



COMPANY PROFILE

**jawda** جودة  
Engineering Consultants

Jawda Engineering Consultants



# Table of Contents

|       |                                                     |    |
|-------|-----------------------------------------------------|----|
| ..... | <b>Words from the CEO.....</b>                      | 06 |
| ..... | <b>Company Overview.....</b>                        | 08 |
| ..... | Mission .....                                       | 11 |
| ..... | <b>Vision.....</b>                                  | 12 |
| ..... | <b>Services.....</b>                                | 15 |
| ..... | <b>Design and Consultancy Services</b>              |    |
|       | High Voltage Equipment review & FAT and procurement | 17 |
|       | Energy Generation .....                             | 27 |
|       | High Voltage Substation Engineering .....           | 33 |
|       | Transmission lines and Underground cables.....      | 39 |
|       | Protection and Distribution .....                   | 43 |
|       | Buildings .....                                     | 49 |
|       | Hydrology and Chemicals .....                       | 55 |
|       | ...Management Services.....                         | 57 |
|       | ...Consultancy Services.....                        | 63 |
|       | Research and Development .....                      | 67 |
| ..... | <b>Quality Management .....</b>                     | 71 |
|       | ISO Certification .....                             | 73 |
|       | Technical Quality control .....                     | 75 |
| ..... | <b>Construction Management Services (CMS)</b>       | 77 |
|       | ....Preconstruction Activities                      |    |
|       | ....Design Functions                                |    |
|       | ....Construction Related Functions                  |    |
|       | ....Material Functions                              |    |
|       | ....Reporting                                       |    |
|       | ....Cost Engineering                                |    |
|       | ....Scheduling                                      |    |
|       | ....Testing                                         |    |
|       | ....Administration                                  |    |

|       |                                              |     |
|-------|----------------------------------------------|-----|
| ..... | <b>Company Facilities</b>                    | 83  |
|       | Work Environment .....                       | 84  |
|       | Quality Process and Procedures .....         | 85  |
|       | 360 Perspective .....                        | 86  |
|       | ERP System .....                             | 87  |
|       | IT Facilities .....                          | 88  |
|       | Primavera .....                              | 89  |
|       | Building Information Model .....             | 90  |
| ..... | <b>List of Projects</b> .....                | 95  |
| ..... | <b>Organization Chart</b> .....              | 137 |
| ..... | <b>Our Clients</b> .....                     | 138 |
| ..... | <b>List of Joint Venture Companies</b> ..... | 141 |



# WORDS FROM THE CEO

## Prof. Abdelaal Mantawy



Our goal is to be one of the top branded engineering service providers in our field. Creativity, responsibility 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 300+ engineering projects in the field of electrical substations, power generation, transmission, and distribution in the Middle East.

A person is standing on a large, dark rock in the foreground, looking out over a vast, hilly landscape under a bright, hazy sky. The sun is low on the horizon, creating a strong backlight effect on the person and the landscape. The sky is a mix of blue and orange, with a large, faint circular graphic element in the upper right corner.

JEC has more than 350+ 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.







## Our Services

- **Design Review and Consultancy Services for all energy projects(Substation - OHTL - UGC - Distribution)**
- **High Voltage Equipment Review & FAT and Procurement**
- **Energy Projects Supervision**
- **EHV, HV, MV Substations Base & Detailed design**
- **Transmission lines and Underground Cables**
- **Protection and Distribution Services**
- **Buildings & Infrastructure**
- **Hydrology and Chemicals**
- **Management Services**
- **Research and Development**
- **Manpower Sulppy**





# **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 procurement 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 1200mm<sup>2</sup> & 630 mm<sup>2</sup>.
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**

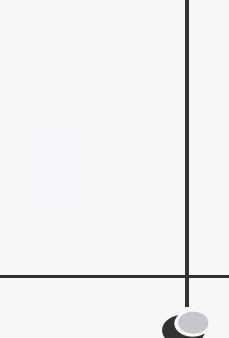
JAWDA has worked as technical support of procurements & successfully issued RFQ for all equipment.

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;

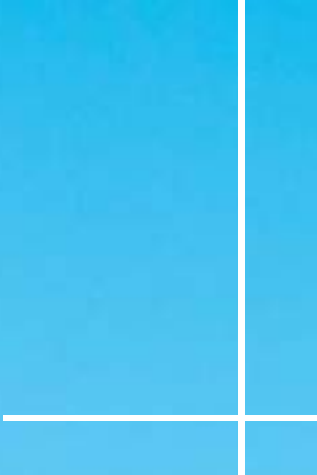
- Survey of the site
- Specifying the positions of wind turbines
- Determining the layout of the turbines
- The optimum position for the construction of substation/s.
- Connection between substations within the site with medium voltage cabling.
- Connection of Substation/s to Power Grid scope

### 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





# ● EHV, HV, MV Substations 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 same in all drawing.

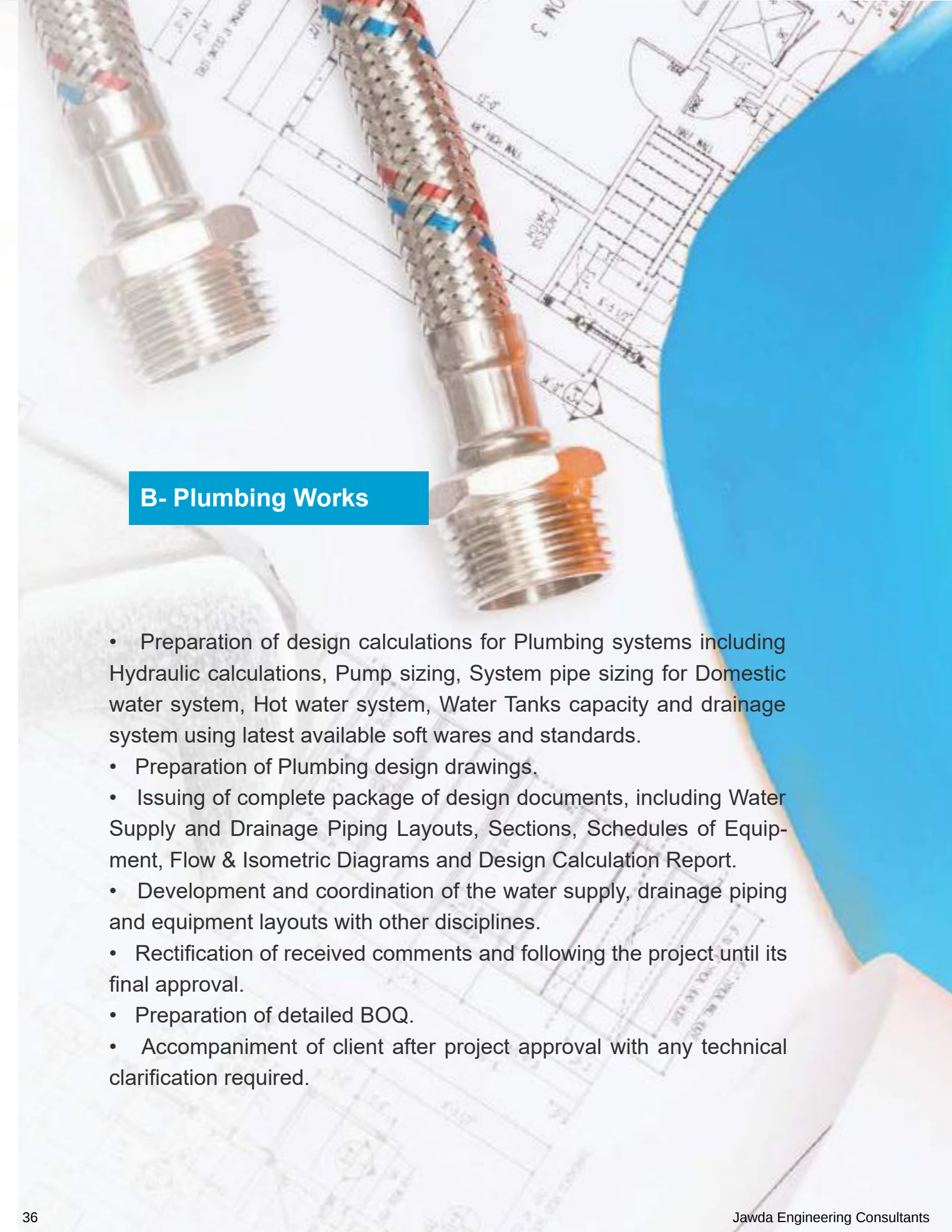
## 3- Architectural Works

- 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 final approval.
- Preparation of detailed BOQ.
- Accompaniment of client after project approval with any technical clarification required.

The background of the slide features a technical drawing of a plumbing system, likely a floor plan or piping layout, with various lines, dimensions, and labels. Overlaid on this are two flexible metal hoses with braided stainless steel exteriors and threaded metal fittings. One hose is positioned diagonally across the upper left, and the other is more vertical in the center. A large, solid blue curved shape is on the right side of the image. A blue rectangular box with white text is located in the middle-left area.

## 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

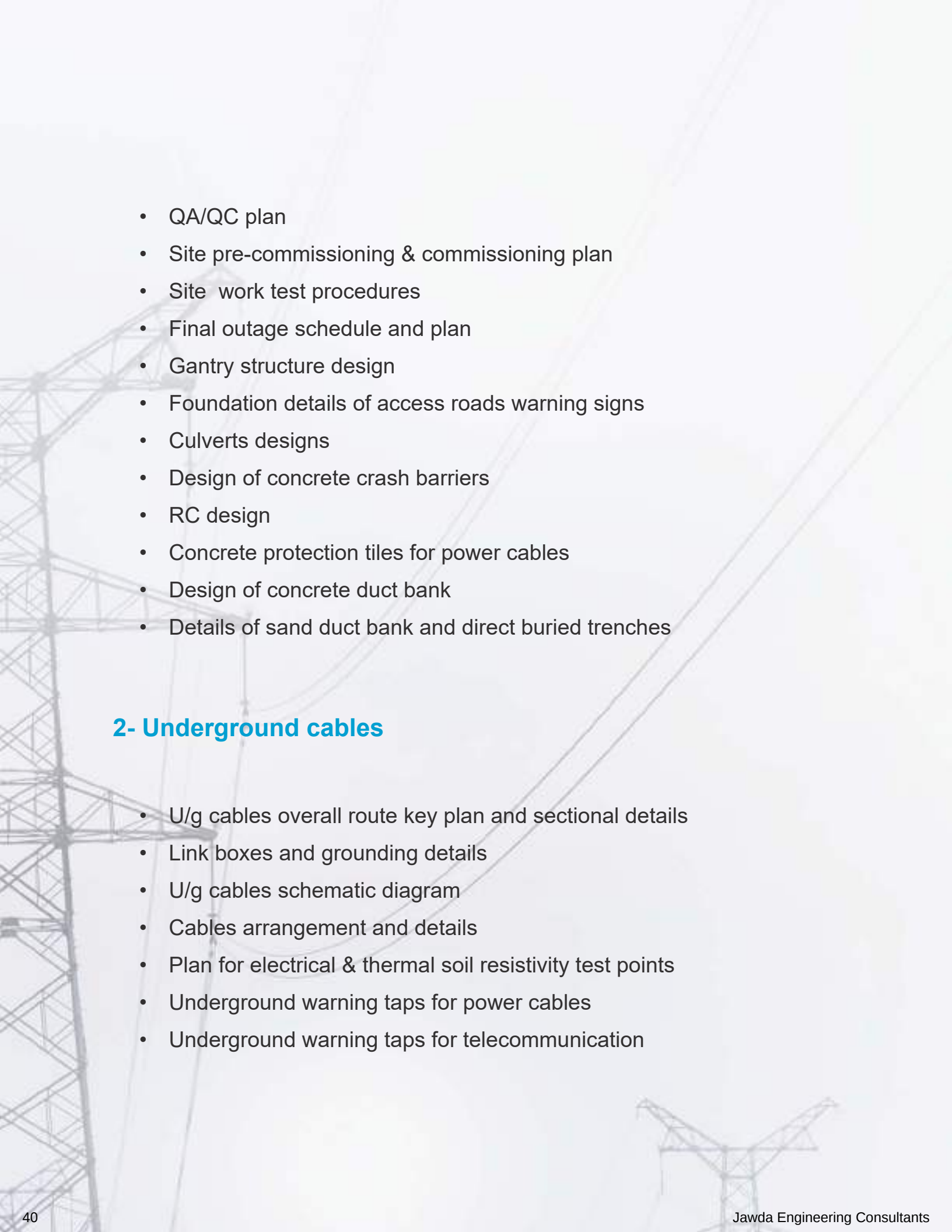


## 1- Overhead Transmission lines

We offer integrated services regarding long overhead, JEC is providing integrated design services including cables calculations, sizing, span, sag 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 Lightning 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.
- Lightning (Shielding) protection layout and details.
- Lightning 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
- EQUADIAL-Schneider product software
- CYMGrid
- PLS-CADD
- Sag 10
- STAAD

