EPYTECK

Power Generation (LLC)

YOUR ENERGY NEEDS

DEFINED BY EXPERTISE

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info@epyteckpower.com

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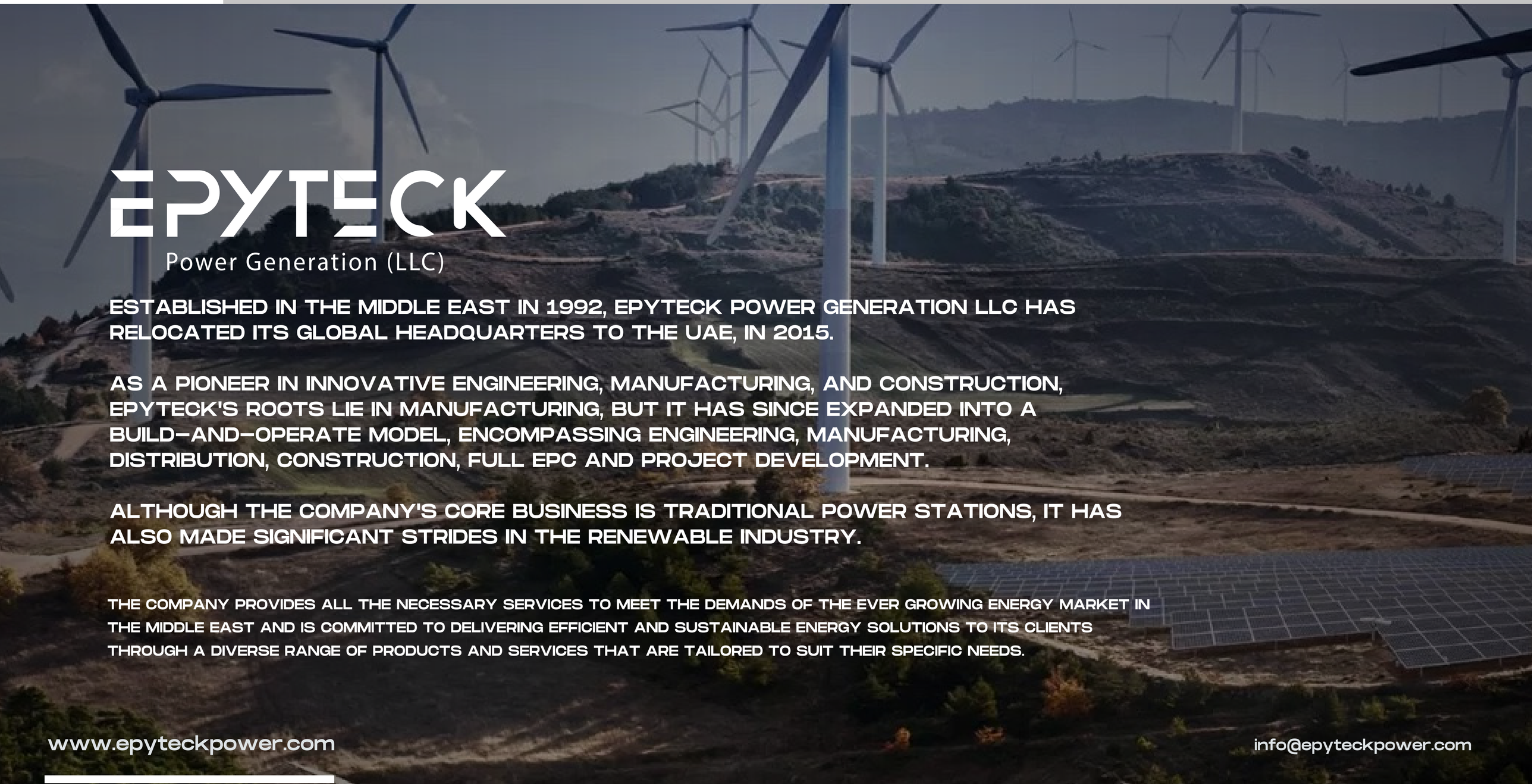


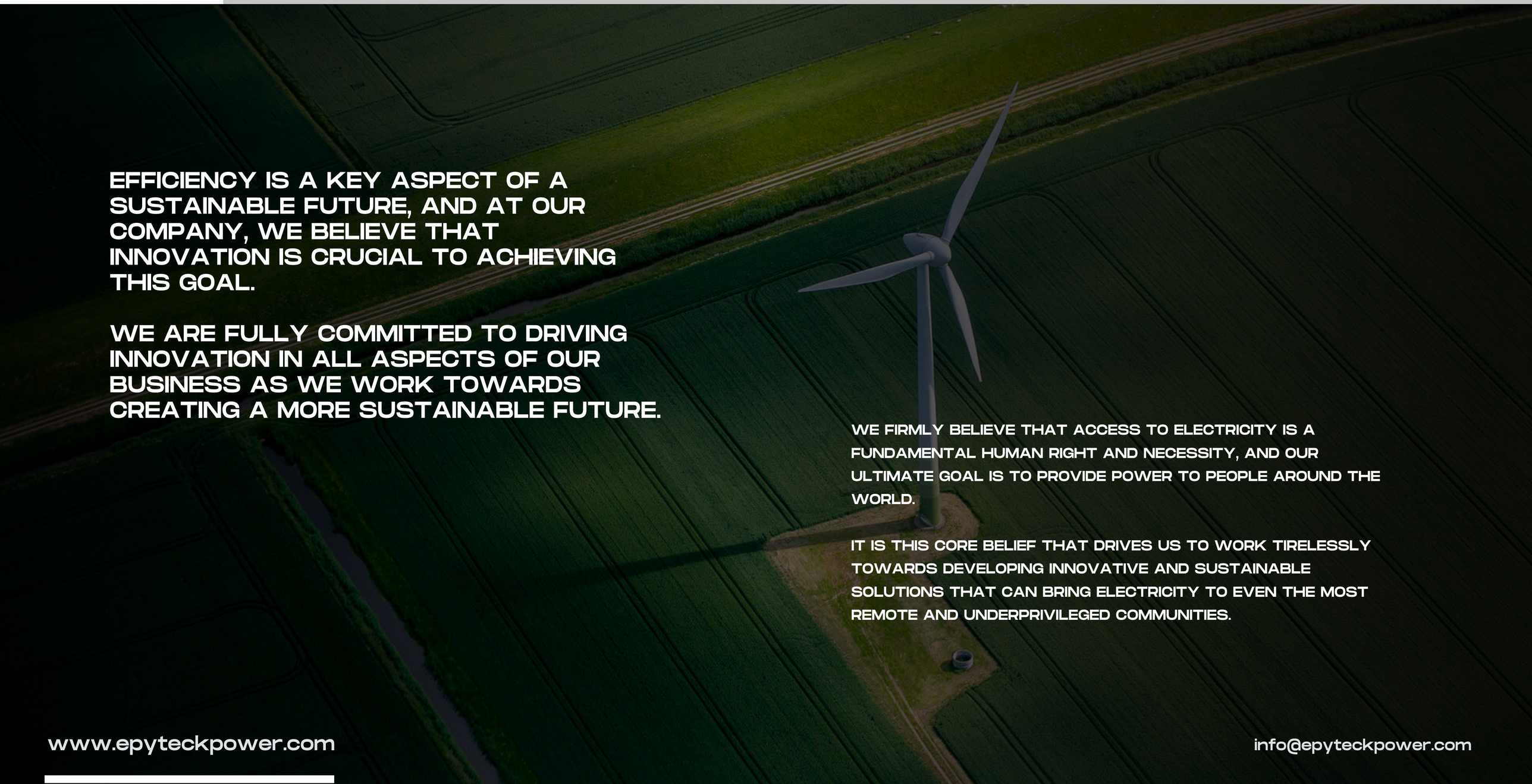
EPYTECK
Power Generation (LLC)

ESTABLISHED IN THE MIDDLE EAST IN 1992, EPYTECK POWER GENERATION LLC HAS RELOCATED ITS GLOBAL HEADQUARTERS TO THE UAE, IN 2015.

AS A PIONEER IN INNOVATIVE ENGINEERING, MANUFACTURING, AND CONSTRUCTION, EPYTECK'S ROOTS LIE IN MANUFACTURING, BUT IT HAS SINCE EXPANDED INTO A BUILD-AND-OPERATE MODEL, ENCOMPASSING ENGINEERING, MANUFACTURING, DISTRIBUTION, CONSTRUCTION, FULL EPC AND PROJECT DEVELOPMENT.

ALTHOUGH THE COMPANY'S CORE BUSINESS IS TRADITIONAL POWER STATIONS, IT HAS ALSO MADE SIGNIFICANT STRIDES IN THE RENEWABLE INDUSTRY.

THE COMPANY PROVIDES ALL THE NECESSARY SERVICES TO MEET THE DEMANDS OF THE EVER GROWING ENERGY MARKET IN THE MIDDLE EAST AND IS COMMITTED TO DELIVERING EFFICIENT AND SUSTAINABLE ENERGY SOLUTIONS TO ITS CLIENTS THROUGH A DIVERSE RANGE OF PRODUCTS AND SERVICES THAT ARE TAILORED TO SUIT THEIR SPECIFIC NEEDS.



EFFICIENCY IS A KEY ASPECT OF A SUSTAINABLE FUTURE, AND AT OUR COMPANY, WE BELIEVE THAT INNOVATION IS CRUCIAL TO ACHIEVING THIS GOAL.

WE ARE FULLY COMMITTED TO DRIVING INNOVATION IN ALL ASPECTS OF OUR BUSINESS AS WE WORK TOWARDS CREATING A MORE SUSTAINABLE FUTURE.

WE FIRMLY BELIEVE THAT ACCESS TO ELECTRICITY IS A FUNDAMENTAL HUMAN RIGHT AND NECESSITY, AND OUR ULTIMATE GOAL IS TO PROVIDE POWER TO PEOPLE AROUND THE WORLD.

IT IS THIS CORE BELIEF THAT DRIVES US TO WORK TIRELESSLY TOWARDS DEVELOPING INNOVATIVE AND SUSTAINABLE SOLUTIONS THAT CAN BRING ELECTRICITY TO EVEN THE MOST REMOTE AND UNDERPRIVILEGED COMMUNITIES.

AT EPYTECK, WE BELIEVE THAT OUR ENGINEERS ARE OUR ASSETS AND THIS DRIVES OUR COMMITMENT TO H.S.E.

We recognize that the health and safety of our employees, clients, and the public are of utmost importance. Hence, we have implemented a comprehensive health and safety program that adheres to all relevant regulations and standards. Our program includes regular training, hazard assessments, and the use of appropriate personal protective equipment. We also conduct regular safety audits to ensure that our work sites are safe and secure.

It is imperative that the Company's HSE Policy and its framework (as a separate document) demonstrate a clear understanding that all stakeholders share a collective responsibility to prevent occupational illness and ensure public safety. To this end, a genuine effort must be made to prevent accidents, mitigate occupational health hazards, and preserve a healthy working environment.

Furthermore, we go beyond all relevant environmental regulations and standards and strive to minimize waste, reduce emissions, and conserve resources. We also work closely with our clients to develop sustainable solutions that minimize the environmental impact of their projects.

By prioritizing these objectives, we can create a culture of safety and well-being that benefits all stakeholders and contributes to the long-term success of the organization. We are committed to protecting the environment and minimizing the impact of our work on the natural world.

H.S.E POLICY

We are committed to protecting the environment and minimizing the impact of our work on the natural world.

We adhere to all relevant environmental regulations and standards and strive to minimize waste, reduce emissions, and conserve resources.

We also work closely with our clients to develop sustainable solutions that minimize the environmental impact of their projects.

OBJECTIVES

It is imperative that the Company's HSE Policy and its framework
(as a separate document) demonstrate a clear understanding that all stakeholders share a collective responsibility to prevent occupational illness and ensure public safety.

To this end, a genuine effort must be made to prevent accidents, mitigate occupational health hazards, and preserve a healthy working environment.

