



ISRAR
Engineering

ISRAR Engineering



Engineering Services Profile
Energy & Industrial Sectors

2022

ISRAR Engineering

Engineering Peace of Mind

**Integrated and Comprehensive
Engineering Solutions Provider
Automation and Control
EPC and O&M Services**

About ISRAR

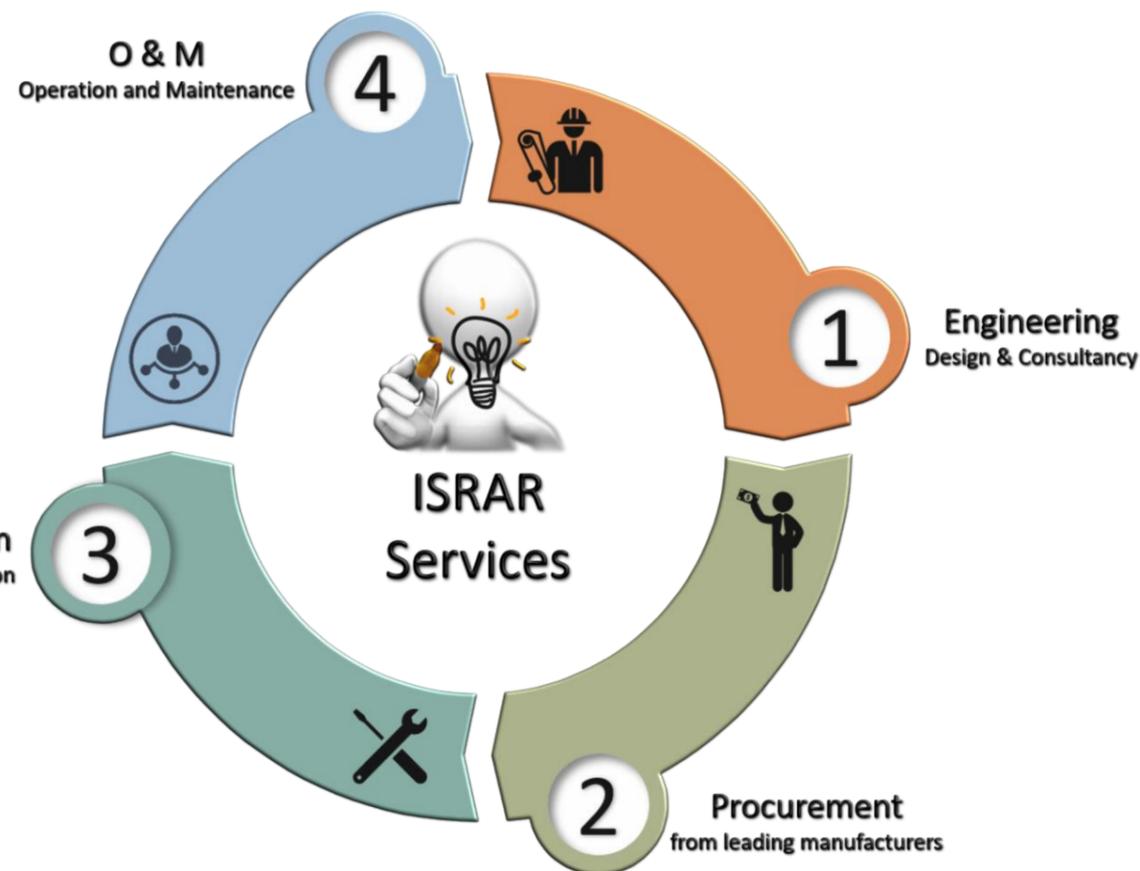
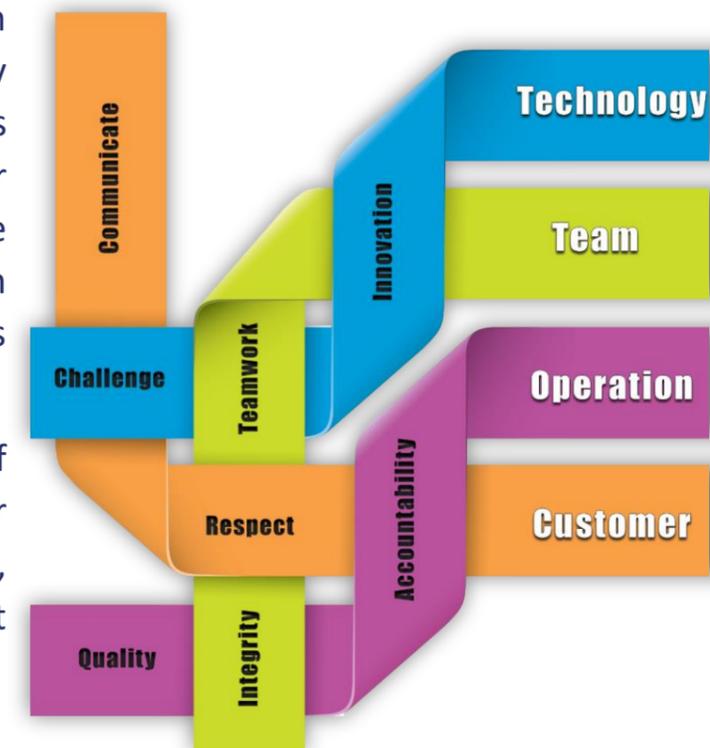
ISRAR ENGINEERING LLC is a leading engineering firm in the industrial, power, and renewable energy sectors with professional competences and years of expertise providing innovative and comprehensive engineering solutions in the MENA region, with class "A" EMRC license.

