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#### **Introduction**

**EnergyServ** is a professional services organization focused on providing engineering services to Power, Energy, Oil & Gas and Industrial sectors in the Kingdom of Saudi Arabia and GCC countries.

**EnergyServ** is a partner to a group of Egyptian companies under the name of "The Energy Group (TEG)".

**TEG** is a professional engineering services organization specializing in a variety of energy and utility based services in the Arab Republic of Egypt and the Middle East Region.

**TEG** companies' websites:

www.egyptrol.com

www.powerserv-eg.com

www.econsult-eq.com

*EnergyServ*, through its back-up entities, has a diverse portfolio that encompasses cost estimating, design, erection, testing & commissioning & startup, and operation & maintenance activities, as well as a wide pool of experts in different technical and administration fields.

**EnergyServ** is fully geared to provide technical work force as well as providing lump sum services in the following areas:

- Operation & maintenance
- Testing & commissioning & start-up
- Instruments calibration (Mobile Calibration lab)
- Construction activities & supervision
- Equipment & material procurement
- Detailed engineering
- Preparation of tender document packages and evaluation of bidder
- Project cost and schedule control
- Cost estimating

Our services and tools can be tailored to meet different project requirements.

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**EnergyServ** has access to a continuously updated energy & industrial professionals' database with unique qualities that help them professionally execute the required tasks. These qualities include.

- Being selected through a solid filtering process
- Practiced work in energy projects during the last 20 years in the Middle East
- Previously tested to work together
- Most of them have received our training
- When working together under our leadership, our clients take advantage of:
  - Reduced conflicts and friction
  - Internally assigned and coordinated tasks
- Positive attitude to act and improve processes as required
- Hard working staff trained to work under stress
- Familiar with safety procedures and practices
- Deep understanding of energy processes
- Can prepare and execute procedures for the site specific conditions
- Can manage others to carry out the procedures
- Can lead the coordination between contractors
- Experienced in different energy equipment suppliers such as:
  - 500/220kV GIS Systems: AREVA T&D, Hyosung, Siemens, ABB, Alstom Grid, etc
  - MV&LV SWGR, GCB: ABB, Alstom, etc
  - Gas Turbine: GE, Siemens, MHI, Alstom, Ansaldo Energia
  - Steam Turbine: GE, Siemens, Ansaldo, Toshiba, Alstom
  - Boiler: B&W (Babcock & Wilcox), CE (combustion Engineering), Ansaldo Caldaie
  - HRSG: NEM, Ansaldo Caldaie

**EnergyServ** prides itself as a company specialized in Commissioning & Start-up Services, as it has the following advantages in this area:

- Ability to take fast response to clients' requests
- Use of seasoned office support commissioning specialists in selection of suitable candidate for each post considering the harmony during the selection based on previous knowledge of personnel in previous jobs, etc.
- Continuous communication with the team during execution to assure teamwork spirit and best performance to Client
- Assuring high level of staff loyalty
- Ability to provide procedures, advice & trouble-shooting assistance
- Can familiarize the team before dispatching them to site

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#### For Contracting



**EnergyServ** professional team can deliver same services to similar applications in oil and gas and industrial projects, as they are oriented to work under high safety standards.

#### **EnergyServ Services:**

#### 1- Engineering

*EnergyServ* performs different forms of engineering, covering basic and detailed designs for Power Plants, Substations, Industrial Systems and Public Services buildings.

*EnergyServ* efficiently integrate between different engineering disciplines within the project to end up with reliable documents for the required services.

#### **Project Development:**

- Pre and Post Tender Consulting
- FEED (Front End Engineering Design)
- Financial Modeling Support
- Feasibility Studies
- Preliminary Design Report
- Scheduling

**EnergyServ** performs electrical, mechanical and control systems field engineering, installation supervision, testing and commissioning, according to the highest applicable standards.

**EnergyServ** has the capability to offer Mechanical, Electrical and Plumbing (MEP) Engineering services (HVAC, Fire Fighting, Plumbing, Electrical Power and low current) that represent a significant planning and cost factor on projects, and provide fully integrated design solutions that are delivered on time, budget and embraces the latest technology.

#### **Conceptual & Detail Engineering**

#### 1. Mechanical / Process Systems Design:

- Equipment / System Sizing Calculations
- Process Flow Diagrams (PFD's)
- Piping & Instrumentation Diagrams (P&IDs)
- Hydraulic Calculations Using Pipe Flow Expert Software
- Mechanical Equipment / Systems BOQ's & Technical Specifications
- Mechanical Lists (Line, Valve, Instruments & Specialty)
- Mechanical Equipment / Systems Design Review

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#### 2. Piping Design:

- Piping Specifications
- Preparation of Project Plot Plan
- 3D Modeling using Plant 3D & PDMS Software
- Isometric and Shop Drawings
- Piping Bill of Quantities
- Stress Analysis using CAESARII Software
- Pipe Support/Hanger Design and Detailing