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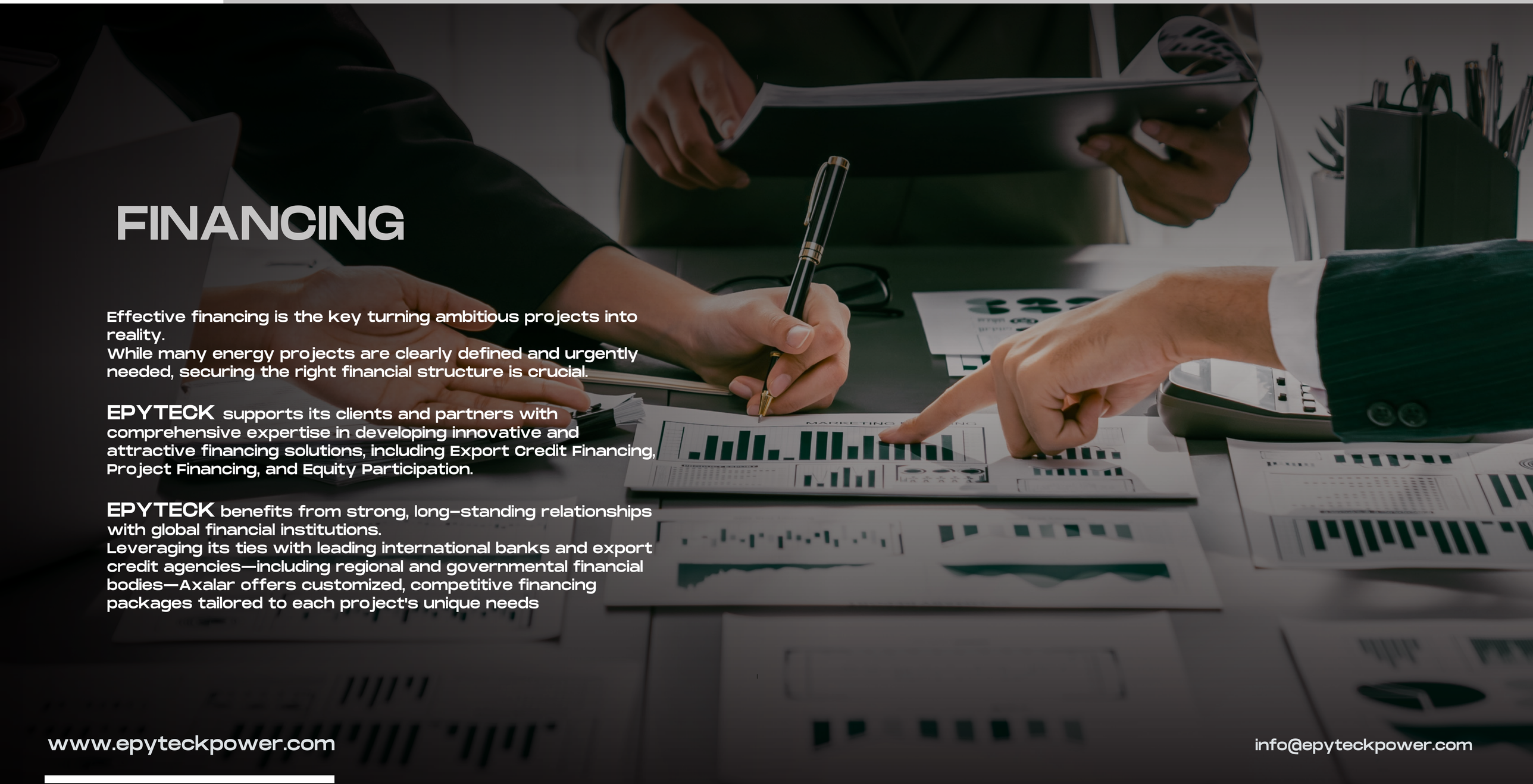
COMITMENT TO SAFETY

Our extensive experience has demonstrated that management involvement is crucial in establishing and maintaining an effective workplace safety culture.

A strong commitment to safety by management is the first and most critical step in achieving reduced accident rates and lower workers' compensation insurance premiums.

It is essential for management at all levels, particularly those at the highest levels of the organization, to fully commit to developing and maintaining a safe and healthy workplace for all employees.



FINANCING

Effective financing is the key turning ambitious projects into reality.
While many energy projects are clearly defined and urgently needed, securing the right financial structure is crucial.

EPYTECK supports its clients and partners with comprehensive expertise in developing innovative and attractive financing solutions, including Export Credit Financing, Project Financing, and Equity Participation.

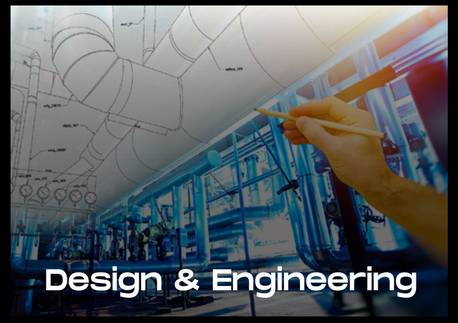
EPYTECK benefits from strong, long-standing relationships with global financial institutions.
Leveraging its ties with leading international banks and export credit agencies—including regional and governmental financial bodies—Axalar offers customized, competitive financing packages tailored to each project's unique needs

DIVISIONS:


Project Assessment
and Modeling


Electrical and
Mechanical Engineering


Contracting and
Construction


Design & Engineering


Civil Engineering


EPC Contracting


Distribution
and Procurement


Civil Engineering


Fabrication AND
Manufacturing

PROJECT DEVELOPMENT, MODELLING & ASSESSMENT

This division is responsible for developing bidding, development of projects, assessments and helping clients make the most informed decisions.
We use our breath of experience in the power sector along with financial modelling to best assess how to utilise and develop projects with our partners.

1. Project Development:

We work together with all stake holders to develop a sustainable business model and find the most suitable solution for the local grids. With our full team of engineers and financial modellers we conduct GIS studies to assess the viability of multiple are projects.

2. Resource Assessment:

We use advanced modeling tools to assess the required resources of the project and the most sustainable O&M options. This includes analyzing historical weather data and other relevant data to determine the expected energy output of the project.

3. Financial Modeling:

We develop detailed financial models to evaluate the economic viability of projects, based on financial impact, long term sustainability and client needs. This includes analyzing the project's costs, revenues, and cash flows to determine the expected return on investment.

4. Risk Assessment:

We conduct a comprehensive risk assessment to identify and mitigate potential risks associated with renewable energy projects. This includes analyzing regulatory, environmental, and other risks that could impact the project's success.

DESIGN & ENGINEERING

Our in-house design and engineering team help develop our concepts into reality. Working closely with our procurement devision to ensure that project deliverables are met, this includes:

1. Conceptual Design:

We work closely with our clients to develop conceptual designs that meet their specific project requirements. This includes analyzing the site's topography, climate, and other environmental factors to determine the most suitable renewable energy technology for the site.

2. Detailed Engineering:

We use advanced engineering tools and techniques to develop detailed engineering plans for renewable energy projects.

This includes designing the electrical and mechanical systems, developing construction plans, and ensuring compliance with all relevant regulations and standards.

3. Construction Management:

We provide comprehensive construction management services to ensure that renewable energy projects are built to the highest standards. This includes managing the construction process, coordinating with contractors and suppliers, and ensuring that the project is completed on time and within budget.

4. Commissioning and Testing:

We provide commissioning and testing services to ensure that renewable energy projects are operating at peak performance. This includes testing the electrical and mechanical systems, verifying compliance with all relevant regulations and standards, and ensuring that the project is delivering the expected energy output.

DISTRIBUTION & PROCUREMENT

Our distribution and procurement Division, ensures that all supply chain issues are well handled and projects are developed on time, and has developed into a sprawling distribution hub for many of our brand partners:

1. Product Sourcing:

We work closely with our clients to identify the best renewable energy products and equipment for their projects. This includes analyzing the project's requirements, evaluating different products and equipment, and recommending the most suitable options

2. Procurement Management:

We provide comprehensive procurement management services to ensure that renewable energy products and equipment are sourced and procured efficiently and cost-effectively. This includes managing the procurement process, negotiating with suppliers, and ensuring that all products and equipment meet the required quality standards.

3. Logistics and Distribution:

We provide logistics and distribution services to ensure that renewable energy products and equipment are delivered on time and within budget. This includes managing the transportation process, coordinating with suppliers and contractors, and ensuring that all products and equipment are delivered to the project site safely and efficiently.

4. Inventory Management:

We provide inventory management services to ensure that renewable energy products and equipment are stored and managed efficiently.
This includes managing inventory levels, tracking product and equipment usage, and ensuring that all products and equipment are properly maintained and serviced.

ELECTRICAL & MECHANICAL ENGINEERING

Our electrical and mechanical engineering division take on all required engineering contracts and has a team of experienced engineers that can be mobilized quickly:

1. Conceptual Design:

We work closely with our clients to develop conceptual designs that meet their specific project requirements. This includes analyzing the site's topography, climate, and other environmental factors to determine the most suitable renewable energy technology for the site.

2. Detailed Engineering:

We use advanced engineering tools and techniques to develop detailed engineering plans for renewable energy projects. This includes designing the electrical and mechanical systems, developing construction plans, and ensuring compliance with all relevant regulations and standards.

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We provide comprehensive construction management services to ensure that renewable energy projects are built to the highest standards. This includes managing the construction process, coordinating with contractors and suppliers, and ensuring that the project is completed on time and within budget.

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We provide commissioning and testing services to ensure that renewable energy projects are operating at peak performance. This includes testing the electrical and mechanical systems, verifying compliance with all relevant regulations and standards, and ensuring that the project is delivering the expected energy output.

CIVIL ENGINEERING:

Our Civil Engineering Division is its own company that takes on projects across the MENA region:

1. Site Assessment:

We conduct a thorough site assessment to evaluate the potential of renewable energy projects. This includes analyzing the site's topography, climate, and other environmental factors to determine the most suitable renewable energy technology for the site.

2. Civil Design:

We use advanced engineering tools and techniques to develop detailed civil engineering plans for renewable energy projects. This includes designing the site layout, grading and drainage plans, and ensuring compliance with all relevant regulations and standards.

3. Construction Management:

We provide comprehensive construction management services to ensure that renewable energy projects are built to the highest standards. This includes managing the construction process, coordinating with contractors and suppliers, and ensuring that the project is completed on time and within budget.

4. Environmental Compliance:

We provide environmental compliance services to ensure that renewable energy projects are designed and built in compliance with all relevant environmental regulations and standards. This includes conducting environmental impact assessments, developing environmental management plans, and ensuring that the project is designed and built in an environmentally responsible manner.

CONTRACTING & CONSTRUCTION

Our contracting and construction Division includes:

1. Project Management:

We provide comprehensive project management services to ensure that renewable energy projects are built to the highest standards. This includes managing the construction process, coordinating with contractors and suppliers, and ensuring that the project is completed on time and within budget.

2. Construction Services:

We provide a wide range of construction services for renewable energy projects, including site preparation, foundation construction, electrical and mechanical installation, and commissioning and testing.

3. Quality Control:

We have a rigorous quality control process to ensure that all construction work is completed to the highest standards. This includes conducting regular inspections, testing and verifying all equipment and systems, and ensuring compliance with all relevant regulations and standards.

4. Safety Management:

We have a comprehensive safety management program to ensure that all construction work is completed safely and in compliance with all relevant safety regulations and standards. This includes conducting regular safety inspections, providing safety training to all workers, and ensuring that all safety equipment is properly maintained and used.

EPC CONTRACTING

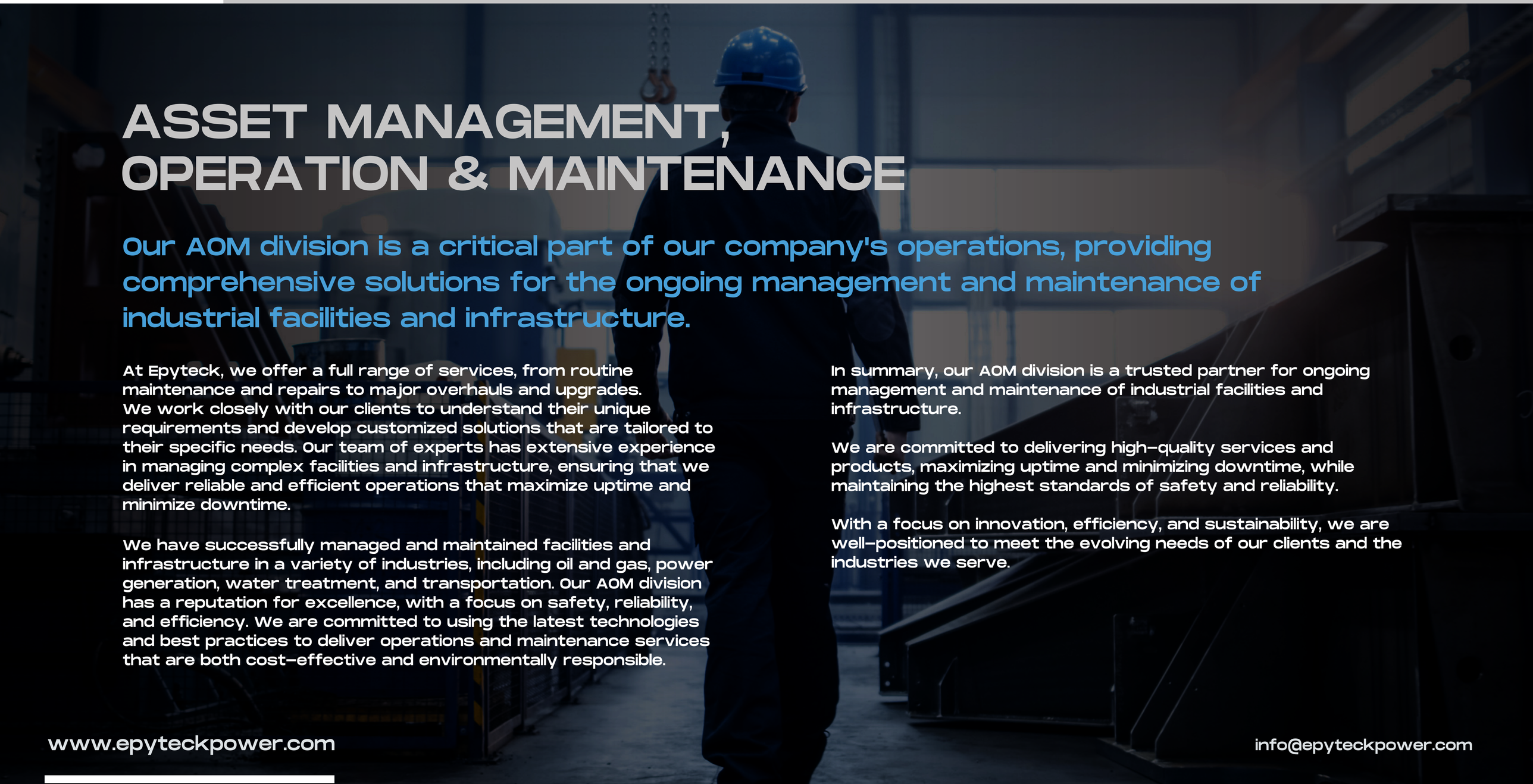
Our EPC Contracting division offers a full range of services, from initial project planning and design to procurement construction, and commissioning.

