

Project Engineering Manager / HV Substations Section Head

Holds a B. Sc. in Electrical Power Engineering and Master of Business Administration (MBA). Has over 16 years of electrical project engineering management expertise in power plants and HV substations.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 20/08/1984
Gender : Male
Marital Status : Married
Residence : Nasr City, Cairo

EDUCATION

- : B. Sc. in Electrical Power Engineering, Ain Shams University, 2006
- : Master of Business Administration (MBA), International Business School of Scandinavia IBSS (2019-2020)

LANGUAGES

Arabic : Native Language
English : Fluent

COMPUTER SKILLS

- : Windows, MS Office, Internet
- : ETAP
- : MicroStation
- : AutoCAD
- : SPEL (Smart Plant Electrical)

TRAINING COURSES AND CERTIFICATIONS

- : Leadership Training by Euromoney learning solution (Oct. 2015).
- : Gotteheim - Germany, GFS Company: Intensive Training on design, commissioning and service of Nickel Cadmium batteries, DC power supplies, industrial inverters.
- : Istanbul - Turkey, ABB transformers: annual transformer days related to the new transformer technologies.
- : ETAP® 114 Power System Engineering - Workshop, ETAP Automation (Jun. 2012) – 4 Workshop days and covering the following topics:
 - Day 1: ETAP Overview, AC System Modeling, Libraries.
 - Day 2: Load Flow & Short Circuit Analysis.

- Day 3: Protective Device Coordination/Selectivity, Protection, and Sequence of Operation.
 - Day 4: Arc Flash Hazard Analysis, Motor Acceleration Analysis.
- : Electric Training Course, Schneider Electric (2008) - 4 days and covering the following topics:
- LV and MV Switchgear.
 - MV Switchgear Protection.
 - Motor Starter and Drives.
 - Power Factor Correction.
- : Shoubra El-Kheima Power Station (4x315MW): Intensive field training.
- : Egyptian Engineers Association: Electrical Power System Quality Analysis training.
- : INTERGRAPH: Smart plant electrical training for Basic and Advanced Users.
- : Kraftwerk-Kennzeichen-System (identification system for power plants).
- : INTERGRAPH: Smart plant Foundation training for Administration, Modeling and Mapping.

CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From 2019 till now
- Employer** : PGESCo
- Projects** :
- Mosul 400KV GIS Super-Grid Substation - Middle Region, Republic of Iraq
 - New Ramadi 132/33KV and 33/11KV Substation - Northern Region, Republic of Iraq
 - Tikrit 132/33KV and 33/11KV Substation - Northern Region, Republic of Iraq
 - El Menia 220/66/11KV Substation - El Menia, Egypt
 - Sant Catherine 220/22/220KV Substation - Sinai, Egypt
 - Ras Shukeir Power House - Fault Analysis Studies - Hurghada, Egypt
 - MidElec Power Plant - Relay Setting and Fault Analysis Studies - Alexandria, Egypt
 - Sanmar 220KV AIS Substation - Port Said, Egypt
- Job title** : Project Engineering Manager / HV Substations Section Head
- Job Description** :
- Leading the Project's planning, budgeting, and acquisition.
 - Resolve inter-group disputes, project conflicts, and delays as needed to accomplish project objectives.
 - Monitor, control, and report on project financial/Technical performance.
 - Represent the company as the client's point of contact.
 - Managing the project to ensure that it is completed on time, within budget, and within scope.
 - Ensure that resources are available and allocated.
 - Create a detailed project plan to track and monitor progress.
 - Using an appropriate change management strategy, manage changes to the project scope, project schedule, and project expenses.
 - As needed, report to and escalate to management.
 - Manage the client's and all stakeholders' relationships.
 - Create and maintain partnerships with third-party vendors.

- Technical sessions are used to disseminate technical experience to the entire project team.

Dates : From 2018 till 2019

Employer : PGESCO

Projects :

- MidElec extension power plant (Oil and Gas field) (50MW) – Alex, Egypt
- Assiut Supercritical Power Plant (650MW) – Assiut, Egypt

Job title : Electrical Manager

Job Description :

- Develop itemized tasks and a timeline for assigned project(s) connected to electrical department activities that are in line with the overall project outcomes and timetable.
- Manage the assigned project resources and allocate them to carry out control systems' project tasks as laid out in the project plan.
- Provide guidance and on-the-job training to project team members towards the achievement of overall project tasks and activities within established quality standards.
- Supervise and manage interrelationships with other disciplines on assigned project(s) sharing the responsibility to ensure that all technical-related outputs satisfy the project objectives in terms of quality and budget.
- Monitor the day-to-day electrical technical tasks and activities on assigned project(s) while ensuring compliance with the Engineering Department Principles.
- Supervise and prepare the Preliminary Design Report that comprises the conceptual control systems design for the assigned project(s).
- Supervise the development of electrical specifications for bid issuance to third parties and participate in the technical evaluation and negotiation of proposals and bid offers from third parties focusing on obtaining technically sound terms.
- Report on project progress capturing issues requiring attention and possible solutions.
- Carry out project administrative tasks to achieve efficiency within the project.
- Conduct performance appraisals of subordinate and provide feedback into the performance appraisals of other team members while recommending promotions and training and development initiatives with the aim of increasing employee motivation and competence.
- Maintain professional and technical knowledge by Witness/Auditing educational workshops, reviewing professional publications, establishing personal networks, and participating in professional societies.

