Intertek

COMPANY PROFILE

jawda جودة

Engineering Consultants

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WORDS FROM THE CEO

Prof. Abdelaal Mantawy

Our goal is to be one of the top branded engineering service providers in our field. Creativity, responsibilty and ethics are our tools to achieve our commitment.

Since our start in 2001, we have demonstrated for both our clients and our employees that JAWDA is a reliable and a friendly workplace.

As we spend much of our lives at work, I believe it is my responsibility to ensure we all have an enjoyable and stimulating working relationship as possible.

It makes me happy when I see my colleagues at JAWDA competent and willing to share their knowledge, and simultaneously warm and friendly. On behalf of the board, we look forward to serving you and meeting your expectations.

Company Overview

JAWDA Engineering Consultants (JEC) is a consultant firm with a wide experience in design as well as consultancy services in the field of substations, power generation , transmission, and distribution systems including electrical, civil, architectural and mechanical works.

Since its establishment in 2001, JEC conducted services for about more than 200 engineering projects in the field of electrical substations, power generation, transmission, and distribution in the Middle East.

JEC has more than 100 highly qualified engineers, in different disciplines in our branches in: Saudi Arabia and Egypt

Our area of expertise in energy fields includes:

- High Voltage Equipment Review & FAT and Procurement
- Design Services.
- Consultancy Services.
- Researches and Development Services.
- Management Services.
- Qualified manpower Supply.

All our services can be provided independently or can be integrated as a part of an overall project package.

Mission

We are committed to:

- Exceed our customers' expectations by providing seamless quality engineering services that fully align with our customers' business objectives.

- We Provide value-for- money in all our services and products by optimizing our processes, investing in innovation and knowledge.

Vision

To be one of the top branded design and engineering services providers in the Middle East & Africa, with a diversified portfolio of innovative and environment-friendly engineering solutions.

Services

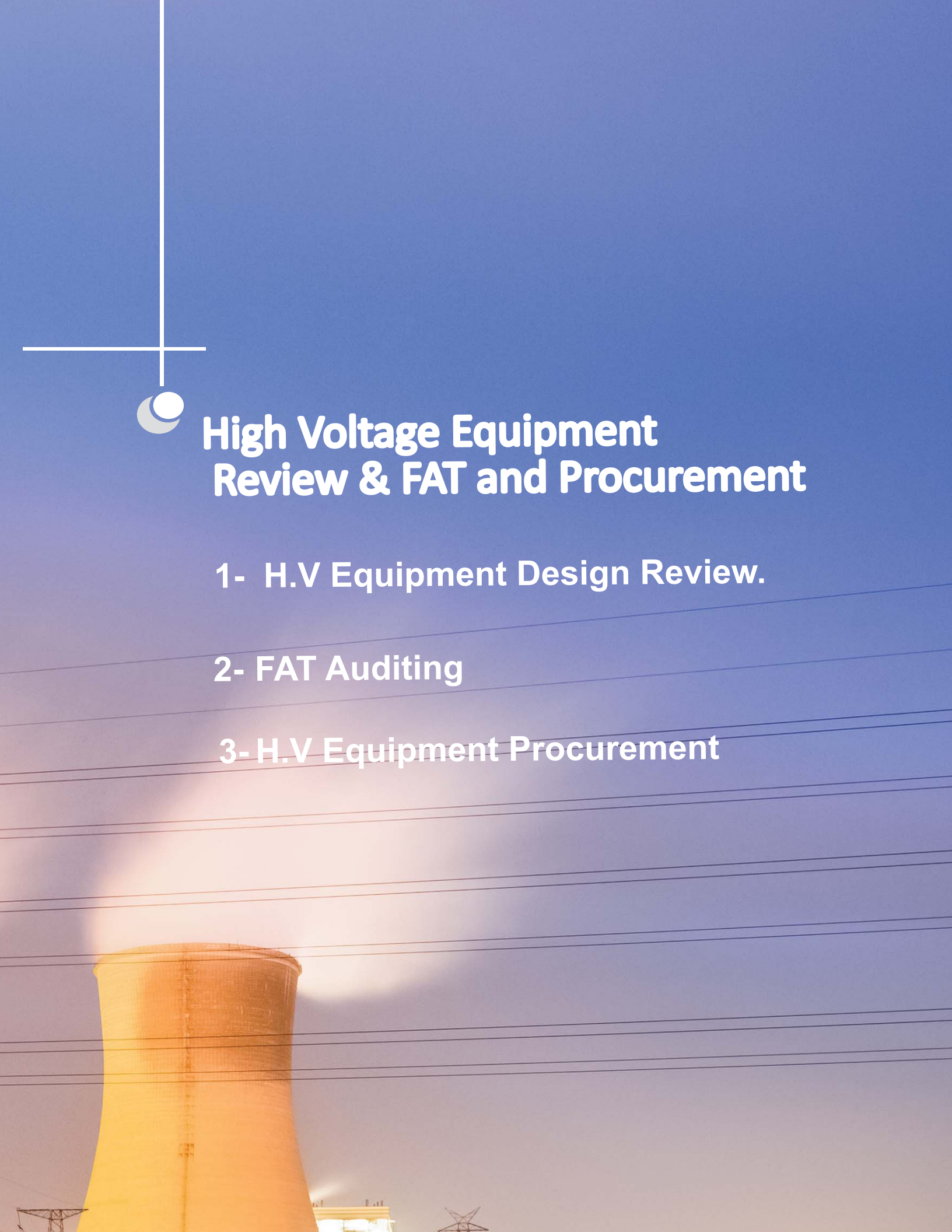
- High Voltage Equipment Review & FAT and Procurement
- Energy Generation
- High Voltage Substation Engineering
- Transmission lines and Underground Cables
- Protection and Distribution Services
- Buildings
- Hydrology and Chemicals
- Management Services
- Consultancy Services
- Research and Development

High Voltage Equipment Review & FAT and Procurement

1- H.V Equipment Design Review.

2- FAT Auditing

3- H.V Equipment Procurement



High Voltage Equipment Review/ FAT and Procurement

JAWDA has accomplished successfully all tasks related to equipment review, FAT and procrument for all voltage levels of substation(13.8, 33, 132 KV). These tasks cover the PTS, scope of work,prebid and postbid clarifications with coordination with suppliers.

1- H.V Equipment Design Review.

JAWDA has successfully completed the design review & evaluate the documents of GIS , LCC , protection and control received from supplier for approval of 132 & 33 KV substations.

JAWDA has been updating its own data base of contact details of all equipment from different supplier, related to EHV / HV / MV Equipment's .

Review all documents related to all voltage levels of substation, as follow:

A. Review of Base Design for:

1. 132 / 33 K.V. power transformer including technical offer.
2. 132/33 K.V. Power transformer protection panels including technical offer.
3. 132 K.V. GIS.
4. 132K.V SY. Panel including SY. Swing frame& technical offer.
5. 33K.V SY. Panel including SY. Swing frame& technical offer.
6. 33 K.V High impedance B.B.P.
7. 33K.V AIS panels' switchgear.
8. 132 K.V. LCC Schematic diagram panels including technical offer.
9. Auxiliary transformers.33/0.415 K.V
10. 132 K.V. low impedance B.B. protection panels including technical offer.
11. 132 K.V. Bus coupler protection panels including technical offer.
12. 132 K.V. underground cable protection panels including technical offer.
13. AVR/RTCC control panel.

B. Review of Detailed Design for:

1. 132 / 33 K.V. power transformer.
2. 132 / 33 K.V. Power transformer protection panels.
3. 33 K.V. High impedance B.B.P (including Technical offer)
4. 132 K.V. underground cable protection panel.
5. 132 K.V. B.BP low impedance.
6. AVR / RTCC control panel.
7. Motor drive for power transformer TC panel.
8. Cooling system control cabinet of power transformer.
9. 33 K.V switchgear including, U/V and U/F Schemes.
10. 132 KV bus coupler protection panel.

C. Review for the following:

1. 132 GIS SLD and gas compartments.
2. 132 GIS layout including C.T/V.T arrangements.
3. Link Box documents.
4. Joints for underground cable.
5. X/R ratio as well as losses of power transformer.
6. Cable termination for GIS and transformer to release for manufactures.
7. Tariff panel metering
8. 132 KV LCC Panels including S.Y frame
9. 132 KV SY. Panel.
10. 33 KV SY. Panel, including S.Y frame.

2- FAT Auditing

JAWDA has been finalized & evaluated the FAT test procedures and ITP received from supplier before submission to client for approval and attend & witness the FAT at factory &issue shipment release report.

FAT Auditing has been done for the following

1. Power transformer ABB make 75/100 MVA.
2. Auxiliary transformer 500 KVA, UTEC make.
3. 132 LCC, ABB Make.
4. 132 GIS, ABB Make.
5. 33 KV Switchgear (AIS) ABB Make.
6. 132 KV cable feeders protection.
7. 132 KV BBP Panels.
8. 33 KV BBP Panels.
9. 132 KV Bus section &Bus coupler protection panels.
10. 132 KV power transformers panels.
11. 132 / 33 KV synchronizing panels.
12. 132 / 33 KV Annunciators Panels.
13. 132 KV Cable 1200mm2&630 mm2.
14. 132 KV cable termination, cable sealing end, insulated joints, through joints, bounding cable &link box, etc.
15. A lot of materials such as pumping PACU units, FF&FA.

3- H.V Equipment Procurement

JAWDA has worked as technical support of procurements & successfully issued RFQ for all equipment.

JAWDA has been completed & prepared purchase order (PO) including term conditions of PO of all equipment.

JAWDA has full experience about all conditions of PO, such as ex-work, payments via LC or progress invoice, Technical support during PO issued in light of standards, PTS & Scope of work.etc.

Jawda has a good experience for Technical meeting arrangement/preparing agenda with supplier for finalizing PO.

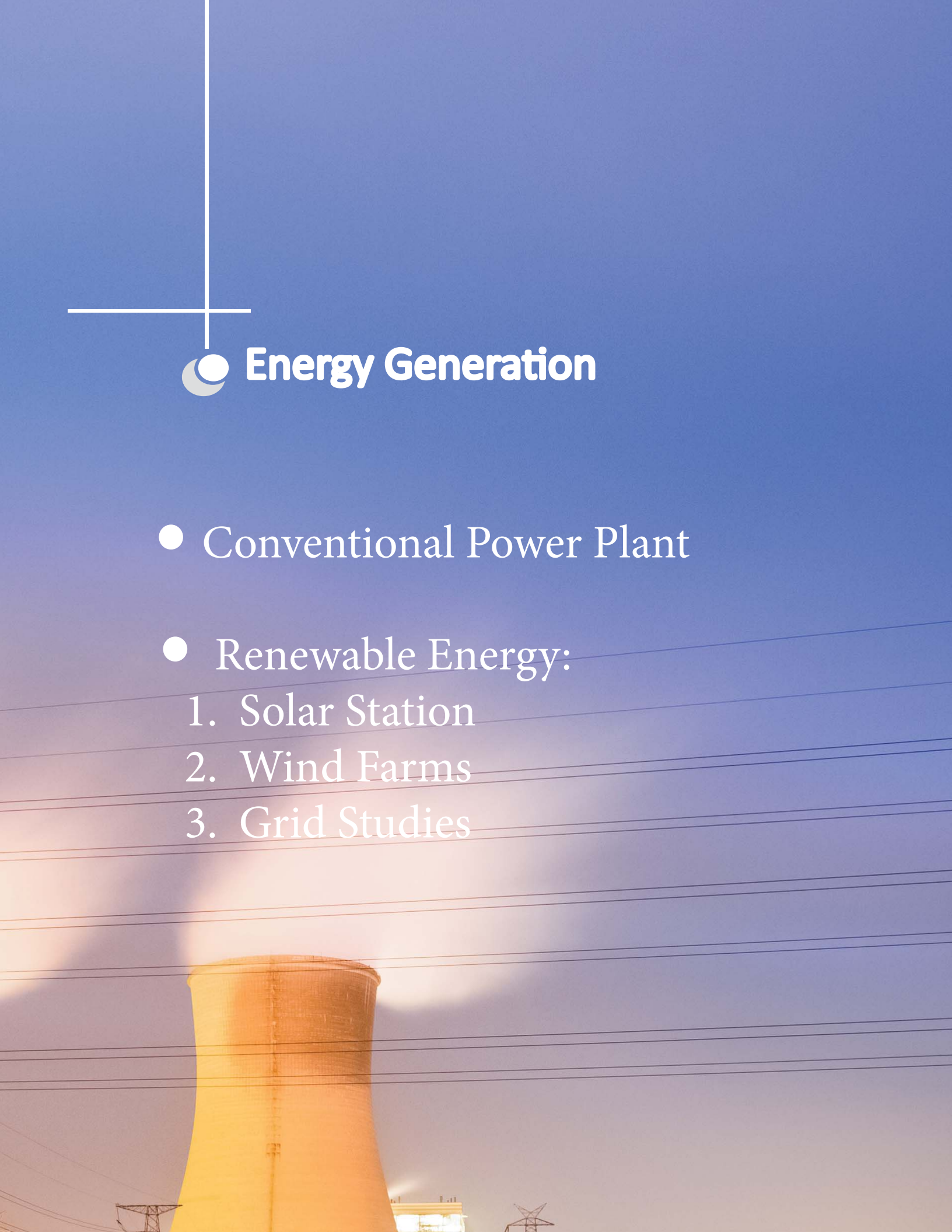
JAWDA successfully issued the RFQ, as well as P.O for the following equipment's

1. Auxiliary transformer 500 KVA.
2. NGR.
3. O.H Crane & Jib crane.
4. Communication system, such as PDH, SDH.
5. Protection & control.
6. ACDB & DCDB panels.
7. Battery & Battery charger.
8. RFQ & PO for testing and commissioning.
9. RFQ & PO for installation, cable pulling & cable termination.

Energy Generation

- Conventional Power Plant

- Renewable Energy:
  1. Solar Station
  2. Wind Farms
  3. Grid Studies



Conventional Power Plant

JEC with our International Partner (JEC & IP) offer comprehensive power plant design and engineering services, as well as preconstruction services to assist our clients in developing scope, cost, and schedule for project execution.

JEC&IP provide technical support regarding design of a new facility, upgrading of an existing facility or even modernization of an existing facility to achieve new governmental criteria. Our scope of services include;

1. Initial Definitive Study Planning and Implementation
2. Feasibility Studies
   - Plant throughput.
   - Plant location.
   - Onsite production of additives.
   - Availability of local supplies of materials.
3. Process Engineering
   - Testwork
   - Process design
   - Plant layout
   - Piping
   - Control Systems Engineering
4. Mechanical, Civil, Structural and Architectural Engineering
5. Electrical Engineering
6. Loss Prevention
7. Environmental and Permitting
8. Mining
9. Constructability and Logistics
10. Procurement
11. Development of Capital and Operating Cost
12. Development of the Project Schedule
13. Value Engineering and Risk Assessment
14. Project Execution Plan
15. Final Report

Renewable Energy

1- Solar Station

JEC with our International Partner (JEC & IP) provide an integrated service for all type of solar station including photovoltaic solar energy plant, solar thermal energy plant and concentrating power plants.

Our activities include with no limitation;

- Support customers for preparation of pre-bid technical documents
- Providing pre-design and engineering support for investors with financial model on feasibility on investments
- Selection of right technology
- Provide engineering advisory support to developers as owner's engineer's role to make sure on the design of power plants is the best.
- Provide complete detailed design & Engineering support to EPC
- Design support to all capacity of plants starting from small rooftop projects till Multi-Mega Watt solar power plants.

Detailed Engineering Scope

Design& Engineering services include every aspect of technical documentation:

- Site feasibility and energy estimation
- General solar plant layout
- PV simulation with possible option and PR calculations
- Shadow analysis of the complete plant using PV system
- DC string design (SLD), DC cable routing
- Detailed cable schedule with voltage drop calculations
- DC earthing drawing, Power loss calculations at each stage

Our quality services include:

- Site selection for solar power plants
- Solar resource review and preliminary assessment
- Solar data gathering, interpretation and analysis
- Modelling and annual energy yield estimates

Post contract engineering

We play an instrumental role in developing strategies, design and offering diverse range of services for Lenders / Owners / Developers / EPC Contractors to get seamless integration of their efforts and rewards.