Our EPC (Engineering, Procurement, and Construction) Contracting division is a key part of our company's operations, providing comprehensive solutions for large-scale projects across a range of industries. With a team of experienced professionals and a proven track record of success, we are committed to delivering high-quality services and products that meet our clients' needs and exceed their expectations.

We work closely with our clients to understand their unique requirements and develop customized solutions that are tailored to their specific needs. Our team of experts has extensive experience in managing complex projects, ensuring that we deliver on time and within budget, while maintaining the highest standards of safety and quality.

We have successfully completed projects in a variety of industries, including oil and gas, power generation, water treatment, and infrastructure development. Our EPC Contracting division has a reputation for excellence, with a focus on innovation, efficiency, and sustainability. We are committed to using the latest technologies and best practices to deliver projects that are both cost-effective and environmentally responsible.

At our EPC Contracting division, we understand the importance of collaboration and communication. We work closely with our clients, suppliers, and subcontractors to ensure that everyone is aligned and working towards the same goals.



ASSET MANAGEMENT, OPERATION & MAINTENANCE

Our AOM division is a critical part of our company's operations, providing comprehensive solutions for the ongoing management and maintenance of industrial facilities and infrastructure.

At Epyteck, we offer a full range of services, from routine maintenance and repairs to major overhauls and upgrades. We work closely with our clients to understand their unique requirements and develop customized solutions that are tailored to their specific needs. Our team of experts has extensive experience in managing complex facilities and infrastructure, ensuring that we deliver reliable and efficient operations that maximize uptime and minimize downtime.

We have successfully managed and maintained facilities and infrastructure in a variety of industries, including oil and gas, power generation, water treatment, and transportation. Our AOM division has a reputation for excellence, with a focus on safety, reliability, and efficiency. We are committed to using the latest technologies and best practices to deliver operations and maintenance services that are both cost-effective and environmentally responsible.

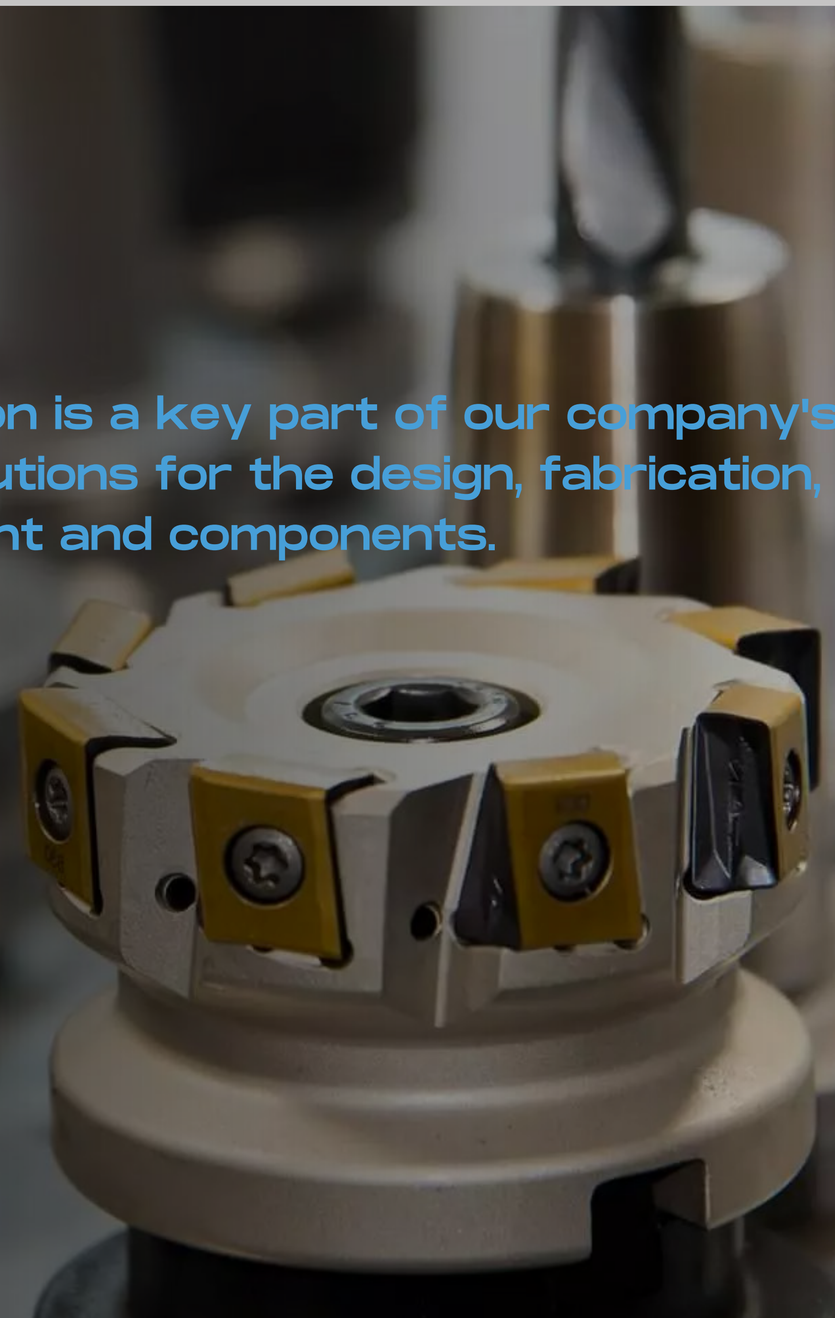
In summary, our AOM division is a trusted partner for ongoing management and maintenance of industrial facilities and infrastructure.

We are committed to delivering high-quality services and products, maximizing uptime and minimizing downtime, while maintaining the highest standards of safety and reliability.

With a focus on innovation, efficiency, and sustainability, we are well-positioned to meet the evolving needs of our clients and the industries we serve.

FABRICATION AND MANUFACTURING

Our Fabrication and Manufacturing division is a key part of our company's operations, providing comprehensive solutions for the design, fabrication, and manufacturing of industrial equipment and components.



At Epyteck we offer a full range of services, from initial design and engineering to fabrication, assembly, and testing.

We produce standard products, ranging from Frequency regulation stations to scalable all in one home solutions.

This division also works to assemble components and parts for our projects, with full testing capabilities and send them as complete plug and play solutions.

We work closely with our clients to understand their unique requirements and develop customized solutions that are tailored to their specific needs.

SERVICES:

WE OFFER A RANGE OF SERVICES RELATED TO THE DESIGN, CONSTRUCTION, AND COMMISSIONING OF BOTH MEDIUM AND LARGE-SCALE PROJECTS.

A. MINI-GRID SOLUTION

B. SOLAR FARMS

C. SUBSTATION

D. TRADITIONAL POWER PLANTS

E. FREQUENCY REGULATION STATIONS

MINI GRID SOLUTIONS:

AT Epyteck , WE ARE COMMITTED TO PROVIDING SUSTAINABLE AND RELIABLE ENERGY SOLUTIONS TO COMMUNITIES AND BUSINESSES IN NEED.

OUR MINI-GRID SOLUTION IS DESIGNED TO PROVIDE AFFORDABLE AND CLEAN ENERGY TO OFF-GRID AND UNDERSERVED AREAS, HELPING TO IMPROVE THE QUALITY OF LIFE FOR PEOPLE AND PROMOTE ECONOMIC GROWTH.

OUR MINI-GRID SOLUTION INCLUDES 3 MAIN COMPONENTS:

1. Hybrid Solution
2. Containerized battery solution
3. Commercial Power Cabinet

HYBRID SOLUTION

Our service is designed to provide customized hybrid mini-grid solutions that combine renewable energy sources with traditional fossil fuel generators to ensure a stable and consistent power supply.

1. Design capabilities: Our team of experts has the knowledge and experience to design customized hybrid solutions that meet our clients' specific energy needs. We take into account factors such as location, energy demand, and available resources to create a solution that is efficient, reliable, and cost-effective.

2. Assessment capabilities: We have the capability to assess existing energy systems and identify areas for improvement. Our team can provide recommendations for incorporating renewable energy sources into existing systems to increase efficiency and reduce costs.

3. Turn-key solution provision: We offer turn-key solutions, meaning we handle every aspect of the project from design to implementation. Our clients can trust us to manage the project from start to finish, ensuring a seamless and stress-free experience.

Our Hybrid EPC Solutions service is ideal for industries and businesses that require a reliable and sustainable energy source. We work closely with our clients to design and implement customized solutions that meet their specific energy needs.

In addition to designing and implementing hybrid EPC solutions, we also offer ongoing maintenance and support to ensure optimal performance and longevity of the system.

CONTAINERISED BATTERIES:

OUR CONTAINERISED BATTERIES ARE DESIGNED TO STORE ENERGY GENERATED BY OUR SOLAR PLANTS.

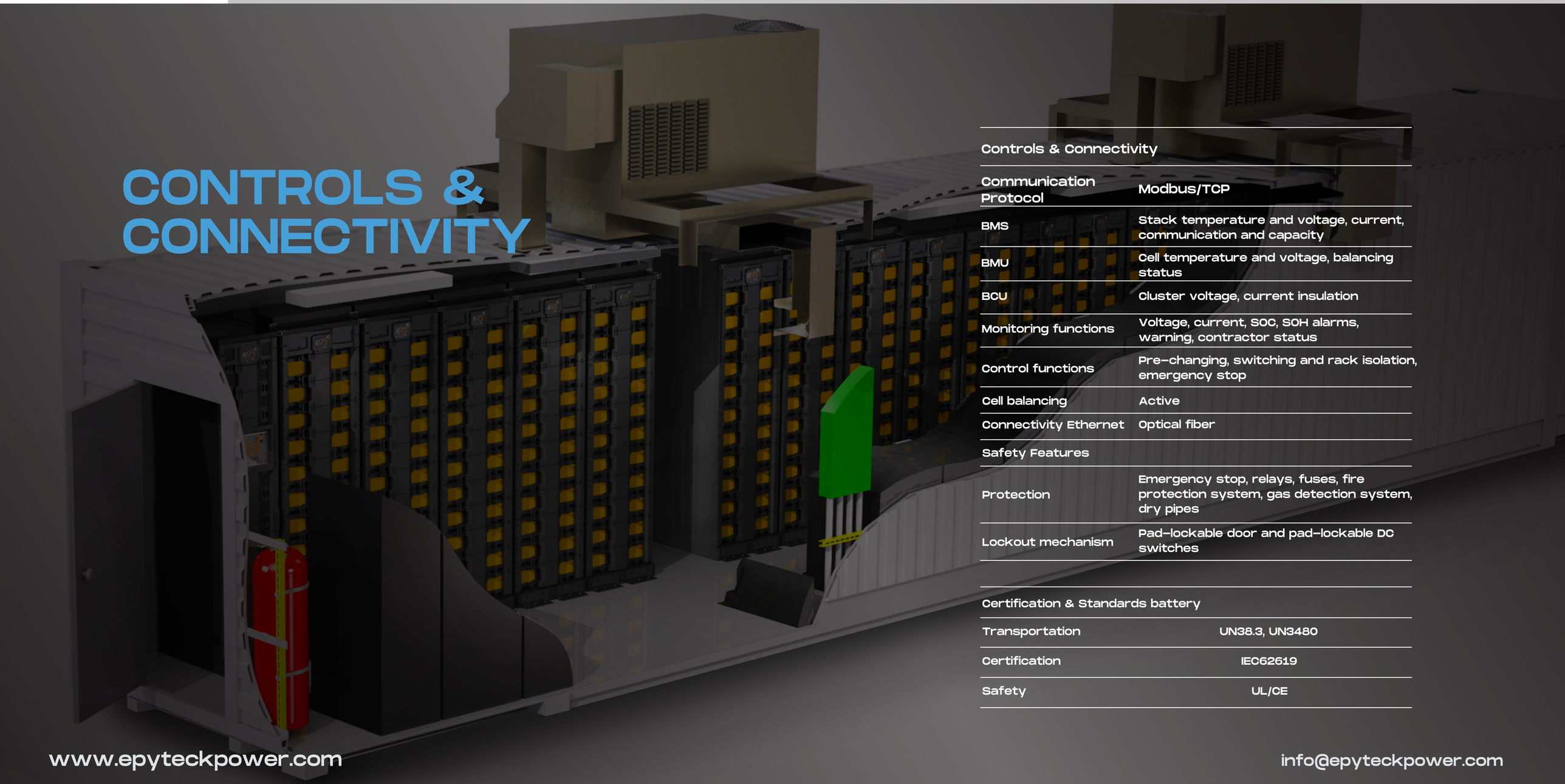
THESE BATTERIES ARE HOUSED IN A DURABLE AND WEATHER RESISTANT CONTAINER, MAKING THEM SUITABLE FOR USE IN REMOTE AND HARSH ENVIRONMENTS.