## 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 scape, 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:

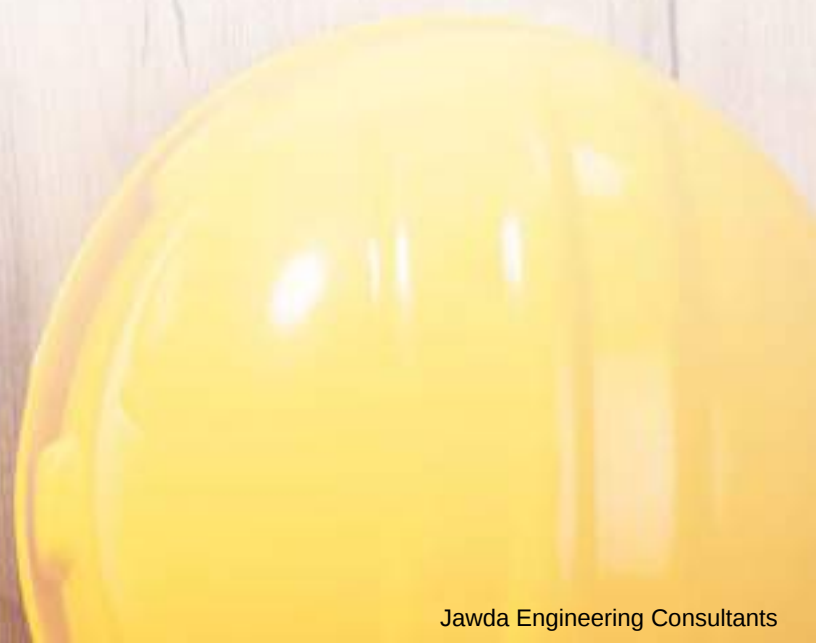
“What you cannot measure, you cannot manage” Peter Drucker

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, avoiding 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 on-line 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

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 OSS Middle East

Our certificate number is 221123A





## ***Certificate of Registration***

*This is to certify that*

**JAWDA ENGINEERING CONSULTANT CO.**

**AT**

**2264 ABO-NAMA BUILDING, 3RD FLOOR OFFICE 305,  
AL-BALADIYA ST, AL-AZIZIA, JEDDAH 23334, PO BOX: 122320**

has been assessed and certified by Vatsin Certification as meeting the requirements of

# **ISO 9001 : 2015**

**( Quality Management System )**

For the following activities

**DESIGN & ENGINEERING SERVICES**

**IAF CODE - 34**

**Certificate No : VC23017954**

To verify this certificate please visit at [www.vatsincertification.com](http://www.vatsincertification.com)

**Date of Initial Registration : 12-II-2024**

**Revision No. : 00**

**Re-Certification Due : 11-II-2027**

**1st Surveillance : 11-II-2025**

**2nd Surveillance : 11-II-2026**

**Certificate Expiry : 11-II-2027**



**Authorised  
Signatory**

**VATSIN CERTIFICATION PRIVATE LIMITED**

*Accredited by IAS (International Accreditation Services, Inc.)  
(3868 Saturn Street, Suite 100, Brea, California 92821 United States of America)*

\* Validity of the Certificate is subject to successful completion of surveillance audit on or before of due date, for case Surveillance audit is not allowed to be conducted, this certificate shall be suspended/cancelled.

\* Certificate is the Property of VATSIN CERTIFICATION and shall be returned immediately when demanded.

\* E-mail : [info@vatsincertification.com](mailto:info@vatsincertification.com) Website : [www.vatsincertification.com](http://www.vatsincertification.com)



## 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.





# **Construction Management Services (CMS)**

- 1.1.1 Preconstruction Activities**
- 1.1.2 Design Functions**
- 1.1.3 Construction Related  
Functions**
- 1.1.4 Material Functions**
- 1.1.5 Reporting**
- 1.1.6 Cost Engineering**
- 1.1.7 Scheduling**
- 1.1.8 Testing**
- 1.1.9 Administration**

## II - Construction Management Services (CMS)

Jawda had been prequalified with SEC for Consultancy Construction Management - Manpower Supply Works (Substation /Transmission Projects Business Line) in all Saudi region in year 2022 ,

Our Main goal to service our main Client Saudi electricity Company by providing high qualified & Trained Manpower (Project manager ,engineer, document controller ,secretary ,...etc.) which are suitable & Fit for below Tasks :

### 1.1.1 Preconstruction Activities

Establish project control procedures including, but not limited to, the following:

- a. Work Scheduling, Monitoring, Control and Co-ordination
- b. QA/QC Monitoring and Records Keeping
- c. Progress Evaluation, Recommendations to recover delays, if any, Billing and Invoice Presentation
- d. Safety and Loss Prevention

### 1.1.2 Design Functions

Review engineering and design and related documents including, but not limited to, the following:

- a. All CONSTRUCTION CONTRACTOR(S)' design submittals including detailed design calculation, structural design and analysis, construction drawings, installation details, etc.
- b. All "Material Proposals" and Purchase Orders submitted by CONSTRUCTION CONTRACTOR(S)

### **1.1.3 Construction Related Functions**

Monitor and supervise the construction activities including, but not limited to the following:

- a. Monitoring of all tests and inspections of supplied materials and equipment, installation and construction
- b. Monitoring of CONSTRUCTION CONTRACTOR(S)' safety and loss prevention program
- c. Testing and commissioning assistance to COMPANY

### **1.1.4 Material Functions**

Monitor and supervise the supply and delivery of materials and equipment for the PROJECT(S) including, but not limited to, the following:

- a. Inspection of all CONSTRUCTION CONTRACTOR(S)' incoming materials for damage and for compliance with CONSTRUCTION CONTRACT(S)' Technical Specifications.
- b. Monitoring the receipt, identification, unloading, transfer to storage and actual storage of all materials supplied by the CONSTRUCTION CONTRACTOR(S).
- c. Monitoring the flow and handling of materials from CONSTRUCTION CONTRACTOR(S)' lay down yard to the actual field location where required.
- d. Review of all material and equipment inspection reports, test reports, shipping reports, and delivery reports
- e. Review of CONSTRUCTION CONTRACTOR(S)' expediting reports
- f. Coordination with COMPANY Material Management Department and Power Transmission Department for identifying, cataloging and turning over the spare parts supplied by the CONSTRUCTION CONTRACTOR(S).

### **1.1.5 Reporting**

Monitor the progress of the construction including, but not limited to, the following:

- a. Holding of weekly construction progress meetings with the CONSTRUCTION CONTRACTOR(S) to determine work progress, discuss problems, coordinate actions, plan and anticipate future requirements
- b. Review of cash flow expenditure forecast prepared by the CONSTRUCTION CONTRACTOR(S)
- c. Review of reports submitted by CONSTRUCTION CONTRACTOR(S).

### **1.1.6 Cost Engineering**

**Monitor the material supply and construction activities including, but not limited to, the following:**

- a. **Monitoring of the material supply activities and construction activities and certification of types and quantities of materials and equipment delivered and installed**
- b. **Preparation of records and charts showing the progress of the work as performed by the CONSTRUCTION CONTRACTOR(S)**
- c. **Monitoring and regularly reporting of the status of progress payments**

### **1.1.7 Scheduling**

**Monitor the CONSTRUCTION CONTRACTOR(S)' Work Schedule.**

### **1.1.8 Testing**

Perform the below activities associated with testing of the PROJECT(S):

- a. Witness of all field-testing
- b. Review of all vendor test data

### **1.1.9 Administration**

Perform the below administration of the CONSTRUCTION CONTRACT(S):

- a. Develop and implement Project Procedures
- b. Review the qualifications of the subcontractors proposed by the CONSTRUCTION CONTRACTOR(S)

### **Awarded project :**

**A- 4400019009-CONSTRUCTION MANAGEMENT SERVICES FOR EHV PROJECTS IN COA (PART-15) -2023**

**B- 4400020304-CONSTRUCTION MANAGEMENT SERVICES FOR TAIBAH IN WOA (PART 24) - 2024**

**C- 4400021485-CONSTRUCTION MANAGEMENT SERVICES FOR HVAC OHTL & Converter Station - 2024**





# Company Facilities

- 1- Work Environment
- 2- Quality Process and Procedures
- 3- 360 Perspective
- 4- ERP System
- 5- IT Facilities
- 6- Primavera
- 7- BIM

## 1- 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.

## 2- 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

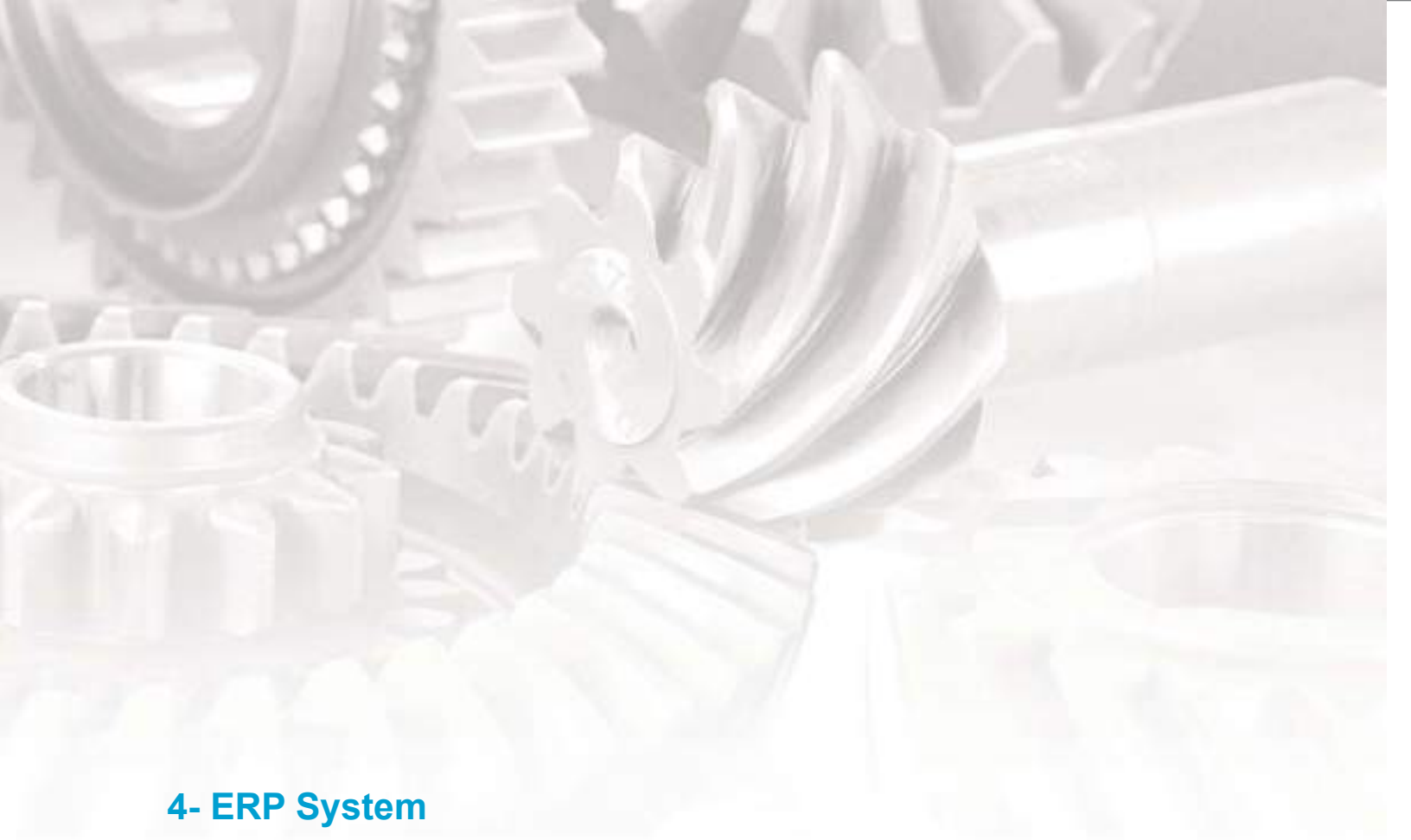
One of the less obvious benefits of collaborating with our client on developing a quality control inspection checklist is that we can improve our relationship with our client. Working on a checklist shows them we value their feedback. Additionally, clients may be able to suggest ideas to improve the 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.