#### 3. Civil & Structural Design:

- Foundation Design for Rotary and Static Equipment
- Piling Design
- Concrete & Steel Design for Buildings
- Concrete Design for Water Structure
- Structural Steel Design for Pipe racks, supports, Hangers, Shades, etc.
- Structure 3D Modeling using Plant 3D Software
- Structural Analysis using STAAD Pro software & SAP
- Structural Detailing using Tekla Software
- Structure and Foundation Bill of Quantities& Specifications

#### 4. Electrical Systems Design:

- Equipment General Arrangement
- Single and Three Line Diagrams
- Power system analysis and calculations using (ETAP) software
- Protection relays setting
- Voltage drop calculations
- Raceway details and numbering
- Cable trays routing
- Grounding system detailed design
- Cable sizing, routing and cable lists
- Lighting calculations in DIALux
- Installation typical designs
- Interconnection diagrams
- Fire Alarm Systems, CCTV and Sound Systems
- Material takes off "MTO" for electrical material
- Preparation of electrical specifications for industrial projects

Electrical systems design review

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#### 5. Instrumentation and Control Systems Design:

- Participation with Mechanical Discipline in P&IDs Design
- Input / Output lists
- Instrument Lists
- Logic Diagrams for On-Off Controls
- Functional Block Diagrams for Closed Loop Controls
- Instrument Data Sheets
- Instrument hook-up details and material take off
- Level Setting Diagrams
- I&C systems design review

### 6. Mechanical, Electrical & Plumbing (MEP) Systems Design:

- MEP design using MEP Revit, Elite, Pipe Flow Expert, HAP, DIAlux, ETAP programs
- MEP design using 2D AutoCAD, Elite, Pipe Flow Expert, HAP, DIAlux, ETAP programs

#### **Procurement Management**

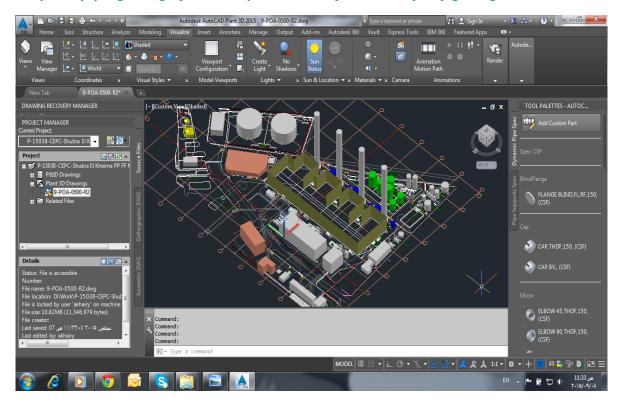
- Preparation of Tender Documents
- Prepare list of suppliers
- Float Tenders and Receive offers
- Price estimation and vendor negotiation
- Prepare Evaluation Report

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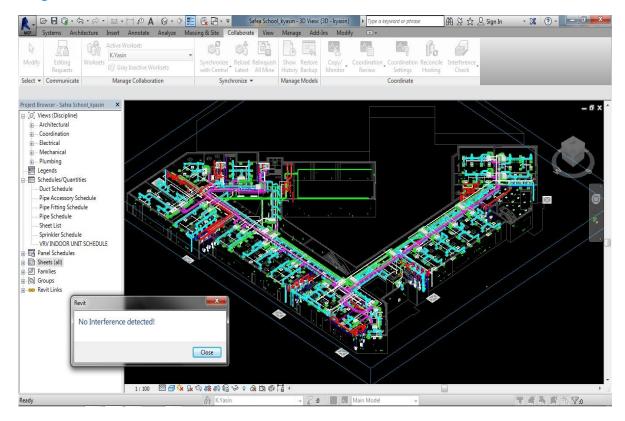


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Sample of Plant 3D software output - Shubra Power Plant Project - CAIRO - EGYP1 Complete piping design for the replacement of the main fire fighting network:



Sample of MEP REVIT software output - Safea School - KSA - Complete MEP Design using AutoCAD 2D and MEP Revit:



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#### 2- Commissioning and Start-Up

**EnergyServ** performs electrical, mechanical and control systems testing, commissioning and start-up according to the highest standards in energy & and industrial systems.

**EnergyServ** covers the commissioning and start-up activities in different types of power plants i.e. thermal; simple cycle and combined cycle power plants; includes the following systems and equipment:

- Gas and Steam turbine electromechanical systems commissioning
- Boiler or HRSG electromechanical systems commissioning
- Balance of Plant Preparation of commissioning procedures
- Water treatment systems commissioning
- Electrical and mechanical equipment inspection
- Electrical and mechanical equipment pre-commissioning and commissioning
- Interfacing, signaling, grounding, wiring continuity and loop check
- Protection relays testing and validation
- Field instrument calibration and loop check
- DCS, SCADA and PLC systems logic and functional testing and validation
- Hydro and pneumatic tests
- Piping flushing and blowout (air and steam)
- Alignment of rotating machines (pumps, fans, etc)



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**EnergyServ** covers the commissioning and start-up activities in Substation for all components up to 500KV (GIS) & outdoor (AIS) Substation; includes testing of the following substation main systems and equipment:

- Circuit breaker testing (function, timing, contact resistance, contact travel distance)
- Power transformer up to 500MVA and 500kV testing (insulation resistance, ratio, vector group, DC winding resistance, tan delta, frequency resonance analysis, oil testing, etc)
- Shunt reactors, capacitor banks & auxiliary transformers
- Current and potential transformers testing
- All components of up to 500KV (GIS) & outdoor (AIS) sub-station
- Cables continuity, insulation resistance and HV test as applicable
- AC dist. board, DC dist. board, neutral ground NGR. Resist. & ring main units
   RMU
- Relay & control panels, fault and sequence of event recorder
- Systems interfacing, stability, scheme, function and overall interlocking
- Relay & control panels factory testing, site training and factory training
- Grounding system testing
- Cables high voltage test up to 33KV
- Firefighting and HVAC system
- DCS, PLC and SCADA systems

#### **Test equipment:**

- Substation Test Set (STS 5000)
- Tan Delta (TD 5000)
- DRTS 64
- CBA 1000 (Circuit Breaker Analyzer and Microhmmeter)
- BUX3000 (Current Booster)
- Load Bank up to 80 kW

#### 3- QA/QC Testing and Inspection

**EnergyServ** has a wide range of testing, analysis and inspection services onshore, as well as offshore applied in energy & industrial systems.

**EnergyServ** has the ability to provide services that range from standard non-destructive testing to complete inspection programs and specialized inspection techniques.

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**EnergyServ** inspectors are certified as a minimum, and all personnel are regularly trained by our all-round certified level III inspectors. Most inspectors have additional qualifications or degrees on top of this.

**EnergyServ's** quality assurance/inspection programs; whether testing, analysis, QA/QC, NDT, boiler inspection, welding inspection services at vendor's facility or onsite construction, include:

- Supplier quality surveillance / expediting services
- Complete turnover documentation compilation and review
- Provide QA/QC inspectors, welding inspectors for the project
- Structural fabrication, installation welding Inspection
- Process piping fabrication and installation Inspection
- Welding procedure qualification review
- Weld inspection Level 2 & Level 3 personnel
- Vendor fabrication inspection
- Vendor quality surveillance
- Visual inspection of process piping systems line check, skids, pressure vessels, tanks, and structurals
- Hydro testing witnessing & sign off
- Magnetic Particle and Dye Penetrant Testing
- Ultrasonic thickness survey and hardness testing

#### 4- Field Instrument Calibration

**EnergyServ** has a mobile calibration laboratory with the capabilities of calibrating water, air, steam, gas and fuel pressure and temperature measuring instruments.

**EnergyServ's** calibration laboratory can be easily moved to our client's erection site with our calibration specialists, to support and cover all pressure, temperature and electromechanical systems calibration needs.

#### **Test equipment and calibration Instrument:**

- Portable pressure calibrator (GE-Druck DPI-610)
- Digital Test Gauge (GE-Druck DPI 104)
- Hydraulic Hand Pump (GE-Druck PV212)
- Pneumatic Pressure and Vacuum Pump (GE-Druck PV211)
- Pressure calibration kit (Omega DPG4000)
- Dry Block Temperature Calibrator (GE-Druck DBC 650TC)
- Loop Calibrator (GE-Druck UPS-III)

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- Field Communicator Heart Emerson 375
- Precision Multifunction Process Calibrator (Fluke 726)
- Me,ory Hi Corder (Hioki 8847)
- Temperature Hi Tester (Hioki 3442)
- High Voltage Insulation Hi Tester (Hioki 3455)
- Clamp On AC/DC Hi Tester (Hioki 3290-10)
- Radiation type temperature Hi Tester (Hioki 3415-01)
- Phase Detector (Hioki 3129)
- DC Single Source (Hioki SS7012)
- The Hand Held Tachometers (Ono Sokki HT-4200)
- Vibrometer with Analyzer (Showa Sokki 1022A)
- Sound Level Meter (RionNL-20)

#### 5- Manpower Sourcing

*EnergyServ* has a specialized pool of experts and adequacy in different technical fields "categories". We use this database of professionals to select suitable candidates to each task we undertake, utilizing a large pool of CVs for power sector individuals, continuously updated and accessible through our webpage http://www.energy-serv-sa.com/ManpowerSourcing.php

#### 6- Operation and Warranty

**EnergyServ** has the expert and adequate operation & maintenance team capable of being responsible for taking over the operational phase and represent the EPC contractor during warranty phase and up to turning over to Owner. During this phase, the following activities would take place:

- Conduct periodic checks and accordingly issue Daily/ Weekly/ Monthly reports.
- Monitor the scope of supply equipment operation and maintenance to identify any improper operation or maintenance activity. Notify the owner of improper operation or maintenance.
- Direct interface with the owner in identifying warranty issues and coordinate between the owner and our client (Contractor) to resolve them.
- Provide instructions to owner operators related to equipment usage.