OUR CONTAINERISED BATTERIES ARE AVAILABLE IN DIFFERENT SIZES AND CAPACITIES TO MEET THE ENERGY NEEDS OF DIFFERENT COMMUNITIES AND BUSINESSES.

SCHEME OF STANDARD CONATAINER ESS

	System Performance	
	SHSIFP-20H-0.9M	SHSIFP-40H-0.9M
Embedded energy	0.968MWh	1.935 MWh
Available energy at 90% DoD	0.871 MWh	1.742 MWh
Full charging time	2 – 10 hours	2 – 10 hours
Battery chemistry	LifeP04	LifeP04
Nominal DC voltage [V]	9 batteries in series, 14 cluster in parallel	9 batteries in series, 28 cluster in parallel
DC Voltage[V]	691.2	691.2
Rated DC Current [A]	700	1400
Racks & Environment		
Operating Humidity	0% to 95%, non-condensing	
Operating Temperature Range	-20°C – +55 C	
Operating Altitude	<2000 m ASL	
Cooling System		
Dimensions (WxDxH, dm)	6,096 * 2.338 * 2.896	12.192 * 2.438 * 2.896
Weight (kg)	Approx. 15000 kg	Approx. 28000 kg

CONTROLS & CONNECTIVITY



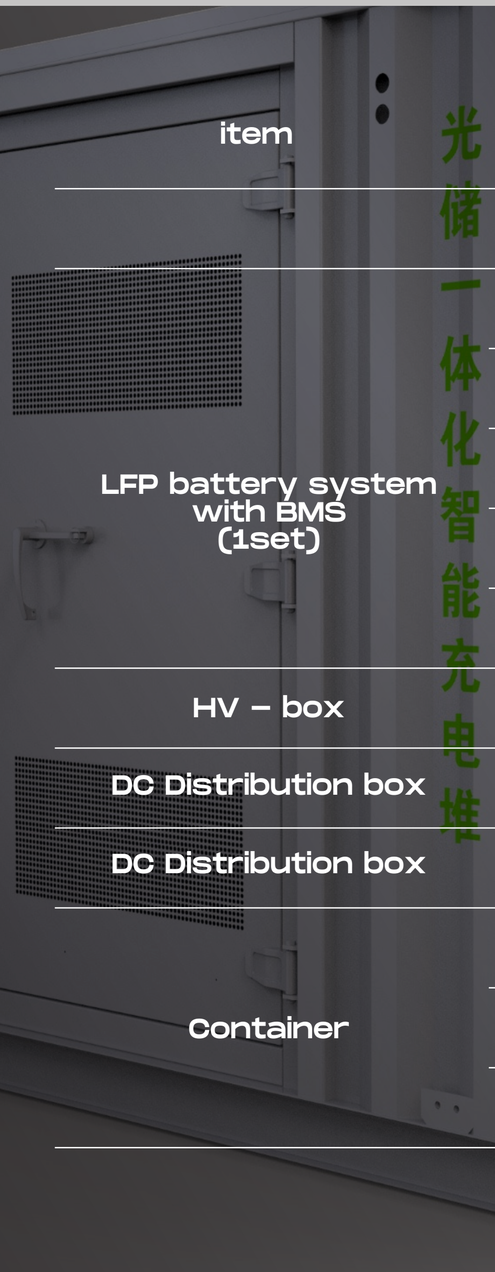
Controls & Connectivity	
Communication Protocol	Modbus/TCP
BMS	Stack temperature and voltage, current, communication and capacity
BMU	Cell temperature and voltage, balancing status
BCU	Cluster voltage, current insulation
Monitoring functions	Voltage, current, SOC, SOH alarms, warning, contractor status
Control functions	Pre-changing, switching and rack isolation, emergency stop
Cell balancing	Active
Connectivity Ethernet	Optical fiber
Safety Features	
Protection	Emergency stop, relays, fuses, fire protection system, gas detection system, dry pipes
Lockout mechanism	Pad-lockable door and pad-lockable DC switches

Certification & Standards battery	
Transportation	UN38.3, UN3480
Certification	IEC62619
Safety	UL/CE

5MWH INDUSTRIAL & COMMERCIAL ESS

System Performance	SHSIFP-40H-0.9M
Embedded Energy	5.0688
Available energy at 90% DoD [MWh]	4.5619
Battery chemistry	LifeP04
Cell Configuration	2052P
Battery Model Voltage	64
Battery Model Nominal Capacity	200
Battery Configuration	16.5 batteries in series – 24 cluster in parallel
Nominal DC Voltage	1056
DV Voltage [V]	891 (Min.), 1204.5 (Max)
DC Current [A]	2400
Recommended Range (25 c)	10%–95%

1.9MWH SOLUTIONS



item	Specific				Unit	Qty
LFP battery system with BMS (1set)						1
	Cell	3.2V	100Ah	0.32kWh	set	1(s)
	Module	76.8V	100Ah	7.68kWh	set	24(s)
	Cluster	691.2V	100Ah	69.12kWh	set	9(s)
	System	691.2V	2800Ah	19.35MWh	set	28(p)
	BMS	BMS: 3-level structure			set	1
HV – box	1000VDC/125A				set	28
DC Distribution box	1000VDC/630A*4 outputs (12 inputs, every 3 clusters are connected in parallel)				pcs	1
DC Distribution box	1000VDC/630A*2 outputs (8 inputs, every 4 clusters are connected in parallel)				pcs	1
Container	40 feet				pcs	1
	Air Conditioner				pcs	1
	Fire Protection				pcs	1

COMMERCIAL POWER CABINET

At Epyteck we are dedicated to adapting to the evolving global demand and creating power solutions using alternative and renewable energy sources.

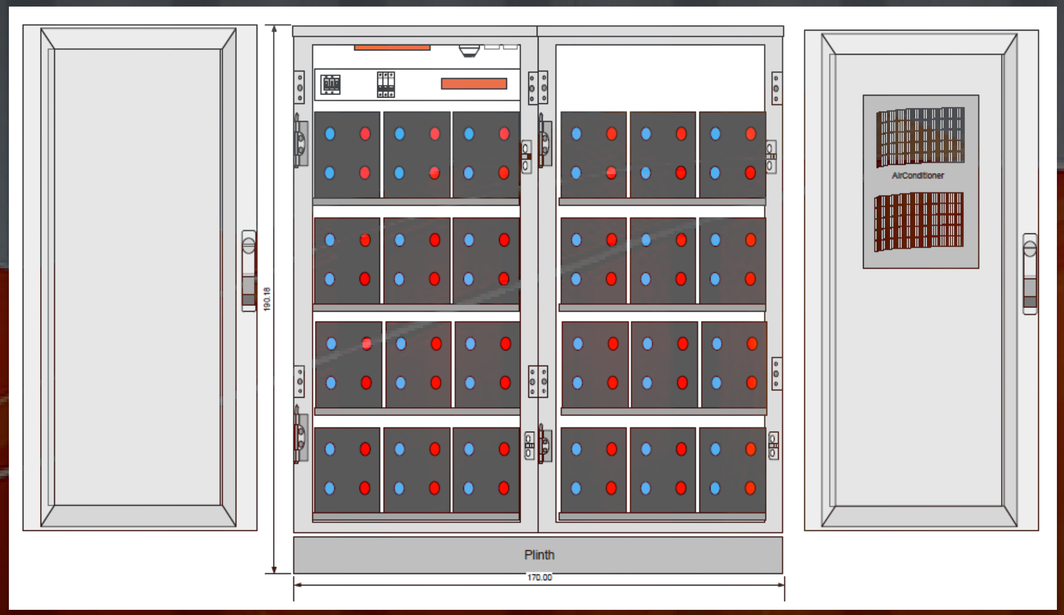
Epyteck's power solutions are both cost-effective and deliberately designed for cyclic use with generator or grid-connected sites.

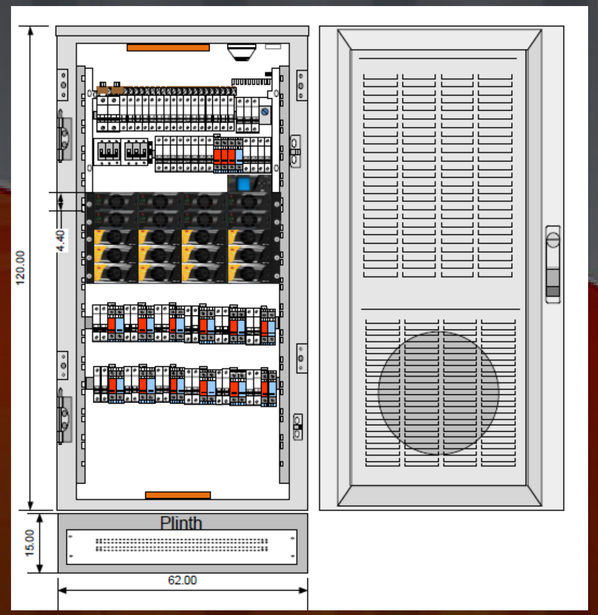
These solutions are applied in semi-metro/green field locations, covering large, medium, and small applications or where commercial power is unstable, scarcely available, or permanently run by alternate diesel generators.

As a leading manufacturer of lead-acid and lithium batteries, Epyteck Power Source has developed scalable battery energy storage systems using our proven battery technology, worldwide, for both industrial and telecom markets.

Our power solutions showcase Epyteck's broad expertise in high-quality battery energy storage solutions customized to the customer's needs with batteries.

3 KW – 36 HOURS GENERAL ARRANGEMENT DRAWING





SOLAR FARMS:

AT Epyteck, WE TAKE PRIDE IN PROVIDING SOLAR FARM SOLUTIONS SERVICE TO CLIENTS SEEKING DEPENDABLE AND SUSTAINABLE ENERGY ALTERNATIVES.

OUR AIM IS TO OFFER TAILOR-MADE SOLAR FARM SOLUTIONS CURATED TO CATER TO THE SPECIFIC NEEDS OF COMMERCIAL AND INDUSTRIAL SETTINGS.

WITH A TEAM OF SKILLED PROFESSIONALS, WE HAVE AMPLE EXPERIENCE IN SOLAR FARM DESIGNING AND INSTALLING THEM ACROSS SEVERAL INDUSTRIES AND APPLICATIONS WHILE KEEPING IN MIND THE LATEST TECHNOLOGY AND EQUIPMENT TO ENSURE MAXIMUM PRODUCTIVITY AND RELIABILITY WITH MINIMAL ENVIRONMENTAL IMPACT AND OPERATIONAL EXPENSES.

SOLAR FARMS:

OUR SOLAR FARMS SOLUTIONS SERVICE HAS NUMEROUS CLIENT BENEFITS, INCLUDING CUSTOMIZED SOLUTIONS THAT TAKE INTO CONSIDERATION ENERGY DEMAND, AVAILABLE SPACE, AND ENVIRONMENTAL CONCERNS TO BUILD AN EFFICIENT, COST-EFFECTIVE AND RELIABLE SOLUTION.

THE SOLAR FARMS SOLUTIONS WE OFFER ARE SUSTAINABLE, REDUCING CARBON EMISSIONS WHILE INCREASING EFFICIENCY, AND THUS LOWERING OPERATING COSTS. OUR SOLUTIONS OFFER STABILITY AND A CONSISTENT ENERGY SUPPLY, REDUCING DOWNTIME, AND BOOSTING PRODUCTIVITY.

FURTHERMORE, WE INCORPORATE SAFETY-FOCUSED FEATURES SUCH AS LIGHTNING PROTECTION AND FIRE SUPPRESSION SYSTEMS TO GUARANTEE THE SAFETY OF BOTH PERSONNEL AND EQUIPMENT.