Dates : From 2016 till 2018

Employer : PGESCO

Projects :

- Burullus Combined Cycle Power Plant (4800MW) - Alexandria, Egypt
- New Capital Combined Cycle Power Plant (4800MW) - Cairo, Egypt
- New Assiut Combined Cycle Power Plant (1500MW) - Assiut, Egypt
- West Damietta Combined Cycle Power Plant (750MW) - Damietta, Egypt
- Assiut Supercritical Power Plant (650MW) - Assiut, Egypt

Job title : Deputy Electrical Manager

- Job Description** :
- Assist the Engineering Group Supervisor in the supervision of the testing and commissioning phases of the project to ensure the validity and accuracy of the electrical engineering stakes of the project.
 - Prepare the assigned project's detailed tasks, schedules, resource allocation, budget estimations as directed by the Engineering Group Supervisor.
 - Liaise with other engineering disciplines throughout the course of the project on any interdependent tasks and activities towards providing a coherent solution and service while achieving the project objectives.
 - Serve as a checker for the assigned project's electrical engineering reports and calculations that are originated from the project team members towards achieving technically sound deliverables.
 - Issue LV Switchgears/Motor Control Center Material Requisition (MR) for Balance of Plant (BOP) by preparing Specifications, One Line Metering and Relay diagrams, logics and pricing section.
 - Set-up Reference Data for Cable Design Software (Smart Plant Electrical - SPEL (SPEL is software generated by Intergraph for sizing cables, routing, termination, automatic generation of diagrams and schematics)) and Support New SPEL Users by giving on-the-job training.
 - Prepare Power and Control Cables Material Take Off for Burullus and New Capital combined cycle power plants according to preliminary design of cable trays and duct bank.
 - Perform Power System Study (Load Flow, Short Circuit and Motor Stating) calculations and use the result to determine the actual size of Auxiliary transformers for New Assiut and West Damietta combined cycle Power Plants.
 - Witness/audit the factory acceptance test for the electrical equipment listed below:
 - Tie Transformer - Hyosung Factory - SOUTH KOREA.
 - Generators step up transformer - TBEA Factory - CHINA.
- Dates** : From 2013 till 2016
- Employer** : PGESCO
- Projects** :
- (Fast Track) New Assiut Simple Cycle Power Plant (8x125MW) – Assiut, Egypt
 - (Fast Track) West Damietta Simple Cycle Power Plant (4x125MW) – Damietta, Egypt
- Job title** : Senior Electrical Engineer
- Job Description** :
- Review as a Checker most electrical drawings including but no limit to Main Single Line Diagram, One Line Meter and Relay Diagram for Main and Auxiliary, Transformers, MV Switchgears, LV Load Center Unit Substations, and equipment location drawings.
 - Issue LV Switchgears/Motor Control Center Material Requisition (MR) for Balance of Plant (BOP) by preparing Specifications, One Line Metering and Relay diagrams, logics and pricing section.
 - Issue UPS system Material Requisition (MR) for Balance of Plant (BOP) including preparing specifications, operation philosophy, logics and pricing section.
 - Responsible Engineer and Vocal Point of cable design process for both projects including sizing cables, support routing in 3D model, perform termination, issue material take off and support site activities to complete

all cable installation process.

- Preparing and Issue Main and Auxiliary Transformers Material Requisition (MR) for New Assiut and West Damietta combined cycle Power Plants including but no limit to Design and perform sizing calculation for Main and Auxiliary transformers calculations, specifications and define scope of work.
- Issue UPS system Material Requisition (MR) for Balance of Plant (BOP) including preparing specifications, operation philosophy, logics, and pricing section.
- Issue Main and Auxiliary Transformers relay settings calculation.
- Support other departments packages (mechanical and control system packages) by identifying electrical scope, bid evolution, contract negotiations, and design review for contract's electrical drawing and calculation.
- Witness/audit the factory acceptance test for the electrical equipment listed below:
 - Generator Circuit Breaker - ALSTOM Factory – FRANCE.
 - Generator Set up Transformer - TAMINI Factory – ITALY.

Dates : From 2010 till 2013

Employer : PGESCO

Projects :

- Baiji Simple Cycle Power Plant (6x160MW) - Baiji, Republic of Iraq
- New Assiut Simple Cycle Power Plant (8x125MW) - Assiut, Egypt
- West Damietta Simple Cycle Power Plant (4x125MW) - Damietta, Egypt

Job title : Electrical Engineering Group Leader

Job Description :

- Responsible Engineer for cable design process including sizing cables, support routing in SPEL, perform termination, issue Material Take Off and support site activities to complete all cable installation process.
- Preparing, designing, and issuing power station High-Medium and low voltage phasing diagrams.
- Issue Main and Auxiliary Transformers relay settings calculation including coordination with other equipment.
- Issue UPS system Material Requisition (MR) for Balance of Plant (BOP) including preparing specifications, Calculation, operation philosophy, logics, and pricing section.
- Issue electrical heat tracing Material Requisition including preparing specification and load estimations.
- Support other departments packages (mechanical and control system packages) by identifying electrical scope, bid evolution, contract negotiations, and design review for contract's electrical drawing and calculation.
- Witness/audit the factory acceptance test for the electrical equipment listed below:
 - MV/LV SWGR - ALFAQUARY Factory – ITALY.
 - MV/LV SWGR - ABB Factory – ITALY.