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### **EnergyServ' Partners Previous Experiences:**

Country	Client	Year	Project	Scope Details				
Engineerii	Engineering Projects (Power & Industrial)							
EGYPT	Airliquide	2016	JUSHI Sokhna VSA Project	Piping, Mechanical and Electrical Engineering services for VSA GOX, LOX & GOX Backup, cooling water, seal water and FF systems				
EGYPT	Siemens / BUREAU VERITAS	2015- 2016	4x4800MW CCPP for New Capital (Cairo), Burullus and Beni Suef	Consultancy Services				
EGYPT	EMC (Egyptian Marketing Consultants)	2015-2016	EGYPT - Farafra Diesel Power Station 4 X 4 MW - MAN Gensets	- Preparation of P&ID's "Using Intelligent Plant 3D software" for 6 systems (Fuel Oil, Lube Oil, Compressed Air, Sludge, Exhaust & Cooling Water) - Preparation of 3D Model "Using Intelligent Plant 3D software" for 6 systems (Fuel Oil, Lube Oil, Compressed Air, Sludge, Exhaust & Cooling Water) - Issuing Bill of Quantities "BOQ's" & Technical Specifications - Issuing Isometrics & Fabrication Drawings - Issuing Steel Supports and Trenches Design Drawing Issuing Structure Analysis Calculation Reports for Steel Supports				

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Country	Client	Year	Project	Scope Details
EGYPT	EMC (Egyptian Marketing Consultants) / PowerServ	2015	Assuit Elwalidia Thermal Power Plant 2 X 300 MW - H2 Plant Replacement Project	- Preparation of 3D Model "Using Intelligent Plant 3D software" encompassing old network and new network showing the overlaps - Issuing Bill of Quantities "BOQ's" for piping, fittings & valves
EGYPT	Cairo Electricity Production Company	2015	Shubra ElkheimaThermal Power plant (4 x 330) MW - Replacement & Rehabilitation of the Fire Fighting Network	- Site Surveying & inspection, as well as studying different options for pipe routing - Preparation of 3D Model "Using Intelligent Plant 3D software" encompassing old network and new network showing the overlaps - Issuing Bill of Quantities "BOQ's", Technical Specifications & Tender Package - Issuing Isometrics & Fabrication Drawings - Issuing Steel Supports and Trenches Design Drawing. 6-Issuing Structure Analysis Calculation Reports for Steel Supports
EGYPT	Arab Contractors	2014- 2015	750MW Alshabab and West Damietta Conversion Power Project	Support Arab Contractor during tender stage by preparing BOQ's, calculation reports, design drawings and execution procedures for the civil & electromechanical scope of CP-102 Civil package
EGYPT	Hang Zhou Boilers	2014- 2015	750MW Alshabab and West Damietta Conversion Power Project	Support Hang Zhou OEM during tender stage by reviewing proposal technical documents, drawings and execution procedures for CP-105 HRSG package

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Country	Client	Year	Project	Scope Details
EGYPT	Aquatech / EMC	2014- 2015	3x650MW South Helwan Supercritical Thermal Power Plant	Support Aquatech during tender stage by preparing civil conceptual and Detail design, BOQ's, Procurement Management for CP-111 Water Treatment package
EGYPT	KSB Pumps / EMC (Egyptian Marketing Consultants) / PowerServ	2014- 2015- 2016	Abu Sultan Power Pant 4 X 150 MW - Replacement of feed water pumps of Unit 1, 3 and 4	- Site Surveying & inspection, as well as studying different options for pipe routing - Stress Analysis Using Caesar intelligent Software for the Suction Lines - Issuing Bill of Quantities "BOQ's" - Issuing Isometrics & Fabrication Drawings - Issuing As Built Drawings
IRAQ	Mantrac / Caterpillar	2014- 2015	American Embassy in IRAQ - 20 MW Diesel Power Plant	- Preparation of 3D Model "Using Intelligent PLANT 3D software" for the Mechanical Systems - Issuing Plan, elevation and sectional views drawings - Issuing Bill of Quantities "BOQ's" - Issuing Isometrics & Fabrication Drawings - Issuing As Built Drawings
EGYPT	Tam Environmenta I Services	2014	Remela RO plant	Detailed Engineering for all electromechanical services
EGYPT	Tam Environmenta I Services	2014	Sheikh Zuwaid RO plant	Detailed Engineering for all electromechanical services
EGYPT	Arab Contractors	2013	3x650MW South Helwan Supercritical Thermal Power Plant	Support Arab Contractor during tender stage by preparing BOQ and execution procedures for CP-102 Civil package