- Detailed Engineering service for lenders / owners / developers / EPC
- Review engineering service for lenders / owners / developers / EPC
- Project co-ordination service for lenders / owners / developers / EPC

2- Wind Farms

JEC with our International Partner (JEC & IP) provide an integrated service for all type wind farms including land based wind farm and off shore wind. Our activities include without limitation;

Our activities for the Engineering and Design of wind farms include;

- Survey of the site
- Specifying the positions of wind turbines
- Determining the layout of the turbines
- The optimum position for the construction of substation/s.
- Connection between substations within the site with medium voltage cabling.
- Connection of Substation/s to Power Grid scope

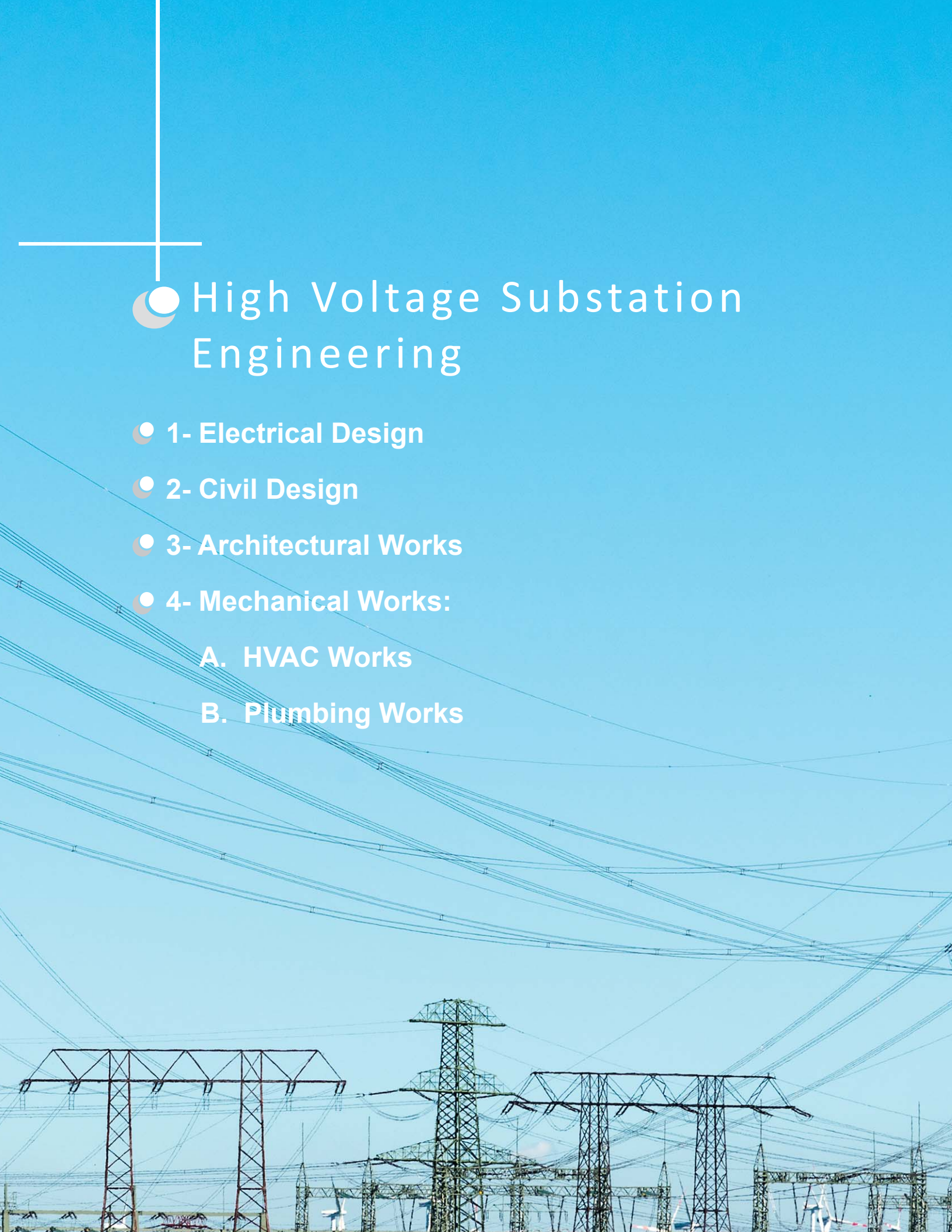
3- Grid Studies

JEC is providing an integrated grid study services for both solar station and wind farms. Our activities include with no limitation;

1. Grid Impact Static study
2. Grid Impact Dynamic Study, including:
   - Voltage Fluctuation
   - Active Power Control
   - Reactive Power Control
   - Fault Ride Through
3. Power Quality Study, including:
   - Flicker Calculations
   - Harmonics Calculations
   - Voltage Unbalance
4. Grid Protection Study, including:
   - Relays Coordination
   - Relays setting

High Voltage Substation Engineering

- 1- Electrical Design
- 2- Civil Design
- 3- Architectural Works
- 4- Mechanical Works:
  - A. HVAC Works
  - B. Plumbing Works



JEC has successfully accomplished the engineering of a complete scope for more than 200 Electrical H.V substation projects.
Our scope of work often extends from layout, base and detailed designs to grounding, control, protection and schematics. It covers HV and MV panel designs as well as all phases are done to comply with specifications and optimal design. Scope of work of substation design may be summarized in the following tasks;

1- Electrical Design

A- Primary Design

- Grounding system design calculations.
- Duct banks, cable trenches layout, sections and details.
- Lightning (shielding) protection layout and details.
- Indoor/outdoor lighting layout details.
- Small power distribution layout details.
- Floor opening – switchgear control building.
- Lightning system design calculations.
- Operational SLD

B- Secondary Design

- CT/ VT sizing calculations.
- Relays setting calculations.
- Interlock Logic Diagram.
- Signal point list (Scada, FR, SOE , annunciation , ……etc).
- Interlocking logic diagram.
- Low, MV HV voltage cables and breakers sizing calculations.
- Battery charger sizing calculations.
- AC/ DC SLD
- Relay and Metering One Line Diagram / Protection Logic Diagram.
- Auxiliary Transformer Sizing calculation.
- Cable Schedules and Interface drawings.
- SAS point list.
- Modification in protection and panels scheme

2- Civil Design

- Design calculation of switchgear GIS building.
- Design calculation of control building.
- Design calculation of switchgear building.
- Design calculation of power transformer fire wall foundation.
- Design calculations of fire fighting room.
- Design calculations of pump room.
- Design calculations of auxiliary transformer.
- Design calculations of capacitor bank foundation & shed details.
- Design calculation of oil tanks.
- Design calculations of boundary wall.
- Design calculation of water tank , septic tank & soak pit.
- Design of gantry & GIB foundation.
- Design calculations of steel support structure(ST, VT,.....etc.)
- Design calculations of duct bank , manhole and hand holes.
- Design calculation for HV switchgear foundation and steel support.
- Layout & details of foundation of columns for all types of building•
- Layout & details of(ground floor , root floor)framing plan.
- Staircase layout sections and rebar's details.
- Basement retaining wall opening and rebar details
- Coordination between civil & electrical & mechanical teams to be sure that all openings are reflected the samein all drawing.

3- Architectural Works

- Project layout design
- Primarily Architectural full design of substation building
- Architectural full project details
- Preparation of detailed BOQ.
- Project 3D modeling
- Project description and presentation
- Animation modeling and walkthrough
- Project coordination and review
- Accompaniment of client after project approval with any technical clarification required.
- Monitoring the project progress
- After approval follow up with site requirements
- As built drawing

4- Mechanical Works:

A- HVAC Works

- Preparation of design calculations for HVAC systems including Cooling Load, Heating Load, Ducts and Air Outlets Sizing calculations, External Static Pressure calculations, Pressurization calculations, Ventilation calculations, Fresh Air calculations, Smoke Exhaust System Calculations etc. using latest available software and standards.
- Preparation of HVAC design drawings at its conceptual and detailed stages.
- Issuing of complete package of design documents, including Ducting Layouts, Sections, Schedules of Equipment, Flow & Isometric Diagrams, Control Diagrams, and Design Calculation Report.
- Development and coordination of the duct routing and equipment layouts with other disciplines.
- Rectification of received comments and following the project until its finalaproval.
- Preparation of detailed BOQ.
- Accompaniment of client after project approval with any technical clarification required.

B- Plumbing Works

- Preparation of design calculations for Plumbing systems including Hydraulic calculations, Pump sizing, System pipe sizing for Domestic water system, Hot water system, Water Tanks capacity and drainage system using latest available soft wares and standards.
- Preparation of Plumbing design drawings.
- Issuing of complete package of design documents, including Water Supply and Drainage Piping Layouts, Sections, Schedules of Equipment, Flow & Isometric Diagrams and Design Calculation Report.
- Development and coordination of the water supply, drainage piping and equipment layouts with other disciplines.
- Rectification of received comments and following the project until its final approval.
- Preparation of detailed BOQ.
- Accompaniment of client after project approval with any technical clarification required.

Transmission Lines and Underground Cables.

- 1- Overhead Transmission Lines
- 2- Underground Cables

1- Overhead Transmission lines

We offer integrated services regarding long overhead, JEC is providing integrated design services including cables calculations, sizing, spam, sage under IEC, IEEE standards.

Our services include:

- Conductor design
- Suspension tower design
- Angle tower type design
- Gantry structure type design
- Anti-climbing devices
- Cable sealing end (cse) steel structure& surge arrester
- Transmission line route map
- Plan and profile with spotted structure
- Conductor fittings & hardware details
- Insulator fittings
- Steel structure grounding details
- Warning signs
- Terminal compound layout
- Terminal compound grounding system design
- Boreholes location plan
- Sign board with electronic counter detail
- Geotechnical studies and soil investigation
- Structural design of foundation
- Site security plan

- QA/QC plan
- Site pre-commissioning & commissioning plan
- Site work test procedures
- Final outage schedule and plan
- Gantry structure design
- Foundation details of access roads warning signs
- Culverts designs
- Design of concrete crash barriers
- RC design
- Concrete protection tiles for power cables
- Design of concrete duct bank
- Details of sand duct bank and direct buried trenches

2- Underground cables

- U/g cables overall route key plan and sectional details
- Link boxes and grounding details
- U/g cables schematic diagram
- Cables arrangement and details
- Plan for electrical & thermal soil resistivity test points
- Underground warning taps for power cables
- Underground warning taps for telecommunication

Protection and Distribution Services

Protection and Distribution Services

JEC provides a Distribution & Protection design services for EHV / HV / MV System and our scope includes (but not limited) to the following:

1- Grid protection studies

- Relay setting calculation.
- Relays Coordination.
- LCC, Control & Protection Schematics and wiring diagram.
- Modification in protection and panel's scheme
- Relay and Metering One Line Diagram/Protection Logic Diagram.
- CT and VT Calculation and CT/ VT Interface wiring diagram.
- Signal List, Cable List and Terminal point list.
- Motor relays protection.
- Interlock and inter-trip logics and configuration.
- Protective relays software Setting printout output report.
- Setting,Testing and Commissioning for protection relays.

2- Distribution System design and Studies.

- Short Circuit and Load flow.
- Cable sizing and selection.
- Electrical duct bank heat calculation.
- Electrical equipment sizing calculation.
- DC load flow and battery sizing calculation.
- Lux calculations for indoor, street and outdoor area.
- Motor starting study.
- Arch flash Analysis.

3- Insulation Coordination Studies (ICS).

- Selection of Surge Arresters
- Determination of Surge Arrester Parameters
- Energy Capability of Surge Arresters.
- Overvoltage Study.
- Temporary overvoltage study
- Switching overvoltage's study
- Fast Transient Phenomena
- Modeling of Various Elements of the Network using PSCAD
- Probability Studies of back flashover
- Calculation of Maximum Current, for Direct Lightning
- Very Fast Transient Phenomena using PSCAD Modeling
- Ferro-Resonance study

4- Grid Impact Statics & Dynamics Studies.

- Voltage Fluctuation
- Active Power Control
- Reactive Power Control
- Fault Ride Through

5- Power Quality Studies.

- Voltage Flicker Calculations
- Harmonics Calculations
- Voltage Unbalance

6- Grounding System Studies.

- Grounding Conductor size
- Earthling philosophy and earthling transformer sizing.
- Number of ground rods.
- Complete ground system design for EHV / HV / MV / LV according to IEEE standard.
- Grid Resistance.
- Step and touch potentials.
- Ground potential rise (GPR)

7- Transient and Lightening Studies.

- Very Fast Transient Phenomena (very fast front).
- Fast Transient Phenomena (fast front).
- Temporary over voltages (low frequency).
- Switching over voltages (slow front).
- Energization/ Re-energization with and without surge arresters.
- Direct Strokes to Phase Conductors.
- Back Flash Over.
- Load rejection.
- Lightening (Shielding) protection layout and details.
- Lightening System design Calculation.

Tools & Software

- Power system and protection tools.
- Drawings design tools.
- Schematic and panels tools.
- OHTL sag and tension tools.
- Lux calculation tools.
- Finite element tools.
- Electrical transient's calculation tools.
- ETAP power station
- SKM power tools DAPAR and CAPTOR
- EDSA
- PSCAD
- Easy Power
- Doc Win-ABB product software
- EQUDIAL-Schneider product software
- CYMGrid

Drawings design

includes but not limited to:

- AutoCAD
- Micro-Station
- PDMS
- Revit

Buildings

- 1- Commercial and Administration buildings
- 2- Industrial Facilities
- 3- Hospitals and Health Facilities

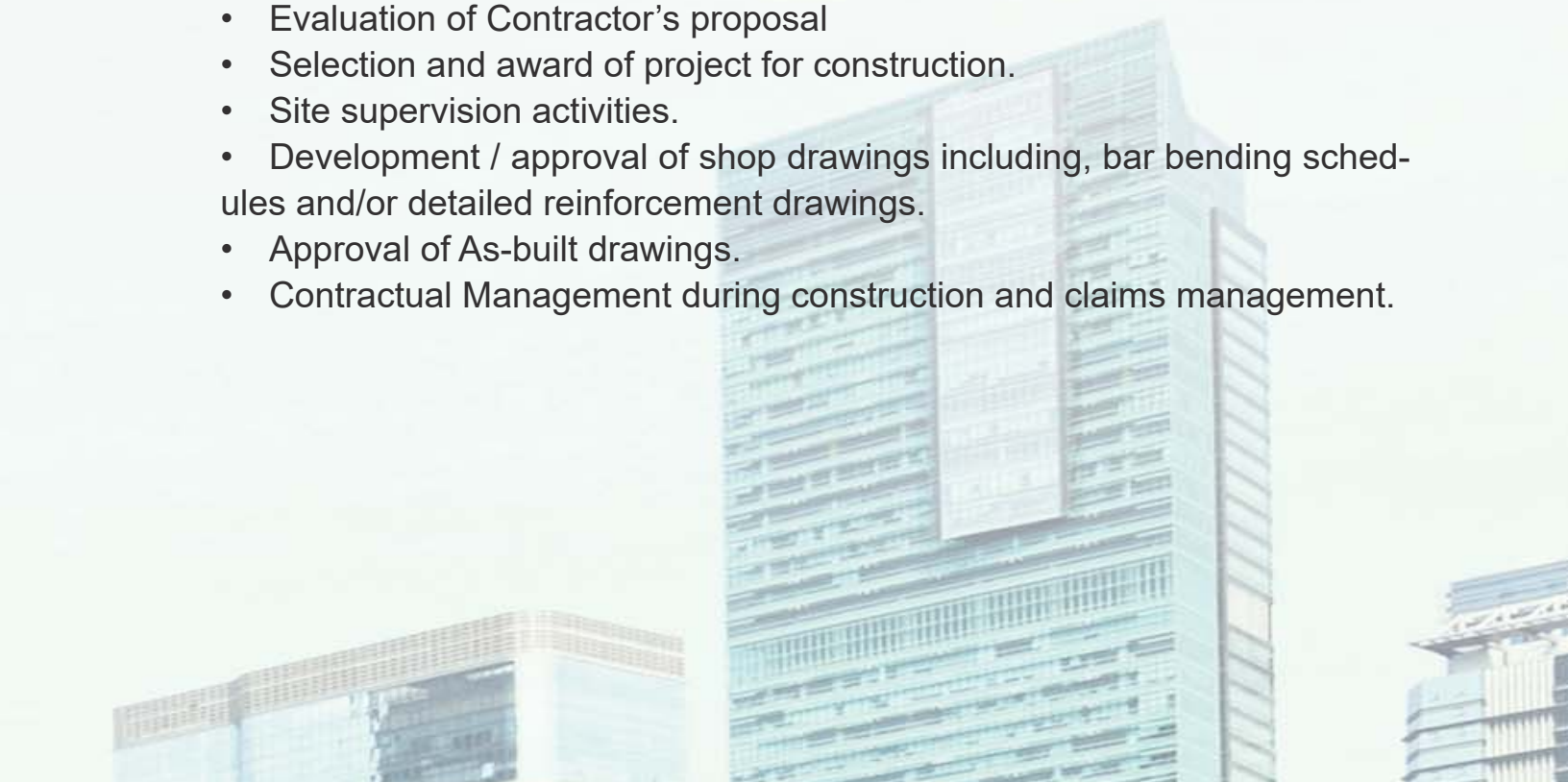
1- Commercial and Administration Buildings

Our multidisciplinary team provides an integrated engineering service for the design of administration buildings including Architectural, structural, civil designs and MEP works.

Our engineering and design services incorporates; Engineering, planning, permitting services, schematic design, detailed design, preparation of tender documents, preparation of construction documents and site supervision as detailed;

- Assessment of site constraints, tie-in points, street conditions and preparation of infrastructure & utilities inception report.
- Study of the authority requirements and general civil defense conditions.
- Study and interpretation of soil investigation report and related structural engineering of foundation design, cement type etc…
- Evaluation and study of client requirements including model aspect, usage; and preparation of design philosophy.
- Preparation of site layout plan and 3D max alternatives for several potential design proposals for the administration building.
- Preparation of primary cost estimates “+/- 20%”
- Master plan development.
- Development of the schematic design and conceptual design for the selected proposal.
- Development of conceptual design plans regarding clearances and certificates from statutory authorities including Civil defense authority, District engineering authority and Mogama Asherya authority.
- Development of detailed architectural design documents including door/window schedules, fitting schedules, finishing schedules, color schemes, flooring patterns, ceiling plans, elevated floors, installation details etc.
- Development of BIM model to coordinate all engineering trades.
- Development of structural design calculation and seismic safety calculations for the selected Statical system.
- Development of Electrical design calculations and drawings including Lighting calculations, telephone layout, conduit layout, load calculations, fans, exhaust fans, sockets, earthing and Lightning protection system, cable sizing details and schedule etc...

- Design of audio-visual system, sound reinforcement system and internal communication system, Design of Firefighting system and related networks.
- Design of IT systems, drawings and layouts including access control system, Card reader system and related software, cables and conduits.
- Design of HVAC system including Heat load calculation, Ducting layout and size calculations, water chillers.
- Development of plumbing works including external & internal plumbing system, sewerage Piping System, potable water network, waste water piping system, storm water system, and connection of internal network with external utilities tie-in points.
- Development of Furniture drawings.
- Design of underground parking floors including detailed statical system and retaining walls, ventilation system, drainage system, maneuvering routes, entrance and exit routes, parking slots, signage etc…
- Landscape design including Hardscape, soft cape, modern irrigation network and related smart system.
- Design of fence, guard room, gates, illumination and signage etc…
- Development of tender documents including drawings, BOQ, specifications, preliminary time schedule and legal package.
- Development of detailed cost estimate.
- Development of value engineering alternatives.
- Management and selection of tender process.
- Evaluation of Contractor’s proposal
- Selection and award of project for construction.
- Site supervision activities.
- Development / approval of shop drawings including, bar bending schedules and/or detailed reinforcement drawings.
- Approval of As-built drawings.
- Contractual Management during construction and claims management.



2- Industrial Facilities

JEC provides a comprehensive project documentation regarding the design of new industrial facility, extending production line or rehabilitation and modernization of an existing facility. Through the Lean manufacturing engineering process, our team extends their know-how to develop most efficient and sustainable designs for our clients. Our industrial engineering services is totally integrated to incorporate all the following;

- Feasibility study and strategic planning.
- EIA and socio-economic impact studies.
- Site analysis and related investigations.
- Master plan design
- Design and arrangement of production line facility
- Conducting space needs assessment
- Technical support to finalize funding documents
- Development of BIM model
- Line capacity analysis,
- Design of steel skeleton and related structures
- Design of auxiliary buildings and R.C buildings.
- Design of recycled water management system
- Design of unloading rail facility.
- Design of Heavy and light traffic flow, loading/unloading, packing, raw materials areas and related storage facilities.
- Production and Logistic Equipment Layout
- Process flow design including all production and warehousing equipment's,
- Maneuvering plan for blue collars, production workers
- Maneuvering plan for loading / unloading vehicles
- Utility connections " tie-in connection to existing utilities"
- Design of an HSE plan and guidelines for staff working inside the production facility, in the landscape area and in auxiliary buildings.
- Preparation of architectural and construction details such as fixing details, installation details, joinery, inserts, cut-outs, pockets, standard details and other construction.