OUR SOLAR FARMS SOLUTIONS SERVICE IS IDEAL FOR INDUSTRIAL AND COMMERCIAL ESTABLISHMENTS IN NEED OF RELIABLE AND SUSTAINABLE ENERGY SOLUTIONS, AND WE CLOSELY WORK WITH OUR CLIENTS TO DEVISE AND EXECUTE PERSONALIZED ENERGY SOLUTIONS BEST SUITED FOR THEM.

IN ADDITION TO DESIGNING AND IMPLEMENTING SOLAR FARMS, WE ALSO PROVIDE ONGOING MAINTENANCE AND SUPPORT SERVICES TO ENSURE OPTIMAL ENERGY PRODUCTION, EFFICIENCY, AND LONGEVITY OF THE SYSTEM.

IN CONCLUSION, OUR SOLAR FARMS SOLUTIONS SERVICE OFFERS AN ECONOMICAL, RELIABLE AND SUSTAINABLE ENERGY SOLUTION FOR COMMERCIAL AND INDUSTRIAL APPLICATIONS WITH BENEFITS SUCH AS CUSTOMIZATION, SUSTAINABILITY, EFFICIENCY, RELIABILITY, AND SAFETY FEATURES FOR LONG-TERM ENERGY SOLUTIONS.

AL AHED POWER PLANT

Design and Build Turnkey Project;

Manufacturer: SUNGROW, ABB, JA SOLAR

Region: Middle East

Execution Year:
80 MW 06/2023–11/2024

ADRA power plant

Design, Build and Supply, Turnkey Project
Trafo – Design, Build Supply 80.MW – 220.KvV

Manufacturer: ABB, SCHNEIDER, LONGI, MITSUBISHI, TMEIC

Region: Middle East

Execution Year: 06/2022 – 06/2023.

Nominal power DC 30MW
Full EPC: Central Inverter

Manufacturer: Longi, TBEA

Region: MENA

Execution Year: 2024

SUBSTATION

OUR AREA OF EXPERTISE AT EPYTECH LIES IN DELIVERING SUBSTATION SOLUTIONS TO POWER INDUSTRY CLIENTS.

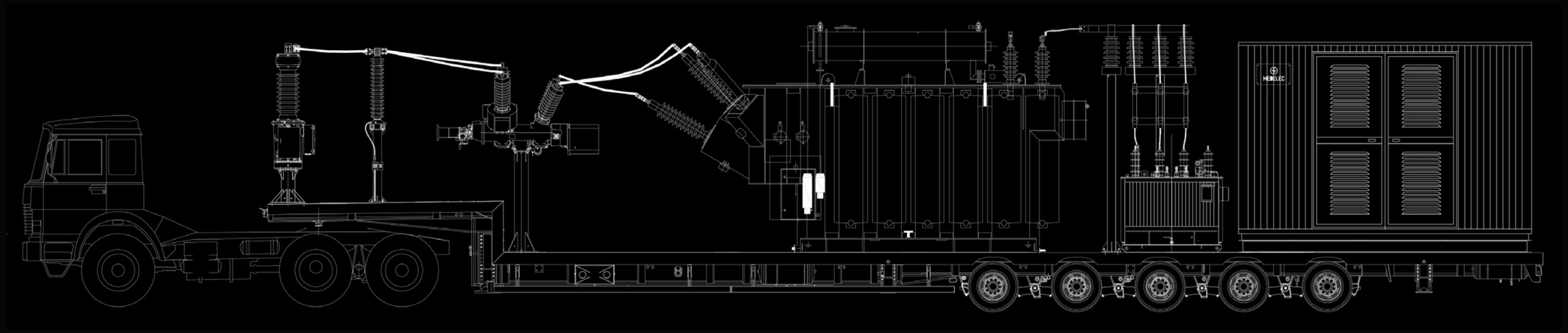
BEING AWARE OF THE CRUCIAL ROLE THAT SUBSTATIONS PLAY IN POWER PROJECTS, WE STRIVE TO PROVIDE PERSONALIZED END-TO-END SERVICES THAT CATER TO THE DISTINCT NEEDS OF EACH CLIENT.

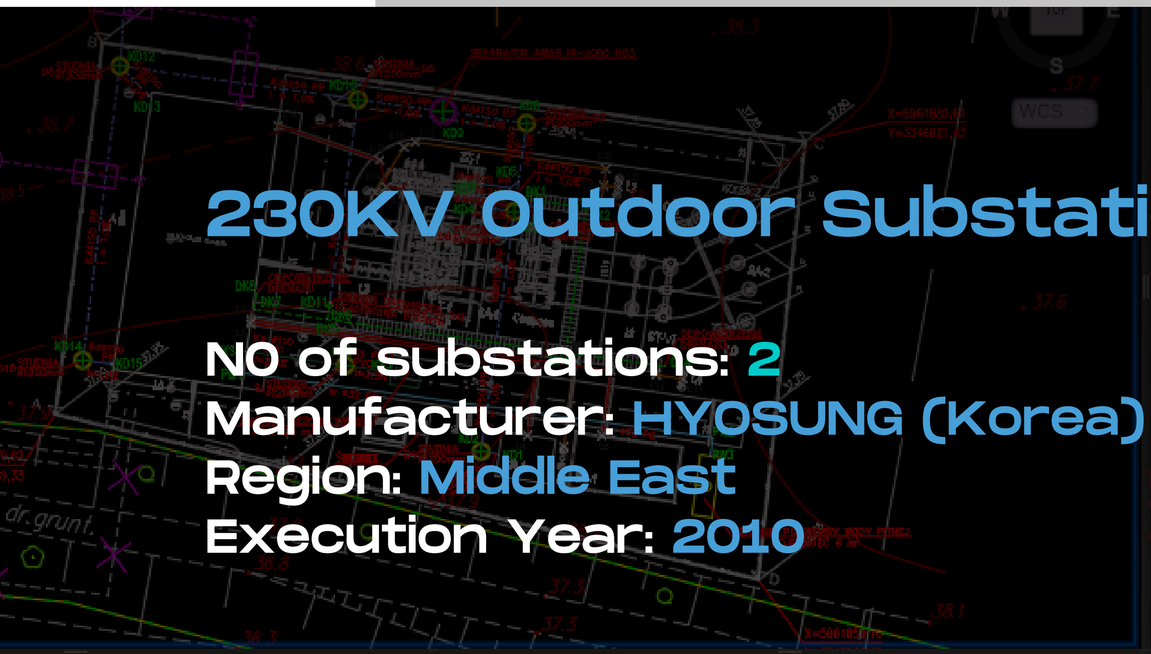
OUR COMPREHENSIVE SUBSTATION SOLUTIONS ENCOMPASS THE DESIGNING, PURCHASING, AND BUILDING OF SUBSTATIONS THAT ARE MANDATORY FOR POWER TRANSMISSION AND GENERATION.

WE COLLABORATE CLOSELY WITH OUR CLIENTS TO FATHOM THEIR SPECIFIC REQUISITES AND CREATE INDIVIDUALIZED SUBSTATION STRATEGIES THAT ENABLE THEM TO ACHIEVE THEIR BUSINESS OBJECTIVES.

66/20 KV GIS Mobile Substation

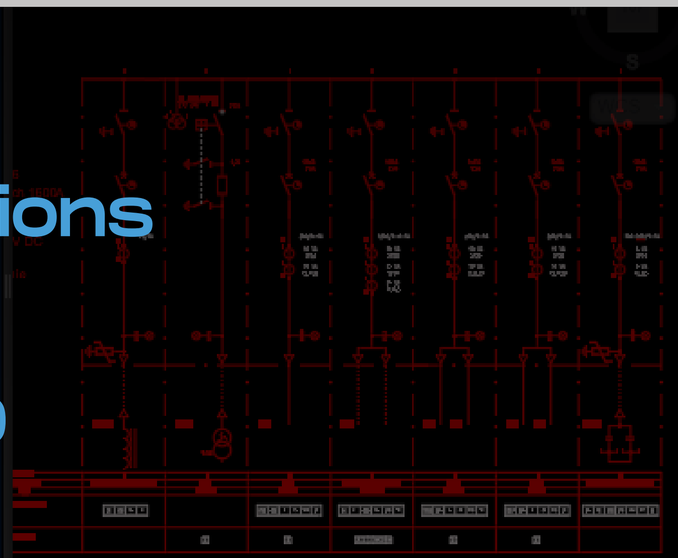
NO of substations: –
Manufacturer: Pinggao Group (China)
Region: Middle East
Execution Year: –

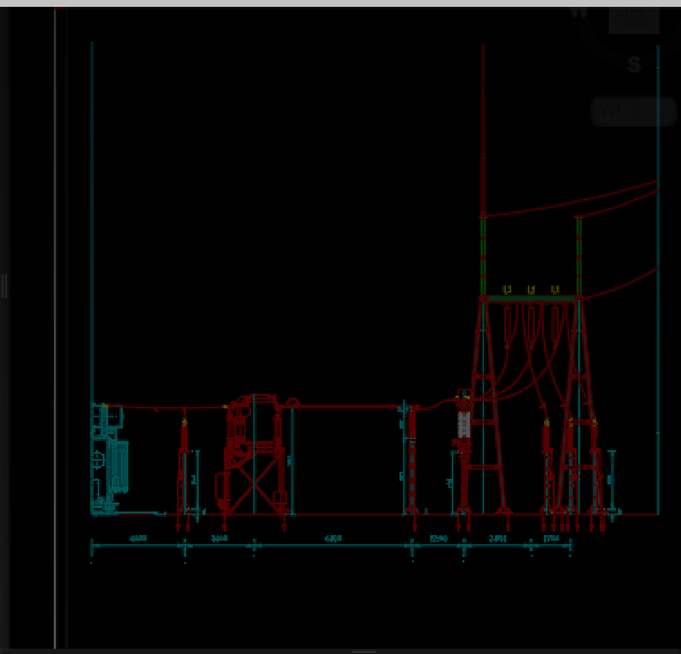


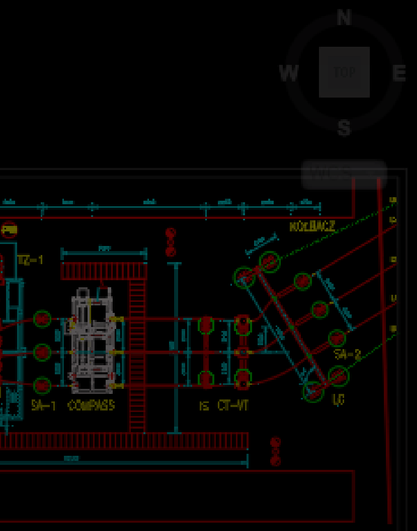


230KV Outdoor Substations

NO of substations: 2
Manufacturer: HYOSUNG (Korea)
Region: Middle East
Execution Year: 2010

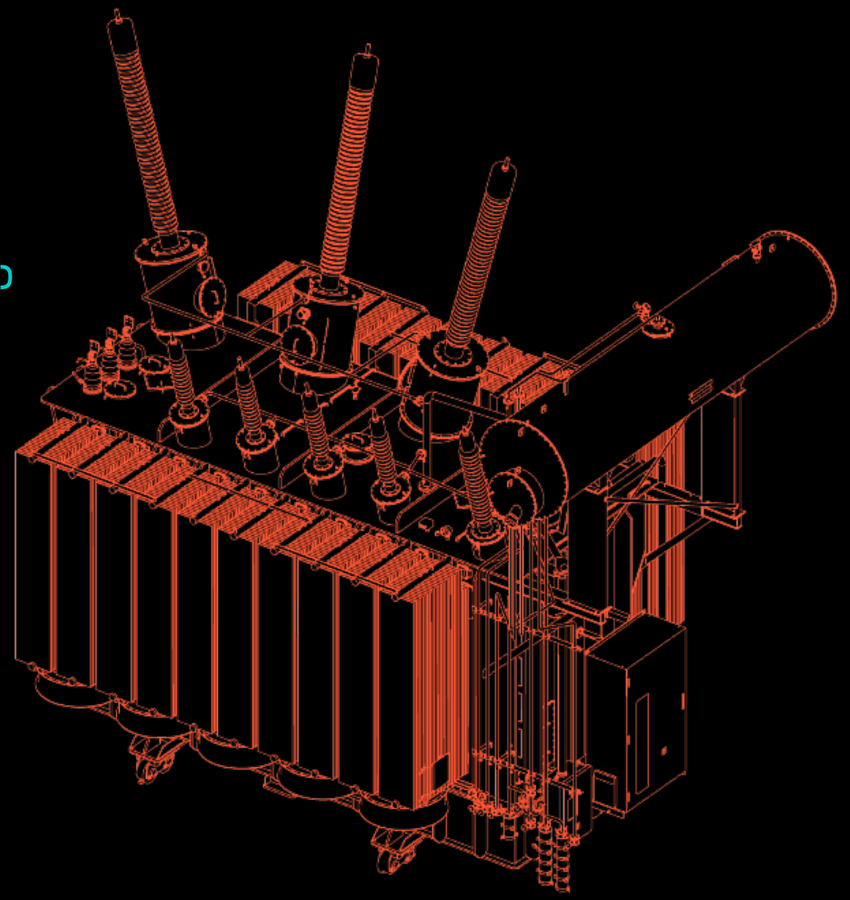






66/20 KV and 30 MVA Power Transformers

NO of substations: 25
Manufacturer: Ningbo Minmetals & Machinery (china)
Region: Middle East
Execution Year: 2009