### 3- 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.



#### 4- 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.

## 5- 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.



## 6- 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.

## 7- 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 coordinated 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 Riyadh, 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 132kV through 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 - Power System & Network Studies
- F - High Voltage Equipment review/ FAT and Procurement
- G - Design Review
- H - Supervision Projects
- I - PV (Photo Voltaic)
- J - Projects related to the effect of electric lines on the pipeline
- K- MECHANICAL ELECTRICAL PLUMING(MEP)
- L - Buildings
- M - Hospitals
- N - AS BUILT
- O- Water and Chemicals

# A - Substations

| No.  | Name of Project                                                                                     | Location       | Client       | Project Type | Date |
|------|-----------------------------------------------------------------------------------------------------|----------------|--------------|--------------|------|
| 2014 | CONSTRUCTION OF EXPO 2030 PROJECT 132/13.8 KV SUBSTATION#8473- RIYADH CITY                          | COA<br>RIYADH  | HAIF         | HV S/S       | 2026 |
| 2013 | CONSTRUCTION OF EXPO 2030 PROJECT 132/13.8 KV SUBSTATION#8472- RIYADH CITY AND EXPANSION AT SU      | COA<br>RIYADH  | HAIF         | HV S/S       | 2026 |
| 2012 | 13.8 KV SWGR BACKUP SOURCE FOR HARAM COOLING STATION (BSHCS)                                        | SOA<br>MADINAH | Saudi Energy | HV S/S       | 2026 |
| 2011 | REPLACEMENT OF 110/13.8 KV MOAISM SUBSTATION BY CONSTRUCTION OF NEW 110/13.8 KV SUBSTATION          | WOA<br>MAKKAH  | HAIF         | HV S/S       | 2026 |
| 2010 | Replacement of The Existing 132/33/13.8 kV Tabuk S/S#2 By Constructing A New SUBSTATION, TABUK City | WOA<br>TABUK   | HAIF         | HV S/S       | 2026 |
| 209  | CONSTRUCTION OF "NAKHLAN HOUSING"132/13.8KV SUBSTATION                                              | JIZAN          | AI-GHAZ      | HV S/S       | 2026 |
| 208  | CONSTRUCTION OF "BAISH-94 ISKAN"132/13.8KV SUBSTATION                                               | JIZAN          | AI-GHAZ      | HV S/S       | 2026 |

| No. | Name of Project                                                                                                                                          | Location                | Client   | Project Type                     | Date |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------|----------------------------------|------|
| 207 | CONSTRUCTION OF SHIHYAH 132/33KV SUBSTATION # 8862                                                                                                       | SHIHYAH AL-QAS-SIM AREA | ALSHARIF | HV S/S                           | 2026 |
| 206 | MEDICAL CITY (TIBA UNIVERSITY) 110-13.8KV SS & UGC                                                                                                       | WOA<br>MADINAH          | DELTA    | HV S/S                           | 2025 |
| 205 | CONSTRUCTION OF NEW 110/13.8KV S/S HAIL ROAD (AL YASMEEN (HRDH)                                                                                          | SOA<br>MADDINA          | AL-GHAZ  | H.V S/S                          | 2025 |
| 204 | REINFORCEMENT OF BACKUP FEEDING OF HP2 AND KZM BSPTS FROM OTHER ELECTRICAL ISLAND (EXTENSION PORTION) Nuzlah 2, Bani malik, Nuzha, and Rabwa substations | WOA                     | ELSEWEDY | Civil & LV & Secondary & Primary | 2025 |
| 203 | CONSTRUCTION OF ONE (1) NEW 132KV SUBSTATIONS (CULTURAL OASIS (OASIS)) TO DEVELOP POWER SUPPLY FOR ROYAL COMMISSION OF ALULA PROJECT                     | WOA.<br>AL-ULA,         | AL-GHAZ  | HV / SS                          | 2025 |
| 202 | CONSTRUCTION OF MAKKAH GATE HOUSING (MKGH) 110/13.8 KV S/S MAKKAH.                                                                                       | WOA<br>MAKKAH           | CEPCO    | HV /SS                           | 2025 |
| 201 | PS1& PS2 EXT MAPA & UGC                                                                                                                                  | EOA                     | CEPCO    | OHTL & Civil & LV & Secondary    | 2025 |

| No. | Name of Project                                               | Location                    | Client | Project Type        | Date |
|-----|---------------------------------------------------------------|-----------------------------|--------|---------------------|------|
| 200 | ALKHARJ 8730 & 8717 SS 9067                                   | COA                         | GE     | EXTENSION-Secondary | 2025 |
| 199 | HAJER-2 380 KV IPP BSP                                        | EOA                         | CEPCO  | H.V S/S             | 2025 |
| 198 | ROSHEN-2 BSP 110- 13.8KV                                      | WOA<br>JADDAH               | CEPCO  | HV. S/S             | 2025 |
| 197 | RBG Power Station 380kV & 110kV LPOF UGC Circuit              | SOA<br>MADDINA              | CEPCO  | Extension           | 2025 |
| 196 | Replacement Of 110KV LPOF UGCC FSL - MRS AND FSL-TTC          | WOA<br>JEDDAH               | CEPCO  | Extension           | 2025 |
| 195 | JBQ TR01,02,03 MAKKAH power station & JARWAL SS, bw MPS & HVM | WOA<br>MAKKAH               | CEPCO  | Extension           | 2025 |
| 194 | CIRCUITS 8017 - 8155, 8018 - 8111 A,B, 8086 -9005B. COA       | COA                         | CEPCO  | Extension           | 2025 |
| 193 | Replacement of LOPF UGC Portions in QURAYYAH#1 SS             | EOA<br>QURAYYAH             | CEPCO  | Extension           | 2025 |
| 192 | UGC AZIZIYAH SWCC-NEW                                         | EOA<br>DHAHRAN<br>CENTRAL A | CEPCO  | Extension           | 2025 |
| 191 | CONSTRUCTION OF UNITED CEMENT 110/13.8KV S/S.                 | WOA<br>MAKKAH               | Haif   | HV S/S              | 2025 |
| 190 | TADCO 13233KV SUBSTATION                                      | WOA<br>TABUK                | HAIF   | HV S/S              | 2025 |

| No. | Name of Project                                                             | Location             | Client     | Project Type | Date |
|-----|-----------------------------------------------------------------------------|----------------------|------------|--------------|------|
| 189 | Reinforcement of Qurayat BSP SS                                             | EOA Qurayat          | Saudi Emar | Extension    | 2024 |
| 188 | JUBAIL AIRPORT 34.5/13.8KV SS & UGC                                         | EOA JUBAIL-2         | CONET      | M.V S/S      | 2024 |
| 187 | CONSTRUCTION OF NEW HAJER-2 380KV BSP (QUR-RAYAH) AND 380KV UGC CONNECTIONS | EOA QURRAYAH         | GE         | EHV S/S      | 2024 |
| 186 | CONSTRUCTION OF NEW 132-13.8kv SWCC S/S 8330                                | COA RIYADH           | MAPA       | HV S/S       | 2024 |
| 185 | INSTALLATION of NEW STATCOM ±300 MVAR at 132 KV LEVEL                       | SOA                  | AI-GHAZ    | H.V S/S      | 2024 |
| 184 | ROSHAN 110-13.8KV Substation & UGC IN MAKKAH                                | WOA MAKKAH           | HAIF       | H.V S/S      | 2024 |
| 183 | POWER SUPPLY FOR RABIGH-4 PROJECT (SWPC/ RAB-4),                            | WOA - RABIGH, JEDDAH | GE         | Extension    | 2024 |
| 182 | CONSTRUCTION OF AL-SHARAF 132/13.8kv SUBSTATION                             | SOA ABHA             | HAIF       | HV S/S       | 2023 |
| 181 | TIME SQUARE- PORT SAID PROJECT                                              | ,Egypt PORTSAID      | CREODEVS   | LV S/S       | 2023 |
| 180 | CONSTRUCTION OF QIDDIYA PROJECT, 380/132 KV S/S#9078                        | COA RIYADH           | TDP        | EHV S/S      | 2023 |
| 179 | CONSTRUCTION OF QIDDIYA PROJECT, 132/13.8kv S/S# 8373                       | COA- RIYADH          | TDP        | HV S/S       | 2023 |

| No. | Name of Project                                                                              | Location     | Client         | Project Type | Date |
|-----|----------------------------------------------------------------------------------------------|--------------|----------------|--------------|------|
| 178 | CONSTRUCTION OF QIDDIYA PROJECT, 132/13.8kV S/S# 8372                                        | COA-RIYADH   | TDP            | HV S/S       | 2023 |
| 177 | CONSTRUCTION OF QIDDIYA PROJECT, 132/13.8kV S/S# 8371                                        | COA-RIYADH   | TDP            | HV S/S       | 2023 |
| 176 | CONSTRUCTION OF QIDDIYA PROJECT, 132/13.8kV S/S# 8370 & EXTENSION OF 132KV GIS AT S/S # 8511 | COA-RIYADH   | TDP            | HV S/S       | 2023 |
| 175 | NEW SADEA 33-13.8KVSUB-STATION                                                               | EOA DAMMAM-  | KFB Group      | LV S/S       | 2023 |
| 174 | Expansion of ARRASS PV 380/132kV BSP# 9095                                                   | COA. AR-RASS | ABC            | EHV S/S      | 2023 |
| 173 | 132kV UGC SS 8005, 8074 & 8100, 8102 SUBSTATION                                              | COA RIYADH   | AL-NOWAISER CO | HVS/S        | 2022 |
| 172 | ADEN 132KV SOLAR PLANT PROJECT                                                               | YEMEN ADEN   | ZASCO          | HV S/S       | 2022 |
| 171 | CONSTRUCTION OF AL-HARIQ, 132/33kV SUBSTATION # 8724                                         | COA AL HARIQ | TDP            | HV S/S       | 2022 |
| 170 | UMLUJJ HOUSING 110/13.8KV                                                                    | WOA UMLUJJ   | CEPCO          | HV S/S       | 2022 |
| 169 | RABIGH HOUSING 110/13.8KV                                                                    | WOA Rabigh   | CEPCO          | HV S/S       | 2022 |

| No. | Name of Project                                                                | Location            | Client             | Project Type                                                                                                 | Date |
|-----|--------------------------------------------------------------------------------|---------------------|--------------------|--------------------------------------------------------------------------------------------------------------|------|
| 168 | Hayah Karemah –BEBA –Bani Sweif                                                | Egypt<br>Bani Sweif | TANTA<br>MOTORS    | Civil Design<br>work for ( Distribution<br>Building /<br>Transformers<br>Kiosk and<br>RMU                    | 2022 |
| 167 | Hayah Karemah –Komombo –<br>Aswan                                              | Egypt<br>Aswan      | TANTA<br>MOTORS    | Civil –Electrical-Arch-Me-<br>chanical for<br>Distribution<br>Building /<br>Transformers<br>Kiosk and<br>RMU | 2022 |
| 166 | GOUF-D 132 KV                                                                  | COA<br>AlGouf       | AI-BABTIN<br>(ABC) | HV S/S                                                                                                       | 2021 |
| 165 | ABHA AIRPORT SOUTH 33 &<br>13.8KV                                              | SOA<br>ABHA         | HAIF               | HV S/S                                                                                                       | 2021 |
| 164 | TANDAHA 33 &13.8KV                                                             | SOA<br>TANDAHA      | HAIF               | MV S/S                                                                                                       | 2021 |
| 163 | KHUDERAH - HAIF 33 & 13.8KV                                                    | SOA<br>KHUDERAH     | HAIF               | MV S/S                                                                                                       | 2021 |
| 162 | PORT FOR SEC AND ARAMCO<br>PROJECT 132 & 13.8KV                                | KSA                 | GE                 | Extension                                                                                                    | 2021 |
| 161 | NEMAR 132/13.8kv S/S ( 8375)                                                   | COA<br>RIYADH       | SEC                | HV S/S                                                                                                       | 2021 |
| 160 | Switching Station-1 BSP (9097)<br>& REINFORCEMENT OF BSP<br>9020 (Bayan 380kv) | COA<br>RIYADH       | TDP                | EHV S/S                                                                                                      | 2021 |
| 159 | Replacment Of the 3 Existing<br>Transformes at Zulfi Bsp# 9064                 | COA<br>ZULFI        | SSEM               | HV S/S                                                                                                       | 2021 |
| 158 | AR Rass PV 380/132 kv BSP#<br>9095                                             | COA<br>AR-RASS      | SSEM               | EHV S/S                                                                                                      | 2021 |

