindi  
 Address: 124, Sharad Gosh Garden Road, Kolkata - 700031

## Annexure: Projects:

### Project: 475 MW Azure Power Solar Projects, Jodhpur, Rajasthan

Client: Solar Energy Corporation of India Ltd, Maharashtra State Electricity Distribution Co. Ltd. and NTPC Vidyut Vyapar Nigam Limited under National Solar Mission  
Period: Since 2016  
Role: Manager (O&M)  
Scope: Troubleshooting, operation & maintenance of Electrical Systems & Project Management: cost of project INR 1500 Cr.

#### Key Result Areas:

- Spearheading complete functions related to operations & maintenance of 475 MW Azure Power Solar Plant with 220 & 132 KV Transmission Line & SCADA system installation & commissioning.
- Managing contracts and services by improving operations and implementing modern technologies
- Handling SAP system using all type of operation work & Coordinating with suppliers and resolving their issues/disputes with quality.
- Devising strategies to improve equipment up-time by scheduling preventive, corrective & predictive maintenance activities of Switchyard, Battery Room, Switchgear Room, Control Room, Pump House and **LT Panel Boards**
- Exhibiting leadership by heading a team of 30 members which includes Engineers and Maintainers.
- **Conducting testing of MV Switchgear & AC Circuit Breaker using various methods including Type Tests, Mechanical Tests, Thermal Tests, Dielectric Test, Routine Test, Power Frequency Voltage Test, Protection System Devices and Lockout Relays and Lockout Circuit Functional Testing in compliance with Indian & International Standards**
  - 1. Planning & Execution of Projects (Substation & Transmission Line) as per Bar chart.
  - 2. To plan activities in line with revenue and collection target
  - 3. Liaisoning and managing relationships with Client, Government officials and other stakeholders within and outside the organization
  - 4. Managing inter-departmental movement and completion of work as per execution plan.
  - 5. To coordinate with the authorities for approval of documents concerning to the project.
  - 6. To develop a team of efficient managers & engineers for successful and timely execution of projects without time and cost over runs.
  - 7. Planning overseeing of the engineering, quality, budgeting, management, information system, coordination monitoring of projects under execution.
  - 8. Provide advice and help in timely completion of the projects.
  - 9. Develop an efficient Planning, Scheduling and monitoring system for the projects under execution
  - 10. Strong understanding and experienced in planning/scheduling techniques, cost and risk management
  - 11. To evaluate the commercial proposals applicable to site related activities.
  - 12. Should have Working knowledge of electrical utility systems, policies and procedures including engineering standards.
  - 13. Drafting and negotiation of EPC project services proposals
  - 14. Strategic planning, pre-feasibility studies, opportunity and pre investment studies, new technology evaluation, market studies, resource planning, management information systems, technology transfer.
  - 15. Implement and assist in the development, review and maintenance of various EPC policies.
  - 16. Implementation of QMS and OHSAS at site.
  - 17. Reporting of top management on timely manner and project hurdle if any.

### Project: Water Treatment Plant and Sewage Treatment Plant, Zimbabwe, Southern Africa

Client: Zimbabwe Multi-Donor Trust Fund  
Period: 2014 – 2016  
Role: Senior Engineer  
Scope: Water Treatment Plant and Sewage Treatment Plant: cost of Project INR 2000 Crore

#### Key Result Areas:

- Installed Squirrel-cage Induction Motor, **MV Switchgear Panel Installed & Commissioning and Cable Laying** at Chegutu, Zimbabwe as well as 7x66 kV Switchboard Panel ABB, 485 kW, 3.3 kV Motors and associated valves at Masvingo, Zimbabwe
- Directed testing & commissioning of new 132/66 KV Substation at Kwekwe, Zimbabwe
- Spearheaded installation & rehabilitation of Water Treatment Works, including:
  - Chemical Agitators
  - High Lift Pump & 860 KW Motor
  - Switchgear Panel with VFD support
  - 42 nos. Backwash Pump
  - Chlorine Dosing Equipment
  - Backwash Pumps
  - Blower & Valve
  - Lime Dosing Pump & Panel