- Traffic study to design truck entrance and maneuvering route according technical specification and authority conditions.
- Preparation of permits drawings,
- Detailed design of Steel, structural, civil, Electrical, mechanical and architectural works
- Structural design of pipe racks,
- Design of soft and hardscape
- Preparation of tender documents
- Development of detailed cost estimate.
- Management and selection of tender process.
- Evaluation of Contractor's proposal
- Selection and award of project for construction.
- Site supervision activities.

3- Hospitals and Health Facilities

The development of any health facility incorporates the design of workflow, physical health components and pipelines, smart systems and emergency systems and classic engineering components as per the following;

- Conceptual design
- Design of Electrical networks;
- Water supply, (including fire fighting, irrigation, water treatment plants and water storage tanks/reservoirs
- Design of emergency systems
- Design of Waste water sewerage systems and storm water networks;
- Design of Vacuum Lines System
- Preparation of tender documents
- Management and selection of tender process.
- Evaluation of Contractor's proposal
- Selection and award of project for construction.
- Site supervision activities.

Hydrology and Chemicals

With the partnership with 'Hydro Consultants', JEC has broad experience, covering the different aspects of Surface Water Hydrology, Climate Change, and Environment, Water Supply projects, Hydraulic analysis, designs, modelling, wastewater projects and Designs including planning, preliminary design, detailed design, feasibility studies, detailed studies and designs, tendering documents, drawings and specifications, evaluation and assessment.

Our services includes:

- Environmental assessments, Environmental and Social Impact Assessments ESIA, Environmental Management Plans EMPs, Governmental Environmental Permitting from EEAA, Water Quality Monitoring programs, Water Quality Management.
- Planning / Design / tendering of water supply projects (data collection, water resources assessment, force mains, water treatment plants, water distribution networks, underground and elevated water tanks) for cities, villages and Touristic Resorts.
- Design of water supply projects (data collection, water resources assessment, force mains, water hammer, water distribution networks, underground and elevated water tanks including tender documents preparation and cost estimation).
- Design of wastewater projects (force mains, water hammer, pumping stations, sewage networks).
- Design of Irrigation pumping stations including earthworks and lining
- Hydraulic analysis of water networks using WATERCAD v. 8.0
- Hydraulic analysis of wastewater networks using SEWERCAD v. 8.0
- Water hammer Analysis for force main pipelines using HYTRAN 3.8.4
- Water Hammer Analysis for water networks using AFT impulse 4.0
- Design of Irrigation networks/Irrigation pumping stations including earthworks and lining
- Highway flood protection structures, flood calculation and storm water management
- Design of artificial lakes, lagoons, sedimentation ponds, mixing and pumping systems
- Design of Marine Breakwaters
- Comprehensive research experience both experimentally and numerically
- Teaching and training experience in the field of water supply/ wastewater/Environmental studies with excellent communication skills
- Extensive in the planning, design, modelling, evaluation and assessment of water and wastewater projects
- Substantial background in the technical aspects of water utility management
- Sediment Transport Research studies and applications, through numerical or experimental investigation.

Management Services

- 1- Management Consultancy
- 2- Project Management
- 3- ISO Preparation Service

1- Management Consultancy

JAWDA believe in its source of power consisting of high technical knowledge and ability to apply best practices that ensure high efficiency across disciplines within different industries.

JAWDA possesses highly qualified and experienced consulting team who introduce and implement modern management systems that help organizations improving its business practices and achieving its strategic objectives through a deep and detailed understanding and diagnosis of organizational challenges on the current business, process and people levels & identifying needed initiatives that would address all perspectives.
Services provided:

- Organizational Hierarchy Structure:

JAWDA consulting team offer full support in setting and defining organization hierarchy according to the company strategy and the industry best practices and linking the structure to strategic directions while translating the strategy into objectives and goals that are realistic and conformant with the strategy.

Since the company culture determines its directions and affect strategy, our consulting team assist clients identifying how the company measures on areas such as employee engagement, satisfaction, management/leadership effectiveness and working environment.

- Policies & Procedures:

Since at JAWDA we believe that each member in any organization should (say what he do and do what he say), we create policies and procedures that describe and document the business processes internal activities in the organization this include job profiles and framework for decision making that is designed primarily to assign authorities for key decisions.

- Performance Management System:

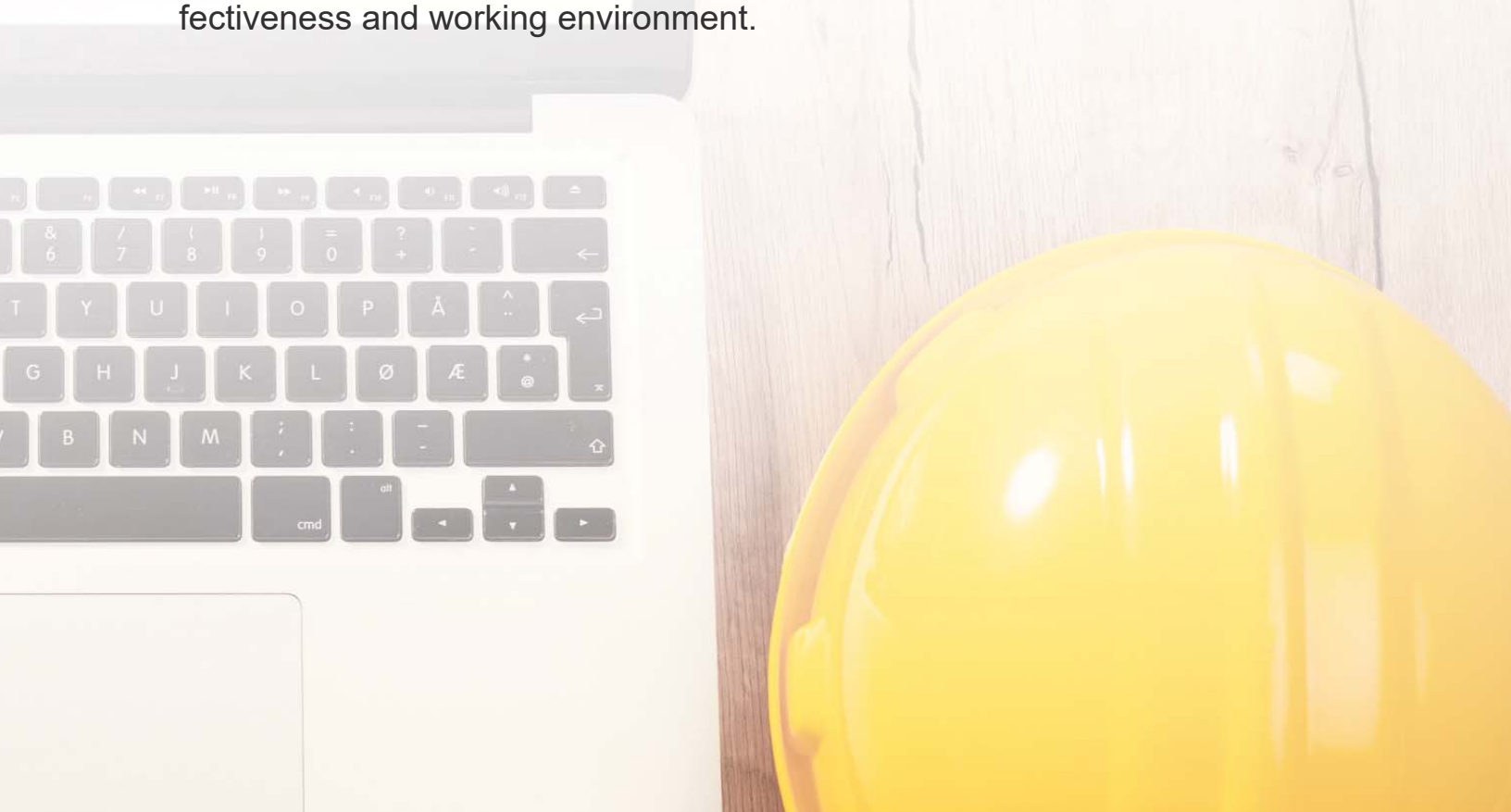
“What you cannot measure, you cannot manage” Peter Drucker

Performance Management system play a crucial role for organization , employee & manager, through a solid hands-on experience with performance management systems design and implementation, JAWDA Consulting team assist clients in guiding the organization toward the achievement of its objectives and goals & supporting business strategies through designing, introducing and implementing a process which emphasizes performance planning, two-way communication, regular performance feedback and employees’ development.

As a part of the system implementation, the consulting team conduct workshops for raters on how to set KPIs, measurable objectives, avo ding evaluating errors and conducting effective performance review.

- Assessing Cultures, Leadership, Employees Engagement & Satisfaction

Since the company culture determines its directions and affect strategy, our consulting team assist clients identifying how the company measures on areas such as employee engagement, satisfaction, management/leadership effectiveness and working environment.



2- Project Management

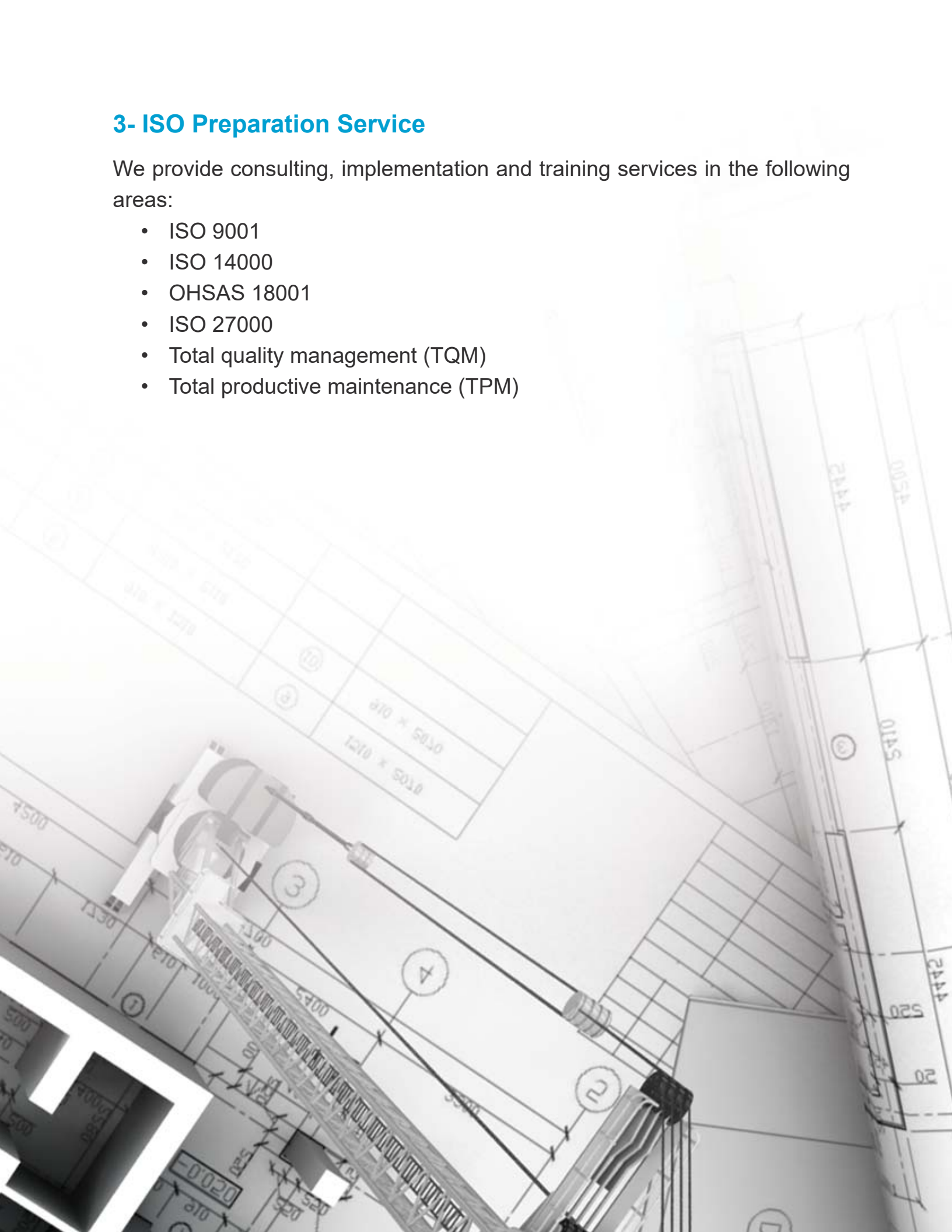
Our Engineering service is professionally sustained in terms of project schedule, client budget and related value engineering scope.
Our project management items incorporates;

- Analysis of objectives.
- Cost planning (cost and value management).
- Programming by primavera.
- Change control.
- Progress measurement.
- Value of work done.
- Risk management.
- Interim payment and milestone payments.
- Mitigation planning and commissioning.
- Value management.

3- ISO Preparation Service

We provide consulting, implementation and training services in the following areas:

- ISO 9001
- ISO 14000
- OHSAS 18001
- ISO 27000
- Total quality management (TQM)
- Total productive maintenance (TPM)



Consultancy Services

- 1- Mangement Consultancy
- 2- Electrical
- 3- Civil
- 4- Mechanical
- 5- Architecture

1- Management Consultancy

Jawda is providing an integrated projects management solution through our engineering departments that provide our clients with state-of-the-art solutions fully integrated, fully functional. Our engineering service incorporates;

2- Electrical

- Performance improvement of power systems
- Power flow and short circuit studies
- Protective devices and relays Coordination.
- Power factor correction studies
- Harmonics analysis and filters design.
- Voltage fluctuation (Flicker) and voltage dip studies.
- Complete power quality assessment studies.
- SVC's, FACTS and related reactive power control devices studies.
- Distributed generation and distribution system planning.
- Optimal planning for distribution, transmission and generation system.
- Unit commitment and economic dispatch.
- Transient stability analysis.
- Transient switching and surge analysis.
- Energy Management.
- Variable speed drives.
- MV Relay setting & coordination study.
- LV protection devices coordination study.
- Load flow study
- Grounding calculation
- Harmonic analysis
- Motor Starting study
- Transient stability analysis
- Arc flash analysis
- Short circuit calculation
- Insulation Coordination Study .

3- Civil

- Site work consultancy & site supervision Bill of quantities and specification for projects
- Soil investigation and soil improvement
- Foundations
- Scheduling and planning

4- Mechanical

.Evaluation, project upgrading and supervision for existing Mechanical objects/sites.

- HVAC and Plumbing Systems design for the following applications :
  - Industrial
  - Commercial
  - Residential
- Firefighting systems.
- Surrounding MEP networks design.
- System of sewage and Oil.
- System of water pumping Stations
- Steam generating and hot water systems.

5- Architecture

- Reviewing Architectural materials.
- Preparation of Bill of Quantities (B.O.Q) for Materials Experience.
- Reviewing contractor drawing & transmittals.

Research and Development

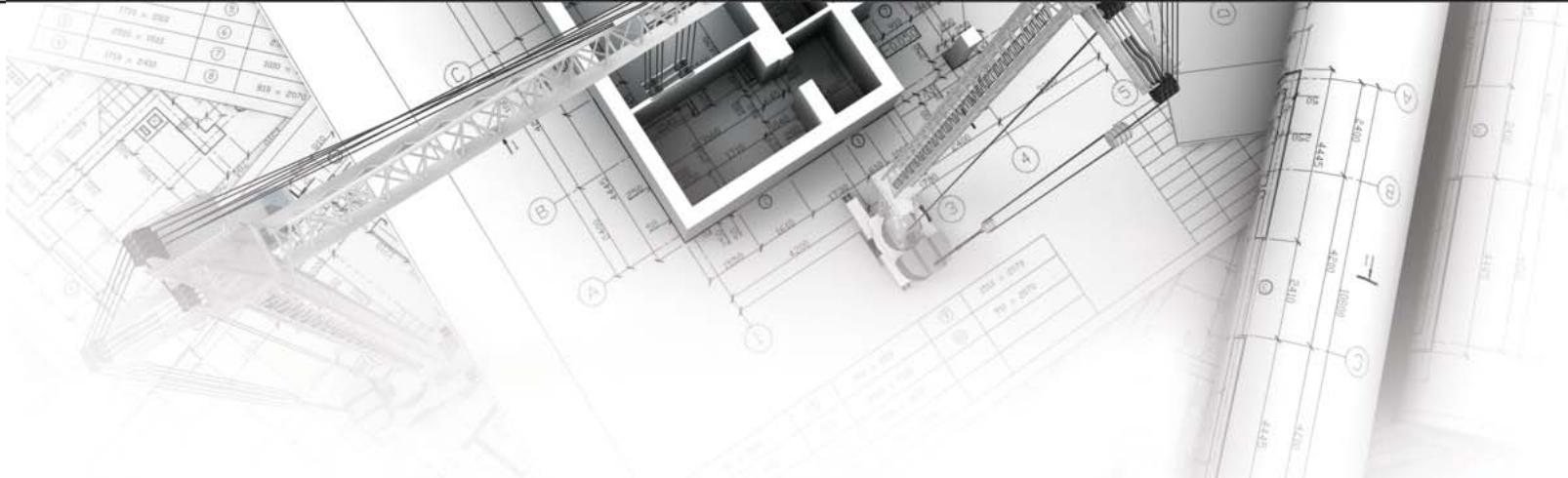
Our team of scientists and research engineers provides unique solutions and in-depth system knowledge using self-implemented and ready-made software packages to provide a wide-range of power systems studies and research services with different capabilities ranging from planning to harmonic studies. Our research and development projects cover the following topics:

- Power systems and distribution systems planning studies
- Interconnection studies
- Unit commitment and generation scheduling
- Economic dispatch
- Protection Coordination studies
- Substation control system
- Load flow and short-circuit studies
- Transient and dynamic stability studies
- Electromagnetic transient simulations
- Insulation coordination studies
- System reliability studies.
- Distribution network operation studies
- Loss reduction studies
- Distributed generation studies
- Capacitor placement in distribution systems
- Energy audit
- Load management
- Harmonic and power quality studies
- Power factor improvement
- Load shedding schemes
- Other Studies

Sample of Research Projects:

Jawda research and development team has achieved the following projects

- A simulated annealing algorithm for fuzzy unit commitment problem, KFUPM, KSA, 2002.
- Evaluation and Analysis of electric interference problem with buried pipelines in Saudi Arabia", KSA, 2003.
- Optimal Planning of transmission systems", KACST, KSA, 2004.
- AIR Condition load modeling in Saudi Arabia", SAPIC, KSA, 2004.
- Improving the lighting performance and protection of electric power transmission lines in Saudi Arabia', KACST, KSA, 2005.
- The impact of wind turbine & photovoltaic systems on electrical grids.
- Power quality investigation to the impact of the newly emerged custom power technology in industrial plants, KSA, 2000.
- In situ detection of SF6 leaks in power systems using lasers, 2000.
- Practical testing and evaluation of high voltage cable insulation materials manufactured in Saudi Arabia, 2002.
- Evaluation and analysis of the electromagnetic interference problem with buried pipelines in Saudi Arabia, 2002.
- Lightning Monitoring and construction of ground flash density Maps in the kingdom of Saudi Arabia KACST, 2004.
- Investigation of thermal stresses and electrical degradation in cable joints and termination used in distribution systems KACST, 2007.