| No. | Name of Project                                                      | Location        | Client          | Project Type | Date |
|-----|----------------------------------------------------------------------|-----------------|-----------------|--------------|------|
| 157 | Yanbu-4 Phase 380/110 kv BSP                                         | WOA<br>YANBU    | GE              | EHV S/S      | 2021 |
| 156 | SAAD PV BSP 380/132 KV S/S #9094                                     | COA<br>RIYADH   | Al Sharif (ASG) | EHV S/S      | 2021 |
| 155 | Upgrading Protection Equipment in 132kv S/S                          | SOA<br>ABHA     | Al - Fanar      | HV S/S       | 2021 |
| 154 | Replacements & Reinforcement Jabal Al Noor 110/13.8 KV S/S           | WOA<br>MEKKAH   | Ojaimi          | HV S/S       | 2021 |
| 153 | ABHA HOUSING 132/13.8KV S/S                                          | SOA<br>NG ASIR  | HAIF            | HV S/S       | 2021 |
| 152 | (DHP-1) 132/13.8 KV S/S                                              | SOA<br>NG JIZAN | TDP             | HV S/S       | 2021 |
| 151 | AL-Malqaa 132/13.8 KV - (8278)                                       | COA<br>RIYADH   | Al-Babatain     | HV S/S       | 2020 |
| 150 | AL-Aarid 132/13.8 KV - ( 8357) S/S                                   | COA<br>RIYADH   | Al-Babatain     | HV S/S       | 2020 |
| 149 | Addition of Third Power Transformer (132/33/13.8 KV) at Muhayil      | SOA<br>JAZAN    | JAL Co.         | HV S/S       | 2020 |
| 148 | Addition of Third Power Transformer (132/33/13.8 KV) at OUKDUD       | SOA<br>JAZAN    | JAL Co.         | HV S/S       | 2020 |
| 147 | Rehabilitation and Restoration of Existing 110/13.8 KV New Air Force | WOA<br>JEDDAH   | 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<br>Marubeni & Al<br>Jomaih | GE                                                 | EHV S/S      | 2020 |
| 145 | JEC 380 bss (modification) AR-AMCO                                        | SOA<br>JAZAN                           | GE                                                 | Extension    | 2020 |
| 144 | Ext Of Wadi Al Fara 380/110/33kv                                          | WOA<br>MADDINA                         | Siemens                                            | EHV S/S      | 2020 |
| 143 | D & R for Expansion of SWCC, PS2/PS3 380/13.8kv " JR-WTS-PAC(C)-Station " | EOA<br>DAMMAM-                         | LIMAK                                              | EHV S/S      | 2020 |
| 142 | Kom Ombo 220 / 33 KV AIS                                                  | Egypt<br>Aswan                         | Mahindra Susten<br>&<br>ACWA Power                 | HV S/S       | 2020 |
| 141 | Abu Arish 132/13.8 KV                                                     | SOA<br>JIZAN                           | AL-HAIF                                            | HV S/S       | 2020 |
| 140 | Extension of 33KV SWGR at alUrfan                                         | SOA<br>ABHA                            | AI-HAIF                                            | HV S/S       | 2020 |
| 139 | Jubail-2 SWRO 230/13.8 KV                                                 | EOA<br>JUBAIL-2                        | GE                                                 | Extension    | 2020 |
| 138 | KING FAISAL COLLEGE 132/13.8KV S/S                                        | COA<br>QASSIM                          | Teading&Devel-<br>opment Part-<br>nership<br>(TDP) | HV S/S       | 2020 |
| 137 | Dammam Industrial City-3(DIC) 115/13.8 KV                                 | EOA<br>DAMMAM-                         | AI-BABTAIN<br>(ABC)                                | HV S/S       | 2020 |
| 136 | King Faisal Air Academy (8533)132 /13.8 KV in Majma'a                     | RIYADH-KSA /<br>SEC -COA               | TDP                                                | HV S/S       | 2020 |

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

| No. | Name of Project                                                             | Location                           | Client                                                                                       | Project Type | Date |
|-----|-----------------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------|--------------|------|
| 124 | Governmental Compound<br>132/13.8 KV S/S # 8196                             | COA<br>RIYADH                      | AI-BABTAIN<br>(ABC)                                                                          | HV S/S       | 2018 |
| 123 | Governmental Compound<br>132/13.8 KV S/S # 8197                             | COA<br>RIYADH                      | AI-BABTAIN<br>(ABC)                                                                          | HV S/S       | 2018 |
| 122 | Mansoura 132/33 Kv S/S .                                                    | Yemen<br>MANSOURA                  | AL-ZAGHIR                                                                                    | HV S/S       | 2018 |
| 121 | Hiswa Switching 132 /33 Kv S/S                                              | Yemen<br>HISWA                     | AL-ZAGHIR                                                                                    | HV S/S       | 2018 |
| 120 | Wasia-lot 4 NWC                                                             | COA<br>RIYADH                      | TAQAH CO.                                                                                    | MV S/S       | 2018 |
| 119 | Al-Fara (FRA) 380/132/13.8kV<br>BSP, and Integration of KKUC-1<br>132kV S/S | SOA<br>ABHA                        | AL-GHAZ<br>(AG)                                                                              | EHV S/S      | 2018 |
| 118 | (lots 2a, 2b,) in the interconnected<br>132/33 KV S/S 132 kv network        | YEMEN<br>ADEN                      | Ministry of<br>Electricity and<br>Energy /<br>Public Electric-<br>ity Corporation<br>in ADEN | HV S/S       | 2018 |
| 117 | DILM CITY 33/13.8KV S/S #<br>7737.                                          | COA<br>AL-KHARJ                    | SERVICE AND<br>SOLUTIONS<br>COMPANY<br>(SSC)                                                 | MV S/S       | 2017 |
| 116 | AL-KHARJ 33/13.8 KV # 7723-<br>Reinforcement                                | "AL-KHARJ-KSA<br>(NG- COA)"        | ZAMIL PROJ-<br>ECTS COMPA-<br>NY                                                             | MV S/S       | 2017 |
| 115 | PIC P7703 Project:<br>(S/S 11K) 115/34.5/13.8 KV S/S                        | YANBU-KSA<br>Royal Commis-<br>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                                | WOA<br>YANBU   | SIEMENS   | EHV S/S      | 2017 |
| 113 | (SS 111)34.5/13.8KV S/S                                             | WOA<br>YANBU   | SIEMENS   | HV S/S       | 2017 |
| 112 | AI-NASEEM 132/13.8 KV S/S # 8223                                    | COA<br>RIYADH  | AL-TOUKHI | HV S/S       | 2017 |
| 111 | AI-NADEEM 132/13.8 KV S/S # 8288                                    | COA<br>RIYADH  | AL-TOUKHI | HV S/S       | 2017 |
| 110 | AI-SULY 132/13.8 KV S/S # 8234                                      | COA<br>RIYADH  | AL-TOUKHI | HV S/S       | 2017 |
| 109 | Iskan Al Amm Extension of 110/13.8 KV S/S                           | WOA<br>MADDINA | NESMA     | HV S/S       | 2017 |
| 108 | Wasia-lot 6 NWC-REF S/S                                             | COA<br>RIYADH  | TAQAH CO. | MV S/S       | 2017 |
| 107 | Reinforcement of AL KHARJ 7703 33/13.8KV S/S                        | COA<br>RIYADH  | AL-HAIF   | MV S/S       | 2017 |
| 106 | YADMAH 33/13.8 kV S/S                                               | SOA<br>NAJRAN  | AL-HAIF   | MV S/S       | 2017 |
| 105 | AI-THAR 33/13.8 KV S/S                                              | SOA<br>NAJRAN  | AL- HAIF  | MV S/S       | 2017 |
| 104 | Replacement Of Distribution 33 KV Substations Communication System. | SOA<br>ASIR    | AL- HAIF  | MV S/S       | 2017 |

| No. | Name of Project                                                                                      | Location        | Client                                       | Project Type | Date |
|-----|------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------|--------------|------|
| 103 | RAHWAH 33/13.8 KV S/S                                                                                | SOA<br>ASIR     | AL- HAIF                                     | MV S/S       | 2017 |
| 102 | ASIR HOSPITAL 33/13.8KV S/S                                                                          | SOA<br>ASIR     | AL-HAIF                                      | MV S/S       | 2017 |
| 101 | AL-SODAH 33/13.8KV S/S                                                                               | SOA<br>ASIR     | AL-HAIF                                      | MV S/S       | 2017 |
| 100 | Ext. of satalite (SS 101)<br>34.5/13.8 KV S/S                                                        | WOA<br>YANBU    | SIEMENS                                      | HV S/S       | 2017 |
| 99  | King Khaled Hospital-2 110/13.8<br>S/S                                                               | WOA<br>JEDDAH   | SIEMENS                                      | HV S/S       | 2017 |
| 98  | 3X20 MVA, 33/13.8KV S/S #<br>7625                                                                    | COA<br>DAWADMI  | SERVICE AND<br>SOLUTIONS<br>COMPANY<br>(SSC) | MV S/S       | 2017 |
| 97  | Ext. of SHAROURA, (PP1)<br>132/33KV S/S                                                              | SOA<br>ABHA     | AI- GIHAZ<br>(AG)                            | HV S/S       | 2016 |
| 96  | NABAJ, Reinforcement 33/ 13.8<br>KV S/S                                                              | EOA<br>TAPARJAL | TAQQAT                                       | MV S/S       | 2016 |
| 95  | MEQUOA, 33/13.8 KV S/S                                                                               | EOA<br>TAPARJAL | AL-HAIF                                      | MV S/S       | 2016 |
| 94  | Reinforcement of SHAROURA<br>132/33KV (PP2) S/S                                                      | SOA<br>SHAROUR  | AI- GIHAZ<br>(AG)                            | HV S/S       | 2016 |
| 93  | QUWAIZA 110/13.8 KV S/S                                                                              | WOA<br>JEDDAH   | NESMA                                        | HV S/S       | 2016 |
| 92  | AL-SHALAL 110/13.8 KV S/S                                                                            | WOA<br>JEDDAH   | NESMA                                        | HV S/S       | 2016 |
| 91  | Installation of 132/13.8kv trans-<br>formers and Associated equip-<br>ment at existing BSP S/S #9037 | COA<br>DAWADMI  | AI-BABTIN<br>(ABC)                           | HV S/S       | 2016 |

| No. | Name of Project                                                                                           | Location      | Client                                  | Project Type | Date |
|-----|-----------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------|--------------|------|
| 90  | AL-BADI, 132/33KV S/S #8767                                                                               | COA<br>KHARAJ | AI-BABTIN<br>(ABC)                      | HV S/S       | 2016 |
| 89  | AL-MUZAHMIAH Colleges Complex 132/13.8 KV S/S #8522 - Reinforcement                                       | COA<br>RIYADH | AI-BABTIN<br>(ABC)                      | HV S/S       | 2016 |
| 88  | Industrial area 132/13.8 KV S/S #8236                                                                     | COA<br>RIYADH | AI-BABTIN<br>(ABC)                      | HV S/S       | 2016 |
| 87  | DURMA S/S, 132/33 KV, 132/13.8 KV #8511                                                                   | COA<br>RIYADH | AI-BABTIN<br>(ABC)                      | HV S/S       | 2016 |
| 86  | BURAYDAH NORTH , 132/13.8 KV SS #8842                                                                     | COA<br>QASSIM | Trading & Development partnership (TDP) | HV S/S       | 2016 |
| 85  | KING FAISAL, 132/13.8 KV S/S#8287                                                                         | COA<br>RIYADH | Trading & Development partnership (TDP) | HV S/S       | 2016 |
| 84  | ALYARMOUK,132/13.8 KV S/S#8270                                                                            | COA<br>RIYADH | Trading & Development partnership (TDP) | HV S/S       | 2016 |
| 83  | AI AMARIYAH,132/13.8 KV S/S #8120                                                                         | COA<br>RIYADH | Trading & Development partnership (TDP) | HV S/S       | 2016 |
| 82  | RAINFORCEMENT OF:<br>JAMMOM 110/33/13.8 KV ,<br>MAKHANORTH 380/110/13.8 KV<br>BSP AND MPS 110 /13.8KV S/S | WOA<br>MAKKAH | AL-GHAZ<br>(AG)                         | EHV S/S      | 2016 |