- Chlorine System with Proper SHES
- Air Blower with NRV
- Administered installation & rehabilitation of Sewerage Treatment Works, including:
  - BNR 1, 2, 3 & 4 Aerators with Motor & VFD
  - 6 x BNR 2 Aerators
  - 2 x FST Tanks
  - 2 x Diaphragm Pumps and Associated Valves
  - 2 x RAS Pumps and Associated Valves
  - 2 x WAS Pumps and Associated Valves
  - BNR 2 Aeration Tank De-sludge
- Performed installation & rehabilitation of Water & Sewage Pump Stations, including:
  - 2 x Submersible Pumps
  - Pump Sumps and Valve Chambers
  - 2 Submersible Pumps and Associated Valves & Electrical Panel.
  - Terminal 450 mm Steel Pumping
- Tested the HV/EHV Class **AC Circuit Breakers of various makes** like ABB, BHEL, CGL, ALSTOM, SIEMENS and NGEF for various tests including Circuit Breaker Operation Times, like C, O, C-O, O-C-O..., Travel Characteristics of Breaker Contact / Mechanism, Trip & Close Coil Current Characteristics, Static Contact Resistance and Dynamic Contact Resistance (DCRM) and Tan Delta of Grading Capacitors and Dew Point Measurement of SF6
- **Conducted testing of breaker at any location using our equipment for above parameters, group of AC circuit breakers in a substation using the customers' equipment, Transformer, CT, PT, CVT and HV/EHV Class of Transformers of makes - ABB, CGL, ALSTOM by performing IR Value with Polarization Index (PI) & Absorption Index (AI), Capacitance & Tan Delta of windings as well as bushings, Winding Resistance Measurement, Magnetic Balance Test, Magnetizing Current Test, Primary Injection Test, Polarity Test & Meg Curve Test, Vector Group Confirmation Test and Frequency Response Analysis (FRA)**

**Project: 55 MW Solar Plant (Kiran Energy), Jodhpur, Rajasthan**

Client: Solar Energy Corporation of India Ltd.  
 Period: 2012-2013  
 Role: Electric Engineer  
 Scope: Solar Plant: cost of project INR 400 Crore

**Key Result Areas:**

- Monitored overall project execution to ensure timely completion within defined quality & assurance plan (ISO 9001)
- Commissioned **360V/33KV Substations, Transformers, AC Breaker Auto Reclosing, RMU as well as 33/132KV Pooling Sub-station & 132 KV Distribution Transmission line.**
- Troubleshoot **HT, MV & LT fault and conducted testing of Transformers, HT Cables and LV & MV Switchgear**
- Mitigated safety concerns in coordination with different departments as per ISO 14001 standards
- Tested & commissioned Protection Systems of all types of Relays including Electromechanical to Numerical Relays
- Administered 3<sup>rd</sup> Party Inspection Services for pre-commissioning activities
- Worked with complex testing instruments for testing of Power System Equipment & Numerical Testing Kit for Protection Relays
- Conducted various Acceptance Tests including DC Circuit Checks, AC Circuit Checks, Relay Testing, Trip Checks, Communication Processor Programming and Point-to-Point Testing

**Project: 40 MW Azure Power Solar Plant, Nagaur, Rajasthan**

Client: NTPC Vidyut Vyapar Nigam Limited under National Solar Mission  
 Period: 2011 - 2012  
 Role: Electric Engineer  
 Scope: Power Solar Plant; cost of project INR 600 Crore

- Commissioned **380V/132KV Substations, Transformers, AC Breaker, ICOG as well as 33/132KV Sub-station & 132 KV Distribution Transmission line.**
- **DC cable laying & Circuit of Combiner Box, Solar Inverter & Trouble shooting of DC circuit of the Inverter.**
- **Installation of MV & LT switchgear (Testing & checking of all protection system) & commissioned of Solar Plant.**

**Project: A2Z Maintenance & Engineering Services Ltd., Bihar**

Client: Electrical Rural Electrification RGGVY Project  
 Period: 2010 - 2011  
 Role: Engineer; **37 x Substation (33/11KV) & MV & LT switchgear panels & 33 KV Transmission Line – Projects In-charge**  
 Scope: Cost of project INR 800 Crore

Key Result Areas:

- Erected, tested and commissioned 100MVA, 50MVA Transformer and 220/132/33 KV Sub-station for 2 x Bay Extension Projects in Bihar; troubleshoot problems arising in the total execution of job with minimum time lag.
  - Ability to manage test lab in Distribution and Power transformer plants
  - Experience of working in NABL accredited test lab ensuring compliance & taking care of the audits.
  - Review of technical documents, specifications, PO, QAP, Drawings etc.
  - Preparation of test plan (routine and inspection) and its execution. Preparation of Test procedure of transformers based on Customer specification
  - Planning day to day routine testing, making weekly /monthly plans and customer inspections. Coordination with other departments in meeting the plan.
  - Approval of test reports, handling of customer inspections, interaction with customers for resolving technical queries/differences at various stages (tendering / execution / after sales) and developing related action plan
  - Maintaining relevant records/documents as per ISO 9001, ISO 14001, ISO 18001 & ISO 17025.
  - Trouble shooting & Preparation of Failure reports of transformers.
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**Project: Eligible Project: L B Engineering, Kolkata**

Client: Power Grid Corporation of India Limited and West Bengal State Electricity

Period: 2008 - 2010

Role: **Testing & Commissioning Engineer**

Scope: Cost of project INR 1.2 Crore

Key Result Areas:

- Conducted testing & commissioning of:

DPL, Durgapur

Scope: It was a 50 MVA transformer and 132/33 KV 3 No's Bay of Gas Insulated substation Testing and Commissioning.

400/220 KV Sub-Station (BSEB) Patna in Bhair

Scope: It was about 2no's Bay extension outdoor CT,PT,CB, Isolator, LA control and Distance Protection Relay(Areva), Differential Protection Relay(Areva) all type of testing & operational checking 100 MVA transformer testing and commission

Orissa Nalco CPP

Scope: It was a numerical relay (Motor Protection) testing, transformer differential (7UT), O / C & E / F relay (7SJ600) testing. 120 no's panel and supervision.

NJP 400/220KV Power Grid Sub-Station

Scope: It was about 2no's Bay extension outdoor CT,CVT,CB, Isolator, LA and Control and Relay panel scheme checking testing and commissioning.

NJP 220KV/132KV/33KV/11KV Sub-Station (W.B.S.E.D.C.L.)

Scope: It was a 2no's Bay Extension Outdoor CT, PT, CB, Isolator, LA and Relay (Simenes,ABB) all type of testing & operational checking.

135\*9 MW Vadanta CPP in jardsurada (Orisa) 220 KV distributions Line

Scope: It was a 2 no's Bay all testing and commission.

220/132/ 33 KV GSS in CESE (Kolkata)

Scope: It was about all testing and commission and charging activities.

33/11 KV Jhanabad in Gaya

Scope: It was about 2 no's I/C bay and 6 no's O/G bay all testing and commission and charging

33/11 KV outdoor S/S in Madinapur

Scope: It was a 2 no's I/C bay and 6 no's O/G bay all testing and commission and charging.

33/11KV S/S in Orangabad (Gaya)

Scope: It was a 2 no's I/C bay and 4 no's O/G bay all testing and commission and charging.

6.6KV Hooghly Met Coke Indoor Sub-Station

Scope: It was a 24 panel's CT, PT, VCB and relay all control circuit checking & all type of testing.

**Experience with ABB**

- REF610, REF615, REJ610, REF630 & REF542+ -Feeder Protection/Special Functions

- REM610, REM615, RED615 -Motor/Motor Differential
- REL650, REL670 -Line Protection
- RET650, RET670, RET615-Transformer Protection
- REU610, REU615 -Under voltage Protection
- SPAJ140C/SPAD346C/SPAJ115C/RXIB24 -Backup OC/DIFF/Earth Fault/LBB Protection

#### ***Experience with Alstom***

- P111, P121, 122, P123, P127, P130C, P141-Feeder Protection
- P211, P220, P225 –Motor Protection
- P430C, P441, P442, P444 –Distance Protection
- P521, P542 –Line Differential Protection
- P632, P633, P642, P643 –Transformer Differential
- P921, P922-Voltage&Frequency Protection
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#### ***Experience with Siemens***

- 7SA6 - Line Distance Protection
- 7SJ62,7SJ80 – Feeder protection
- 7UT61 –Transformer Protection

#### ***Relay Software Tools and Schemes Handled***

- DIGSI V4.85 to 4.91 –SIEMENS
- PCM600 up to V2.8 –ABB
- MiCOM S1 Agile (V1.3) –ALSTOM
- MiCOM S1 Studio (V3.4 to V5.0) –SCHNEIDER
- EnerVista UR, 745, 650, UR plus –GE

#### ***Test Kit Handled***

- Test Universe(v3.0) -Omicron 156,256,356
- F6test&Control panel(v2.21) -Doble F6150
- Megger – SMRT

Place: Jodhpur, Rajasthan

Soura Sarkar