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### OVERVIEW



alfanar Testing & Commissioning (AT&C) offers professional expertise in the maintenance, testing and commissioning services of electrical power systems of various voltage levels.

AT&C provides testing and commissioning services to various types of power systems, including 400kV EHV substations. With key experience in the testing and commissioning of switchgears, power transformers, protection and control systems, substation auxiliary equipment, fiber optic cable splicing and generation equipment; AT&C is committed to provide benchmark services to its clients.

#### **Testing & Commissioning Services for:**

- Power Systems
- Generation Equipment
- Transformer
- High Voltage
- Fiber Optic
- Transmission Line/ Underground Cable

### Our other Core Services include:

- HV & MV Power Cable Joints and Termination
- Installation of Electrical Equipment
- Oil Filtration & Treatment
- SF6 (Sulfur Hexafluoride)

alfanar Testing & Commissioning is a specialised unit of alfanar Engineering Services that provides solutions in technical services, steel fabrication, operation and maintenance, equipment calibration and technical training institute.

## OUR VISION



Ongoing Projects 106 MANPOWER 550 with 415 Engineers

Completed Projects 300+

To be the premier service provider of complete field testing and commissioning of electrical power systems with attributes characterized by quality services, excellence in practices and values that nurture human potential.



Overseas Kuwait Projects 20

Qatar Jordan Bahrain UAE

### POWER STATIONS TESTING & COMMISSIONING



AT&C offers high quality and efficient testing, commissioning, maintenance and troubleshooting services for substations upto 400kV.

### Our services include:

- Testing of relays of all types and makes
- Testing of primary injections, busbars and transformer stability
- Testing of 132kV, 220kV, 400kV GIS
- Testing of outdoor switchgears
- Testing of 13.8kV and 33kV switchgears
- Performing on-load measurements
- Testing of ACDBs, DCDBs, auxiliary transformers, NERs and RMUs
- Smart grounding measurements
- Providing testing engineers along with world-class test equipment, on a project hire basis

New Haramain High Speed Railway 380kV Substations (6 Nos)



SEC-COA 380kV Substation #9023-PP-10



Rabigh(2) Power Plant-SEC-COA 380kV



### GENERATION TESTING



#### Our services include:

- Testing of rotors, stator & exciter systems
- Testing of generator protection systems, control panels & DCS
- Maintenance and major overhauling and rehabilitation service

AT&C offers testing and commissioning services for various types of power generation systems like gas, diesel, steam, and combined cycle units.

DCS ervice

SIGNATURE PROJECTS

78MW Sharourah Ext. Power Plant

675MW Hail-2 Power Plant

Ras Al-Khair Power & Desalination Plant Phase 1 Package







With our mobile testing units, we provide complete onfield high voltage testing services. Our unique services, pertaining to cables and power systems, range from certification testing and equipment life assessment to emergency failure analysis and fault detection.

We provide high voltage testing services for switchgears, transformers, power cables rated up to 132kV.

#### Our services include:

- High Voltage test up to 400kV XLPE cables
- High voltage test of 132kV GIS, 132 XPLE cables
- High voltage test of 13.8kV, 33kV switchgears, XPLE cables
- VLF testing of equipment up to 100kV

New Makkah West 380kV Substation



New Kandarah 380kV Substation



King Abdullah Financial District 132kV Substations (4 Nos)



## TRANSFORMER TESTING



#### Our services include:

- Testing of transformers, shunt reactors and capacitor banks
- Vacuum services
- Performing Tan Delta test
- Performing frequency response measurement
- OLTC and fan test
- Our capability of Transformer testing is from 0.5 to 903 MVA

AT&C offers testing and oil treatment services for transformers, shunt reactors and capacitor banks. We are fully equipped with the latest equipment necessary to provide these specialized services.

Shaybha NGL Power Generation Project Packages(1,2,3 & 4) (13.8, 230kV

Wasit CoGeneration & Steam Generation

Al-Kudmi Project 380k







## TRANSMISSION LINE



alfanar Testing & Commissioning have the most modern test equipment and machinery to carry out the electrical equipment tests at site for HV and LV transmission lines.

### **Our services include:**

- Tower earthling resistance
- Measurement of actual line parameters

New Thuwal BSP Substation-SEC-WOA



OHTL for Qassim#4 Substation



Iskan (Al-Hisma) 132/33/13.8kV Substation



# OIL FILTRATION &



### Our services include:

• Vacuum services as well as oil filtration for power transformers, shunt reactors and capacitor banks



AT&C's specific choice and blend of materials and products ensure the best performance of our equipment in the oil treatment and purification field.