| No. | Name of Project                                        | Location         | Client            | Project Type | Date |
|-----|--------------------------------------------------------|------------------|-------------------|--------------|------|
| 81  | AL-JAWAD 110/13.8 KV S/S                               | WOA<br>JEDDAH    | NESMA             | HV S/S       | 2016 |
| 80  | AL JOHARA 110/13.8 KV S/S                              | WOA<br>JEDDAH    | NESMA             | HV S/S       | 2016 |
| 79  | YANBU NORTH-2, 110/13.8 KV S/S                         | WOA<br>YANBU     | NESMA             | HV S/S       | 2014 |
| 78  | EL-NAGA, 110/13.8 KV S/S - Extension                   | WOA<br>MADINAH   | NESMA             | HV S/S       | 2014 |
| 77  | YANBU AL-NAKHEEL , 110/33 KV S/S - Extension           | WOA<br>YANBU     | NESMA             | HV S/S       | 2014 |
| 76  | NAJRAN AIR PORT, 132/33 KV S/S                         | SOA<br>NAJRAN    | AL-MASHARIQ (AMC) | HV S/S       | 2014 |
| 75  | WAAD AL-SHAMAL, 132/13.8 KV S/S                        | COA<br>ARAR-KSA  | ETAC              | HV S/S       | 2014 |
| 74  | AL-QASSIM INDUSTRIAL CITY (QIC) BSP 132/33/13.8 KV S/S | COA<br>AL-QASSIM | AL-MASHARIQ (AMC) | HV S/S       | 2014 |
| 73  | QAIRWAN, 132/13.8 kv S/S # 8216                        | COA<br>RIYADH    | AL-MASHARIQ (AMC) | HV S/S       | 2014 |
| 72  | MOKHTARAH, 132/33 /13.8 KV S/S                         | SOA<br>JIZAN     | AL-MASHARIQ (AMC) | HV S/S       | 2014 |
| 71  | UQLAT AL-SUQUR, 132/33 KV S/S # 8806 - Reinforcement   | COA<br>AL-QASSIM | 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-GHAZ (AG)      | MV S/S       | 2014 |
| 66  | SUFFA, 110/13.8KV S/S - Reinforcement                           | "SUFFA-KSA (NG-SOA)"   | AL-GHAZ (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-GHAZ (AG)      | HV S/S       | 2013 |
| 62  | GULF SALMAN, 110/13.8 KV S/S                                    | "JEDDAH-KSA (NG-WOA)"  | AL-GHAZ (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-GHAZ (AG) | HV S/S       | 2013 |
| 55  | AL-BARAKAH, 110/13.8 KV S/S          | "MADINAH-KSA (NG-WOA)"  | AL-GHAZ (AG) | HV S/S       | 2013 |
| 54  | AL-MAABDAH 110/13.8 KV S/S           | "MAKKAH-KSA (NG-WOA)"   | AL-GHAZ (AG) | HV S/S       | 2012 |
| 53  | ESHAR (SIFFA), 132/33 KV S/S         | "NAJRAN-KSA (NG-SOA)"   | AL-GHAZ (AG) | HV S/S       | 2012 |
| 52  | SHARURAH, 132/13.8 KV S/S            | "SHARURAH-KSA (NG-SOA)" | AL-GHAZ (AG) | HV S/S       | 2012 |
| 51  | RADDAF , 110/13.8 KV S/S             | "TAIF-KSA (NG-WOA)"     | AL-GHAZ (AG) | HV S/S       | 2012 |
| 50  | KHYBER, 110/13.8 KV S/S - Ex-tension | "MADINAH-KSA (NG-WOA)"  | AL-GHAZ (AG) | HV S/S       | 2012 |
| 49  | ICY, 110/13.8 KV S/S - Extension     | "MADINAH-KSA (NG-WOA)"  | AL-GHAZ (AG) | HV S/S       | 2012 |
| 48  | JAMOOM2, 110/13.8 KV S/S             | "MAKKAH-KSA (NG-WOA)"   | AL-GHAZ (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-GHAZ (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-GHAZ (AG) | HV S/S       | 2012 |
| 42  | TATHLEETH, 132/33 KV S/S                              | "BISHA-KSA (NG-SOA)"        | AL-GHAZ (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-GHAZ (AG) | HV S/S       | 2011 |
| 30  | TABOUK (AIS), 13.8/11 KV NEW                    | "TABOUK-KSA / (NG-WOA)"         | AL-GHAZ (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 UNIVERSITY, 132/13.8 KV S/S         | "ABHA-KSA (NG-SOA)"             | AL-GHAZ (AG) | HV S/S       | 2010 |
| 26  | TABOUK UNIVERSITY, 110/13.8 KV S/S              | "TABOUK-KSA (NG-WOA)"           | AL-GHAZ (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-GHAZ (AG) | HV S/S       | 2009 |

| No. | Name of Project                              | Location              | Client          | Project Type | Date |
|-----|----------------------------------------------|-----------------------|-----------------|--------------|------|
| 23  | BANI NAJJAR, 110/13.8 KV S/S                 | NG-WOA<br>MADINAH     | AL-GHAZ<br>(AG) | HV S/S       | 2009 |
| 22  | AL-ANDALUS, 110/13.8 KV S/S                  | NG-WOA<br>JEDDAH      | AL-GHAZ<br>(AG) | HV S/S       | 2009 |
| 21  | ICY 5, 110/13.8 KV S/S                       | NG-WOA<br>JEDDAH      | AL-GHAZ<br>(AG) | HV S/S       | 2009 |
| 20  | BADR, 110/13.8 KV S/S                        | NG-WOA<br>MADINAH     | AECC            | HV S/S       | 2009 |
| 19  | TABOUK 5B, 132/13.8 KV S/S                   | NG-WOA<br>TABOUK      | AL-GHAZ<br>(AG) | HV S/S       | 2009 |
| 18  | AL-BIRK, 33KV S/S - Reinforcement            | NG-SOA<br>TOHAMA      | AL-GHAZ<br>(AG) | MV S/S       | 2009 |
| 17  | ICY 4, 110/13.8 KV S/S                       | NG-WOA<br>JEDDAH      | AL-GHAZ<br>(AG) | HV S/S       | 2008 |
| 16  | AL-NUZLAH2, 110/13.8 KV S/S                  | NG-WOA<br>JEDDAH      | AL-GHAZ<br>(AG) | HV S/S       | 2008 |
| 15  | HARAM2 & MADINAH NORTH,<br>110kv/13.8 KV S/S | NG-WOA<br>MADINAH     | AL-GHAZ<br>(AG) | HV S/S       | 2006 |
| 14  | AL-QUMARIYAH, 110/13.8 KV                    | NG-WOA<br>TAIF        | AL-GHAZ<br>(AG) | HV S/S       | 2006 |
| 13  | AL-HARAMAIN, 110/13.8 KV S/S                 | NG-WOA<br>JEDDAH      | AL-GHAZ<br>(AG) | HV S/S       | 2006 |
| 12  | BILJURASHI, 132/13.8 KV S/S                  | NG-SOA<br>BILJURASHI- | AL-GHAZ<br>(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            | NG-WOA<br>TABOUK          | AL-GIHAZ<br>(AG) | HV S/S       | 2006 |
| 10  | SABYA, 132/33/13.8 KV S/S - Extention              | NG-SOA<br>SABYA           | AL-GIHAZ<br>(AG) | HV S/S       | 2006 |
| 9   | ZAFEER, 33/13.8 KV S/S - Reinforcement             | NG-SOA<br>ZAFEER          | AL-GIHAZ<br>(AG) | HV S/S       | 2006 |
| 8   | KKAB-KHAMIS MISHAIT, 132/13.8 KV S/S-Reinforcement | NG-SOA<br>Khamis Mushait- | AL-GIHAZ<br>(AG) | HV S/S       | 2005 |
| 7   | JIZAN CPS2, 132/33/13.8 KV S/S                     | NG-SOA<br>JIZAN           | AL-GIHAZ<br>(AG) | HV S/S       | 2005 |
| 6   | TANDAHA, 33/13.8 KV S/S                            | NG-SOA<br>TANDAHA         | AL-GIHAZ<br>(AG) | MV S/S       | 2004 |
| 5   | QILWAH, 132/13.8 KV S/S                            | NG-SOA<br>QILWAH          | AL-GIHAZ<br>(AG) | HV S/S       | 2004 |
| 4   | AQIQ, 132/33/13.8 KV S/S                           | NG-SOA<br>AQIQ            | AL-GIHAZ<br>(AG) | HV S/S       | 2004 |
| 3   | BAHA EAST, 132/33/13.8 KV S/S                      | NG-SOA<br>"Baha           | AL-Gihaz<br>(AG) | HV S/S       | 2003 |
| 2   | TANOUMA, 132/33/13.8 KV S/S                        | NG-SOA<br>ANOUMA          | AL-Gihaz<br>(AG) | HV S/S       | 2003 |
| 1   | BISHA SOUTH, 132/33/13.8 KV S/S                    | NG-SOA<br>BISHA           | AL-Gihaz<br>(AG) | HV S/S       | 2002 |

## B- Transmission Lines (OHTL)

| No. | Name of Project                                                                                                                      | Location      | Client                       | Project Type | Date |
|-----|--------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------|--------------|------|
| 44  | REPLACEMENT OF 110KV OHTL CIRCUITS ARAFAT (ARF-1)-ARAFAT 2(ARF2) A & B IN MAKKAH-WESTERN OPERATING AREA. (UNDERGROUND CABLE PORTION) | WOA<br>MAKKAH | Eastern Union Contracting Co | OHTL         | 2026 |
| 43  | CONSTRUCTION OF D/C OHTL 132KV FOR NEW SUBSTATION BAISH-94 ISKAN IN JAZAN REGION-SOA.                                                | SOA           | SMART UNION (IN-HAND)        | OHTL         | 2026 |
| 42  | CONNECTION OF NAKHLAN HOUSING 132/13.8 KV S/S To Existing BAISH-SABYA OHTL & To DAHAYA BSP.                                          | SOA           | SMART UNION (IN-HAND)        | OHTL         | 2026 |
| 41  | 13.8 KV SWGR BACKUP SOURCE FOR HARAM COOLING STATION (BSHCS)                                                                         | MADINAH       | SAUDI ENERGY                 | OHTL         | 2026 |
| 40  | AIRPORT COMMUNICATION TOWER 92M HEIGHT<br>AT DAMMAM AIRPORT                                                                          | DAMMAM        | NMU DIAMOND LTD              | OHTL         | 2026 |

| No. | Name of Project                                                                                  | Location       | Client      | Project Type                  | Date |
|-----|--------------------------------------------------------------------------------------------------|----------------|-------------|-------------------------------|------|
| 39  | RBG Power Station                                                                                | Madina South   | CEPCO       | OHTL & Civil & Secondary      | 2025 |
| 38  | Replacement Of 110KV LPOF UGCC FSL                                                               | JEDDAH         | CEPCO       | OHTL & Civil & Secondary      | 2025 |
| 37  | JBQ TR01,02,03 MAKKAH power station                                                              | WOA            | CEPCO       | OHTL & Civil & Secondary      | 2025 |
| 36  | CIRCUITS 8017 - 8155, 8018 – 8111                                                                | COA            | CEPCO       | OHTL & Civil & Secondary      | 2025 |
| 35  | LOPF UGC Portions in QURAYYAH                                                                    | EOA            | CEPCO       | OHTL & Civil & Secondary      | 2025 |
| 34  | UGC AZIZIYAH SWCC                                                                                | EOA            | CEPCO       | OHTL & Civil & Secondary      | 2025 |
| 33  | SPORTS BOULEVARD                                                                                 | COA            | RIYAD Caple | OHTL & Civil                  | 2025 |
| 32  | Naiyrah 3 buildings                                                                              | EOA            | NG          | OHTL & Civil & LV & Secondary | 2025 |
| 31  | CONSTRUCTION OF OHTL 110 KV FOR SUBSTATION 110/33/13.8 KV FOR NATIONAL AQUACULTURE GROUP (NAQUA) | Western Region | HAIF        | OHTL                          | 2025 |

| No. | Name of Project                                                                                                                          | Location       | Client            | Project Type | Date |
|-----|------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|--------------|------|
| 30  | CONSTRUCTION OF 110 KV OHTL for UNITED CEMENT 110/13.8 KVSUBSTATION Within Liquid Displacement Program                                   | Western Region | HAIF              | OHTL         | 2025 |
| 29  | Installation of 110 UGC for ARABIAN CEMENT 110/13.8 KV S/SWithin Liquid Displacement Program                                             | Western Region | Al-Ojaimi         | OHTL         | 2024 |
| 28  | 110-13.8 KV SS (KAEC-2 & KAEC-3) KING ABDULLAH ECONOMIC CITY                                                                             | Western Region | CEPCO             | OHTL         | 2024 |
| 27  | REVISED CONNECTION REINFORCEMENT OF SHAMIYAH-1 & SHAMIYAH-2 SUBSTATIONS WITH MKC BSP<br>(110KV UNDERGROUND CABLES PORTION)               | Western Region | CEPCO             | OHTL         | 2024 |
| 26  | REPLACEMENT AND REROUTING OF 110KV UNDERGROUND CABLE CIRCUITS SEA SIDE SUBSTATION - KHALIDIYAH BSP<br>(110KV UNDERGROUND CABLES PORTION) | Western Region | CEPCO             | OHTL         | 2024 |
| 25  | 115 KV OHTL QAISUMAH PROJECT                                                                                                             | Eastern Region | AL-HAIDER COMPANY | OHTL         | 2024 |
| 24  | POWER SUPPLY TO ABU MAAN 115/13.8KV SUBSTATION<br>(OHTL-PORION)                                                                          | DAMMAM - KSA   | CEPCO             | OHTL         | 2024 |