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Country	Client	Year	Project	Scope Details
EGYPT	Hassan Allam Sons	2013	3x650MW South Helwan Supercritical Thermal Power Plant	Providing technical support in the preparation of bid documents to HAC for CP-105 HRSG package
EGYPT	TAQA	2013	7x1MVA+1x.5MVA DG power plant, Marsa Alam	Study for efficiency improvement
EGYPT	Tam Environmenta I Services	2013	Saloum RO plant	Detailed Engineering for all electromechanical services
EGYPT	Tam Environmenta I Services	2013	Sahl Hashish RO plant	Detailed Engineering for all electromechanical services
EGYPT	Tam Environmenta I Services	2013	Sidi Barani RO plant	Detailed Engineering for all electromechanical services
EGYPT	Arab Contractors	2014- 2015	750MW Alshabab and West Damietta Conversion Power Project	Support Arab Contractor during tender stage by preparing BOQ's, calculation reports, design drawings and execution procedures for the civil & electromechanical scope of CP-102 Civil package
EGYPT	Hang Zhou Boilers	2014- 2015	750MW Alshabab and West Damietta Conversion Power Project	Support Hang Zhou OEM during tender stage by reviewing proposal technical documents, drawings and execution procedures for CP-105 HRSG package
NIGERIA	ORASCOM Construction Industries	2012	Azura, Nigeria. 500 MW (4x125MW) Gas Turbine Simple Cycle Power Plant.	Prepare Technical Proposal contents Preliminary BOQ's Cost Estimate
IRAQ	Arab Contractors / El-Sewedy Power	2012	Samawa, Iraq. 500 MW (4x125MW) Gas Turbine Simple Cycle Power Plant	Prepare Technical Proposal contents Preliminary BOQ's Cost Estimate

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Country	Client	Year	Project	Scope Details
IRAQ	Arab Contractors / El-Sewedy Power	2012	Diwania, Iraq. 500 MW (4x125MW) Gas Turbine Simple Cycle Power Plant	Prepare Technical Proposal contents Preliminary BOQ's Cost Estimate
MAURIT ANIA	ORASCOM Construction Industries	2012	Nouakchott, Mauritania. 120MW (8x15 MW) Diesel Power Plant	Prepare Technical Proposal contents and Cost Estimate
EGYPT	Roots Steel Systems	2012	Pre-Engineered Steel Factory	Preparation of electromechanical systems Contractor Packages and Construction Management
EGYPT	Tam Environmenta I Services	2012	Al Montazah MBR plant	Detailed Engineering for all electromechanical services
EGYPT	Tam Environmenta I Services	2012	Taba Water RO plant	Detailed Engineering for all electromechanical services
EGYPT	Tam Environmenta I Services	2011 To 2012	Matrouh city water RO desalination plant	Electromechanical systems detailed engineering and construction management
SYRIA	Socoin	2011	Dir Ali II, 1x750 MW CCPP	Sub-Consultant to Gas & ST. Turbine: ANSALDO HRSG : NEM
EGYPT	Kharafi National	2011	5X8MW Diesel Generators Power Plant	Preliminary Design for civil, mechanical, electrical and control systems
EGYPT	Kharafi National	2011	W. Damietta – 4X125MW SCPP	Pipe lines hydraulic calculations, for all auxiliary systems (water and fuel).
EGYPT	HYOSUNG CORPORATIO N	2011	Damietta - 4x125MW SCPP,220KV GIS Substation of Power Station.	<ul><li>Relays setting Calculations</li><li>Construction supervision</li></ul>
KSA	VECG	2011	El-Haram Power Generation Plant El- Madeinah El- Monawara	Mechanical systems shop drawings

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Country	Client	Year	Project	Scope Details
EGYPT	Kharafi National	2011	- Damietta - 4x125MW SCPP	- Firefighting, water systems and fuel oil system
			- Elshabab - 8x125MW SCPP	- Pipe lines Hydraulic calculations & P&ID review)
EGYPT	Electro Tharwat	2010	Al-Gabal Al-Asfar & Cairo - Alex & EL- Haramain railways projects	Tender document study and determination of BOQ
EGYPT	Egyptian Canadian Pharmaceutic als ECAN Pharmaceutic als	2009 - 2010	With: Egypt. Comp. for Complementary Works ECC Facility – El Obour City, Cairo, Egypt	Preparation of Electrical, Fire Fighting and plumbing systems Contractor Package
EGYPT	Airliquide	2009	Industrial Gases Production Plant at the 6 <sup>th</sup> of October City	Design Cooling System Logic Diagrams
EGYPT	PGESCo	2009	Design for New Transformer Factory – Badr City for ELMACO	Steel Structure Design as a sub- consultant to PGESCo
EGYPT	AUG Pharmaceutic als	2008 To 2012	AUG Pharmaceuticals Facility – 6th of October City, Cairo, Egypt	Preparation of electromechanical systems Contractor Packages and Construction Management
EGYPT	Global Partners – INITEC.	2008	El-Kuraimat (III) Power Plant Project CP-105 & CP-106 Scope,	Grounding System Design and BOQ within INITEC scope of supply
EGYPT	Global Partners – INITEC.	2008	El-Tebbin Power Plant Project CP- 106 & CP-118 Scope	Grounding System Design and BOQ within INITEC scope of supply
EGYPT	Global Partners – INITEC.	2008	Nubaria (III) Power Plant Project CP- 106, CP-117 & CP- 118 Scope	Grounding System Design and BOQ within INITEC scope of supply