- Heat Effects investigation in distribution transformers used in critical industrial processes KACST, 2009
- Grounding and bonding procedures and requirements in distribution network Saudi electric co., 2005.
- Inrush cold current in distribution network Saudi electric co., 2005.
- Condition diagnostic of GIS, cable terminations and transformers using online condition diagnostic instruments Saudi Electric Co, 2005.
- Harmonics identification and measurements of Kuwait Distribution system one year project 1994-1995
- Design of the electrical distribution system for the new development area in the south valley" academy of scientific research, ministry of higher education, 2000.
- Design of an optimal electrical distribution system of sienna'', scientific research academy, 2000.
- Voltage security assessment of Qatar network: the voltage stability 2005-2006.
- Pollution flashover of H.V insulators, ministry of electricity Egypt, 1981.
- Pollution Flashover of H.V. insulators, 1982-1984 and 1987-1989.
- Coordination and failure assessment of insulation in Egypt's EHV Electric power system, 1980.
- Insulation Level determination for transmission and distribution networks under different environmental conditions in Sinai, notional academy of science and technology, Egypt, 1998-2002.

Quality Management

1- ISO Certification

2- Technical Quality Control

3- Work Environment

4- Quality Process and Procedures

5- 360 Perspective

6- ERP System

Jawda's staff is committed to delivering a quality professional service to our clients.

Jawda's quality policy is operating a Quality Management System (QMS), to ensure that all the necessary resources and training is provided to operate the system and that all personnel take an active role in implementing the quality management system.

The QMS internal project management system and continuing professional development w(CPD) protocol are managed in an integrated manner to achieve a quality service for our clients and to foster a process of continuous improvement of that service.

1- ISO Certification

Jawda has gained accreditation to ISO 9001:2008.
We are audited through MOODY INTERNATIONAL.
Our certificate number is 07110811007.

intertek
Total Quality Assured.

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Al Jawda Engineering Consultant (JEC)

Main Site: 21 Mohamed Fahmy El Mohdr st., Al-Tyeran st. Nasr City. Cairo -Egypt

has been registered by Intertek as conforming to the requirements of:

ISO 9001:2015

The management system is applicable to:

Submitting of design calculation and drawing for engineering design

Certificate Number:
07110811007-01

Initial Certification Date:
09 January 2015

Last Certificate Expiry Date:
08 January 2021

Date of Last Recertification Audit:
26 January 2021

Certification Cycle Start Date:
07 February 2021

Issuing Date:
07 February 2021

Valid Until:
08 January 2024

Intertek

Colin Moldovean
President, Business Assurance

Intertek Certification Limited, 10A Yeoman Park, Meteor Road, Derby DE24 8ST, United Kingdom

Intertek Certification Limited is a UKAS accredited body under schedule of accreditation no. 014.

CERTIFICATE

This is to certify that the Quality Management System of

JAWDA ENGINEERING CONSULTANT CO.

Jeddah, Al Aziziyah, AI-Baldaia St, 2264 Abo Nama Building,
3rd floor office 305.

has been assessed and found to conform to the requirements of

ISO 9001:2015

This Certificate is valid for the following scope

Engineering Consulting Services

Certificate No.	:AMER11259
Registration Date	:03/06/2023
Issue Date	:06/06/2023
Expiry Date	:02/06/2024
Recertification Date	:02/06/2026

Director

AMERICO QUALITY STANDARDS REGISTECH PVT. LTD

Key Location: 1910 Thomes Ave, Cheyenne, Wyoming, WY 82001, USA

Operations Office: D 303, 104.Nisarg plaza, Bhumkar chowk - Hinjewadi road, Wakad, Pune 411057

IAS ACCREDITED Management Systems Certification Body MSCB 289

IAF INTERNATIONAL ACCREDITATION FORUM

For verification and updated information concerning the present certificate, please visit www.americocert.com The Certificate is valid for period of 3 years subject to tisfactory annual surveillance audit. This Certificate is the property of AMERICO Quality Standards Registech Pvt. Ltd. & shall be returned immediately when demanded.

2- Technical Quality Control

Quality doesn't just happen, it's a product of proper project management, a lack of quality control makes it impossible to guarantee quality in your projects. Using a quality checklist ensure quality is planned into your project. By implementing a Quality Checklist for all your projects, you can "check" each item off as you develop your project plan. Rest easy knowing that you have all of your bases covered

Creating a quality control inspection checklist should be among the first steps you take to develop an effective quality control program. A detailed checklist can save you a lot of trouble in the long run.

It can defend against sub-standard or non-conforming designs. Since this document is in writing, it can also serve as a handy reference not just for engineers on the design office floor, but also for if you have a disagreement with the client/ stakeholders about project standards.

Getting an absolutely perfect engineering design service run every single time is nearly impossible. But you can bring that goal closer to reality by preventing confusion and conveying expectations with a clear QC checklist.

3- Work Environment

Office employees spend majority of their time inside work stations and offices, where the physical environments influence their well-being and directly influence their work performance and productivity. In the workplace, it is often assumed that employees who are more satisfied with the psychological and physical environment are more likely to produce better outcomes. Collaboration techniques, flexibility with employees, issues solving methodology are among a long list of criteria that help JEC to implement optimum psychological environment to help employees focus on the service. JEC applies a special methodology to control productivity elements instead of just pushing around to get things done on time. Our methodology incorporates the management of the following three items;

A. Employees Favorite environment
B. Work load in terms of time management
C. Engineering service and related quality

The early evaluation of those three items defines the expected quality of service to be provided under certain contract. Should the actual conditions extends a lower quality, our team leader(s) will immediately design an alternative work plan to ensure optimum quality of service by maintaining the most favorite working conditions for our employees, fair distribution of work and the best engineering service as a priority.

In terms of physical work conditions; Temperature, air quality, lighting and noise conditions in the office affect the work concentration and productivity. Numerous studies have consistently demonstrated that characteristics of the physical office environment can have a significant effect on behavior, perceptions and productivity of employees.

4- Quality Process and Procedures

In Jawda Engineering consultant we have made our Quality control (QC) handbook with set of procedures intended to ensure that our performed service adheres to a defined set of quality criteria or meets the requirements of our client.

Our project quality checklist handbook is a tool used to aid the project team in ensuring they consider all aspects of project and/or process quality. With a well-planned and repeatable quality management is to ensure the delivery of our design services which are acceptable to the customer based on some agreed upon standard of quality.

Our quality control inspection checklist serves two main purposes:

A. Outlining quality standards and design requirements the client is expected to meet
B. Providing objective criteria for inspecting the design service to ensure the client's expectations are being met

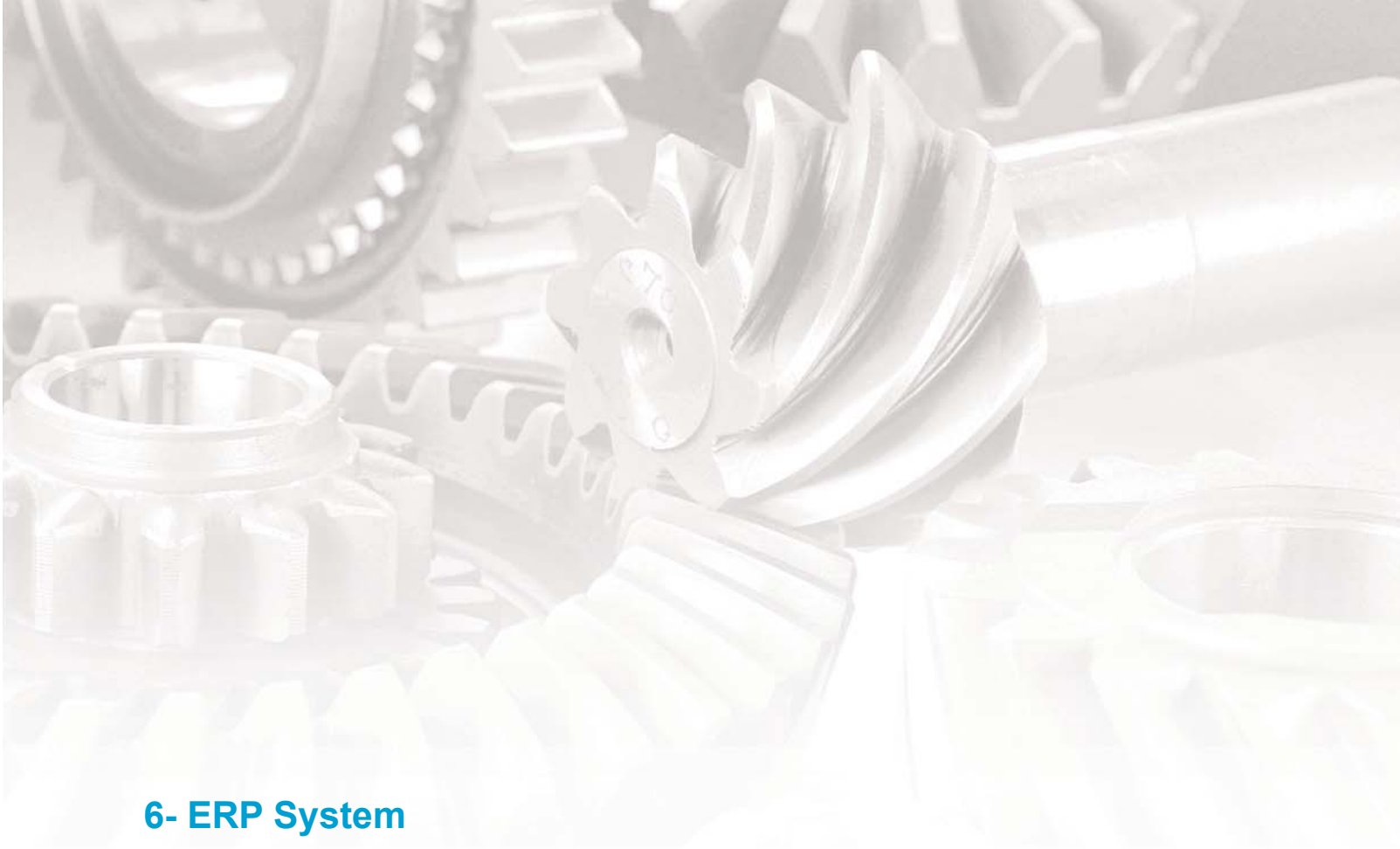
One of the less obvious benefits of collaborating with our client on developing a quality control inspection checklist is that we can improve our relationship with our client. Working on a checklist shows them we value their feedback. Additionally, clients may be able to suggest ideas to improve the work quality that might not have been considered.

This Check-List is a companion to the design review guidance plan at Jawda, with the help of a highly qualified engineering review team, we perform the design review and implement the design guide lines and work references.

Our handbook of our quality reference is under continuous development base, to keep pace with constant changes and new client's requests and demands.

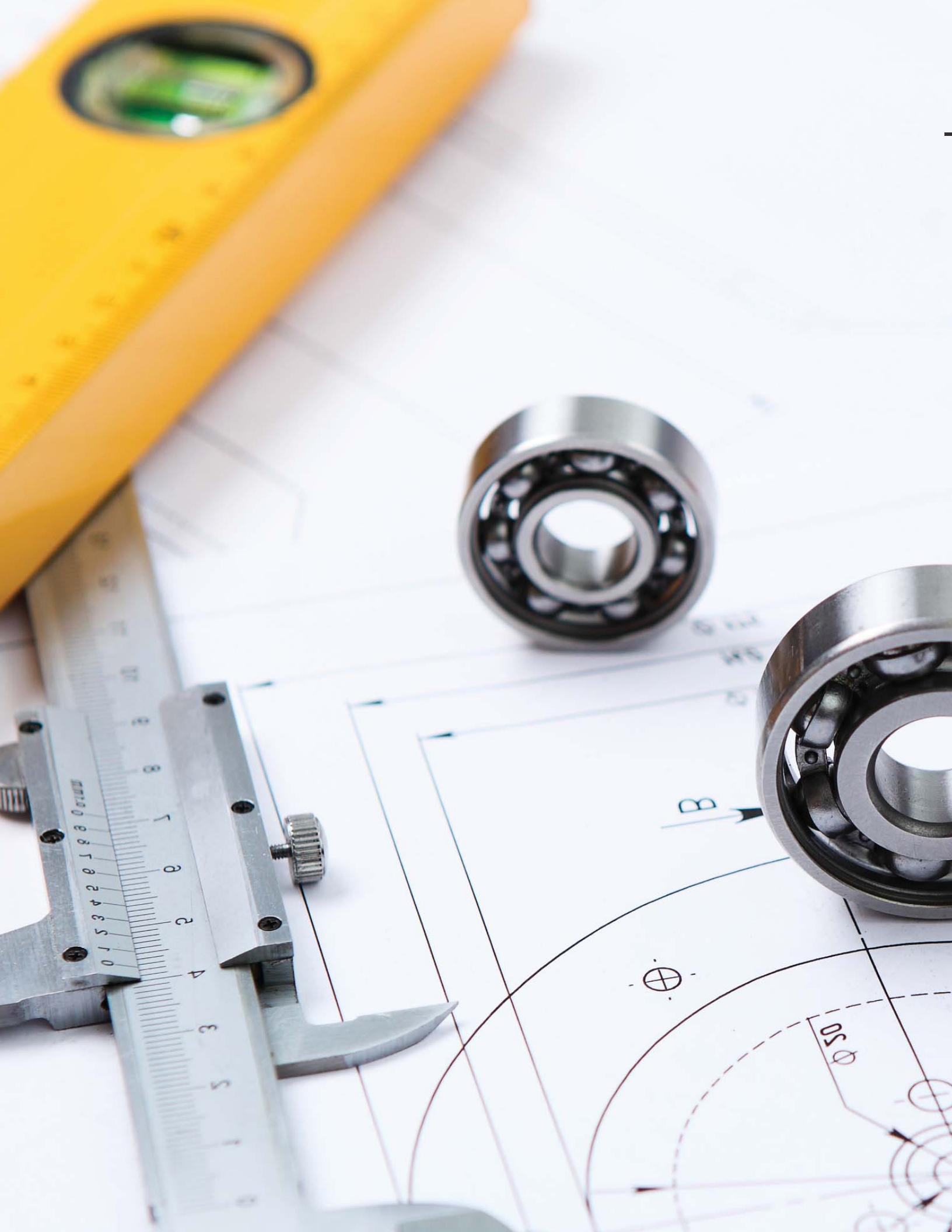
5- 360 Perspective

- (Benefit all parties (is the main objective of our performance evaluation system, JAWDA evaluation system is not just a diagnostic tool, it's an integrated system that we use to create and grow a culture of feedback, and to sustainably grow JAWDA Staff.
- Staff is evaluated based on three criteria which are KPIs, Competencies & Punctuality.
- A 360-degree feedback is applied for all senior staff above a certain level (senior project managers & department heads) & supporting departments.
- In our 360-degree feedback system, an employee is evaluated from four other groups of sources: direct supervisor, peers at the same level, team members and other contacts within the company.



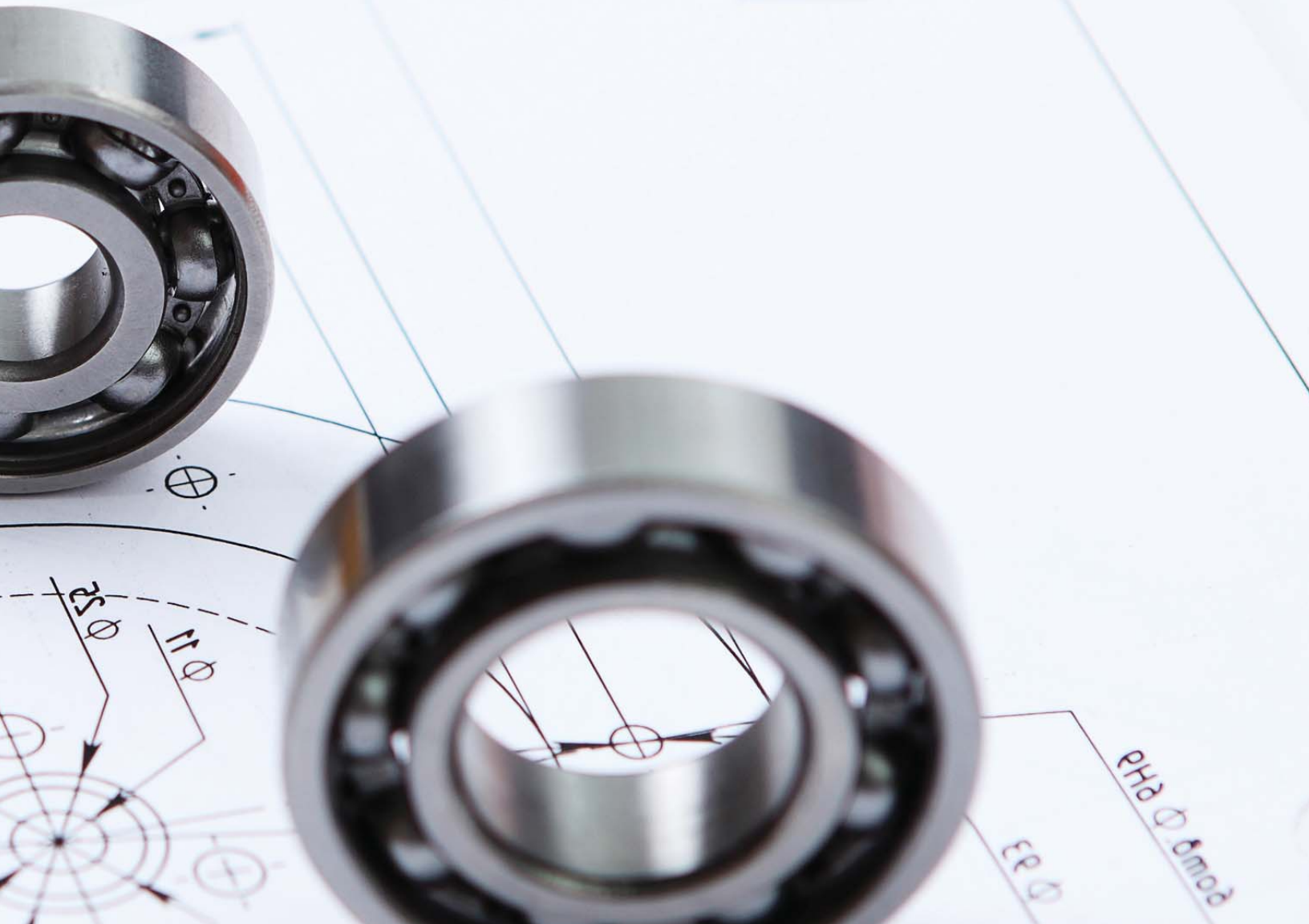
6- ERP System

Jawda system is more than an Enterprise resources planning system, it’s an entire suite of service that actually cover management of design tasks, approval process, time management, work planning, cost control, quality control and other items into one standalone system.
What could usually goes in hours is done in a few minutes. This professional platform and cloud storage solutions help our engineering communicate and coordinate all design elements.