| 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<br>NG -WOA    | Raissy                                  | OHTL         | 2021 |
| 22  | 132kv OHTL from S/S 8720 to looping point 8721-8720                                 | RIYADH-KSA<br>SEC -COA   | TDP                                     | OHTL         | 2021 |
| 21  | Misk Modification In tower & Gantry                                                 | Tabuk-KSA<br>SEC -WOA    | TDP                                     | OHTL         | 2021 |
| 20  | Al-Dawadmi Housing S/S 8610 With 132KV Network For The Review & Stamp               | Dawadmi-KSA<br>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<br>SEC -COA   | Trading & Development Partnership (TDP) | OHTL         | 2020 |
| 18  | DHP-1 132/13.8kv S/S With Remote Ends                                               | Jazan-KSA<br>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<br>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<br>SEC - COA | Trading & Development Partnership (TDP) | OHTL         | 2020 |
| 14  | Shifting of Tower of existing 132 kV d/C - 8096 -9023 Al Shahin project (3.2 KM)    | Riyadh-KSA /<br>(NG-COA) | PTC                                     | OHTL         | 2020 |
| 13  | RETROFITTING OF EXISTING 132KV OHL#9063-8522                                        | Riyadh-KSA<br>(SEC-COA)  | PTC                                     | OHTL         | 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)                  | OHTL         | 2018 |
| 11  | Underground Transmission Line (UGTL) from KKUC-1 to FRA BSP                      | ABHA – KSA (SEC-SOA)        | AL-GIHAZ (AG)                     | OHTL         | 2018 |
| 10  | DC 132KV OHTS Line for NEW Al-Tawdihiah-2 S/S #8725                              | "Al Kharj - KSA (NG-COA)"   | Al-BABTAIN (ABC)                  | OHTL         | 2017 |
| 9   | OHTL BETWEEN S/S 8071 & S/S 8005                                                 | "Riyadh - KSA (SEC-COA)"    | IBN OMAI-RAH Co. (IOC)            | OHTL         | 2016 |
| 8   | 115 KV OHTI & U/G Cables                                                         | "Fadhili - KSA (SEC-EOA)"   | ARAMCO                            | OHTL         | 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)                  | OHTL         | 2016 |
| 6   | 380KV D/C OHTL ALWAJH- UMLUG                                                     | UMLUG-KSA SEC -WOA Wasela   | WASELA                            | OHTL         | 2016 |
| 5   | Connection of Al Badi S/S 8767 with 132 KV Network                               | "KHARAJ - KSA (NG-COA)"     | Al-BABTAIN (ABC)                  | OHTL         | 2016 |
| 4   | 115KV DOUBLE CIRCUIT OHTL and UG Cable in Fadhili-2                              | FADHILI - KSA ARAMCO        | Al-BABTAIN (ABC)                  | OHTL         | 2016 |
| 3   | MADINA-DHUBA, 380 KV D/C OHTL                                                    | MADINAH-DHU BA-KSA (NG-WOA) | HYUNDAI ENGINEERING& CONSTRUCTION | OHTL         | 2015 |
| 2   | 132 KV OHL ,JIZAN INDUSTRIAL                                                     | "Jizan-KSA (SEC-SOA)"       | AL-GIHAZ (AG)                     | OHTL         | 2009 |
| 1   | SHOAIBA 110 KV OHL- between ICY5 S/S & Shoaiba S/S                               | "SHOAIBA-KSA (NG-WOA)"      | AL-GIHAZ (AG)                     | OHTL         | 2008 |

# C - Underground Cables

| No. | Name of Project                                                                                                                      | Location      | Client                              | Project Type | Date |
|-----|--------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------|--------------|------|
| 54  | REPLACEMENT OF 110KV OHTL CIRCUITS ARAFAT (ARF-1)-ARAFAT 2(ARF2) A & B IN MAKKAH-WESTERN OPERATING AREA. (UNDERGROUND CABLE PORTION) | WOA<br>MAKKAH | Eastern Union Contracting Co.       | UGC          | 2026 |
| 53  | CONSTRUCTION OF D/C OHTL 132KV FOR NEW SUBSTATION-BAISH-94 ISKAN IN JAZAN REGION-SOA.                                                | SOA           | SMART UNION (IN-HAND)               | UGC          | 2026 |
| 52  | CONNECTION OF NAKHLAN HOUSING 132/13.8 KV S/S To Existing BAISH-SABYA OHTL & To DAHAYA BSP.                                          | SOA           | SMART UNION (IN-HAND)               | UGC          | 2026 |
| 51  | 13.8 KV SWGR BACKUP SOURCE FOR HARAM COOLING STATION (BSHCS)                                                                         | MADINAH       | SAUDI ENERGY                        | UGC          | 2026 |
| 50  | Detail Design for MV Switchgear replacement at RT Substation 82 and upgrades                                                         |               | SEC PDC &A End client SAUDI AR-AMCO | UGC          | 2026 |
| 49  | Construction of 380KV UG cables from King Salman Park (KSP) BSP-9083 to Metro Northeast#9053                                         | COA<br>Riyadh | CEPCO                               | UGC          | 2026 |
| 48  | Replacement of The Existing 132/33/13.8 kV Tabuk S/S#2 By Constructing A New SUBSTATION, TABUK City                                  | WOA<br>TABUK  | Haif & SE                           | UGC          | 2026 |

| No. | Name of Project                                                                                         | Location     | Client                                    | Project Type     | Date |
|-----|---------------------------------------------------------------------------------------------------------|--------------|-------------------------------------------|------------------|------|
| 47  | MEDICAL CITY (TIBA UNIVERSITY) 110-13.8KV SS & UGC                                                      | MADINAH City | DELTA                                     | UGC              | 2025 |
| 46  | INSTALLATION OF 110KV UGC FOR A NEW 110/13.8 KV SUBSTATION JAWHARAT AL AROS                             | WOA JEDDAH   | RIYADH CAPLE                              | UGC              | 2025 |
| 45  | ROSHEN-2 BSP 110- 13.8KV                                                                                | WOA JADDAH   | CEPCO                                     | UGC              | 2025 |
| 44  | CONSTRUCTION OF OHTL 110 KV FOR SUBSTATION 110/33/13.8 KV FOR NATIONAL AQUACULTURE GROUP (NAQUA)        | WOA          | HAIF                                      | UGC              | 2025 |
| 43  | CONSTRUCTION OF 110 KV OHTL for UNITED CEMENT 110/13.8 KV SUBSTATION Within Liquid Displacement Program | WOA          | HAIF                                      | UGC              | 2025 |
| 42  | AL-FURSAN 2 HOUSING 132-13.8kV                                                                          | RIYADH       | DELTA                                     | UGC              | 2024 |
| 41  | JUBAIL AIRPORT 34.5/13.8KV SS & UGC                                                                     | JUBAIL-2     | CONET                                     | UGC              | 2024 |
| 40  | Installation of 110 UGC for ARABIAN CEMENT 110/13.8 KV S/S Within Liquid Displacement Program           | WOA          | Al-Ojaimi                                 | UGC              | 2024 |
| 39  | POWER SUPPLY FOR RABIGH-4 PROJECT (SWPCRB-4)                                                            | WOA          | Deep Dimension Contracting Company (DDCC) | Extensions & UGC | 2024 |

| No. | Name of Project                                                                                                                          | Location    | Client            | Project Type | Date |
|-----|------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------|--------------|------|
| 38  | CONSTRUCTION OF 132kV U/G CABLE BETWEEN KHAMIS SOUTH AND KKAB IN ASIR REGION-SOA                                                         | SOA ASIR    | Mastoura          | UGC          | 2024 |
| 37  | 110-13.8 KV SS (KAEC-2 & KAEC-3) KING ABDULLAH ECONOMIC CITY                                                                             | WOA         | CEPCO             | UGC          | 2024 |
| 36  | 132kV Cable between HUDUN SS & Najran Central SS                                                                                         | SOA         | Smart UNION       | UGC          | 2024 |
| 35  | REVISED CONNECTION REINFORCEMENT OF SHAMIYAH-1 & SHAMIYAH-2 SUBSTATIONS WITH MKC BSP<br>(110KV UNDERGROUND CABLES PORTION)               | WOA         | CEPCO             | UGC          | 2024 |
| 34  | REPLACEMENT AND REROUTING OF 110KV UNDERGROUND CABLE CIRCUITS SEA SIDE SUBSTATION - KHALIDIYAH BSP<br>(110KV UNDERGROUND CABLES PORTION) | JUBAIL      | CEPCO             | UGC          | 2024 |
| 33  | ROSHAN 110-13.8KV Substation & UGC IN MAKKAH                                                                                             | Makkah City | HAIF              | UGC          | 2024 |
| 32  | 115 KV UG MAHASIN PROJECT                                                                                                                | EOA         | AL-HAIDER COMPANY | UGC          | 2024 |

| No. | Name of Project                                                                                      | Location      | Client | Project Type | Date |
|-----|------------------------------------------------------------------------------------------------------|---------------|--------|--------------|------|
| 31  | POWER SUPPLY TO TUWAIQ CASTING & FORGING FACILITY IN RIC<br>(115KV UNDERGROUND CABLES PORTION)       | JUBAIL        | CEPCO  | UGC          | 2024 |
| 30  | CONNECTION PROJECT FOR 9062 -Al Arid                                                                 | COA           | OJAIMI | UGC          | 2023 |
| 29  | SHQ-1 & 3 380-132kv Ext. & 132KV UGC<br>SHQ-1 & 3 BSP                                                | SOA           | Haif   | UGC          | 2023 |
| 28  | MAKKAH PROJECTS                                                                                      | WOA<br>OJAIMI | CEPCO  | UGC          | 2023 |
| 27  | CONSTRUCTION OF TWO (2) CKTS<br>UG CABLES FROM NEW DIRIYAHGATE BSP<br>#9082 TO EXISTING BSP<br>#9034 | COA<br>RIYADH | CEPCO  | UGC          | 2023 |
| 26  | 4 UG CABLES FORM 9020 TO NEW<br>9097 380kV                                                           | KSA           | OJAIMI | UGC          | 2021 |
| 25  | FOUR (4) CKTS UG CABLES FROM<br>INTERFACE POINT TO SWITCHING<br>S/S-1 9097                           | COA<br>RIYADH | TDP    | UGC          | 2021 |
| 24  | 4 UG CABLES FORM 9053 TO NEW<br>9098 380KV                                                           | KSA           | TDP    | UGC          | 2021 |
| 23  | Connection Of ICY6 110kv S/S to<br>Sanabel 110kv S/S                                                 | WOA<br>JADDAH | Ojaimi | UGC          | 2021 |
| 22  | Conversion Of 380 kv OHTL 9005<br>BSB TO 9020 BSB                                                    | COA<br>RIYADH | CEPCO  | UGC          | 2021 |

| No. | Name of Project                                                                           | Location       | Client                                                                       | Project Type | Date |
|-----|-------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------|--------------|------|
| 21  | 13.8 kV MV UG CABLE BETWEEN LIFTING STATION                                               | COA<br>RIYADH  | ZAMIL                                                                        | UGC          | 2019 |
| 20  | 132 KV UGC-DC between FRA BSP & KKUC KKUC 1 SS ( 4.3 KM )                                 | SOA<br>ABHA    | AI-GHAZ<br>(AG)                                                              | UGC          | 2018 |
| 19  | Construction of 132 KV underground cable, 10 km.                                          | YEMEN          | Ministry of Electricity and Energy<br>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)                  | COA<br>SAJIR   | Service and Solution Company (SSC)                                           | UGC          | 2018 |
| 17  | 110kV U/G -DC Cables for Sarfi Substation in Jeddah                                       | WOA<br>JEDDAH  | Nesma                                                                        | UGC          | 2017 |
| 16  | 33 KV UGC- DC between new 7737 33/13.8 KV SS & 8703 132/33 KV SS (3.2 KM)                 | COA<br>KHARJ   | 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)                  | COA<br>KHARJ   | ZAMIL                                                                        | UGC          | 2017 |
| 14  | 380KV Double CKT U/G Cable from Airport Housing BSP# 9050 To PNUA BSP 9024 (PTS #13CC374) | COA<br>RIYADH  | Trading & Development Partnership (TDP)                                      | UGC          | 2017 |
| 13  | 115 KV OHTI & U/G Cables                                                                  | EOA<br>FADHILI | ARAMCO                                                                       | UGC          | 2016 |
| 12  | 380KV UGC/DC between Exiting Al-NAFAL BSP (9008) & ALMURSALAT BSP (9012)                  | COA<br>RIYADH  | SSEM                                                                         | UGC          | 2016 |