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Country	Client	Year	Project	Scope Details
EGYPT	GlaxoSmithKli	2005	Madinet El Salam	Consultation Services for Survey
	ne	То	Manufacturing	for Factory Electrical System as
E CV D T	110 511	2006	Facility	built drawings preparation
EGYPT	US Filters "Egyptian European Pharmaceutic al Co."	2001	Water Treatment Plant	Piping And Isometric Design
EGYPT	Hi-Tec Pioneers "Egyptian Ministry Of Irrigation and Water Resources"	2000 To 2002	Bahr Tanah (Mansoura) Irrigation System levels control	Control system design
EGYPT	US Filters	1998 To 2001	Water and Waste Water Treatments for many projects	Mechanical and Piping Isometrics Design. Main Electrical and Control Panel design
EGYPT	Ministry of Electricity – New & Renewable Energy Authority	2000	Experimental 15kW Wind Turbine Generation Unit	Control system design
EGYPT	Qarun Petroleum Co.	2000	Oil Receiving Station	P&ID Drawings
Engineeri	ng Projects (Com	mercial	- MEP)	
EGYPT	Nashaat Salama - "Owner"	2015	Arab Hospital in Mansoura	Full MEP Design and Site Supervision
KSA	FCC office	2015	Rehabilitation of Riyadh Ind. WTP	Mechanical and Electrical Engineering services
KSA	Allied Consultants	2015	Jabal Omar Hotel - District cooling plant	Mechanical, Piping and Electrical Engineering services
KSA	MTMM Office	2014	Perfume Factory	Full MEP Design

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Country	Client	Year	Project	Scope Details
KSA	MTEC Office	2014	Cable Factory Expansion in Yanbu	Full MEP Design
Egypt	SAHHM Office	2014	MAAN Housing Project	Infrastructure design for phases 1 & 2
KSA	Owner Consultant	2014	Eight Parks in Taif	Full MEP Design
KSA	Owner Consultant	2014	Modi Masjid & Diwaneya	Full MEP Design
EGYPT	Novartis	2014	Novartis New Lab	Full MEP Design
KSA	Owner Consultant	2013	Al Safea School	Full MEP Design
Sudan	TEBR Office	2013	Aliab Sharq - Sudan -Phase 1	Intake pumps design and Electrical design.
KSA	Owner Consultant	2013	Ruddaf Park	Storm Drainage and Irrigation Design
KSA	Owner Consultant	2013	Library Park	Full MEP Design
KSA	Owner Consultant	2013	Community Park	Full MEP Design
EGYPT	Owner	2013	Green Valley Factory	Full MEP Design
EGYPT	Owner Consultant	2012	Al Tabib Medical Center	Full MEP Design
EGYPT	Owner Consultant	2012	Al Shohadaa Islamic Center	Full MEP Design
Qatar	Owner Consultant	2012	The Kattara Project	Plumbing and FF Design
EGYPT	Coca Cola	2012	Coca Cola Egypt office building power distribution system improvement	Power distribution system improvement study and construction management
EGYPT	Multipharma for pharmaceutic al and chemicals company	2012	Multipharma warehouse-New Cairo	Preparation of Electromechanical system contractor package and construction management

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Country	Client	Year	Project	Scope Details
EGYPT	Owner Consultant	2011	Hala Mall	Full MEP Design and Site Supervision
KSA	Owner Consultant	2011	Islamic University	Electrical and HVAC Design
KSA	Owner Consultant	2011	KAU Aquarium	Full MEP Design
KSA	Owner Consultant	2011	El Nafl Residential Complex	Electrical , Plumbing and FF Design
KSA	Engineering Solutions ES	2011	El-Nafl Residential Complex	Electromechanical Systems Design
EGYPT	VERINNO	2010	Mohandseen Showroom	Electrical power distribution system study
EGYPT	Power Generation Engineering and Services Company (PGESCo)	2008	PGESCo Building at New Cairo – 3 Floor Extension	Consultation Service Electromechanical Contractor Package Preparation
AFGHAN ISTAN	CONTRACK International Inc.	2004	U.S. Brigade Compound Kabul Military Training Facilities, Kabul, Afghanistan	Full Engineering and Coordination with CONTRACK engineering and its system sub- suppliers for the Power Plant Fuel Oil System control system and piping
Commission	oning & Start-up	Project:	s	
KSA	Hyundai Heavy Ind.	2015 - 2016	South Jeddah (4*660)MW Oil Fired - Thermal Plant Supercritical	Staffing for plants operation
EGYPT	AC Boilers	2015	Suez Thermal Power Plant 1x650MW	Mechanical Commissioning and Operation
EGYPT	General Electric	2015	TM2500+™ Mobile Gas Turbine Generators at 10 sites each with 2 units	Staffing for plants operation