Tools & Facilities

- 1- IT Facilities
- 2- Primavera
- 3- BIM



1- IT Facilities

Software Packages

Our engineers utilize the latest engineering software packages as follows:

- AutoCAD - including specialized toolsets 2022.
- Building_Design_Suite_Premium_2016 - AutoCAD, Revit, 3D Max
- MicroStation PowerDraft CONNECT Edition V16
- Adobe Photoshop.
- STAAD.Pro CONNECT Edition x64 (SES) Update 9
- SAFE 12
- PC Column.V6
- Microsoft Office 365
- Saudi Lighting V.20.12.
- Cyme Grd 2021
- Elite Software Ductsize V6.1.2
- Elite Software CHVAC V8.2.66
- ETAP Power Station V-12.6.
- FTP (File Transfer Protocol) to facilitate data transfer to our clients in a fast and safe way.
- Lighting program (DIALUX V41302).

Work Flow and Database System

JEC's work flow system is implemented based on Oracle Data Based that ensures solving the challenging technical problems for our clients.
The system includes:

- Basic data information.
- User's accounts & user's rights.
- Drawing Control Sheet (DCS) & project life cycle.
- Internal communication.
- Attendance and timesheet.
- Reporting System.

Hardware Systems

- Color plotter printer.
- 100 desktop and laptop computers.
- 3 work center printers.
- Data server for all projects and work flow.
- Domain and mail exchange server
- Backup server.
- IP security camera security system.
- Fire alarm and 8 sensor system.

2- Primavera

The primavera professional services team can provide an end-to-end solution for project portfolio management success. We offer proven methodologies for accelerated software implementation. Our approach is simple. We'll start you off right with an implementation.

Approach designed to make sure you have the right technology and the right processes to maximize your primavera software investment.

We follow a proven methodology in delivering our consulting services, which includes:

- Needs analysis.
- Develop database structures.
- Develop project management best practices templates.
- Develop reports and forms.
- Assistance running a prototype of the developed solutions.
- Develop the procedures manual for running the solution.
- Core group training.
- Provide formal assessment.
- Assistance in running the completed solution.

3- Building Information Model (BIM)

Jawda Engineering Consultants has employed a BIM utility as part of our state-of the-art plan to provide stakeholders with quality services through the most innovated platforms and materials. Building information modeling (BIM) is the state-of-the-art method to provide an innovative coordinated platform between Architects, Engineers and Construction team. BIM is a symptom of Building Information Modeling, it is the process of generating & managing building data during its life cycle. BIM uses three-dimensional, real-time & dynamic building modeling software to increase productivity in design & construction processes.

BIM Uses 3D models to capture, explore, and maintain consistent and co-ordinated planning, design, construction, and operational data during the lifecycle of the project;

- Links project planning to construction planning and simulation, as well as visualization during construction and digital fabrication
- Enhances project communication and collaboration among teams
- Create more accurate cost estimates
- Deliver more projects on time and within budget
- Extract information from BIM to pre-fabricate building components to improve project schedule, reduce cost, improve site safety, and produce greener construction practices by reducing material waste
- Reuse building models and data to better manage facility operations
- Analyze data-rich models to optimize resources and reduce waste and lower lifetime maintenance and operation costs
- Use intelligent 3D models to help manage space and perform spatial validation for tenant chargebacks

- Provides greater project insight for cost, schedule, and constructability
- Uses and shares the same consistent data whether you're at your desk or in the field
- Enables prompt response to change with processes that are smarter and faster
- BIM empower owner by Improves building quality, Significantly reduces building lifecycle costs, Better understand design projects from beginning to end, Optimizes operational efficiencies and increases occupancy and use rates• BIM combined with cost model enables accurate quantity survey of materials and components.

What do we need to achieve?

- Higher quality, more reliable design information
- Greater client certainty/predictability (time, cost, quality) earlier
- Better visualisation
- Better multi-disciplinary collaboration
- Quicker, more consistent and easier coordination of design documentation
- Earlier, accurate, complete procurement data ('smart' BOQs); elimination of waste and rework
- Better construction and project management ('build it once virtually, then build it for real')
- Better 'as-built', whole-life information for O&M
- Reduced Risk Factor during Construction
- Best Control of Clash Detections
- Increased Productivity
- Saving Time and faster delivery.
- Whole Life asset management
- Continual Improvement

Sample Project Done by Jawda Using BIM

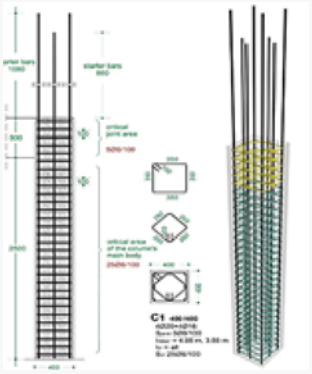
Design & Construction of 132/13.8Kv Substation in Riyad, Saudi Arabia
Indoor GIS type Substation arranged in a double-bus-single breaker configuration in AL AMARIYAH area,Riyadh.
The new Substation is fed at 132kVthrough two OHL/Underground circuits from another Substation The substation is equipped with Substation Automation System (SAS) and remotely controlled from the power Control Center (PCC) through SCADA system, Telecommunication system and gateway.

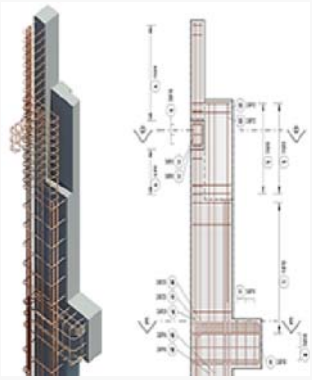
Project Includes:

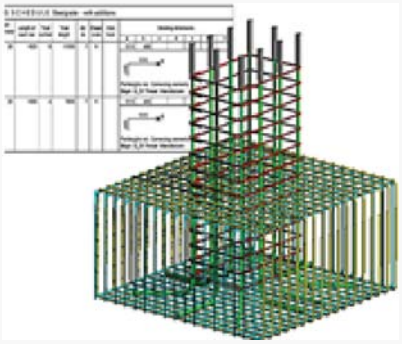
Participation of all design disciplines of the electrical substation matrix:

- Planning and Management
- Electrical Design Work
- MEP Design Work
- Structural Design Work
- Architectural Design and Work Presentations
- Project Cost Estimation
- Project Time Calculation
- Work Coordination
- Civil Design Scope

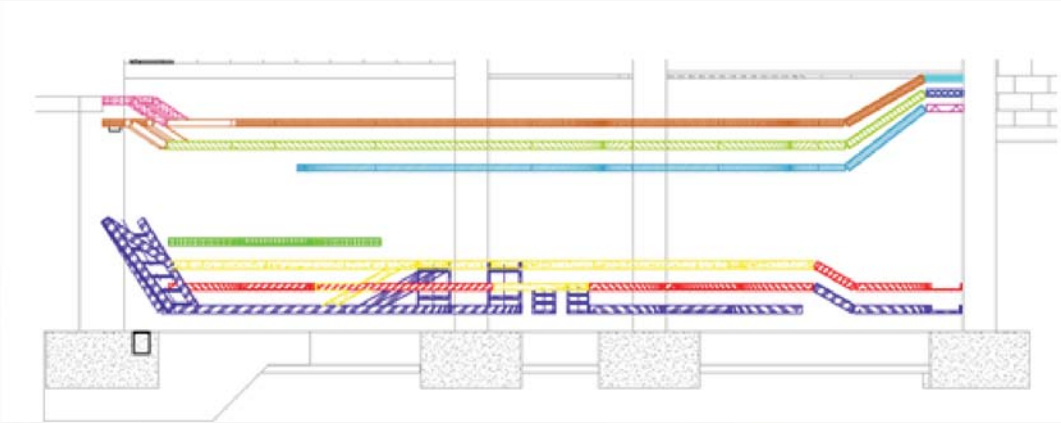
Construction Model



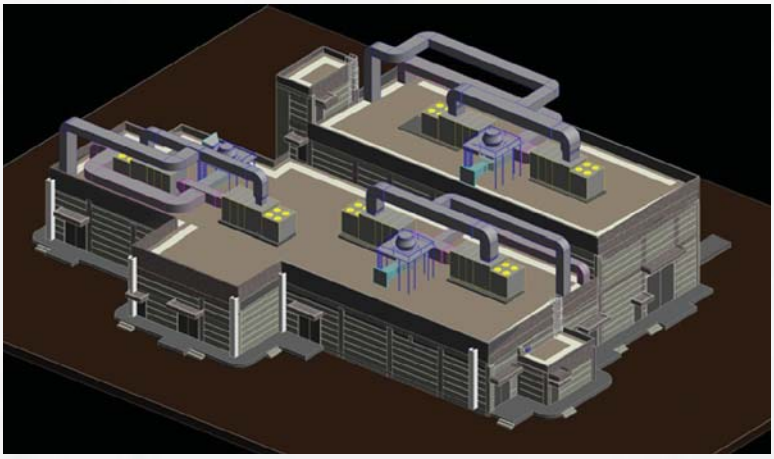




Electrical Scope



Mechanical Scope



Architectural Scope

List of Projects

- A - Substations
- B - Transmission lines
- C - Underground Cables
- D- Protection and Distribution
- E - Studies
- F - High Voltage Equipment review/ FAT and Procurement
- G - PV (PhotoVoltaic)
- H - MECHANICAL ELECTRICAL PLUMING(MEP)
- I- Projects related to the effect of electric lines on the pipeline
- J - Buildings
- K- Hospitals
- L - AS BUILT
- M- Water and Chemicals

A - Substations

No.	Name of Project	Location	Client	Project Type	Date
181	P2307881 SHQ-1 & 3 380-132kV Ext. & 132KV UGC SHQ-1 & 3 BSP –	South Area KSA	Haif CO.	HV	2023
180	TIME SQUARE- PORT SAID PROJECT	PORTSAID, Egypt	CREODEVS	LV S/S	2023
179	CONSTRUCTION OF QIDDIYAPROJ-ECT, 380/132 KV S/S#9078	RIYADH (COA) - SAUDI RABIA	TDP	EHV S/S	2023
178	CONSTRUCTION OF QIDDIYA PROJECT, 132/13.8kV S/S# 8373	RIYADH (COA) - SAUDI RABIA	TDP	HV S/S	2023
177	CONSTRUCTION OF QIDDIYA PROJECT, 132/13.8kV S/S# 8372	RIYADH (COA) - SAUDI RABIA	TDP	HV S/S	2023
176	CONSTRUCTION OF QIDDIYA PROJECT, 132/13.8kV S/S# 8371	RIYADH (COA) - SAUDI RABIA	TDP	HV S/S	2023
175	CONSTRUCTION OF QIDDIYA PROJECT, 132/13.8kV S/S# 8370 & EXTENSION OF 132KV GIS AT S/S # 8511	RIYADH (COA) - SAUDI RABIA	TDP	HV S/S	2023
174	NEW SADEA 33-13.8KV SUBSTATION	DAMMAM- SAUDI ARABIA	KFB Group	LV S/S	2023

No.	Name of Project	Location	Client	Project Type	Date
173	132kV UGC SS 8005, 8074 & 8100, 8102 SUBSTATION	RIYADH AR-EA-SAUDI ARABIA	AL-NOWAISER CO	HVS/S	2022
172	ADEN 132KV SOLAR PLANT PROJ-ECT	Aden-IN YEMEN	ZASCO	HV S/S	2022
171	CONSTRUCTION OF AL-HARIQ, 132/33kV SUBSTATION # 8724	AL HARIQ KHARJ AREA KSA	TDP	HV S/S	2022
170	UMLUJJ HOUSING 110/13.8KV	UMLUJJ-KSA	CEPCO	HV S/S	2022
169	RABIGH HOUSING 110/13.8KV	Rabigh-KSA	CEPCO	HV S/S	2022
168	Hayah Karemah –BEBA –Bani Sweif	Egypt – Bani Sweif	Tanta Motors	Civil Design work for (Distribution Building / Transformers Kiosk and RMU	2022
167	Hayah Karemah –Komombo –As-wan	Egypt – Aswan	Tanta Motors	Civil –Electri-cal-Arch-Me-chanical for Distribution Building / Transformers Kiosk and RMU	2022
166	GOUF-D 132 KV	AlGouf KSA	Al-BABTIN (ABC)	HV S/S	2021

No.	Name of Project	Location	Client	Project Type	Date
165	ABHA AIRPORT SOUTH 33 & 13.8KV	KSA	HAIF	HV S/S	2021
164	TANDAHA 33 &13.8KV	KSA	HAIF	HV S/S	2021
163	KHUDERAH - HAIF 33 & 13.8KV	KSA	HAIF	HV S/S	2021
162	PORT FOR SEC AND ARAMCO PROJECT 132 & 13.8KV	KSA	GE	EHV S/S	2021
161	NEMAR 132/13.8kV S/S (8375)	Riyadh-KSA SEC-COA	SSC	HV S/S	2021
160	Switching Station-1 BSP (9097) & REINFORCEMENT OF BSP 9020	Riyadh-KSA SEC-COA	TDP	EHV S/S	2021
159	Replacment Of the 3 Existing Transformes at Zulfi Bsp# 9064	Zulfi-KSA SEC -COA	SSEM	HV S/S	2021
158	AR Rass PV 380/132 kv BSP# 9095	AR Rass - KSA SEC - COA	SSEM	EHV S/S	2021
157	Yanbu-4 Phase 380/110 kv BSP	Yanbu-KSA SEC -WOA	GE	EHV S/S	2021
156	SAAD PV BSP 380/132 KV S/S #9094	Riyadh-KSA SEC-COA	Al Sharif (ASG)	EHV S/S	2021

No.	Name of Project	Location	Client	Project Type	Date
155	Upgrading Protection Equipment in 132kv S/S	Abha-KSA SEC -SOA	Al - Fanar	HV S/S	2021
154	Replacements & Reinforcement Jabal Al Noor 110/13.8 KV S/S	Mekkah-KSA SEC-WOA	Ojaimi	HV S/S	2021
153	ABHA HOUSING 132/13.8KV S/S	ASIR-KSA (NG-SOA)	HAIF	HV S/S	2021
152	(DHP-1) 132/13.8 KV S/S	JIZAN-KSA (NG-SOA)	TDP	HV S/S	2021
151	AL-Malqaa 132/13.8 KV - (8278)	RIYADH-KSA SEC -COA	Al-Babatain	HV S/S	2020
150	AL-Aarid 132/13.8 KV - (8357) S/S	RIYADH-KSA SEC -COA	Al-Babatain	HV S/S	2020
149	Addition of Third Power Transformer (132/33/13.8 KV) at Muhayil	Jazan-KSA SEC-SOA	JAL Co.	HV S/S	2020
148	Addition of Third Power Transformer (132/33/13.8 KV) at OUKDUD	Jazan-KSA SEC-SOA	JAL Co.	HV S/S	2020
147	Rehabilitation and Restoration of Existing 110/13.8 KV New Air Force	JEDDAH-KSA NG -WOA	Nesma	HV S/S	2020

No.	Name of Project	Location	Client	Project Type	Date
146	Rabigh 300MW Solar PV Power Plant Project 33/110kV Plant	Rabigh -KSA Marubeni & Al Jomaih	CSRPDI	HV S/S	2020
145	JEC 380 bss (modification) AR-AMCO	Jazan-KSA SEC -SOA	GE	EHV S/S	2020
144	Ext Of Wadi Al Fara 380/110/33kv	Maddina-KSA SEC-WOA	Siemens	EHV S/S	2020
143	D & R for Expansion of SWCC, PS2/PS3 380/13.8kv " JR-WTS-PAC(C)-Station "	Dammam-KSA SWCC	Limak	EHV S/S	2020
142	Kom Ombo 220 / 33 KV AIS	Egypt / Aswan	Mahindra Sus-ten & ACWA Power	HV S/S	2020
141	Abu Arish 132/13.8 KV	JIZAN - KSA NG SOA	AL-HAIF	HV S/S	2020
140	Extension of 33KV SWGR at alUrfan	ABHA - KSA NG - SOA	Al-HAIF	HV S/S	2020
139	Jubail-2 SWRO 230/13.8 KV	Jubail-KSA SWCC	GE	HV S/S	2020
138	KING FAISAL COLLEGE 132/13.8KV S/S	Qassim-KSA NG-COA	Teading&Devel-opment Part-nership (TDP)	HV S/S	2020
137	Dammam Industrial City-3(DIC) 115/13.8 KV	Dammam-KSA NG-EOA	Al-BABTAIN (ABC)	HV S/S	2020
136	King Faisal Air Academy (8533)132 /13.8 KV in Majma'a	RIYADH-KSA SEC -COA	TDP	HV S/S	2020