ISRAR ENGINEERING provides engineering, procurement, and construction (EPC) services as well as operation and maintenance (O&M) to the international renewable energy clients including solar, wind and green hydrogen plants of Giga Watts capacity. ISRAR operates locally and globally in the Middle East region, Europe, and the Americas. In collaboration with its global Technology and product network of partners such as power meter monitor (PMM), ISRAR ENGINEERING offers automation, digital transformation, and industry 4.0 solutions and services.

Our Core Values

Deploy innovative **Technology** through knowledge and experience and continuously challenge ourselves to provide the best solutions for the client's business needs. Empower our strength to deliver results as a **Team** with the highest integrity. Accountable **Operation** team and takes full Ownership in providing our clients with the service with the highest quality.

Customers receive the highest level of professionalism as we carefully listen to their needs, communicate it with them with respect, and relentlessly work to maintain the highest satisfaction.



Total Solution

ISRAR ENGINEERING is an expert engineering firm rendering services to the energy, renewable energy, and industrial sectors. ISRAR services span broad scope ranging from project development, full EPC services, O&M operation, and maintenance to a tailor-made software solution, SCADA, Billing system, Automation, and digital transformation toward industry 4.0.

The decades of experience of **ISRAR** in rendering technology and innovative solutions make us an ideal partner for project development, implementation, management, operation, and maintenance.

ISRAR is armed with skilled professional teams, years of experience, in-house developed technologies and products, tailored solutions, and excellent support services. ISRAR can deploy the best solution that fits each project's nature and business needs in the most cost-effective way, with the highest quality.



Concept to Execution

... Total Solution



Feasibility & Assessment

- Preliminary analysis
- Financial analysis
- Market research and analysis
- Technical analysis
- Projected income statement
- Project balance sheet
- Organization and organization plans
- Data analysis and Go no Go.
- Site selection
- Environment analysis
- Geo-technical study
- Environmental and Social Impact Assessment (ESIA)
- Grid Impact Study (GIS)
- Hydrology Study
- Grid grounding study
- Local security study



Engineering & Design

- Preliminary design
- Land and geo-technical survey
- Civil and access roads design
- PV electrical and mechanical design
- Yield assessment
- Structural design
- Construction design
- Environmental assessment
- System optimal design
- PV Solar requirements
- System drawings
- Technical specifications
- System components selection
- Permitting and licensing
- Bill of materials (BOM)
- Substations and interconnections
- QA / QC for the design and construction



Supply & Procurement

- Develop project full specifications
- Tendering and bid comparison
- Contract preparation and negotiation
- Award contract
- Purchase of modules and components
- Work with industry technology partners
- Utility scale solar projects supply
- Ground mounted and tracking systems
- Tower tube and mounting brackets
- String and centralized inverters supply
- Well proven tier-1 suppliers
- Inventory management
- Substation components
- Automation and control systems
- Software solutions (billing and integration)



Project Planning & Management

- Project planning
- Determine project requirements
- Define scope of work
- Develop project plans
- Site identification and consideration
- System sizing and production estimate
- Energy load demands and resources
- Grid interconnection, and net metering
- Define roles and responsibilities
- Stakeholders, developers, and utility
- Permitting and regulation
- Technology and vendor selection
- Turn-key project management
- Analyze contract specification
- Assure effective execution
- Assure compliance and quality control
- Monitor project progress
- Customer acceptance
- Experienced and licensed managers
- PPA negotiation



Delivery & Logistics

- Plan to manage projects logistics
- Manage all transportation
- Freight forwarding capabilities
- Tracking system for delivery
- Paper works preparation
- Custom clearance
- Receiving monitoring
- Physical inspections for components
- Perform initial quality assurance
- Warehouse logistics and security
- Check BoQ as per shipment
- Arrange shipping to construction site
- Generate reports