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Country	Client	Year	Project	Scope Details
EGYPT	General Electric	2015	Assiut 8X125MW W. Damietta 4X125MW	Staffing for plant commissioning and operation
EGYPT	Electro Tharwat	2015	Assiut 8X125MW W. Damietta 4X125MW	Testing and Commissioning of GCB, UAT, GSUT and IPB
EGYPT	GE / TSK / Hassan Allam Construction	2015	14 Gas Turbine LM 6000 at three sites Hurgada, Sharm Elshiekh and port said	Pre commissioning and flushing of 14 Gas turbine LM6000
EGYPT	General Electric	2015	Kuraimat Solar 150MW ISCC	Manpower for outage for turbine shaft maintenance
EGYPT	ANSALDO CALDAEI	2014	Banha Power Plant 750MW CCPP	HRSG commissioning and operation
KSA	HANWHA	2014	Marafiq Yanbu 5&6 Project, Saudi Arabia	Providing case study and issuing of Tuning Assessment Report Yanbu Unit #5
KSA	SAMSUNG C&T CORPORATIO N	2013	Qurayyah Independent Power Project (QIPP) 6 x 750MW	Commissioning of 6 Combined Cycle Modules (2x2x1)
EGYPT	DOOSAN HEAVY INDUSTRIES& CONSTRUCTI ONS CO. LTD	2013	Ain Sokhna Power Plant (2X650)MW CP-105	Assist in the Commissioning of 2x650MW Boilers
EGYPT	ALSTOM GRID	2013	Giza North PP 2X750MW(500/220 KV SWYRD) Alstom	Test. & Comm. of SWYRD & Remote End Prot. Sys.
EGYPT	AREVA T&D	2010 To 2011	El-Mashtal GIS S/S, 66/11 kV - AREVA	Test. &Comm. of Sub St. & TL Remote End Prot. Sys.
EGYPT	HYOSUNG	2011 To 2012	Damietta SWYRD, 220KV - HYOSUNG GIS Substation	Test. &Comm. of SWY & Remote End Prot. Sys Relays setting Calc. Construction supervision

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Country	Client	Year	Project	Scope Details
EGYPT	ANSALDO ENERGIA	2011 To 2012	6th Of October Power Plant 4x150 MW	Commissioning, Start-up 4 × 150 MW Simple Cycle & Test. &Comm. of SWYRD & Remote End Prot. Sys.
EGYPT	ANSALDO CALDAEI	2011 To 2012	Abu Qir 2x650MW Boilers	Commissioning, Start-up and Operation 2x650MW Boilers till handing over
IRAQ	ABB Mannheim	2011 To 2012	- IRAQ Erbil 2x125MW GE Gas T IRAQ - Dohuk4x125MW GE Gas T IRAQ - Al- Solaimanyah 4x125MW GE Gas T	Construction Supervision Commissioning and Start-up of GT & auxiliaries through a seconded commissioning manager GE Gas Turbine
EGYPT	AREVA T&D	2010 To 2011	Bahteem GIS S/S 220/66/11 kV, AREVA	Test. &Comm. of Sub St. & TL Remote End Prot. Sys.
EGYPT	NEM Energy B.V.	2010 To 2011	SidiKrir and El-Atf Combined Cycle Power Plant - 750MW each.	HRSG systems Commissioning & Operation until handing over to Owner
EGYPT	Toyota Tsusho C. Toshiba Plant Systems & Services C.	2009	SidiKrir and El-Atf Combined Cycle Power Plant - 750MW each	Preparation of Chemical cleaning procedure for the Condensate and Feed Water System
EGYPT	Toyota Tsusho C. Toshiba Plant Systems & Services C.(TPSC)	2009 To 2013	El-Atf Simple Cycle Power Plant - 750MW	Lump Sum Contract Commissioning of the Electrical and Mechanical BOP and related services
EGYPT	Toyota TC/ Toshiba (TPSC)	2009 To 2013	Sidi Krir Simple Cycle Power Plant - 750MW CP-118 & CP-117	Assist in the commissioning of Mechanical BOP and related services

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Country	Client	Year	Project	Scope Details
EGYPT	Mitsubishi Electric Co. (MELCO)	2009	SidiKrir Simple Cycle Power Plant - 750MW CP-101	Long Term Service Agreement for Commissioning and Support and Start-up Activities
QATAR	ABB Mannheim	2009	QATAR - QATALUM Combined Cycle Power Plant	POB Construction and Commissioning Management
QATAR	ABB Manheim	2007 To 2008	QATAR - Abu Fontas Power Plant Project (QEWC) – Qatar	POB Construction and Commissioning Management
LIBYA	ABB Manheim	2006	LIBYA - Benghazi 319 pumping station	Electrical Systems installations supervision, commissioning and startup services
EGYPT	ALSTOM Power Inc.	2001 To 2003	Aswan High Dam Control System Upgrade 12x175MW	Commissioning and start- up of Aswan High dam new DCS system
Construct	ion Projects			
EGYPT	OFMECO Pressure Com-ponents Srl	2016	Ain Sokhna Super Critical Power Plant (2X650) MW	Deaerator Thermal Design Improvement, High Pressure Heater Inspection Unit 1& 2
EGYPT	OFMECO Pressure Com-ponents Srl	2016	Ain Sokhna Super Critical Power Plant (2X650) MW	High Pressure Heaters Inspection & Repair Unit 1
EGYPT	Egyptian Marketing Consul-tants (EMC)	2015	Assuit El-Waledia Steam Power Plant 2x320MW	Detail Engineering, Installing, Commissioning and Start Up New Hydrogen Generating Plant
EGYPT	TBEA Shenyang Transfor-mer Group Co., LTD	2015	Giza North Power Plant CP-113 Combined Cycle Power Plants 2250MW	Designing, Supplying and Installing Transformer Radiator Support
EGYPT	GE / TSK / Hassan Allam Construction	2015	14 Gas Turbine LM6000 at three sites Hurgada, Sharm Elshiekh and port said	Installing , testing and pre commissioning of Qty. (14) Gas turbine LM6000 complete power block