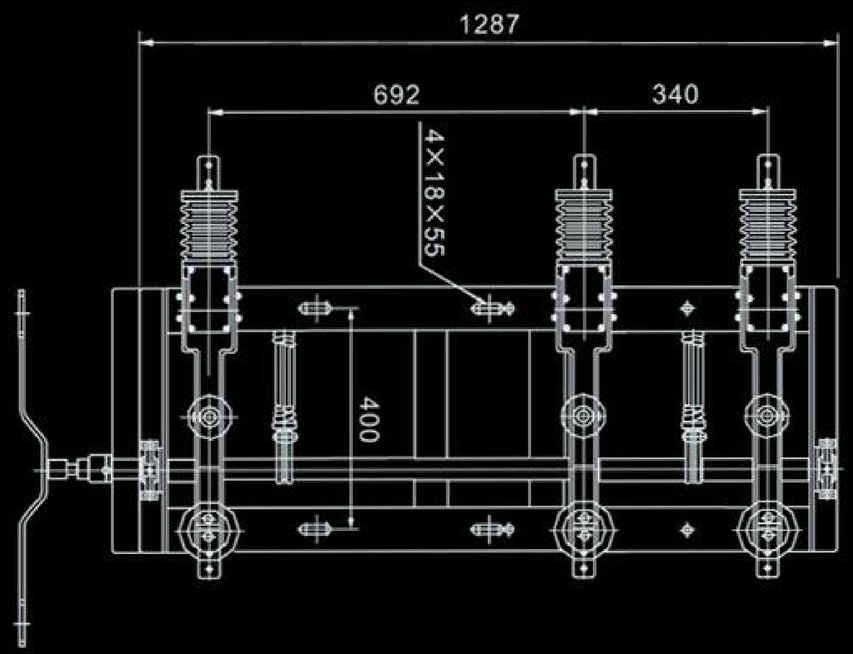


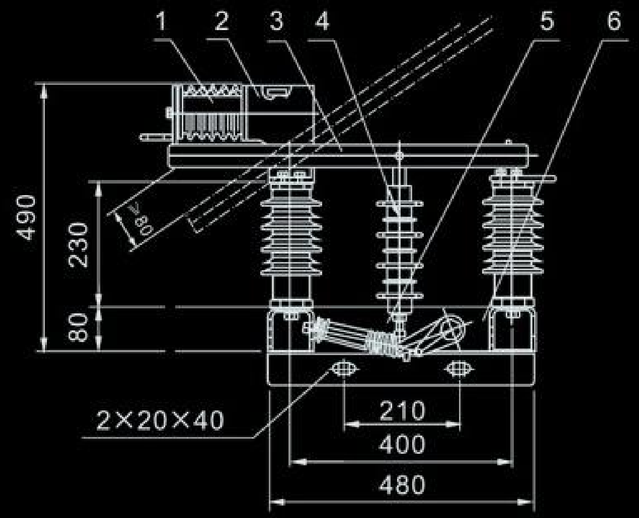
20/0.4 KV. 100& 25 KVA Distribution Transformers

NO of substations: 2
Manufacturer: Ningbo Company (China)
Region: Middle East
Execution Year: 2007

66 K.V
Disconnecting Switches

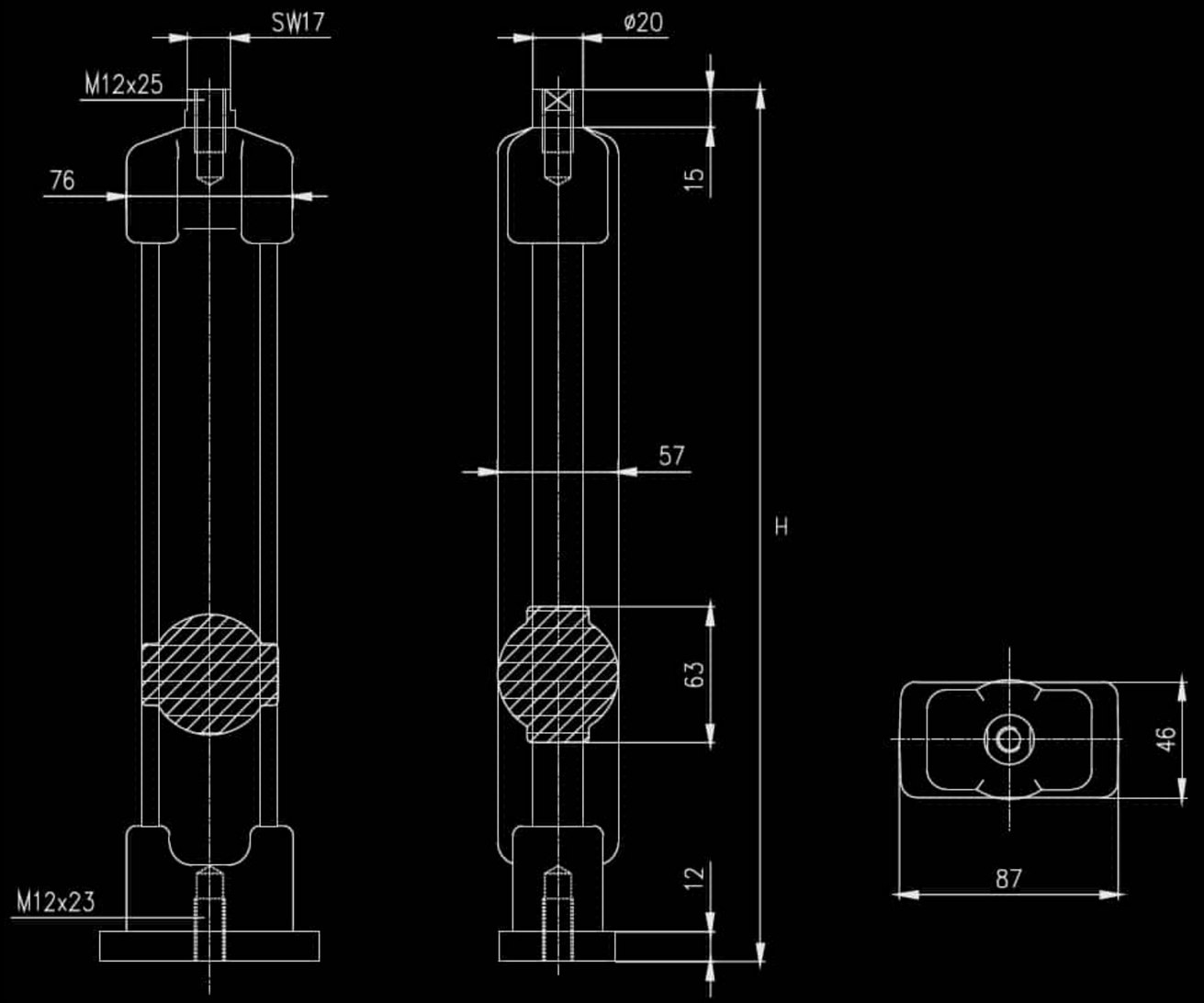
NO of substations: –
Manufacturer: Pinggao (China)
Region: Middle East
Execution Year: 2007





20 K.V
Oxide Surge Arresters

NO of substations: –
Manufacturer: Liaoning MEC (China)
Region: Middle East
Execution Year: 2004



Services/Substation
230/20KV Substation

Nominal Power 100 MW
Execution Year: 2023–2024

TRADITIONAL POWER PLANTS

AT Epyteck , WE SPECIALIZE IN PROVIDING TRADITIONAL POWER PLANT SOLUTIONS TO CLIENTS IN THE POWER INDUSTRY. WE UNDERSTAND THAT TRADITIONAL POWER PLANTS ARE A CRITICAL COMPONENT OF THE POWER GENERATION MIX, AND THEREFORE, WE ARE COMMITTED TO PROVIDING END-TO-END SOLUTIONS THAT ARE TAILORED TO MEET OUR CLIENTS' UNIQUE NEEDS.

OUR TRADITIONAL POWER PLANT SOLUTIONS INCLUDE THE DESIGN, PROCUREMENT, AND CONSTRUCTION OF POWER PLANTS THAT USE FOSSIL FUELS SUCH AS COAL, OIL, AND NATURAL GAS. WE WORK CLOSELY WITH OUR CLIENTS TO UNDERSTAND THEIR SPECIFIC REQUIREMENTS AND DEVELOP CUSTOMIZED SOLUTIONS THAT HELP THEM ACHIEVE THEIR BUSINESS OBJECTIVES.

OUR TEAM OF EXPERIENCED PROFESSIONALS HAS A DEEP UNDERSTANDING OF THE POWER INDUSTRY AND THE REGULATORY REQUIREMENTS THAT GOVERN IT. WE USE ADVANCED TECHNOLOGIES AND TOOLS TO ENSURE THAT OUR CLIENTS' TRADITIONAL POWER PLANTS ARE DESIGNED AND CONSTRUCTED TO THE HIGHEST STANDARDS OF QUALITY AND SAFETY.

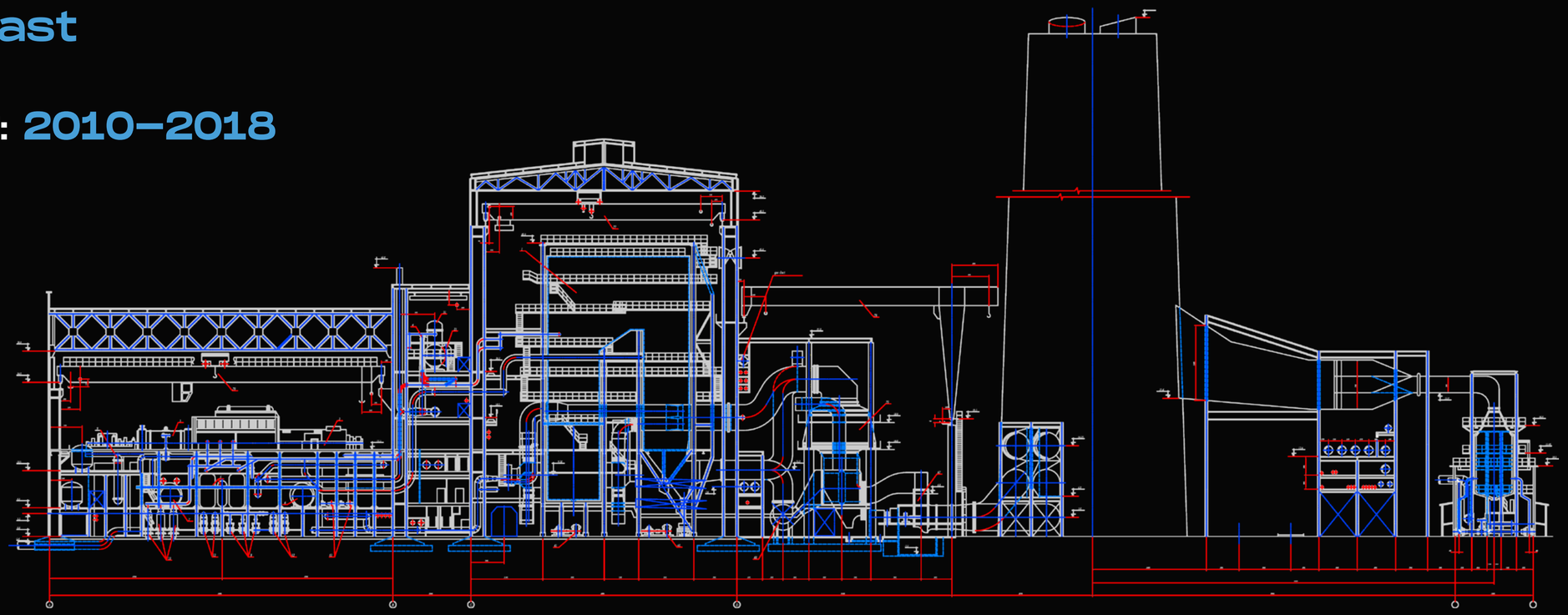
Deir ALi 750 M.W

Execution of the project extension of a powerplant;

Contractors: Ansaldo (Italy) and Metka (Greece)

Region: Middle East

Execution Year: 2010–2018



Combined Cycle Power Plants
Our Services, for combined power plants:

- FULL EPC CONTRACTING
- MAJOR OVERHAUL WORK
- OPERATION & MAINTENANCE

EPC contracting

AT Epyteck, WE OFFER VARIOUS BENEFITS TO CLIENTS.

FIRST, WE PROVIDE A SEAMLESS AND EFFICIENT PROCESS FOR OUR CLIENTS BY OFFERING A COMPLETE SOLUTION FOR THEIR POWER PLANT NEEDS.