No.	Name of Project	Location	Client	Project Type	Date
135	11K Division Order “ Additional Engineering”	YANBU-KSA RC - WOA	Siemens	HV S/S	2020
134	Pump station 380/132 kV -3 BSP (PS-SHQ)	SHUQAIQ – KSA (SEC / WEC-SOA)	GE	EHV S/S	2019
133	Design For Transformer SWAP Project at SWCC Tahliya Plant	JEDDAH-KSA SWCC	GE	HV S/S	2019
132	MODON ASFAN 110/13.8 KV S/S	JEDDAH – KSA (NG- WOA)	NESMA	HV S/S	2019
131	Extension of SP1, SP2, SP3 380 BSP	JUBAIL- KSA SWCC	GE	EHV S/S	2019
130	SARRAR 2 115/33/13.8 KV S/S	DAMMAM - KSA / NG - EOA	AL-TOUKHI	EHV S/S	2019
129	West Damietta 500/220/22 KV	Damietta Egypt / EETC	KHARAFI NATIONAL	EHV S/S	2019
128	6th October Eastern Extension 220/22/22kv GIS	6th October Egypt / EETC	XD-EGEMAC	EHV S/S	2019
127	33/13.8kV substation # 7625 SAJIR	DAWADMI AREA – RIYADH - SAU-DI ARABIA	SSC-ARABIA	LV S/S	2018
126	KHORMAKSER 132KV – 33KV SUBSTATION - ADEN	ADEN - IN RE-PUBLIC OF YEMEN	ZASCO	HV S/S	2018

No.	Name of Project	Location	Client	Project Type	Date
125	Governmental Compound 132/13.8 KV S/S # 8195	Riyad-KSA (NG – COA)	Al-BABTAIN (ABC)	HV S/S	2018
124	Governmental Compound 132/13.8 KV S/S # 8196	Riyad-KSA (NG – COA)	Al-BABTAIN (ABC)	HV S/S	2018
123	Governmental Compound 132/13.8 KV S/S # 8197	Riyad-KSA (NG – COA)	Al-BABTAIN (ABC)	HV S/S	2018
122	Mansoura 132/33 Kv S/S .	Yemen	AL-ZAGHIR	HV S/S	2018
121	Hiswa Switching 132 /33 Kv S/S	Yemen	AL-ZAGHIR	HV S/S	2018
120	Wasia-lot 4 NWC	Riyadh-KSA (NWC-COA)	TAQAH CO.	MV S/S	2018
119	Al-Fara (FRA) 380/132/13.8kV BSP, and Integration of KKUC-1 132kV S/S	ABHA – KSA (SEC-SOA)	AL-GIHAZ (AG)	EHV S/S	2018
118	(lots 2a, 2b,) in the interconnected 132/33 KV S/S 132 kv network	ADEN - Yemen	Ministry of Electricity and Energy / Public Electric-ity Corporation in ADEN	HV S/S	2018
117	DILM CITY 33/13.8KV S/S # 7737.	“AL-KHARJ-KSA (NG-COA)”	SERVICE AND SOLUTIONS COMPANY (SSC)	MV S/S	2017
116	AL-KHARJ 33/13.8 KV # 7723-Reinforcement	“AL-KHARJ-KSA (NG- COA)”	ZAMIL PROJ-ECTS COMPA-NY	MV S/S	2017
115	PIC P7703 Project: (S/S 11K) 115/34.5/13.8 KV S/S	YANBU-KSA Royal Commis-sion	SIEMENS	HV S/S	2017

No.	Name of Project	Location	Client	Project Type	Date
114	Ext. of 10 J 380/115/34.5 KV S/S BSP	YANBU-KSA Royal Comission	SIEMENS	EHV S/S	2017
113	(SS 111)34.5/13.8KV S/S	“YANBU-KSA (NG-WOA)”	SIEMENS	HV S/S	2017
112	Al-NASEEM 132/13.8 KV S/S # 8223	“Riyadh-KSA (NG-COA)”	AL-TOUKHI	HV S/S	2017
111	Al-NADEEM 132/13.8 KV S/S # 8288	“Riyadh-KSA (NG-COA)”	AL-TOUKHI	HV S/S	2017
110	Al-SULY 132/13.8 KV S/S # 8234	“Riyadh-KSA (NG-COA)”	AL-TOUKHI	HV S/S	2017
109	Iskan Al Amm Extension of 110/13.8 KV S/S	“Madina-KSA (NG-WOA)”	NESMA	HV S/S	2017
108	Wasia-lot 6 NWC-REF S/S	“Riyadh-KSA SWC	TAQAH CO.	MV S/S	2017
107	Reinforcement of AL KHARJ 7703 33/13.8KV S/S	“Riyadh-KSA (NG-SOA)”	AL-HAIF	MV S/S	2017
106	YADMAH 33/13.8 kV S/S	“NAJRAN-KSA (NG-SOA)”	AL-HAIF	MV S/S	2017
105	Al-THAR 33/13.8 KV S/S	NAJRAN - KSA (NG - SOA)”	AL- HAIF	MV S/S	2017
104	Replacement Of Distribution 33 KV Subtations Communication System.	“ASIR - KSA (NG - SOA)”	AL- HAIF	MV S/S	2017

No.	Name of Project	Location	Client	Project Type	Date
103	RAHWAH 33/13.8 KV S/S	“ASIR - KSA (NG - SOA)”	AL- HAIF	MV S/S	2017
102	ASIR HOSPITAL 33/13.8KV S/S	“ASIR-KSA (NG-SOA)”	AL-HAIF	MV S/S	2017
101	AL-SODAH 33/13.8KV S/S	“ASIR-KSA (NG-SOA)”	AL-HAIF	MV S/S	2017
100	EXt. of satalite (SS 101) 34.5/13.8 KV S/S	YANBU-KSA Royal Comission	SIEMENS	HV S/S	2017
99	King Khaled Hospital-2 110/13.8 S/S	“Jeddah-KSA (NG- WOA)”	SIEMENS	HV S/S	2017
98	3X20 MVA, 33/13.8KV S/S # 7625	DAWADMI - KSA (NG- COA)	SERVICE AND SOLUTIONS COMPANY (SSC)	MV S/S	2017
97	Ext. of SHAROURA, (PP1) 132/33KV S/S	“ABHA - KSA (NG-SOA)”	Al- GIHAZ (AG)	HV S/S	2016
96	NABAJ, Reinforcement 33/ 13.8 KV S/S	“Taparjal -KSA (NG-EOA)”	TAQQAT	MV S/S	2016
95	MEQUOA, 33/13.8 KV S/S	“Taparjal - KSA (NG-EOA)”	AL-HAIF	MV S/S	2016
94	Reinforcement of SHAROURA 132/33KV (PP2) S/S	SHAROURA - KSA (NG-SOA)”	Al- GIHAZ (AG)	HV S/S	2016
93	QUWAIZA 110/13.8 KV S/S	“Jeddah - KSA (NG-WOA)”	NESMA	HV S/S	2016
92	AL-SHALAL 110/13.8 KV S/S	“Jeddah - KSA (NG-WOA)”	NESMA	HV S/S	2016
91	Installation of 132/13.8kv transformers and Associated equipment at existing BSP S/S #9037	“DAWADMI - KSA (NG-COA)”	Al-BABTIN (ABC)	HV S/S	2016

No.	Name of Project	Location	Client	Project Type	Date
90	AL-BADI, 132/33KV S/S #8767	“KHARAJ - KSA / (NG-COA)”	Al-BABTIN (ABC)	HV S/S	2016
89	AL-MUZAHMIAH Colleges Com plex 132/13.8 KV S/S #8522 - Reinforcement	“Riyadh - KSA (NG-COA)”	Al-BABTIN (ABC)	HV S/S	2016
88	Industrial area 132/13.8 KV S/S #8236	Riyadh - KSA (NG-COA)	Al-BABTIN (ABC)	HV S/S	2016
87	DURMA S/S, 132/33 KV, 132/13.8 KV #8511	Riyadh - KSA (NG-COA)	Al-BABTIN (ABC)	HV S/S	2016
86	BURAYDAH NORTH , 132/13.8 KV SS #8842	“Qassim -KSA (NG-COA)”	Trading & De-velopment partnership (TDP)	HV S/S	2016
85	KING FAISAL, 132/13.8 KV S/S#8287	“Riyadh - KSA (NG-COA)”	Trading & De-velopment partnership (TDP)	HV S/S	2016
84	ALYARMOUK,132/13.8 KV S/S#8270	“Riyadh - KSA (NG-COA)”	Trading & De-velopment partnership (TDP)	HV S/S	2016
83	Al AMARIYAH,132/13.8 KV S/S #8120	“Riyadh - KSA (NG-COA)”	Trading & De-velopment partnership (TDP)	HV S/S	2016
82	RAINFORCEMENT OF: JAMMOM 110/33/13.8 KV , MAKHANORTH 380/110/13.8 KV BSP AND MPS 110 /13.8KV S/S	"MAKKAH-KSA (NG-WOA)"	AL-GIHAZ (AG)	EHV S/S	2016

No.	Name of Project	Location	Client	Project Type	Date
81	AL-JAWAD 110/13.8 KV S/S	“Jeddah - KSA (NG-WOA)”	NESMA	HV S/S	2016
80	AL JOHARA 110/13.8 KV S/S	“Jeddah - KSA (NG-WOA)”	NESMA	HV S/S	2016
79	YANBU NORTH-2, 110/13.8 KV S/S	“YANBU-KSA (NG-WOA)”	NESMA	HV S/S	2014
78	EL-NAGA, 110/13.8 KV S/S - Extension	“MADINAH-KSA (NG-WOA)”	NESMA	HV S/S	2014
77	YANBU AL-NAKHEEL , 110/33 KV S/S - Extension	“YANBU-KSA (NG-WOA)”	NESMA	HV S/S	2014
76	NAJRAN AIR PORT, 132/33 KV S/S	“NAJRAN-KSA (NG-SOA)”	AL-MASHARIQ (AMC)	HV S/S	2014
75	WAAD AL-SHAMAL, 132/13.8 KV S/S	“ARAR-KSA (NG-COA)”	ETAC	HV S/S	2014
74	AL-QASSIM INDUSTRIAL CITY (QIC) BSP 132/33/13.8 KV S/S	“AL-QASSIM-KSA (NG-COA)”	AL-MASHARIQ (AMC)	HV S/S	2014
73	QAIRWAN, 132/13.8 kV S/S # 8216	"RIYADH-KSA (NG-COA)"	AL-MASHARIQ (AMC)	HV S/S	2014
72	MOKHTARAH, 132/33 /13.8 KV S/S	“JIZAN-KSA (NG-SOA)”	AL-MASHARIQ (AMC)	HV S/S	2014
71	UQLAT AL-SUQUR, 132/33 KV S/S # 8806 - Reinforcement	“AL-QASSIM-KSA (NG-COA)”	AL-MASHARIQ (AMC)	HV S/S	2014

No.	Name of Project	Location	Client	Project Type	Date
70	AL-NARJIS, 132/13.8 kV S/S # 8255	“RIYADH-KSA (NG-COA)”	AL-MASHARIQ (AMC)	HV S/S	2014
69	DHARAT LABAN, 132/13.8 kV S/S # 8116	“RIYADH-KSA (NG-COA)”	AL-MASHARIQ (AMC)	HV S/S	2014
68	AL-KHOZAMA, 132/33 KV S/S # 8171	“RIYADH-KSA (NG-COA)”	AL-MASHARIQ (AMC)	HV S/S	2014
67	RUFFEIDAH, 33KV S/S - Reinforcement	RUFFEIDAH-KSA (NG-SOA)	AL-GIHAZ (AG)	MV S/S	2014
66	SUFFA , 110/13.8KV S/S - Reinforcement	“SUFFA-KSA (NG-SOA)”	AL-GIHAZ (AG)	HV S/S	2014
65	JEDDAH SEA PORT, 110/13.8 KV S/S	“JEDDAH-KSA (NG-WOA)”	NESMA	HV S/S	2014
64	BAB JEDDAH, 110/13.8 KV S/S	“JEDDAH-KSA (NG-WOA)”	NESMA	HV S/S	2014
63	AL-MOTAMARAT, 110/13.8 KV S/S	“JEDDAH-KSA (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2013
62	GULF SALMAN, 110/13.8 KV S/S	“JEDDAH-KSA (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2013
61	MODON 2, 110/33/13.8 KV S/S	“JEDDAH-KSA (NG-WOA)”	DELTA	HV S/S	2013
60	MASHAER BSP REINFORCEMENT 380/110/13.8 KV BSP - Interconnection	"MAKKAH-KSA (NG-WOA)"	DELTA	EHV S/S	2013

No.	Name of Project	Location	Client	Project Type	Date
59	JAMOOM EXTENTION 110/13.8 KV S/S	“MAKKAH-KSA (NG-WOA)”	DELTA	HV S/S	2013
58	AL-LAITH, 110/13.8 KV S/S	“AL-LAITH-KSA (NG-WOA)”	DELTA	HV S/S	2013
57	ADAM, 110/13.8 KV S/S	“ADAM-KSA (NG-WOA)”	DELTA	HV S/S	2013
56	TABOUK-11, 132/33 KV S/S	“TABOUK-KSA (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2013
55	AL-BARAKAH, 110/13.8 KV S/S	“MADINAH-KSA (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2013
54	AL-MAABDAH 110/13.8 KV S/S	“MAKKAH-KSA (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2012
53	ESHAR (SIFFA), 132/33 KV S/S	“NAJRAN-KSA (NG-SOA)”	AL-GIHAZ (AG)	HV S/S	2012
52	SHARURAH, 132/13.8 KV S/S	“SHARURAH-KSA (NG-SOA)”	AL-GIHAZ (AG)	HV S/S	2012
51	RADDAF , 110/13.8 KV S/S	"TAIF-KSA (NG-WOA)"	AL-GIHAZ (AG)	HV S/S	2012
50	KHYBER, 110/13.8 KV S/S - Extension	"MADINAH-KSA (NG-WOA)"	AL-GIHAZ (AG)	HV S/S	2012
49	ICY, 110/13.8 KV S/S - Extension	"MADINAH-KSA (NG-WOA)"	AL-GIHAZ (AG)	HV S/S	2012
48	JAMOOM2, 110/13.8 KV S/S	"MAKKAH-KSA (NG-WOA)"	AL-GIHAZ (AG)	HV S/S	2012

No.	Name of Project	Location	Client	Project Type	Date
47	DHUBA-2, 110/13.8 KV S/S	“DHUBA-KSA (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2012
46	AL-EYS, 110/13.8 KV S/S - Extension	“MADINAH-KSA (NG-WOA)”	ABB	HV S/S	2012
45	USHAIRAH, 110/13.8 KV S/S - Extension	“TAIF-KSA (NG-WOA)”	ABB	HV S/S	2012
44	HOUSING -2, 110/13.8 KV S/S	“JEDDAH-KSA (NG-WOA)”	ABB	HV S/S	2012
43	Extension of ZAHRA, 110 KV /13.8 KV S / S - Extension	“MADINAH-KSA (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2012
42	TATHLEETH, 132/33 KV S/S	“BISHA-KSA (NG-SOA)”	AL-GIHAZ (AG)	HV S/S	2012
41	BANI MALIK-2, 110/13.8 KV S/S	“JEDDAH-KSA / (NG-WOA)”	ABB	HV S/S	2012
40	JIZAN CPS2, 132/13.8 KV S/S -Reinforcement	“JIZAN-KSA (NG-SOA)”	ABB	HV S/S	2012
39	RABIGH CITY-2, 110/13.8 KV S/S	“RABIGH-KSA (NG-WOA)”	ABB	HV S/S	2012
38	KHAMIS SOUTH, 132/13.8 KV S/S	Khamis Mushait-KSA (NG-SOA)	ABB	HV S/S	2011
37	JIZAN MEDICAL CITY, 132/13.8 KV S/S	“JIZAN-KSA / (NG-SOA)”	ABB	HV S/S	2011
36	ROKBAH, 132/13.8 KV S/S	“NAJRAN-KSA / (NG-SOA)”	ABB	HV S/S	2011

No.	Name of Project	Location	Client	Project Type	Date
35	AL-JILLAH, 132/33 KV S/S # 8076 - Reinforcement	“AL-JILLAH-KSA (NG-COA)”	ABB	HV S/S	2011
34	HAIL, 132/13.8 KV S/S # 8907	“HAIL-KSA / (NG-COA)”	ABB	HV S/S	2011
33	BURAYDAH CENTER, 132 / 13.8 KV S/S #8832	“AL-QAS - SIM - KSA (NG - COA)”	ABB	HV S/S	2011
32	6 OCTOBER, CIVIL WORKS 66KV S/S	6 OCTOBER-EGY	EETC	HV S/S	2011
31	ISKAN, 132/33/13.8 KV S/S	“JIZAN - KSA (NG-SOA)”	AL-GIHAZ (AG)	HV S/S	2011
30	TABOUK , 13.8/11 KV	“TABOUK-KSA / (NG-WOA)”	AL-GIHAZ (AG)	MV S/S	2011
29	PSC, 110/13.8 KV S/S	“MAKKAH-KSA / (NG-WOA)”	ABB	HV S/S	2011
28	AL-RAYYAN, 132/13.8 KV S/S # 8173	“RIYADH-KSA / (NG-COA)”	ABB	HV S/S	2011
27	KING KHALED UNIVERSI-TY,132/13.8 KV S/S	“ABHA-KSA (NG-SOA)”	AL-GIHAZ (AG)	HV S/S	2010
26	TABOUK UNIVERSITY, 110/13.8 KV S/S	“TABOUK-KSA (NG-WOA)”	AL-GIHAZ (AG)	MV S/S	2010
25	AL-RASS, 33/13.8 KV S/S	“AL-QASSIM-KSA / (NG-COA)”	AUVA	MV S/S	2010
24	TABOUK#10, 132/13.8 KV S/S	“TABOUK-KSA / (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2009

No.	Name of Project	Location	Client	Project Type	Date
23	BANI NAJJAR, 110/13.8 KV S/S	“MADINAH-KSA / (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2009
22	AL-ANDALUS, 110/13.8 KV S/S	“JEDDAH-KSA (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2009
21	ICY 5, 110/13.8 KV S/S	“JEDDAH-KSA / (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2009
20	BADR, 110/13.8 KV S/S	“MADINAH-KSA / (NG-WOA)”	AECC	HV S/S	2009
19	TABOUK 5B, 132/13.8 KV S/S	“TABOUK-KSA / (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2009
18	AL-BIRK, 33KV S/S - Reinforcement	“TOHAMA-KSA / (NG-SOA)”	AL-GIHAZ (AG)	MV S/S	2009
17	ICY 4, 110/13.8 KV S/S	“JEDDAH-KSA (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2008
16	AL-NUZLAH2, 110/13.8 KV S/S	“JEDDAH-KSA (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2008
15	HRAM2 & MADINAH NORTH, 110kv/13.8 KV S/S	“MADINAH-KSA (NG-WOA)”	AL-GIHAZ (AG)	HV S/S	2006
14	AL-QUMARIYAH, 110/13.8 KV	TAIF-KSA (NG-WOA)	AL-GIHAZ (AG)	HV S/S	2006
13	AL-HARAMAIN, 110/13.8 KV S/S	JEDDAH-KSA (NG-WOA)	AL-GIHAZ (AG)	HV S/S	2006
12	BILJURASHI, 132/13.8 KV S/S	BILJURASHI-KSA (NG-SOA)	AL-GIHAZ (AG)	HV S/S	2006