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

# D - Protection and Distribution

| No. | Name of Project                                                                                                                          | Location       | Client  | Project Type             | Date |
|-----|------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------|--------------------------|------|
| 29  | Construction of 380KV UG cables from King Salman Park (KSP) BSP-9083 to Metro Northeast#9053                                             | Riyadh COA     | CEPCO   | Protection modifications | 2026 |
| 28  | HAIL SS BESS SYSTEM                                                                                                                      | HAIL           | ALFANAR | BESS                     | 2025 |
| 27  | REPLACEMENT AND REROUTING OF 110KV UNDERGROUND CABLE CIRCUIT BETWEEN ABHOUR SOUTH SUBSTATION - NAHDAH SUBSTATION                         | West Region    | OJAIMI  | Protection modifications | 2024 |
| 26  | Installation of Power Transformer for Jazan Medical City                                                                                 | South Region   | Nesma   | Protection modifications | 2024 |
| 25  | EXTENSION OF MV SWGR AT 110-13.8 kV TAIBA UNIVERSITY                                                                                     | Western Region | Nesma   | Protection modifications | 2024 |
| 24  | REVISED CONNECTION REINFORCEMENT OF SHAMIYAH-1 & SHAMIYAH-2 SUBSTATIONS WITH MKC BSP<br>(110KV UNDERGROUND CABLES PORTION)               | Western Region | CEPCO   | Protection modifications | 2024 |
| 23  | REPLACEMENT AND REROUTING OF 110KV UNDERGROUND CABLE CIRCUITS SEA SIDE SUBSTATION - KHALIDIYAH BSP<br>(110KV UNDERGROUND CABLES PORTION) | Western Region | CEPCO   | Protection modifications | 2024 |

| No. | Name of Project                                                               | Location                      | Client                 | Project Type               | Date |
|-----|-------------------------------------------------------------------------------|-------------------------------|------------------------|----------------------------|------|
| 22  | Replacements & Reinforcement Jabal Al Noor 110/13.8 KV S/S                    | Mekkah-KSA<br>SEC-WOA         | Ojaimi                 | HV S/S                     | 2021 |
| 21  | Upgrading Protection Equipment in 132kv S/S                                   | Abha-KSA<br>SEC -SOA          | Al - Fanar             | HV S/S                     | 2021 |
| 20  | Shoaiba Relays Setting                                                        | JEDDAH-KSA<br>SWCC            | Al-FANAR Co.           | STUDIES                    | 2020 |
| 19  | ICS (Insulation Coordination Study) For Safaniyah Debottleneck Onshore Plants | Safaniyah<br>KSA<br>Aramco    | GE                     | PV / Engineering & Studies | 2020 |
| 18  | ICS (Insulation Coordination Study) for Zuluf Plants                          | Zuluf - KSA<br>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<br>(NG- COA)" | ZAMIL PROJECTS COMPANY | MV S/S                     | 2017 |
| 15  | Reinforcement of AL KHARJ 7703 33/13.8KV S/S                                  | "Riyadh-KSA /<br>(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<br>(NG-EOA)"   | TAQQAT                 | MV S/S                     | 2016 |
| 12  | Reinforcement of SHAROURA 132/33KV (PP2) S/S                                  | SHAROURA - KSA<br>(NG-SOA)"   | Al- GIHAZ (AG)         | HV S/S                     | 2016 |

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

## E - Power System & Network Studies

| No. | Name of Project                                                                                               | Location                                  | Client          | Project Type                                                                                 | Date |
|-----|---------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------|----------------------------------------------------------------------------------------------|------|
| 35  | CULTURAL OASIS 132-13.8 kV SS- AL-ULA- ALGHAEZ                                                                | Western Region                            | ALGIHAZ         | Insulation Coordination Study (ICS)<br>By PSCAD                                              | 2026 |
| 34  | PS1 & PS2 EXT MAPA                                                                                            | Eastern Operating Area                    | CEPCO           | Insulation Coordination Study (ICS)<br>By PSCAD                                              | 2026 |
| 33  | CRISTAL ILMENITE SMELTING PLANT<br>THE NATIONAL TITANIUM DIOXIDE COMPANY<br>JAZAN ECONOMIC CITY. SAUDI ARABIA | JAZAN                                     | ASIC            | Load factor Improvement & Harmonic Analysis & Reactive Power compensation<br>By Etap & Excel | 2026 |
| 32  | CONSTRUCTION OF NEW 132-13.8kV SWCC S/S 8330                                                                  | CENTERAL                                  | MAPA            | Insulation Coordination Study (ICS)<br>By PSCAD                                              | 2025 |
| 31  | P24101001 Hajer2 380KV PSP                                                                                    | Eastern Area (KSA)                        | GE              | Insulation Coordination Study (ICS)<br>By PSCAD                                              | 2024 |
| 30  | INSTALL C3 C4 REFRIGERATION UNITS&STORAGE TANKS JNGLF                                                         | Jafurah - Eastern Province - Saudi Arabia | ENPPI - AR-AMCO | ARMCO Relay Co-ordination & ARC FLASH & Harmonic Analysis by ETAP                            | 2023 |

| No. | Name of Project                                                                                                        | Location                                                                             | Client                                                       | Project Type                                  | Date |
|-----|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------|------|
| 29  | Jafurah - Juaymah Terminal Expansion                                                                                   | Jafurah - Eastern Province - Saudi Arabia                                            | ENPPI - ARAMCO                                               | ARMCO Relay Co-ordination & ARC FLASH by ETAP | 2023 |
| 28  | 120MW Solar Plant - ADEN YEMEN project                                                                                 | ADEN - YEMEN                                                                         | WSP                                                          | Load Flow by Etap Reactive Power calculation  | 2023 |
| 27  | SHOIBAH SWCC-2                                                                                                         | on the coast of Red Sea, about 120 kilometres (75 mi) south of Jeddah - Saudi Arabia | Ali SHAR Khatib-Alami Water Transmission And Technologies Co | ICS / GT                                      | 2023 |
| 26  | Expansion of AR-RASS PV 380-132kV BSP 9095                                                                             | Al Qassim Province- Saudi Arabia                                                     | Albabbtain - ABC / SEC                                       | ICS / NGR                                     | 2023 |
| 25  | 380-132kV SAAD PV BSP-9094                                                                                             | Riyadh Region - Saudi Arabia                                                         | Alsherief Group SEC                                          | ICS                                           | 2022 |
| 24  | High Voltage Interference Calculation for Gas Pipeline                                                                 | RIYADH KSA                                                                           | Al-Shahin Metal Industries                                   | STUDIES                                       | 2022 |
| 23  | 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 |
| 22  | STEAM TURBINE GENERATORS AT SHEDGUM GAS PLANT PROJECT                                                                  | KSA                                                                                  | ENNPI                                                        | ICS study OTSS Study                          | 2022 |

| No. | Name of Project                                                                     | Location                                               | Client                                      | Project Type                | Date |
|-----|-------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------|-----------------------------|------|
| 21  | overall electrical studies at SHED-GUM GAS PLANT                                    | Eastern Province - Saudi Arabia                        | ENPPI - AR-AMCO                             | ICS / TRANSIENT ANALYSIS    | 2021 |
| 20  | EXPANSION OF NAJRAN UNIVERSITY (NJR) BSP                                            | NAJRAN - Saudi Arabia                                  | SEC                                         | ICS / NGR                   | 2021 |
| 19  | Construction of Al bayan 9097 BSP                                                   | RIYADH - Saudi Arabia                                  | TRADING & DEVELOPMENT PARTNERSHIP CO<br>SEC | ICS / NGR                   | 2021 |
| 18  | EXPANSION OF AL-FARA 380KV BSP                                                      | AL Fara - Saudi Arabia                                 | SEC                                         | ICS                         | 2020 |
| 17  | Safaniya                                                                            | Dhahran on the coast of the Persian Gulf, Saudi Arabia | GE - Enppi - Aramco                         | ICS                         | 2020 |
| 16  | PS1 - PS2 - PS3                                                                     | JUBAIL –Eastern Province - Saudi Arabia                | GE<br>RIYADH WATER TRANSMISSION SYSTEM      | Relay co-ordination by Etap | 2020 |
| 15  | ICS (Insulation Coordination Study) For Safaniyah Debottleneck On-shore 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                                               | EOA DAMMAM                       | AI-TOUKHI Co.                               | STUDIES      | 2020 |
| 10  | Shoaiba Relays Setting                                                                      | JEDDAH-KSA SWCC                  | AI-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<br>End client :<br>Aramco                | STUDIES      | 2019 |
| 7   | Insulation Coordination Study: Shuqaiq 380/132 Kv BSP S/S                                   | KSA                              | GE<br>End Client :<br>SEC                   | STUDIES      | 2019 |
| 6   | Insulation coordination Study : FRA 380/132/13.8 KV BSP S/S                                 | KSA                              | Al Gihaz (AG)<br>End Client :<br>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<br>End client :<br>Royal commission | STUDIES      | 2018 |
| 3   | INSULATION COORDINATION STUDY - FADHILI Gas Processing Plant - PR 4032610.                  | KSA                              | GE<br>END CLIENT:<br>ARAMCO                 | STUDIES      | 2016 |
| 2   | ETAP COORDINATION STUDY IN SUBSTATION-42 YANBU ROYAL                                        | YANBU-KSA-<br>Roya Comi-<br>sion | AI-HAIF                                     | STUDIES      | 2016 |
| 1   | High voltage interference study and calculation report for EP-WTS-2 Pipeline PS1 To Dammam. | KSA                              | YUKSEL<br>End Client:<br>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 FAIS-AL COLLEGE S/S 8533 UPTO BSP S/S 9064. | COA<br>MAJMA  | Trading&Develop-ment Partnership (TDP) | OHL              | 2020 |
| 6   | 132/33KV Hiswa S/S                                                 | YEMEN<br>ADEN | ZASCO                                  | Substa-<br>tion  | 2018 |
| 5   | 132/33 KV, KHOR MEKSAR S/S                                         | YEMEN<br>ADEN | ZASCO                                  | Substa-<br>tion  | 2018 |
| 4   | 132/33KV, Mansoura S/S                                             | YEMEN<br>ADEN | ZASCO                                  | Substa-<br>tion  | 2018 |
| 3   | 132KV of OHL between Hiswa & Al Mansura                            | YEMEN<br>ADEN | ZASCO                                  | OHL              | 2018 |
| 2   | 132KV 1200mm2 Underground cable between Al Mansura & Khor makser   | YEMEN<br>ADEN | ZASCO                                  | Cables           | 2018 |
| 1   | Airport 380 KV 9273                                                | COA<br>RIYADH | Trading&Develop-ment Partnership (TDP) | DESIGN<br>REVIEW | 2018 |

## G- DESIGN REVIEW

| No. | Name of Project                                                                              | Location | Client       | Project Type               | Date |
|-----|----------------------------------------------------------------------------------------------|----------|--------------|----------------------------|------|
| 8   | Expansion of Rabie & Ramis 380/115kV BSP                                                     | Dammam   | Saudi Energy | Review Project (Extension) | 2026 |
| 7   | Ghazlan -3 BSP                                                                               | JUBAIL   | SEC          | Design Review              | 2025 |
| 6   | Construction of New PP12-B 380KV BSP # 9087                                                  | COA      | ALGIHAZ      | Design Review              | 2025 |
| 5   | Construction of Ghazlan-3 PP 380kV BSP                                                       | EOA      | ALGIHAZ      | Design Review              | 2025 |
| 4   | Yanbu Tower                                                                                  | WOA      | NASCO        | Design Review              | 2025 |
| 3   | 380kV Rabie Project in Dammam                                                                | Dammam   | CEPCO        | Design Review              | 2025 |
| 2   | SADAWI PV 380115 kV BSP and Existing 380115 kV NARIYA                                        | NOA      | KEC          | Design Review              | 2025 |
| 1   | 4400022052-CONSULTANCY FOR ENGINEERING AND DESIGN SERVICES FOR PDC ENGINEERING & PROCUREMENT |          | SEC          | Design Review              | 2024 |

# H- SUPERVISION PROJECTS

| No. | Name of Project                                                               | Location      | Client | Project Type | Date |
|-----|-------------------------------------------------------------------------------|---------------|--------|--------------|------|
| 3   | 4400019009-CONSTRUCTION MANAGEMENT SERVICES FOR EHVPROJECTS                   | COA (PART-15) | SEC    | EHV          | 2023 |
| 2   | 4400020304-CONSTRUCTION MANAGEMENT SERVICES FOR TAIBAH                        | WOA (PART 24) | SEC    | EHV          | 2024 |
| 1   | 4400021485-CONSTRUCTION MANAGEMENT SERVICES FOR HVAC OHTL & Converter Station | WOA/COA/ SOA  | SEC    | EHV          | 2024 |

# I - 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 & supervision | 2020 |
| 5   | Kom-Ombo PV Plants 200MW                                                   | Egypt / Aswan             | Mahindra Susten & ACWA Power | PV / Engineering & Studies               | 2020 |
| 4   | ICS For Safaniyah Onshore Plants                                           | Safaniyah - KSA<br>Aramco | GE                           | PV / Engineering & Studies               | 2020 |
| 3   | ICS for Zuluf Plants                                                       | Zuluf - KSA<br>Aramco     | GE                           | PV / Engineering & Studies               | 2020 |
| 2   | Insulation Coordination Study SFNY TP-21                                   | KSA                       | GE<br>End client : Aramco    | PV / Engineering & Studies               | 2019 |
| 1   | INSULATION COORDINATION STUDY - FADHILI Gas Processing Plant - PR 4032610. | KSA                       | GE<br>END CLIENT: ARAMCO     | PV / Engineering & Studies               | 2016 |