Dawadm 380/132kV BSP Substatio

Al-Qurayyah Substation 400kV

Construction of 380kV Shoiba-3 Substatior







We specialize in splicing, termination, testing and commissioning of various types of fiber optic cables, like Underground Cables (UGC), Optical Ground Wire Cables (OPGW), and All Dielectric Self Supporting Cables (ADSS).

#### Our services include:

- Pre & Post installation testing
- Splicing of fiber optic cables
- Termination of fiber optic cables
- End-to-end testing
- Fitting of splicing boxes on towers
- Pilot protection cable testing
- Pilot telecommunication cable testing

GCCIA (Qatar, Jordan Kuwait, Bahrain



Enhancement work for Telecommunication System

Al-Zour Substation (Kuwait)



# HV & MV POWER CABLE



Our team is highly skilled in the jointing and termination in different types of kits, achieving customer target on time with the highest quality as per the manufacturer procedure and approved process. Certified by the major vendors and manufacturers and approved by the major utilities, AT&C provides this service for voltage levels up to 132kV power cables used for various types of heat shrinkable and cold shrinkable.

alfanar Testing & Commissioning are experts when it comes to HV/MV power cable joints and Termination up to 132kV, a highly skilled activity requiring technical expertise and know-how. AT&C team adheres with the manufacturer's procedures and approved processes for the installation of the joints and terminals in different kits.

> Cable joint and termination at 115kV S/S eastern region-Dammam

HV Power Cable Termination for 110kV S/S at Al Khozan- Jeddah

132kV Al-Jouf Project for Cable Termination





# ELECTRICAL EQUIPMENT



With our long expertise in the power industry, our team has the capabilities and the necessary equipment to do professional installations on wide range of electrical equipment.

Be it an electrical substation's expansion or replacement of the old system, we provide effective solutions for the installation of the new electrical equipment.

Our team can install the critical equipment like GIS, Switchgears, Power Transformers, RMU's, Gantry Installation, Protection Control Panels, Power Cables pulling to name a few.

Switchgear installation & Commissioning at Tawdiyah S/S Al-Khari



Installation of GIS for Saudi Aramco Project in Yanbu



Al Yamamah S/S 115kV GIS installation and T&C



### PROJECT MANAGEMENT



At alfanar Testing and Commissioning, we focus on delivering a project on time, to budget and to the highest appropriate level of quality. Upon acceptance to carry out testing and commissioning, our engineers organize frequent meetings with the client in order to determine and implement the suitable techniques and proper time schedules from testing until final commissioning.

We are committed to attend to customer requirements and specifications, which are treated with extreme importance. By synergizing latest techniques and software, and most importantly, responsible personnel, AT&C manages resources to the optimum ensuring a quality project delivered on time and within the budget.

### PEOPLE



At AT&C, we are committed to provide our people with the training and assessment that will ensure they reach their own goals. We encourage our people to take every opportunity to better themselves – for the sake of their own career development and enjoyment, and to support in our vision to be the leader.

The trained and skilled manpower is one of the best in the region and several of the lead team members are continuously trained by the manufacturers.

### EQUIPMENT



Our commitment to provide the best solutions to the clients has always been our paramount concern. To enable us in providing the accurate solutions for power station, fiber optic or transformer testing, we use the latest and most reliable and computerized test equipment, sourced from market leaders in order to operate precisely and by reducing the handover time of a project to the client.

We have generously invested in our testing and commissioning as well as calibration equipment. Meeting stringent European standards, our assets include state-of-the-art reliable and computerized test equipment.

### TRAINING



AT&C believes in continuously developing and nurturing its team to the benefit of its clients, the company & the employee himself.

AT&C is proud to associate with clients to provide training courses, including on-site training for clients' engineers on behalf of the international manufacturers on numerical relays & substation equipment in many substations in KSA.

### SAFETY



Safety always remains a primary concern at AT&C, a key value that is fundamental to our culture.

We have a healthy track record and obtained several prestigious 'SAFETY AWARDS' from our valuable clients. We achieve high Safety Standards through the right combination of field procedures, professional attitudes,

and dedicated safety staff supplemented with periodical Safety Evaluations during all phases of project executions.



### QUALITY



Our quality assurance program is in line with technical, national and international codes. It also complies with construction, safety and environmental norms. Our team's in-depth knowledge, complemented by years of experience and expertise, enables us to offer unsurpassed commitment to quality and attention to detail.