No.	Name of Project	Location	Client	Project Type	Date
11	TABOUK 1&7, 132/13.8 KV S/S - Extention	TABOUK-KSA (NG-WOA)	AL-GIHAZ (AG)	HV S/S	2006
10	SABYA, 132/33/13.8 KV S/S - Extention	“SABYA-SA / (NG-SOA)”	AL-GIHAZ (AG)	HV S/S	2006
9	ZAFEER, 33/13.8 KV S/S - Rein-forcement	“ZAFEER-KSA (NG-SOA)”	AL-GIHAZ (AG)	HV S/S	2006
8	KKAB-KHAMIS MISHAIT, 132/13.8 KV S/S-Reinforcement	Khamis Mushait-KSA (NG-SOA)	AL-GIHAZ (AG)	HV S/S	2005
7	JIZAN CPS2, 132/33/13.8 KV S/S	“JIZAN-KSA / (NG-SOA)”	AL-GIHAZ (AG)	HV S/S	2005
6	TANDAHA, 33/13.8 KV S/S	“TANDAHA-KSA / (NG-SOA)”	AL-GIHAZ (AG)	MV S/S	2004
5	QILWAH, 132/13.8 KV S/S	“QILWAH-KSA / (NG-SOA)”	AL-GIHAZ (AG)	HV S/S	2004
4	AQIQ, 132/33/13.8 KV S/S	“AQIQ-KSA / (NG-SOA)”	AL-GIHAZ (AG)	HV S/S	2004
3	BAHA EAST, 132/33/13.8 KV S/S	“Baha-KSA (NG-SOA)”	AL-Gihaz (AG)	HV S/S	2003
2	TANOUMA, 132/33/13.8 KV S/S	“TANOUMA-KSA (NG-SOA)”	AL-Gihaz (AG)	HV S/S	2003
1	BISHA SOUTH, 132/33/13.8 KV S/S	“BISHA-KSA (NG-SOA)”	AL-Gihaz (AG)	HV S/S	2002

B- Transmission Lines

No.	Name of Project	Location	Client	Project Type	Date
23	110kV OHTL between Al-Salam BSP Substation and Bawat Substation in Madinah-48KM	JEDDAH-KSA NG -WOA	Raissy	OHTL	2021
22	132kv OHTL from S/S 8720 to looping point 8721-8720	RIYADH-KSA SEC -COA	TDP	OHTL	2021
21	Misk Modification In tower & Gantry	Tabuk-KSA SEC -WOA	TDP	OHTL	2021
20	Al-Dawadmi Housing S/S 8610 With 132KV Network For The Review & Stamp	Dawadmi-KSA SEC-COA	TDP	OHTL	2021
19	132KV DC OHL FROM NEW KING FAISAL COLLEGE S/S 8533 UPTO BSP S/S 9064, IN MAJMA AREA	RIYADH-KSA SEC -COA	Trading & Development Partnership (TDP)	OHTL	2020
18	DHP-1 132/13.8kv S/S With Remote Ends	Jazan-KSA SEC -SOA	Trading & Development Partnership (TDP)	OHTL	2020
17	132KV DC OHTL Looping T/L To New DHP-1 132/13.8kv S/S P1& P2	Jazan-KSA SEC -SOA	Trading & Development Partnership (TDP)	OHTL	2020
16	132 KV OHTL QURAYYAT SS	QURAYYAT-KSA	AL-OSAIS	OHTL	2020
15	King Faisal College 132 KV DC OHTL, S/S(8533) up to BSP S/S 9064	Majma - KSA SEC - COA	Trading & Development Partnership (TDP)	TL	2020
14	Shifting of Tower of existing 132 kV d/C - 8096 -9023 Al Shahin project (3.2 KM)	Riyadh-KSA / (NG-COA)	PTC	TL	2020
13	RETROFITTING OF EXISTING 132KV OHL#9063-8522	Riyadh-KSA (SEC-COA)	PTC	TL	2019

No.	Name of Project	Location	Client	Project Type	Date
12	Loop in Loop out the existing SAZ-SHBS , MW-SHBS double circuit 380 KV OHTL	“Al Kharj - KSA (NG-COA)”	Al-BABTAIN (ABC)	TL	2018
11	Underground Transmission Line (UGTL) from KKUC-1 to FRA BSP	ABHA – KSA (SEC-SOA)	AL-GIHAZ (AG)	TL	2018
10	DC 132KV OHTS Line for NEW Al-Tawdihiah-2 S/S #8725	“Al Kharj - KSA (NG-COA)”	Al-BABTAIN (ABC)	TL	2017
9	OHTL BETWEEN S/S 8071 & S/S 8005	“Riyadh - KSA (SEC-COA)”	IBN OMAIRAH Co. (IOC)	TL	2016
8	115 KV OHTl & U/G Cables	“Fadhili - KSA (SEC-EOA)”	ARAMCO	TL	2016
7	AL-BADI, 132/33KV S/S #8767, (connection of Al Badi s/s 8767 with 132kv network)	KHARAJ - KSA (NG-COA)	Al-BABTAIN (ABC)	TL	2016
6	380KV D/C OHTL ALWAJH- UMLUG	UMLUG-KSA SEC -WOA Wase-la	WASELA	TL	2016
5	Connection of Al Badi S/S 8767 with 132 KV Network	“KHARAJ - KSA (NG-COA)”	Al-BABTAIN (ABC)	TL	2016
4	115KV DOUBLE CIRCUIT OHTL and UG Cable in Fadhili-2	FADHILI - KSA ARAMCO	Al-BABTAIN (ABC)	TL	2016
3	MADINA-DHUBA, 380 KV D/C OHTL	MADINAH-DHU BA-KSA (NG-WOA)	HYUNDAI ENGINEER-ING& CON-STRUCTION	TL	2015
2	132 KV OHL ,JIZAN INDUSTRIAL	“Jizan-KSA (SEC-SOA)”	AL-GIHAZ (AG)	TL	2009
1	SHOAIBA 110 KV OHL- between ICY5 S/S & Shoaiba S/S	“SHOAIBA-KSA (NG-WOA)”	AL-GIHAZ (AG)	TL	2008

C - Underground Cables

No.	Name of Project	Location	Client	Project Type	Date
28	P2307881 SHQ-1 & 3 380-132kV Ext. & 132KV UGC SHQ-1 & 3 BSP –	South Area KSA	Haif Co.	H.V	2023
27	CONSTRUCTION OF TWO (2) CKTS UG CABLES FROM NEW DIRIYAHGATE BSP #9082 TO EXISTING BSP #9034	RIYADH (COA) - SAUDIRABIA	CEPCO	UGC	2023
26	4 UG CABLES FORM 9020 TO NEW 9097 380kV	KSA	OJAIMI	UGC	2021
25	FOUR (4) CKTS UG CABLES FROM INTERFACE POINT TO SWITCHING S/S-1 9097	RIYADH-SAUDI ARA-BIA	TDP	UGC	2021
24	4 UG CABLES FORM 9053 TO NEW 9098 380KV	KSA	TDP	UGC	2021
23	Connection Of ICY6 110kv S/S to Sanabel 110kv S/S	Jeddah-KSA SEC -WOA	Ojaimi	UGC	2021
22	Conversion Of 380 kv OHTL 9005 BSB TO 9020 BSB	RIYADH-KSA SEC -COA	CEPCO	UGC	2021

No.	Name of Project	Location	Client	Project Type	Date
21	13.8 kV MV UG CABLE BETWEEN LIFTING STATION	Riyadh-KSA (KAFD)	ZAMIL	UGC	2019
20	132 KV UGC-DC between FRA BSP & KKUC KKUC 1 SS (4.3 KM)	Abha-KSA (NG-SOA)	Al-GIHAZ (AG)	UGC	2018
19	Construction of 132 KV underground cable, 10 km.	Yemen	Ministry of Electricity and Energy Public Electricity Corporation in ADEN	UGC	2018
18	33 KV UGC-DC between new 7625 33/13.8 KV SS & 8810 132/33 KV SS (5.5 KM)	Sajir-KSA (SEC-COA)	Service and Solution Company (SSC)	UGC	2018
17	110kV U/G -DC Cables for Sarfi Substation in Jeddah	Jeddah-KSA (NG-WOA)	Nesma	UGC	2017
16	33 KV UGC- DC between new 7737 33/13.8 KV SS & 8703 132/33 KV SS (3.2 KM)	Kharj-KSA (SEC-COA)	Service and Solution Company (SSC)	UGC	2017
15	33 KV UGC-DC between new 7723 33/13.8 KV SS & 8069 132/33 KV SS (8.5 KM)	Kharj-KSA (SEC-COA)	ZAMIL	UGC	2017
14	380KV Double CKT U/G Cable from Airport Housing BSP# 9050 To PNUA BSP 9024 (PTS #13CC374)	“Riyadh-KSA (NG-COA)”	Trading & Development Partnership (TDP)	UGC	2017
13	115 KV OHTl & U/G Cables	“Fadhili - KSA (SEC-EOA)”	ARAMCO	UGC	2016
12	380KV UGC/DC between Exiting Al-NAFAL BSP (9008) & ALMURS-ALAT BSP (9012)	“Riyadh - KSA (SEC _ COA)	SSEM	UGC	2016

No.	Name of Project	Location	Client	Project Type	Date
11	Connection of AL-REMAL S/S 9046 with 132kv Network	“Riyadh - KSA (SEC-COA)”	SSEM	UGC	2016
10	Connection of INDUSTRIAL Area S/S 8236 with 132Kv Network	“Riyadh - KSA (SEC-COA)”	SSEM	UGC	2016
9	Connection of QURTUBA Riyadh Metro BSP#9053 with 132KV Network	“Riyadh - KSA (SEC-COA)”	SSEM	UGC	2016
8	Connection of AL-NADA S/S #8220 with 132KV Network	“Riyadh - KSA (SEC-COA)”	SSEM	UGC	2016
7	Connection of AL-MORABA S/S #8187 with 132KV Network	“Riyadh - KSA (SEC-COA)”	SSEM	UGC	2016
6	Connection of SALAH ALDEEN S/S #8219 with 132KV Network	“Riyadh - KSA (SEC-COA)”	SSEM	UGC	2016
5	380KV between BSP (9044) & BSP (9013)	“Riyadh - KSA (SEC-COA)”	SSEM	UGC	2016
4	380KV for CONNECTING JFH-HP2 (ckt-II & JFH-SNL (ckt-1, 2 & 3)	“Jeddah - KSA (SEC-WOA)”	SSEM	UGC	2016
3	380KV between EXISTING AL NAFAL BSP (9008) & AL MURSALAT BSP (9012)	“Riyadh - KSA (SEC-COA)”	SSEM	UGC	2016
2	380KV UGC CABLES between JAH-HHR2 (Ckt-1&2) and JAH-JNE (Ckt-1&2)	JEDDAH-KSA SEC -WOA	IBN Omairah Co. (IOC)	UGC	2016
1	115KV DOUBLE CIRCUIT OHTL and UG Cable in Fadhili-2	FADHILI - KSA ARAMCO	AL-BABTAIN (ABC)	UGC	2016

D - Protection and Distribution

No.	Name of Project	Location	Client	Project Type	Date
22	Replacements & Reinforcement Jabal Al Noor 110/13.8 KV S/S	Mekkah-KSA SEC-WOA	Ojaimi	HV S/S	2021
21	Upgrading Protection Equipment in 132kv S/S	Abha-KSA SEC -SOA	Al - Fanar	HV S/S	2021
20	Shoaiba Relays Setting	JEDDAH-KSA SWCC	Al-FANAR Co.	STUDIES	2020
19	ICS (Insulation Coordination Study) For Safaniy ah Debottlenock Onshore Plants	Safaniyah KSA Aramco	GE	PV / Engineering & Studies	2020
18	ICS (Insulation Coordination Study) for Zuluf Plants	Zuluf - KSA Aramco	GE	PV / Engineering & Studies	2020
17	Insulation Coordination Study SFNY TP-21	KSA	GE End client : Aramco	PV / Engineering & Studies	2019
16	AL-KHARJ 33/13.8 KV # 7723- Reinforcement	“AL-KHARJ - KSA (NG- COA)”	ZAMIL PROJECTS COMPANY	MV S/S	2017
15	Reinforcement of AL KHARJ 7703 33/13.8KV S/S	“Riyadh-KSA / (NG-SOA)”	AL-HAIF	MV S/S	2017
14	INSULATION COORDINATION STUDY - FADHILI Gas Processing Plant - PR 4032610.	KSA	GE End client : Aramco	PV / Engineering & Studies	2016
13	NABAJ, Reinforcement 33/ 13.8 KV S/S	“Taparjal -KSA (NG-EOA)”	TAQQAT	MV S/S	2016

No.	Name of Project	Location	Client	Project Type	Date
12	Reinforcement of SHAROURA 132/33KV (PP2) S/S	SHAROURA - KSA (NG-SOA)"	Al- GIHAZ (AG)	HV S/S	2016
11	AL-MUZAHMIAH Colleges Complex 132/13.8 KV S/S #8522 - Reinforcement	"Riyadh - KSA (NG-COA)"	Al-BABTIN (ABC)	HV S/S	2016
10	UQLAT AL-SUQUR, 132/33 KV S/S # 8806 - Reinforcement	"AL-QASSIM-KSA (NG-COA)"	AL-MASHARIQ (AMC)	HV S/S	2014
9	RUFFEIDAH, 33KV S/S - Reinforcement	RUFFEIDAH-KSA (NG-SOA)	AL-GIHAZ (AG)	MV S/S	2014
8	SUFFA , 110/13.8KV S/S - Reinforcement	"SUFFA-KSA (NG-SOA)"	AL-GIHAZ (AG)	HV S/S	2014
7	MASHAER BSP REINFORCEMENT 380/110/13.8 KV BSP - Interconnection	"MAKKAH-KSA (NG-WOA)"	DELTA	EHV S/S	2013
6	JIZAN CPS2, 132/13.8 KV S/S -Reinforcement	"JIZAN-KSA (NG-SOA)"	ABB	HV S/S	2012
5	AMRS - AUTOMATIC METER READING SYSTEM NO. 288 S/S IN Western & southern Area	"KSA(NG - WOA / SOA)"	AUVA	Protection Work	2011
4	AL-JILLAH, 132/33 KV S/S # 8076 - Reinforcement	"AL-JILLAH-KSA (NG-COA)"	ABB	HV S/S	2011
3	AL-BIRK, 33KV S/S - Reinforcement	"TOHAMA-KSA / (NG-SOA)"	AL-GIHAZ (AG)	MV S/S	2009
2	ZAFEER, 33/13.8 KV S/S - Reinforcement	"ZAFEER-KSA (NG-SOA)"	AL-GIHAZ (AG)	HV S/S	2006
1	KKAB-KHAMIS MISHAIT, 132/13.8 KV S/S-Reinforcement	Khamis Mushait-KSA (NG-SOA)	AL-GIHAZ (AG)	HV S/S	2005

E - Studies

No.	Name of Project	Location	Client	Project Type	Date
18	High Voltage Interference Calculation for Gas Pipeline	RIYADH KSA	Al-Shahin Metal Industries	STUDIES	2022
17	HIGH VOLTAGE INTERFERENCE CALCULATION FOR GAS PIPELINE OF D/C OHTL FROM URAIDH S/S 8374UP TO BSP 9048, IN RIYADH AREA.	RIYADH	TDP COMPANY	STUDIES	2022
16	STEAM TURBINE GENERATORS AT SHEDGUM GAS PLANT PROJECT	KSA	ENNPI	ICS study OTSS Study	2022
15	ICS (Insulation Coordination Study) For Safaniy ah Debottlenock Onshore Plants S/S	Safaniyah - KSA Aramco	GE	STUDIES	2020
14	ICS (Insulation Coordination Study) for Zuluf Plants S/S	Zuluf - KSA Aramco	GE	STUDIES	2020
13	ICS (Insulation Coordination Study) For Jubail-II 230/13.8 KV S/S	Jubail-KSA Aramco	GE	STUDIES	2020
12	Insulation coordination Study : Expansion Of Najran 380 KV BSP S/S & FRA 380 KV S/S	ABHA-KSA NG-SOA	ASSYSTEM	STUDIES	2020

No.	Name of Project	Location	Client	Project Type	Date
11	Technical Study Report At Both 9053 & Shedgum	DAMMAM-KSA NG -EOA	Al-TOUKHI Co.	STUDIES	2020
10	Shoaiba Relays Setting	JEDDAH-KSA SWCC	Al-FANAR Co.	STUDIES	2020
9	Site Services for RABIGH JETTY-2	JEDDAH-KSA SWCC	MSCL	STUDIES	2020
8	Insulation Coordination Study : SFNY TP-21	KSA	GE End client : Aramco	STUDIES	2019
7	Insulation Coordination Study: Shuqaiq 380/132 Kv BSP S/S	KSA	GE End Client : SEC	STUDIES	2019
6	Insulation coordination Study : FRA 380/132/13.8 KV BSP S/S	KSA	Al Gihaz (AG) End Client : SEC	STUDIES	2019
5	Insulation Coordination Study for SAFANIYA TP-21 115 /13.8 KV S/S	SAFANIYA - KSA	GE	HV S/S	2018
4	Insulation Coordination Study : 11k SS Project	KSA	SIEMENS End client : Royal commission	STUDIES	2018
3	INSULATION COORDINATION STUDY - FADHILI Gas Processing Plant - PR 4032610.	KSA	GE END CLIENT: ARAMCO	STUDIES	2016
2	ETAP COORDINATION STUDY IN SUBSTATION-42 YANBU ROYAL	YANBU-KSA-Roya Comis-sion	Al-HAIF	STUDIES	2016
1	High voltage interference study and calculation report for EP-WTS-2 Pipeline PS1 To Dammam.	KSA	YUKSEL End Client: SWCC	STUDIES	2015