## J - 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<br>KSA | TDP company                   | STUDIES      | 2022 |
| 2   | High Voltage Interference Calculation for Gas Pipeline                                                                 | RIYADH<br>KSA | Al-Shahin Metal Industries    | STUDIES      | 2022 |
| 1   | High voltage interference study and calculation report for EPWTS-2 Pipeline PS1 To Dammam.                             | DAMMAM KSA    | YUKSEL<br>End Client:<br>SWCC | STUDIES      | 2015 |

## K - Mechanical Electrical plumbing (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-STRUCTURE | 2023 |
| 3   | WATER SUPPLY RIYADH CITY SADD WASIA LOT-6 | RIYADH-KSA<br>SWCC          | NWWC                 | MEP                                            | 2020 |
| 2   | Kaia Hajj Terminal Plaza                  | JEDDAH-KSA<br>GACA- AIRPORT | MSCL                 | MEP                                            | 2019 |
| 1   | KAEC-4 110/13.8 kv HVAC SCOPE             | JEDDAH-KSA<br>NG -WOA       | SABBAN               | MEP                                            | 2019 |

# L - Buildings

| No. | Name of Project                                                                       | Location           | Client        | Project Type            | Date |
|-----|---------------------------------------------------------------------------------------|--------------------|---------------|-------------------------|------|
| 6   | CONSTRUCTION OF OFFICE, NG BUILDING AT NARYAH SERVICE CENTER                          | EOA                | SEC           | CIVIL WORK              | 2025 |
| 5   | Extension of GCCIA Existing 400KV Substation at Ghunan, Salwa and Silla.              | EOA                | CEGELEC       | CIVIL WORK              | 2025 |
| 4   | Construction of Pump Station tank at Dharet Al Badeaa, King Salman Park, And Manfouha | COA<br>RIYADH      | HAIF          | CIVIL WORK              | 2025 |
| 3   | TIME SQUARE- PORT SAID PROJECT                                                        | Egypt<br>PORTSAID, | CREODEVS      | LV                      | 2023 |
| 2   | Mohandes tower                                                                        | Egypt<br>MENIYA    | Privet Client | Tower                   | 2018 |
| 1   | DIAMOND TOWER<br>Designing all Electrical and Mechanical works of the tower           | Jeddah<br>KSA      | El- Masarat   | Administration Building | 2014 |

# M - Hospitals

| No. | Name of Project                                                                                                                                 | Location          | Client                             | Project Type | Date |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------|--------------|------|
| 3   | Al-Mostakbal ophthalmology hospital                                                                                                             | Egypt<br>MANSOURA | 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<br>The design work including architectural, structural & MEP scope, also full project construction drawings | EOA"<br>DAMMAM    | Saleh Hamd El Kahtawy organization | Hospital     | 2014 |

## N - AS Built Preparation

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

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

# O - Water and Chemicals

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

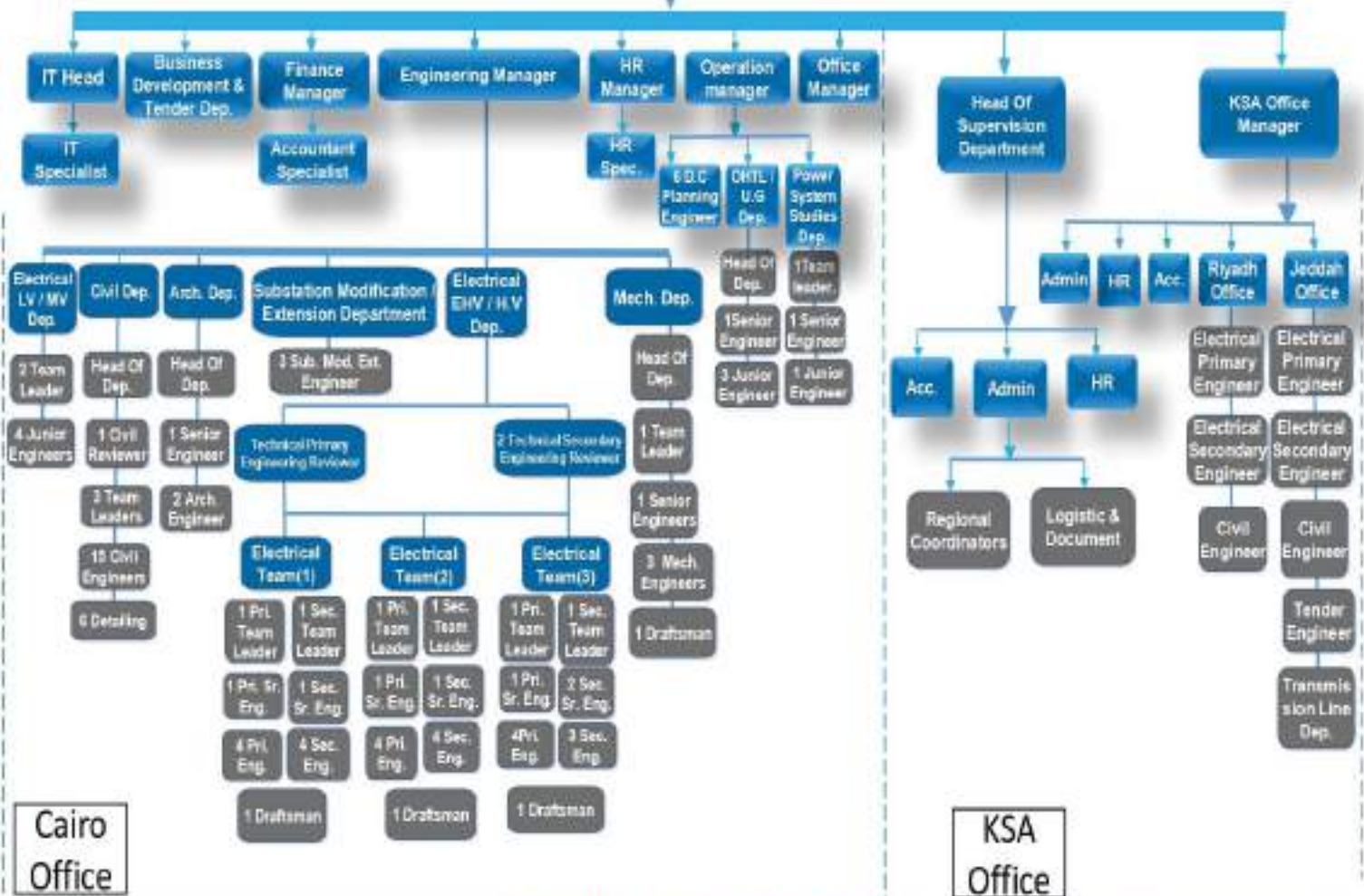
| No. | Name of Project                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Location       | Client                                                                       | Project Type | Date |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------|--------------|------|
| 8   | <p>Assessment of the environmental conditions of the proposed wastewater 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).</p> <p>Financed by EBRD European Bank for Reconstruction and Development</p>                                                                                                                                                                                        | EGYPT<br>Cairo | ARUP                                                                         | Hydraulics   | 2013 |
| 7   | <p>Environmental and Social Impact Assessment for the PROPOSED Safaga Desalination Plant.</p> <p>The study emphasized the 20,000m<sup>3</sup>/day brine disposal system and their environmental impact on the environment.</p> <p>The purpose of the ESIA report is to obtain permitting from the Egyptian environmental Affairs Agency EEAA.</p>                                                                                                                                                                               | EGYPT<br>Cairo | MISR Consult<br>for Environment<br>&<br>Infrastructures<br>(Branch Office)   | Hydraulics   | 2013 |
| 6   | <p>ESIA study for the landfill of El-Kharg City in Riyadh region.</p> <p>The study included field measurements of air quality, water quality and soil quality. The assessment included the proposed recycling.</p>                                                                                                                                                                                                                                                                                                              | Riyadh<br>KSA  | EL-MOHAYED –<br>MISR Consult                                                 | Environment  | 2013 |
| 5   | <p>Environmental and Social Impact Assessment for the PROPOSED Al- Yousr Desalination Plant (treated water capacity 40,000m<sup>3</sup>/day). The study emphasized the 120,000m<sup>3</sup>/day brine disposal system and their environmental impact on the environment.</p> <p>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.</p> | EGYPT<br>Cairo | MISR Consult<br>for Environment<br>and<br>Infrastructures<br>(Branch Office) | Hydraulics   | 2013 |

| No. | Name of Project                                                                                                                                                                                                                                                                                                 | Location          | Client                                                                              | Project Type | Date |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------|--------------|------|
| 4   | <p>Environmental and Social Impact Assessment for the PROPOSED Wastewater Treatment Plant in KENANAH Compound project owned and operated by ORASCOM Cooperative housing Company.</p> <p>The purpose of the ESIA report is to obtain permitting from the Egyptian Environmental Affairs Agency EEAA.</p>         | EGYPT<br>Cairo    | ORASCOM<br>For Cooperative Housing                                                  | Hydraulics   | 2012 |
| 3   | <p>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.</p> | EGYPT<br>Cairo    | RODECO GmbH,<br>Germany –<br>HCWW Holding<br>Company for<br>Water<br>and Wastewater | Hydraulics   | 2011 |
| 2   | <p>Environmental and Social Impact Assessment for the EXISTING Wastewater Treatment Plant in Haram City Compound owned and operated by Orascom Cooperative Housing Company,</p> <p>The purpose of the ESIA report is to obtain permitting from the Egyptian Environmental Affairs Agency EEAA.</p>              | EGYPT<br>Cairo    | ORASCOM<br>For Cooperative Housing                                                  | Hydraulics   | 2011 |
| 1   | Water Supply Riyadh City-Sadd Wasia Lot-6                                                                                                                                                                                                                                                                       | Riyadh-KSA<br>NWC | NWWC                                                                                | Water        | 2010 |

# Organization Chart

## ORGANIZATION CHART

**Chief Executive Officer**  
C.E.O  
Dr. Abdelaal Mantawy



JAWDA ENGINEERING CONSULTANTS

# Our Clients



**SIEMENS Ltd.**



**GE ( COGELEX )**



**ABB Construction Company**



**Al Babtain contracting Company. (ABC)**



**Al-Gihaz Holding**



**AL-TOUKHI Co.**



**ZAMIL Projects Co.**



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



**Saudi Electric Company**



**Aramco Services Company**



**Ibn OMAIRAH Co. (IOC)**



**Advanced Energy Company. (AEC)**



**JAL International Company LTD.**



**AL-FOZAN Group. (AUVA)**



**Saudi Service for  
Electro  
Mechanic Works  
(SSEM)**



سيبكو للبيئة  
SEPCO Environment

**Saudi Environmental  
Protection Company.  
(SEPCO)**



**Raissy Trading and  
Contracting Company  
Ltd.**



**Egyptian Electricity  
Transmission Company.  
(EETC)**



**HAIF COMPANY.**



**AL Ojaimi Group**



**Construction  
Network Con-  
tracting Co. ( CoNet )**



**Khatib & Alami ( Saudi  
Consolidated Engineer-  
ing Company )**



**NESMA National Tele-  
communications  
Co. Ltd.**



**AlFonar Construction**



**ELECTROME-  
CHA INTL.CO -  
L.L.C**



**Deep Dimensions  
Contracting Com-  
pany  
(DDCC)**



**MEEDCO-HYUNDAI.**



**Delta company Ltd .**



**Electro Technique Arabia  
Co. Ltd. (ETAC)**



TAQQAT a member of  
the Abdulla Fouad Group



**Dubai Electricity & Water  
Authority. (DEWA)**



**Trading & Development  
Partnership Co. LTD.**



**CIVIL & ELECTRICAL PROJECTS CON-  
TRACTING COMPANY (CEPCO)**



**KADI Trading & Contract-  
ing Co., Ltd.**



**NECE Co.**



**Egyptian German Electrical  
Manufacturing Company.**



**Service Solutions Co.**



**SAMA Energy**



**Mapa Group**



**NESMA INFRA-  
STRUCTURE TECH-  
NOLOGY**



**Al Bushaier Trading and  
Contracting Company**



**NASCO  
National Advanced  
Systems Co. Ltd.**



**AL-HAIDER  
COMPANY FOR  
CONTRACTING  
KINGDOM OF  
SAUDI ARABIA**



**Smart Union Trading &  
Contracting Company**



**Engineering for  
the Petroleum &  
Process Indus-  
tries  
(Enppi)**



**Mastoura Contracting  
Company**



**Saudi Emar Company**

## List of Joint Venture Companies

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.

PROCTAL is a leading management consulting firm specialized in strategic, program project, and facility management. Claims management and dispute resolutions, total quality management, building information modeling (BIM), visualization, skills development, information technology solutions for project management, procurement management services are also special consultancy services provided by Proctal's sister companies.

Jawda Engineering Consultant is a qualified vendor with:



Reg. No. 121362



41126



50237460



Jawda Vendor Number : 210016095  
in the field of Engineering service of Electric Substation and transmission projects.

## **KSA**

### **Jeddah**

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## **KSA**

### **Riyadh**

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## **KSA**

### **Dammam**

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### **Cairo**

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+966-569060208, +966-569060207