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Country	Client	Year	Project	Scope Details
EGYPT	Egyptian Marketing Consultants (EMC) / EDEPC	2015	Abu Sultan Power Plant (4x150)MW Unit 3	Mechanical and Electrical construction for Feed Water Pumps Replacement in Unit One
EGYPT	El-Nubaria – Mohamed Ragab Farm	2014	Deep well Pump 9 kW	Supply and Install Solar Water Pump System 9.4 kWp
EGYPT	West Delta Electricity Production Company (WDEPC)	2014- 2015	WDEPC Building in Gelim & Sidi Krir PP Administration Building	Supply and Install 105 kWp Grid Tie Solar Photovoltaic Roof System
EGYPT	Egyptian Marketing Consultants (EMC) / WDEPC	2014 - 2015	Abu Qir Power Plant / Unit Five 300 MW	Conducting the Dismantling, Supplying, Installation and Pressure Test Activities for High Pressure Heaters no. 6 & 7
EGYPT	Egyptian Marketing Consultants (EMC) / EDEPC	2014 - 2015	Auon Mousa Steam Power Plant (2x350)MW / / Unit Two	Conducting the Dismantling, Supplying, Installation and Pressure Test Activities for High Pressure Heater no. 6 Coils
EGYPT	Egyptian Marketing Consultants (EMC) / EDEPC	2014	Abu Sultan Power Plant (4x150)MW, Unit 1	Mechanical and Electrical construction for Feed Water Pumps Replacement in Unit Three
EGYPT	Egypt Engineering Services Co. S.A.E. (EGYPTROL)	2014	Egyptrol Roof Solar System	Supplying and Installing 3 kW Solar Photovoltaic Grid Tie Roof System
EGYPT	TTC/TPSC	2014	Sidi Krir Combined Cycle Power Plant 750MW / CP-118	Dismantling, Supplying and Installing Five spools in WS system

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Country	Client	Year	Project	Scope Details
EGYPT	ERCC - Kafr El-Sheikh - Abu Riad Village – Omar ElWeshy Farm	2014	Farm Fish - Surface Pump 2.5 kW	Supplying and Installing Solar Water Pump System 3.5 kWp
EGYPT	Egyptian Electricity Transmission Company EETC / Upper Egypt Electricity UEE	2013	Supplying Fire Fighting Equipments to Upper Egypt Electricity - Aswan Networks Sector Buildings	Supplying Fire Fighting Extinguishers and Out Doors Fire Hose Cabinets
EGYPT	EMC / EDEPC	2013	Attaka Power Plant (2x150+2X320)MW	Erection two (2) Self Cleaning Filters on Closed Cooling Heat Exchangers and Supplying the Mechanical Items
EGYPT	Egyptian Electric Utility and Consumer Protection Regulatory Agency (ERA)	2013	ERA Roof Solar System	Supplying and Installing 12.5 Kw photo voltaic system
EGYPT	Abu Zaabal Fertilizers and Chemicals Company (AZFC)	2013	Unit Seven 15MW Steam Turbine Generator	Conducting the Operation and Preventive/ Corrective Maintenance
EGYPT	East Delta Electricity Production Company (EDEPC)	2013	Attaka Power Plant (2x150+2X320)MW	Supply and Install Charging Headers for 250 Bar H2 Cylinders in H2 Generation Unit
EGYPT	Tourah Cement Factory	2011	Tourah Cement Factory	Electrical work for replacing Packing Plant no. 3

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Country	Client	Year	Project	Scope Details		
EGYPT	EMC / EDEPC	2012	Abu Sultan Power	Erection, Commissioning and		
			Plant (4x150)MW	Start-up for new Hydrogen generating plant & Supplying all		
				the Electrical material		
EGYPT	EMC / EDEPC	2012	Attaka Power Plant	Erection, Commissioning and		
			(2x150+2X320)MW	Start-up for new Hydrogen		
				generating plant & Supplying all		
				the Electrical material		
EGYPT	EMC / EDEPC	2012	Abu Sultan Power	Mechanical and Electrical works		
			Plant (4x150)MW,	for the replacement of 3 Feed		
			Unit 4	Water Pumps		
Warranty Representation Projects						
EGYPT	Toyota TTC/	2011	Sidi Krir Combined	Warranty Period Representation		
	Toshiba TPSC.	То	Cycle Power Plant	& Closure of Punch List Items		
		2015	750 MW			
EGYPT	Toyota TTC/	2011	El-Atf Combined	Warranty Period Representation		
	Toshiba TPSC.	To	Cycle Power Plant	& Closure of Punch List Items		
		2013	750 MW			

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