Construction & Installation

- Preparation of all project installation and construction documentations
- Site coordination and supervision
- Land survey, landscaping and culverts
- Site construction
- Civil works
- Elector-mechanical works
- Materials receiving and quality check
- Material installation
- Grid interconnection
- Instrumentals installation
- Security system installation
- Construction plant sustainability
- Health and safety monitoring



Commissioning & Testing

- Finalize planning stage
- Perform site investigation
- Conduct site assessment and physical inspection
- Develop functional test and monitoring plans
- Interconnection is per utility agreement
- Perform tests for all system components
- Complete system performance testing
- Implement accepted recommendations
- Perform any necessary adjustments
- Retest components and system performance
- Generate commissioning and testing reports
- Get verification for final approval
- Get all paperwork completed and approved
- Get permission to operate letter



Operation & Maintenance

- Review O&M agreements
- Perform repairs and replacement
- Check system performance
- Maintain products guarantees and warranties
- Security and monitoring system
- Ensure safety
- Administration work
- Monitoring the system
- Preventive maintenance
- Corrective maintenance
- Cleaning tractors for solar panels
- Reporting
- Billing system



Automation & Control

- Instrumentation and control works
- Interconnection with grid connections
- SCADA system and RTU
- Control system and tracker control
- Transformer and communication I/O
- Meteorological stations
- Temperature monitoring and controls
- Reference modules
- Soiling monitoring system
- LV/MV/HV metering
- Substation equipment
- String level monitoring
- PLC programming
- Automated processes and data logging
- Automated billing and AMR system



Hardware & Software

- Billing system PV specifics
- Automated billing generator and reports
- PPA specific tailored billing system
- AMR solutions
- Asset management platform
- Media converters
- Industrial gateways
- Power plant controllers
- Industrial switches and repeaters
- DLMS converters
- Data loggers
- SQL solutions
- Industrial CPUs
- Power Supplies

Our Advantages

Long **years of experience** in Engineering, EPC, and O&M services

Strong **Knowledge** in various business and industry sectors

A trusted partner to a **global network** of business affiliates

Our Branch Offices

ISRAR ENGINEERING USA, Florida, USA

ISRAR USA is a services company for projects with a focus on renewable energy, industrial automation and control, and project management.

ISRAR Ltd. Toronto, Canada

ISRAR Ltd. is a Canadian company with a focus on innovative technologies, technology transfer, project development, and financing.

ISRAR ENGINEERING, Amman, Jordan

ISRAR ENGINEERING is an engineering firm with a wide scope of engineering services ranging from product design to turn-key projects implementations and O&M for energy, renewable energy, industrial automation, and control.

Our Business Partners

Power Meter Monitor, Florida, USA

PMM is a company that specializes in product design, manufacturing, and software development for the industrial sector. It provides automation, digital transformation, and industry 4.0 services.

Experience Provider, Amman, Jordan

It is focused on the project's implementation, management, and investment needs through a global financing network. It brings years of experience in the industries to our client's projects.





ISRAR Group of Companies

ISRAR Group of Companies are structured to provide wide range of services, each with what it does the best.

- **Hardware Products Development**
- **Software Solutions**
- **Engineering Services**
- **Innovation & Technology Transfer**

Products Development

- Industrial CPU
- Industrial media converters:
 1. (Industrial & Substation) versions
 2. Multiple interfaces & Protocols
- Industrial gateways:
 1. (Industrial & Substation) versions
 2. Multiple interfaces & Protocols
- Industrial I/O
- Power plant controllers (Solar, Wind, Self-Consumption)
- Industrial switches and repeaters (Managed & Un-managed)
- DLMS Converter and Data logger
- Cleaning tractors for solar panels



Software Solutions

- Billing System
- SCADA System
- Metering system
- Data logger
- SQL / OPC servers
- License Manager
- Forecasting System
- Fleet Management
- Custom Solutions
- Asset management platform
- Assist in digital transformation
- Industrial 4.0 and IIoT solutions



Doing Business With

Scatec

PMM
Power Meter Monitor

PRODIEL



amazon

orange™

First Solar

STERLING & WILSON

MARTIFER
SOLAR

ALCAZAR
ENERGY

Vestas®



ACWA POWER
قوا باور

POWERHUB

PRENECON S.A.
PRIME ENERGY CONSTRUCTIONS S.A.