SECONDLY, WE WORK CLOSELY WITH OUR CLIENTS, TAKING INTO ACCOUNT FACTORS SUCH AS POWER DEMAND, AVAILABLE SPACE, AND ENVIRONMENTAL CONDITIONS TO CREATE A CUSTOM SOLUTION THAT IS BOTH EFFICIENT AND COST-EFFECTIVE.

OUR POWER PLANTS GENERATE POWER EFFICIENTLY, REDUCING ENERGY WASTE AND LOWERING OPERATING COSTS.

FURTHERMORE, OUR SOLUTIONS PROVIDE A STABLE AND CONSISTENT POWER SUPPLY, REDUCING DOWNTIME AND INCREASING PRODUCTIVITY.

LASTLY, OUR POWER PLANTS ARE DESIGNED WITH SAFETY IN MIND, INCORPORATING FEATURES SUCH AS EMERGENCY SHUTDOWN PROCEDURES AND FIRE SUPPRESSION SYSTEMS TO ENSURE PERSONNEL AND EQUIPMENT SAFETY.

Overhaul, OPERATION & MAINTAINANCE

OUR TURBINE MAINTENANCE SERVICE HAS UNDERGONE A SIGNIFICANT REVAMP AND NOW OFFERS MULTIPLE BENEFITS.

IT PROVIDES A COMPLETE SOLUTION FOR MAINTAINING TURBINES, ENHANCES EFFICIENCY, ENSURES A DEPENDABLE POWER SUPPLY, AND INCLUDES ESSENTIAL SAFETY FEATURES SUCH AS FIRE SUPPRESSION SYSTEMS AND EMERGENCY SHUTDOWN PROCEDURES.

OUR MAINTENANCE SERVICE IS PERFECT FOR POWER PLANTS THAT REQUIRE A COMPREHENSIVE AND TRUSTWORTHY MAINTENANCE SOLUTION.

WE ALSO OFFER ONGOING SUPPORT AND MAINTENANCE TO ENSURE THAT TURBINES PERFORM OPTIMALLY AND LAST LONGER.

Overhaul, OPERATION & MAINTAINANCE SERVICES

I. O&M TEAM
II. COMBINED CYCLE GAS POWER PLANTS
III. BOILER MAINTENANCE
IV. COOLING TOWER MAINTENANCE
V. EPC CONTRACTING
VI. PROCUREMENT
VII. MAJOR OVERHAUL OF TURBINE WORKS.

Deir Ali Power Plant Major Overhaul 2022: Funded by UAE Works:

1- DA I – GAS TURBINES (X 2) SIEMENS SGT5 4000F MAJOR OVERHAUL

- TURBINE COVER REMOVAL; MACHINE INSTRUMENTATION, PIPING AND ACCESSORY EQUIPMENT;
- COMPLETE OPENING OF THE TURBINE BODY IN ALL ITS SECTIONS: COMPRESSOR – COMBUSTION CHAMBER – TURBINE;
- DISASSEMBLY OF SHAFT BEARINGS AND THRUST SUPPORT;
- TURBINE ROTOR EXTRACTION;
- COMPLETE MAINTENANCE OF THE COMBUSTION CHAMBER – CHECK ON THE INTEGRITY OF THE CERAMIC TILES;
- COMPLETE MAINTENANCE OF THE BURNERS – CLEANING – CHECKS AND INSPECTIONS;
- COMPLETE COMPRESSOR BLADES AND VANES INSPECTION AND REPLACEMENTS WHERE NECESSARY;
- COMPLETE INLET GUIDE VANS MAINTENANCE (IGV);
- COMPLETE INSPECTION OF BLOW-OFF LINES;
- 1° – 2° – 3° TURBINE BLADES AND VANES STAGES REPLACEMENTS;
- GUIDE RING SEGMENTS STAGE NO.1 REPLACEMENT;
- 4° TURBINE BLADES AND VANES STAGE CHECK AND INSPECTION AND REPLACEMENTS WHERE NECESSARY;
- GUIDE RING SEGMENTS STAGE NO.4 CHECK AND INSPECTION AND REPLACEMENTS WERE NECESSARY;
- COMPLETE OVERHAUL OF THE TURNING GEAR DEVICE;
- COMPLETE OVERHAUL OF THE LUBRICATION OIL SYSTEM;
- COMPLETE OVERHAUL OF THE CONTROL OIL SYSTEM;
- COMPLETE OVERHAUL OF THE GAS FUEL SYSTEM;
- COMPLETE INSPECTION OF THE AIR INTAKE;
- COMPLETE INSPECTION OF THE EXHAUST DUCT. TEXTILE JOINT CONTROL AND CHECKS

Deir Ali Power Plant Major Overhaul 2022: Funded by UAE Works:

2. DA I – STEAM TURBINE (X 1) SIEMENS SST5 5000 – MEDIUM OVERHAUL

- COMPLETE OVERHAUL OF ALL THE TURBINE SHAFT BEARINGS;
- COMPLETE OVERHAUL OF THE THRUST BEARING;
- COMPLETE OVERHAUL OF THE INLET STEAM VALVES;
- COMPLETE OVERHAUL OF THE HYDRAULIC ACTUATORS CONTROLLING THE INLET STEAM VALVES;
- COMPLETE OVERHAUL OF THE STEAM CONTROL VALVES;
- COMPLETE OVERHAUL OF THE HYDRAULIC ACTUATORS CONTROLLING THE CONTROL VALVES;
- LAST STAGE ROTOR BLADES LP SECTION INSPECTION;
- COMPLETE OVERHAUL OF THE TURNING GEAR;
- COMPLETE OVERHAUL OF THE LUBRICATION OIL SYSTEM
- COMPLETE OVERHAUL OF THE CONTROL OIL SYSTEM

Deir Ali Power Plant Major Overhaul 2022: Funded by UAE Works:

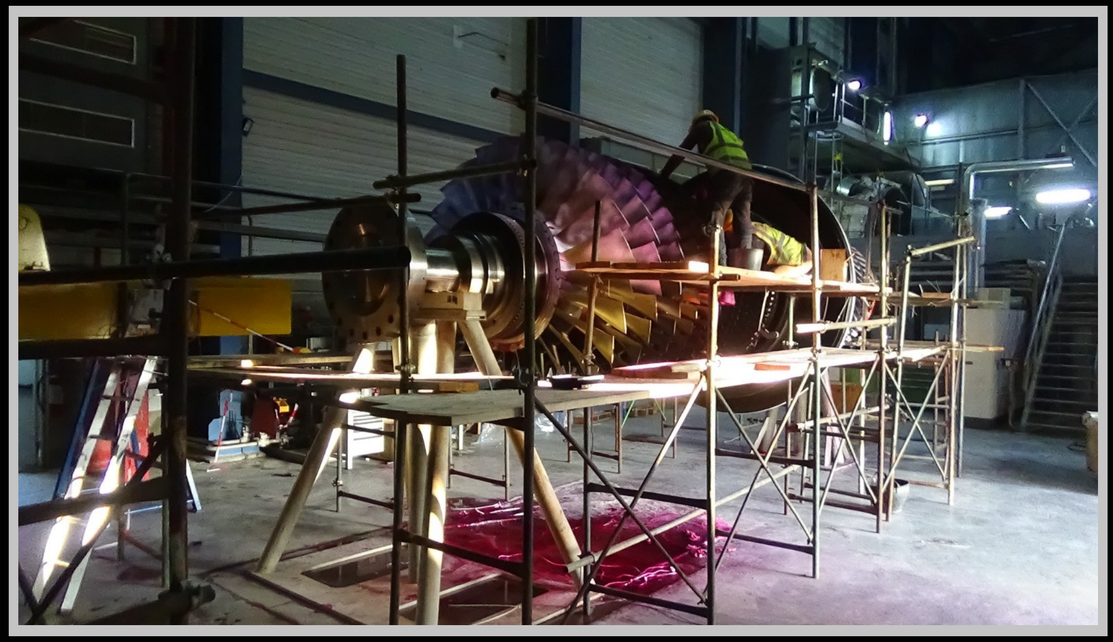
3. DA I – TURBO GENERATORS (X 3) SIEMENS SGEN5 1000 – MAJOR OVERHAUL

- COMPLETE OVERHAUL OF ALL THE GENERATOR SHAFT BEARINGS;
- COMPLETE OVERHAUL OF THE COUPLING JOINT BETWEEN TURBINE AND GENERATOR;
- COMPLETE MAINTENANCE OF THE EXCITATION CHAMBER;
- EXTRACTION OF THE ROTOR FROM THE STATOR BODY;
- COMPLETE OVERHAUL OF THE ROTOR – ELECTRICAL AND MECHANICAL CHECKS – INSPECTIONS OF THE COIL ANCHORING AREA UNDER RETAINING – COMPLETE INSPECTION OF THE STATOR – CHECK DITCHING OF ELECTRIC BARS – CHECK OF WEDGES FASTENING – ELECTRICAL CHECKS;
- COMPLETE INSPECTION OF THE GENERATOR COOLING SYSTEM;
- COMPLETE OVERHAUL OF THE COLLECTOR RINGS, BRUSHES AND BRUSH HOLDERS;
- COMPLETE INSPECTION OF THE ELECTRICAL TERMINAL LEADS AND STAR POINT CONNECTION.

Deir Ali Power Plant Major Overhaul 2022: Funded by UAE Works:

4. DA II – GAS TURBINES (X 2) ANSALDO V94.3A(4) MAJOR OVERHAUL

- TURBINE COVER REMOVAL; MACHINE INSTRUMENTATION, PIPING AND ACCESSORY EQUIPMENT;
- COMPLETE OPENING OF THE TURBINE BODY IN ALL ITS SECTIONS: COMPRESSOR –COMBUSTION CHAMBER – TURBINE;
- DISASSEMBLY OF SHAFT BEARINGS AND THRUST SUPPORT;
- TURBINE ROTOR EXTRACTION;
- COMPLETE MAINTENANCE OF THE COMBUSTION CHAMBER – CHECK ON THE INTEGRITY OF THE CERAMIC TILES;
- COMPLETE MAINTENANCE OF THE BURNERS – CLEANING – CHECKS AND INSPECTIONS;
- COMPLETE COMPRESSOR BLADES AND VANES INSPECTION AND REPLACEMENTS WHERE NECESSARY;
- COMPLETE INLET GUIDE VANS MAINTENANCE (IGV);
- COMPLETE INSPECTION OF BLOW-OFF LINES;
- 1° – 2° – 3° TURBINE BLADES AND VANES STAGES REPLACEMENTS;
- GUIDE RING SEGMENTS STAGE NO.1 REPLACEMENT;
- 4° TURBINE BLADES AND VANES STAGE CHECK AND INSPECTION AND REPLACEMENTS WHERE NECESSARY;
- GUIDE RING SEGMENTS STAGE NO.4 CHECK AND INSPECTION AND REPLACEMENTS WERE NECESSARY;
- COMPLETE OVERHAUL OF THE TURNING GEAR DEVICE;
- COMPLETE OVERHAUL OF THE LUBRICATION OIL SYSTEM;
- COMPLETE OVERHAUL OF THE CONTROL OIL SYSTEM;
- COMPLETE OVERHAUL OF THE GAS FUEL SYSTEM;
- COMPLETE INSPECTION OF THE AIR INTAKE;
- COMPLETE INSPECTION OF THE EXHAUST DUCT. TEXTILE JOINT CONTROL AND CHECKS



Deir Ali Power Plant Major Overhaul 2022: Funded by UAE Works:

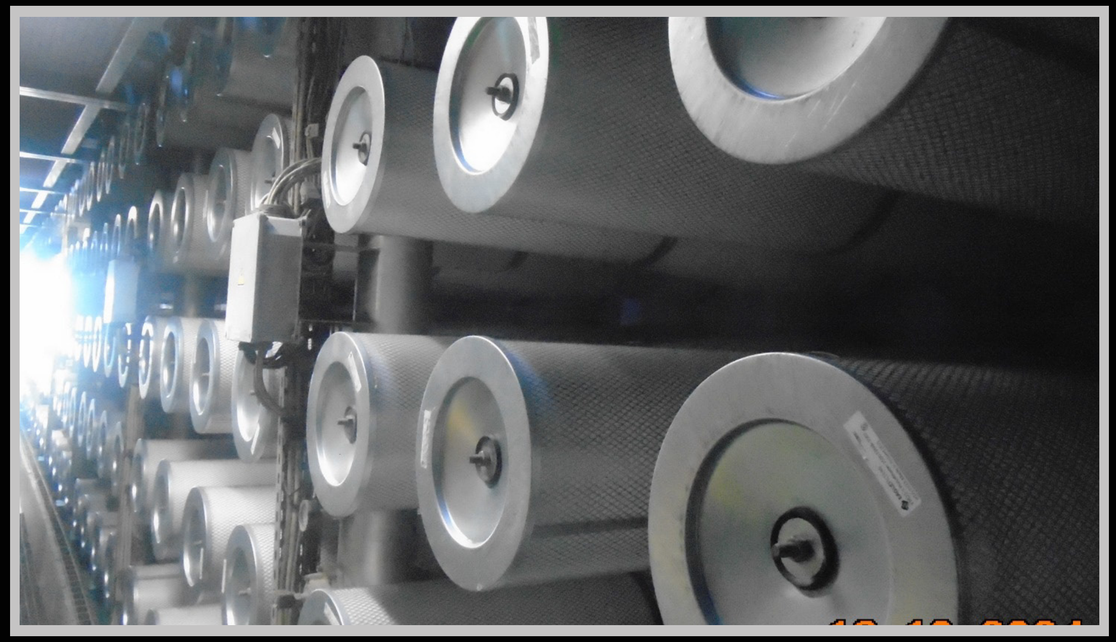
5. DA II – STEAM TURBINE (X 1) ANSALDO RT30/ND33 – MEDIUM OVERHAUL