F - High Voltage Equipment Review/ FAT and Procurement

No.	Name of Project	Location	Client	Project Type	Date
7	132KV DC OHL from KING FAISAL COLLEGE S/S 8533 UPTO BSP S/S 9064.	Majma-KSA NG-COA	Trading&Development Partnership (TDP)	OHL	2020
6	132/33KV Hiswa S/S	Aden Yemen	ZASCO	Substa-tion	2018
5	132/33 KV, KHOR MEKSAR S/S	Aden Yemen	ZASCO	Substa-tion	2018
4	132/33KV, Mansoura S/S	Aden Yemen	ZASCO	Substa-tion	2018
3	132KV of OHL between Hiswa & Al Mansura	Aden Yemen	ZASCO	OHL	2018
2	132KV 1200mm2 Underground cable between Al Mansura & Khor makser	Aden Yemen	ZASCO	Cables	2018
1	Airport 380 KV 9273	RIYADH-KSA SEC -COA	Trading&Development Partnership (TDP)	DESIGN REVIEW	2018

G - PV (Photovoltaic)

No.	Name of Project	Location	Client	Project Type	Date
6	RABGH SOLAR PV INDEPENDENT POWER PLANT 300MW	RABGH / KSA	CSEPDI	PV / Engineering & Studies&super-vision	2020
5	Kom-Ombo PV Plants 200MW	Egypt / Aswan	Mahindra Susten & ACWA Power	PV / Engineering & Studies	2020
4	ICS For Safaniy ah Debottlenock Onshore Plants	Safaniyah - KSA Aramco	GE	PV / Engineering & Studies	2020
3	ICS for Zuluf Plants	Zuluf - KSA Aramco	GE	PV / Engineering & Studies	2020
2	Insulation Coordination Study SFNY TP-21	KSA	GE End client : Aramco	PV / Engineering & Studies	2019
1	INSULATION COORDINATION STUDY - FADHILI Gas Processing Plant - PR 4032610.	KSA	GE END CLIENT: ARAMCO	PV / Engineering & Studies	2016

H - Mechanical Electrical pluming (MEP)

No.	Name of Project	Location	Client	Project Type	Date
4	ROSHN PROJECT (MEP - LV)	RIYADH EAST	Overseas Electric-eg	LV & MEP - CEC BUILDING, 6VILLAS SUB-STRUCU-TRE	2023
3	WATER SUPPLY RIYADH CITY SADD WASIA LOT-6	RIYADH-KSA SWCC	NWWC	MEP	2020
2	Kaia Hajj Terminal Plaza	JEDDAH-KSA GACA- AIRPORT	MSCL	MEP	2019
1	KAEC-4 110/13.8 kv HVAC SCOPE	JEDDAH-KSA NG -WOA	SABBAN	MEP	2019

I- List of projects related to the effect of electric lines on the pipeline

No.	Name of Project	Location	Client	Project Type	Date
3	High voltage interference calculation for Gas Pipeline of D/C OHTL from URAIDH S/S 8374UP to BSP 9048, in RIYADH area.	RIYADH KSA	TDP company	STUDIES	2022
2	High Voltage Interference Calculation for Gas Pipeline	RIYADH KSA	Al-Shahin Metal Industries	STUDIES	2022
1	High voltage interference study and calculation report for EPWTS-2 Pipe-line PS1 To Dammam.	DAMMAM KSA	YUKSEL End Client: SWCC	STUDIES	2015

J - Buildings

No.	Name of Project	Location	Client	Project Type	Date
3	TIME SQUARE- PORT SAID PROJECT	PORTSAID, Egypt	CREODEVS	LV	2023
2	Mohandes tower	Menia Egypt	Privet Client	Tower	2018
1	DIAMOND TOWER Designing all Electrical and Mechanical works of the tower	Jeddah KSA	El- Masarat	Administration Building	2014

K - Hospitals

No.	Name of Project	Location	Client	Project Type	Date
3	Al-Mostakbal ophthalmology hospital	Mansoura Egypt	Emerge Design House	Hospital	2018
2	Development of 440 Primary Health Care Centre (Type-M6)	KSA	Ministry of Health, Saudi Arabia	Hospital	2017
1	EL FAKHRIYAH DAMAM HOSPITAL 100 BED The design work including architectural, structural & MEP scope, also full project construction drawings	Damam KSA	Saleh Hamd El Kahtawy organization	Hospital	2014

L- AS Built Preparation

No.	Name of Project	Location	Client	Project Type	Date
14	Modon-2 Power Transformer As-Built	JEDDAH-KSA NG -WOA	DELTA Co.	AS BUILT	2020
13	438-Al-Adil S/S AS BUILT DRAWING & STUDY SCOPE	DAMMAM-KSA SEC -EOA	AMC	AS BUILT	2020
12	Tabuk-12 - As Built drawing	Tabuk-KSA SEC -WOA	SIEMENS	AS BUILT	2020

No.	Name of Project	Location	Client	Project Type	Date
11	SADDEA_ AS BUILT	DAMMAM-KSA NG -EOA	Al-HAIF	AS BUILT	2019
10	Adam & Allaith S/S As.Built Schematic Dwgs preparation and review	JEDDAH-KSA NG -WOA	DELTA Co.	AS BUILT	2019
9	MODON-2: HVAC DRAWING	JEDDAH-KSA NG -WOA	DELTA Co.	AS BUILT	2019
8	QIC#9066 S/S As built Microstation Drawings	QASSIM-KSA NG -COA	AMC	AS BUILT	2019
7	As-Built Microstation Drawings FOR TAIBAH S/S	MEDINAH-KSA NG -WOA	SIEMENS	AS BUILT	2019
6	Converting Drawings from AutoCAD to Micro-Station as per Seed-II	RIYADH-KSA NG -COA	IBN OMIRAH (IOC)	AS BUILT	2019
5	Converting Schematic Drawings From AutoCAD To Microstation	JEDDAH-KSA NG -WOA	NESMA	AS BUILT	2018
4	As Built of 110/13.8 kV Jeddah Sea-port Substation	JEDDAH-KSA NG -WOA	NESMA	AS BUILT	2018
3	As Built Drawings for 10j 380/115/33 KV	RC / MARAFIQ-Yanbu	SIEMENS	AS BUILT	2018
2	As Built Tabrjal S/S	“Dammam (NG-EOA)”	Al-HAIF	AS BUILT	2017
1	Modification Drawing Ext.Jammom-2 S/S	JEDDAH-KSA NG -WOA	DELTA Co.	AS BUILT	2017

M- Water and Chemicals

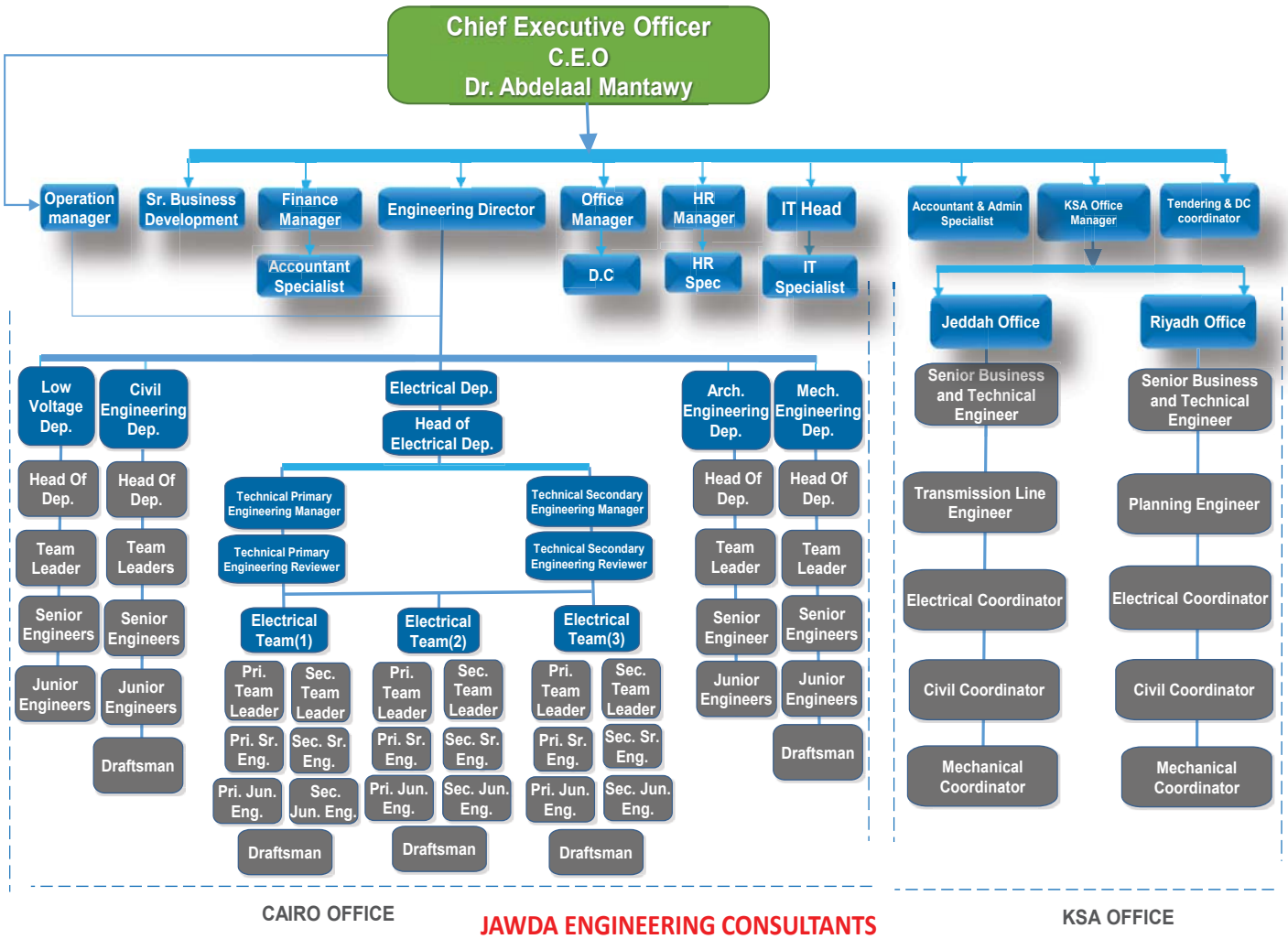
No.	Name of Project	Location	Client	Project Type	Date
12	Water Supply Riyadh City-Sadd Wasia Lot-6	RIYADH-KSA SWWC	NWWC	Water Treatment	2020
11	Makhram Water Tank/Pump	Qassim -KSA (MEWA)	Trading & Develop-ment Partnership TDP / Khatib & Alami	Water	2019
10	Water Supply Riyadh 3 – Wasia – Buildings & Mechanical Networks	RIYADH- KSA NWC	TAQAH – National Water Company	Water treatment Plant	2018
9	Water Supply Riyadh 3 – Wasia – Electrical Systems, Mechanical, Civil & ARCH Design works for new 33 kV switchgear Building & Design works for OHTL / UGC between different areas of project	RIYADH - KSA NWC	TAQAH - National Water Company “NWC”	Water treatment Plant	2017

No.	Name of Project	Location	Client	Project Type	Date
8	Assessment of the environmental conditions of the proposed waste-water projects (sewage networks, force mains and PS and wastewater treatment plants: new constructions and Upgrade) in two districts in Kafr El-sheikh governorate (Desouq and Motobus). Financed by EBRD European Bank for Reconstruction andDevelopment	Cairo EGYPT	ARUP	Hydraulics	2013
7	Environmental and Social Impact Assessment for the PROPOSED Safaga Desalination Plant. The study emphasized the 20,000m3/day brine disposal system and their environmental impact on the environment. The purpose of the ESIA report is to obtain permitting from the Egyptian environmental Affairs Agency EEAA.	Cairo EGYPT	MISR Consult for Environment & Infrastructures (Branch Office)	Hydraulics	2013
6	ESIA study for the landfill of El- Kharg City in Riyadh region. The study included field measurements of air quality, water quality and soil quality. The assessment included the proposed recy-cling.	Riyadh KSA	EL-MOHAYED – MISR Consult	Environment	2013
5	Environmental and Social Impact Assessment for the PROPOSED Al- Yousr Desalination Plant (treated water capacity 40,000m3/day). The study emphasized the 120,000m3/day brine disposal system and their environmental impact on the environment. The study also included hydraulic study for the intake lines from the sea as well as disposal system to the deep marine waters. The purpose of the ESIA report is to obtain permitting from the Egyptian Environmental Affairs Agency EEAA.	Cairo Egypt	MISR Consult for Environment and Infrastructures (Branch Office)	Hydraulics	2013

No.	Name of Project	Location	Client	Project Type	Date
4	Environmental and Social Impact Assessment for the PROPOSED Wastewater Treatment Plant in KENANAH Compound project owned and operated by ORASCOM Cooperative ousting Company. The purpose of the ESIA report is to obtain permitting from the Egyptian Environmental Affairs Agency EEAA.	Cairo EGYPT	ORASCOM For Cooperative Housing	Hydraulics	2012
3	Technical support and capacity building services to the Four Affiliated Companies of the Holding company of water and wastewater HCWW in Gharbia, Sharkia, Behaira and Damietta Governorates. in close coordination with the short term International EIA expert and senior water/wastewater key expert.	Cairo EGYPT	RODECOGmbH, Germany – HCWW Holding Company for Water and Wastewater	Hydraulics	2011
2	Environmental and Social Impact Assessment for the EXISTING Wastewater Treatment Plant in Haram City Compound owned and operated by Orascom Cooperative Housing Company, The purpose of the ESIA report s to obtain permitting from the Egyptian Environmental Affairs Agency EEAA.	Cairo EGYPT	ORASCOM For Cooperative Housing	Hydraulics	2011
1	Water Supply Riyadh City-Sadd Wasia Lot-6	Riyadh-KSA NWC	NWWC	Water	2010

Organization Chart

ORGANIZATION CHART



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Al Babtain contracting Company. (ABC)

Saudi Electric Company

ZAMIL Projects Co.

AL-MASHARIQ Trade. & Contract Company. (AMC)

Aramco Services Company

Ibn OMAIRAH Co. (IOC)

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JAL International Company LTD.

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HAIF COMPANY.

Egyptian Electricity Transmission Company. (EETC)

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Saudi Service for Electro Mechanic Works (SSEM)

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Khatib & Alami (Saudi Consolidated Engineering Company)

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EPS (Electric Power Systems Engineering Company) is a Joint-Stock Egyptian Company established in 1982, specialized in carrying out consulting, engineering services and software development in the field of electric power systems and information technology. Since its establishment, EPS has conducted services for about 2900 engineering projects in the fields of electric power generation, transmission and distribution in Egypt and Arab countries.

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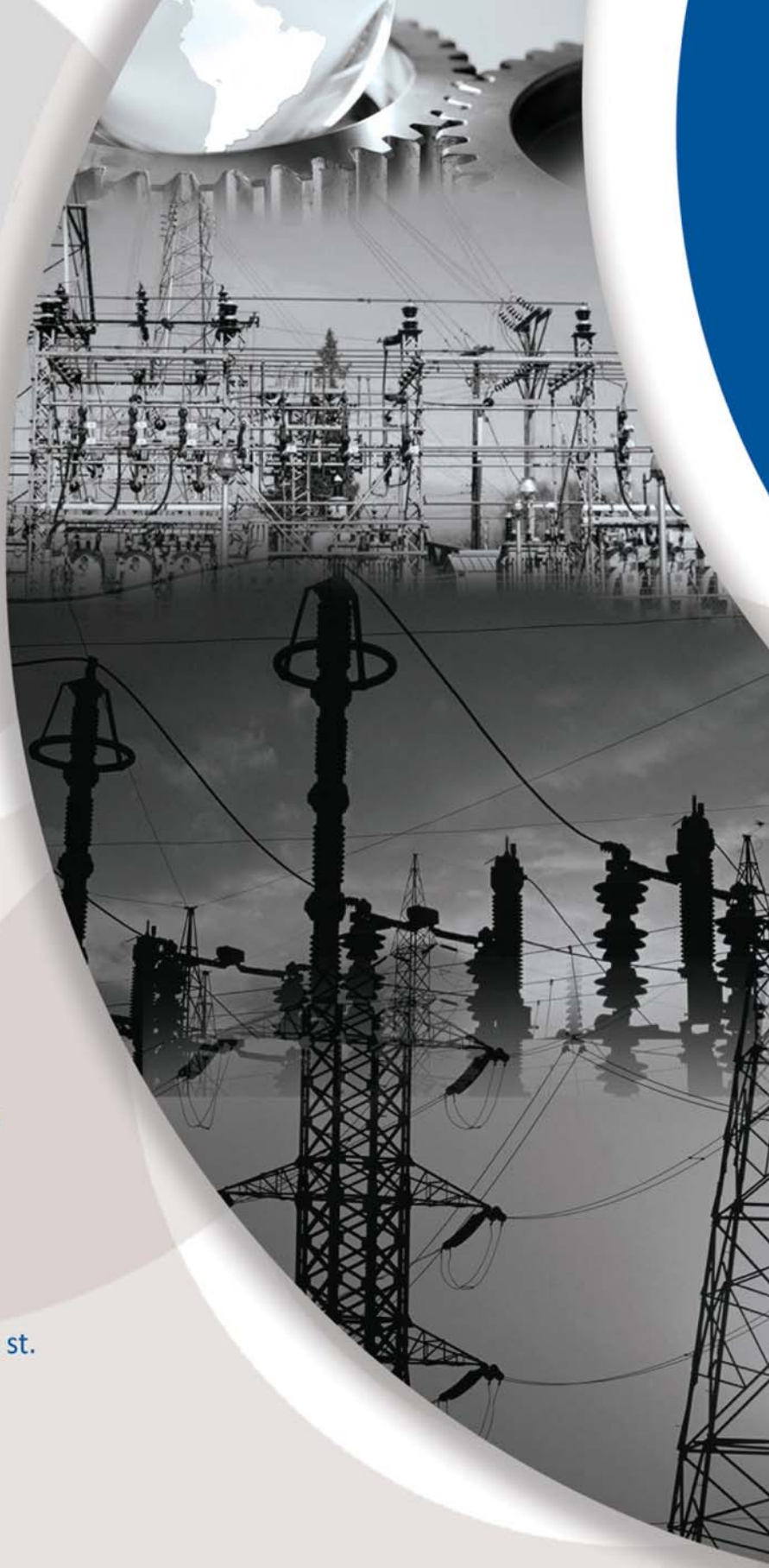

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