ET
Towards Excellence

SunEdison®

KAWAREENERGY

ECO
Consult

elecnor

TRIPLE A

IFE

Adenium
energy capital

YELLOW
DOOR
ENERGY

RINA

Volt Automation

hec solar

BELECTRIC®
gulf

SunRise
PHOTOVOLTATIC SYSTEMS

AUTRIAL

ahli | الأهلي
البنك الأهلي الأردني
Jordan Ahli Bank

TGB
GROUP TECHNOLOGIES

mustakbal
clean tech

ayla
SEASIDE LIVING REINVENTED

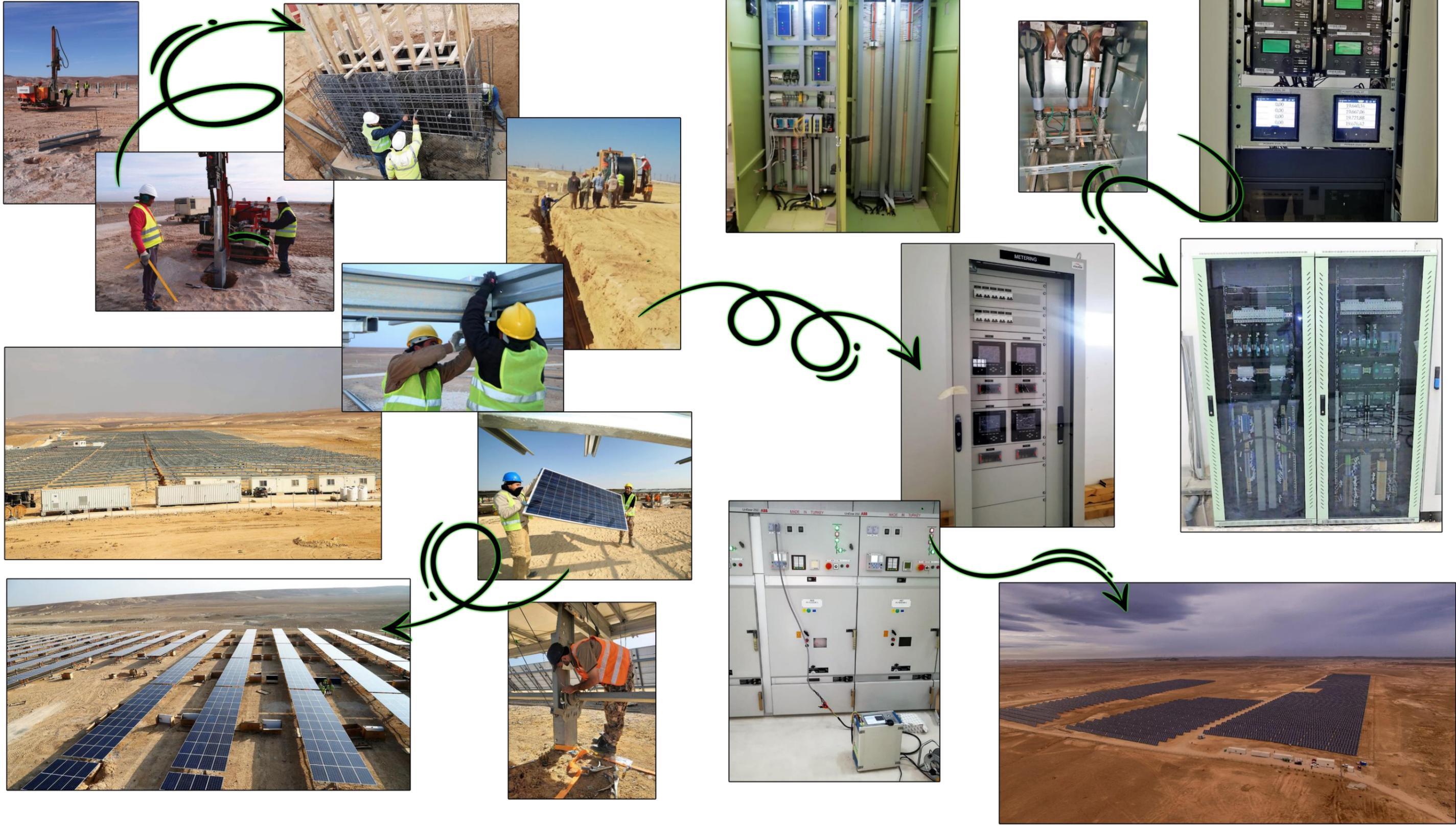
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مجموعة الجزاء الاستثمارية
JAWAZ INVESTMENT GROUP

Philadelphia Solar
DELIVERING CLEAN ENERGY SOLUTIONS

ASTRACO
التجمع الفخري للتعهدات
Associated Transtech Contracting

ARABIA GROUP

Some of Our Gallery



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