- COMPLETE OVERHAUL OF ALL THE TURBINE SHAFT BEARINGS;
- COMPLETE OVERHAUL OF THE THRUST BEARING;
- COMPLETE OVERHAUL OF THE INLET STEAM VALVES;
- COMPLETE OVERHAUL OF THE HYDRAULIC ACTUATORS CONTROLLING THE INLET STEAM VALVES;
- COMPLETE OVERHAUL OF THE STEAM CONTROL VALVES;
- COMPLETE OVERHAUL OF THE HYDRAULIC ACTUATORS CONTROLLING THE CONTROL VALVES;
- LAST STAGE ROTOR BLADES LP SECTION INSPECTION;
- COMPLETE OVERHAUL OF THE TURNING GEAR;
- COMPLETE OVERHAUL OF THE LUBRICATION OIL SYSTEM
- COMPLETE OVERHAUL OF THE CONTROL OIL SYSTEM

Deir Ali Power Plant Major Overhaul 2023: Funded by UAE Works:

6. DA II – TURBO GENERATORS (X 3) ANSALDO WY(X)23Z-109 – MAJOR OVERHAUL

- COMPLETE OVERHAUL OF ALL THE GENERATOR SHAFT BEARINGS;
- COMPLETE OVERHAUL OF THE COUPLING JOINT BETWEEN TURBINE AND GENERATOR;
- COMPLETE MAINTENANCE OF THE EXCITATION CHAMBER;
- EXTRACTION OF THE ROTOR FROM THE STATOR BODY;
- COMPLETE OVERHAUL OF THE ROTOR – ELECTRICAL AND MECHANICAL CHECKS – INSPECTIONS OF THE COIL ANCHORING AREA UNDER RETAINING RINGS;
- COMPLETE INSPECTION OF THE STATOR – CHECK DITCHING OF ELECTRIC BARS – CHECK OF WEDGES FASTENING – ELECTRICAL CHECKS;
- COMPLETE INSPECTION OF THE GENERATOR COOLING SYSTEM;
- COMPLETE OVERHAUL OF THE COLLECTOR RINGS, BRUSHES AND BRUSH HOLDERS;
- COMPLETE INSPECTION OF THE ELECTRICAL TERMINAL LEADS AND STAR POINT CONNECTION.



Deir Ali Power Plant Major Overhaul 2024: Funded by UAE Works:

7. DA III – ENGINEERING, PROCUREMENT & CONSTRUCTION (EPC) OF 724MW COMBINED CYCLE POWER PLANT (2+2+1 CONFIGURATION)

7.1 ENGINEERING SCOPE
7.1.1 BASIC & DETAILED ENGINEERING
7.1.2 PERMITS AND REGULATORY COMPLIANCE
7.2 PROCUREMENT SCOPE
7.2.1 MAJOR EQUIPMENT PROCUREMENT
7.2.2 PROCUREMENT MANAGEMENT
7.3 CONSTRUCTION SCOPE
7.3.1 SITE PREPARATION
7.3.2 CIVIL WORKS
7.3.3 MECHANICAL & ELECTRICAL INSTALLATION
7.3.4 INTERCONNECTIONS
7.4 PROJECT MANAGEMENT, HSE AND QA&QC

Tishreen Power Plant Major Overhaul 2023:

8. TSRN I&II – STEAM TURBINES (X 2) LMZ K-200-130-9 MAJOR INSPECTION WORKS:

- DISASSEMBLY OF STEAM TURBINE VALVES FOR INSPECTION AND CONDITION EVALUATION.
- INSPECTION AND CONDITION EVALUATION OF TURBINE MECHANICAL GOVERNOR SYSTEM.
- INSPECTION AND CONDITION EVALUATION OF TURBINE BEARINGS.
- INSPECTION AND CONDITION EVALUATION OF LUBE AND HYDRAULIC OIL SYSTEMS.
- DISASSEMBLY OF TURBINE UPPER CASINGS AND ALL NECESSARY AUXILIARY EQUIPMENT FOR THE PERFORMANCE OF CONDITION EVALUATION OF THE INTERNALS OF THE STEAM TURBINE (ROTATING BLADES, DIAPHRAGMS, SEALS, LABYRINTHS ETC.)
- PROVISION OF A WRITTEN REPORT FOR EACH ST WITH A LIST OF REQUIRED WORKS AND SPARE PARTS.
- TESTING THE AUTOMATIC CONTROL SYSTEM OF A STEAM TURBINE TYPE K-200-130-9 LMZ WITH THE ISSUANCE OF RECOMMENDATIONS, BEFORE REPAIR.
- CONDUCTING A VIBRATION EXAMINATION OF THE POWERTRAIN WITH THE ISSUANCE OF RECOMMENDATIONS, BEFORE REPAIR.

Tishreen Power Plant Major Overhaul 2023:

9. TSRN I&II – TURBOGENERATORS (X 2) ELECTROTYAZHMASH ТГВ–200–МТЗ MAJOR INSPECTION WORKS:

- REMOVAL, INSPECTION, AND CONDITION EVALUATION (MECHANICAL AND ELECTRICAL) OF THE ROTOR.
- INSPECTION AND CONDITION EVALUATION (MECHANICAL AND ELECTRICAL) OF THE STATOR.
- INSPECTION AND CONDITION EVALUATION OF THE GENERATOR COOLING SYSTEM.
- INSPECTION AND CONDITION EVALUATION OF GENERATOR BEARINGS
- INSPECTION AND CONDITION EVALUATION OF THE EXCITATION SYSTEM
- PROVISION OF A WRITTEN REPORT FOR EACH GEN WITH A LIST OF REQUIRED WORKS AND SPARE PARTS.

Tishreen Power Plant Major Overhaul 2023:

10. TSRN I&II – BOILER (X 2) TKZ EN-670-13.8-545M (TGME206IACO) MAJOR OVERHAUL
WORKS:

NON-DESTRUCTIVE TESTING OF THE METAL IN BOTH BOILERS FOR THE FOLLOWING MAIN COMPONENTS:

- DRUM
- HEATING SURFACE PIPES, PIPELINES WITHIN THE BOILER WITH AN OUTER DIAMETER OF 100 MM OR MORE
- COLLECTORS
- WELDED CONNECTIONS OF PIPELINES AND COLLECTORS WITH AN OUTER DIAMETER OF 100 MM OR MORE
- CAST PARTS DIA 100 MM AND MORE. FASTENERS (BOLT, NUTS, ETC)
- STATION PIPELINES (BOP PIPING: STEAM PIPELINES WITH AN OUTER DIAMETER OF 100 MM OR MORE, FEEDING PIPELINES WITH AN OUTER DIAMETER OF 76 MM OR MORE)

Tishreen Power Plant Major Overhaul 2023:

10. TSRN I&II – BOILER (X 2) TKZ EN-670-13.8-545M (TGME206IACO) MAJOR OVERHAUL
WORKS:

DISMANTLING OF BOILERS PRESSURE PARTS AS FOLLOWS:

- FURNACE WATERWALL TUBE PANELS (FRONT, SIDE & REAR)
- SUPERHEATER TUBES (RADIANT, PLATEN, CONVECTION STAGE 1, STAGE 2, STAGE 3)

Tishreen Power Plant Major Overhaul 2023:

10. TSRN I&II – BOILER (X 2) TKZ EN-670-13.8-545M (TGME206IACO) MAJOR OVERHAUL WORKS:

REASSEMBLY WORKS ON THE BOILERS AS FOLLOWS :

- PREPARATION (CLEANING, CHAMFERING, NDTS), ASSEMBLY AND WELDING OF WATERWALL PANELS (FRONT, SIDE, REAR). NDTS AFTER WELDING. 100% BOROSCOPE INSPECTION OF NEW PANEL TUBES AFTER PREPARATION AND BEFORE WELDING.
- PREPARATION (CLEANING, BENDING, CHAMFERING, NDTS), INSTALLATION AND WELDING OF COMPLETE BLOCKS OF SUPERHETER TUBES (RADIANT, PLATTEN, HP (STAGES 1 & 2), LP (STAGES 1, 2 & 3)). 100% BOROSCOPE INSPECTION OF NEW TUBES AFTER PREPARATION AND BEFORE WELDING AND ALSO OF EXISTING TUBE ENDS ON THE HEADERS BEFORE WELDING.
- REPAIR BY REPLACEMENT OF THE DAMAGED ECONOMIZER COIL TUBES IN THE LOWER PART AND IN OTHER PARTS OF THE ECONOMIZER AS NECESSARY. PREPARATION OF NEW TUBES AS IN SUPERHEATERS (ITEM #2). NDTS AFTER WELDING. 100% BOROSCOPE INSPECTION OF NEW TUBES AFTER PREPARATION AND BEFORE WELDING.
- WELD REPAIR THE COLLECTORS OF THE SECOND AND FIRST STAGES OF LP SUPERHEATERS. WELD REPAIR OF OTHER PLATTEN, RADIANT, HP AND LP SUPERHEATER COLLECTORS AS NECESSARY. NDTS AFTER WELDING. ATTEMEPRATORS ALL TO CHECK (NDTS PLUS 100% BOROSCOPE) AND REAPAIR.
- PREPARATION, INSTALLATION AND WELDING OF ALL SEALINGS INSIDE THE BOILER. NDTS AFTER WELDING.
- REMOVAL OF OLD AND INSTALLATION OF NEW BURNERS. NDTS. COMMISSIONING AND PERFROMANCE TESTING OF THE NEW BURNERS.
- ADAPTATION WORKS ON THE ECONOMIZER DOWNTAKE TO ACCOMODATE THE INSTALLATION AND REMOVAL FOR MAINTENANCE OF THE NEW BURNERS AND THEIR ACCESSORIES.
- MINOR REAPAIRS AND NDTS AS NECESSARY OF THE HP SUPERHEATER PANELS IN (A) CEILING, (B) CONVECTION SHAFT REAR WALL (C) CONVECTION SHAFT FRONT WALL, (D) CONVECTION SHAFT FRONT WALL, (E) CONVECTION SHAFT SIDE WALLS, (F) TRANSIENT GAS DUCT ENCLOSURE.
- PEPARATION AND WELDING ON THE FRONT WATERWALL PANELS OF THE GAS RECIRCULATION DUCTS. NDTS AFTER WELDING.
- PIPING SPRING AND SUPPORT ADJUSTEMENT IN ALL WATER-STEAM CYCLE PIPING.
- PREPARATION AND EXECUTION OF HYDRAULIC PRESSURE TESTING IN ALL CIRCUIT OF THE BOILER.
- METHOD STATEMENT AND SUPERVISION OF BOILER CHEMICAL CLEANING.
- METHOD STATEMENT, PREPARATION AND EXECUTION OF BOILER STEAM BLOW.
- SUPERVISION OF RESTORATION OF BOILER REFRACTORY LINING INSULATION.
- SUPERVISION OF RESTORATION OF BOILER CLADDING.
- SUPERVISION OF INSTALLATION AND REMOVAL OF ALL TEMPORARY STEEL SUPPORT STRUCTURES NECESSARY FOR THE WORKS ON BOILER.

Tishreen Power Plant Major Overhaul 2023:

11. TSRN I&II – TRADITIONAL (ANALOG) CONTROL SYSTEM REPLACEMENT WITH DCS
WORKS:

11.1 SYSTEM DESIGN & ENGINEERING
11.1.1 ARCHITECTURE DESIGN
11.1.2 HARDWARE ENGINEERING
11.1.3 SOFTWARE CONFIGURATION

11.2 PROCUREMENT & FACTORY TESTING
11.2.1 HARDWARE PROCUREMENT
11.2.2 FACTORY ACCEPTANCE TEST (FAT)

11.3 INSTALLATION AND FIELD WORK
11.3.1 SITE PREPARATION
11.3.2 CABLING & TERMINATION
11.3.3 IO MAPPING & TESTING

11.4 COMMISSIONING AND INTEGRATION
11.4.1 LOOP CHECKING
11.4.2 INTERLOCK AND PROTECTION SYSTEM TESTING
11.4.3 OPERATOR TRAINING

ASSOCIATE PARTNERS

MAIN CONTRACT AND SUB CONTRACT DIVISION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UNITED ARAB EMIRATES
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