Dates : From 2007 till 2010

Employer : PGESCO

Projects :

- El-Tebbin Thermal Power Plant (2x350MW) – Helwan, Egypt
- Abu Qir Thermal Power Plant (2x650MW) – Alexandria, Egypt

- Job title** : Electrical Design Engineer
- Job Description** :
- Issue electrical drawings such as the Main Single Line Diagram, One Line Meter and Relay Diagram for Main and Auxiliary, Transformers, MV Switchgears, LV Load Center Unit Substations, and equipment location drawings, among others.
 - Responsible Engineer for cable design process, including cable sizing, routing support in SPEL, termination, Material Take Off, and site activities to complete the cable installation process.
 - Review packaged systems design documents, drawings, and Schematics diagram.
 - Supporting site activities until both projects have completed back energization and synchronization.
 - Evaluating bids based on tender technical specifications.
 - Issue a Technical paper in "differential protection for three-phase banks of single-phase transformers connected in delta-wye with current transformers inside the delta".
 - Identify electrical scope, bid evolution, contract negotiations, and design review for contract's electrical drawing and calculation, including but not limited to HVAC system, Water Treatment systems, water pumps, and fire prevention system.
- Further experiences** :
- Protection Relay Setting Specialist:
 - Extensive experience in performing relay setting tabulations for power plant protection system.
 - Responsible for handling all protection incidents in power plants and performing fault analysis reports, including relay setting recommendations.
 - Performing all interlocking protection schemes and trip matrix for power plants.
 - DC and UPS Systems Design Specialist:
 - Extensive experience designing and calculating UPS system components including batteries, battery chargers, and inverters.
 - Responsible engineer for reviewing DC and UPS systems in all projects, providing technical support to others, and communicating with various UPS providers to improve our system design.
 - Organize a seminar with several UPS suppliers to stay up to date on the latest advancements in UPS systems.
 - Smart Plant Electrical (SPEL) Intergraph Software Super User:
 - Support New Users by giving on job training.
 - Ensure project configurations meet required standards both corporate and client.
 - Develop procedures and work instructions based on best practices.
 - Implement and provide user support when needed.
 - Customize reports (such as Electrical load list, Cable schedule list, Cable termination list... etc.) based on project requirements, Using Smart plant Electrical Import Utility.
 - Maintain reference data including the utilization of utility tools, management of priorities and the coordination of work processes and communications.

- Field of experience :**
- **Summary:**
 - Over 16 years of electrical project engineering management expertise in power plants and HV substations. Outstanding reputation for problem solutions and customer satisfaction.
 - Successful at opening and maintaining lines of communication between team members, clients, and leadership. Quality-conscious and proactive professional with substantial experience in contract management, contractor oversight, and construction administration.
 - **Skills / Qualifications:**
 - Progressive experience and knowledge of HV Substation and Power Plants (Gas Turbine, Steam Turbine and Combined Cycle Power Plants).
 - Well-developed communication skills: ability to explain technical information for HV substation and power plant systems and equipment design requirements (or data) to non-technical associates, peers, and management in a clear and straightforward manner.
 - High level of Experience preparing Contract Packages and Material/Services Requisitions by preparing and modifying specifications, Technical Data, Calculation, Schedule of Quantities/Prices, and data/submittal requirements.
 - Excellent experience in Evaluating bids based on tender's technical requirements, Provide engineering design support through design procurement of equipment, construction, commissioning, and Start-up.
 - Clear understanding of the terminology used in the Power Plants/ HV Substation industry.
 - **Competencies:**
 - Capability to manage a group of Senior Engineers by assigning tasks, monitoring progress, giving technical and managerial assistance, and inspiring them to complete all project activities.
 - Create concepts for electric power system interconnection for power plant auxiliary electrical systems.
 - Carry out size estimates and create specifications/contract packages for the power plant's electrical interconnect system. Interact with the electrical component group to optimize the overall electrical system of the plant.
 - Lay out the cable interconnects and decide on cable number, routing, terminations, conduit size, type, and length as a team. Recognize the links between electrical equipment and distributed control systems. Familiar with subterranean duct bank, cable tray, and conduit construction routing choices.
 - Coordination of internal and external electrical interfaces between Gas Turbine, Steam Turbine, and Plant Engineering.
 - Develop Take Off quantities for interconnection systems.
 - Resolve field installation and commissioning issues with equipment and systems within the scope of your duties.
 - Communicate in both written and spoken forms, as well as engage with a diverse variety of organizations both internally and externally, about power plant system and equipment design requirements.
 - Creating and utilizing a global supplier base for specified equipment.