

# MASE

## Power Services for Long Term Performance

### Capability Statement

Your partner for excellence & reliability  
in O&M and power services solutions

# MASE

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Amman | Abu Dhabi | Cairo  
[www.mase-energy.com](http://www.mase-energy.com)

**We are an award winning, technology-driven turnkey power services company with a focus on long term performance and a commitment to service excellence**

**With a proven track record, we operate, maintain, manage and optimize energy generation and power systems spanning across renewable energy, conventional power, energy storage, and power product asset classes**

[!\[\]\(c507f772dba2b921f86777f01218e570\_img.jpg\) Watch Our Capability Statement Clip](#)

**MASE**

We provide services to a diverse portfolio comprising over 500 power and energy assets, boasting an installed capacity exceeding 1.5 GWp. Our operational reach extends across the Middle East, North Africa, and GCC regions, facilitated by our strategically positioned regional hubs in Amman, Abu Dhabi, and Cairo

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**+ 1,500 MWp**

Installed capacity  
under management

**> 500**

Serviced  
assets

**3**

Regional  
hubs

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**MASE**

# Our Award-Winning Services

Technology-driven, globally trusted services for long term performance, reliability, and actionable insights

## End-to End O&M

Data-driven comprehensive operations, maintenance and management for power generation assets

## Power Services

Robust services for power products, protection, interconnection, and power management value chain components

## Strategic Services

Optimized and targeted solutions spanning the entire project lifecycle, designed to empower decision-making and maximize asset value

## — End-to End Operations & Maintenance

Our customizable and purpose-built operations, maintenance and management service solutions range from preventive and corrective maintenance, emergency response, actionable reporting, and enhanced testing to 24/7 performance analysis and AI-powered predictive insights with a focus on delivering long-term performance



# — End-to End Operations & Maintenance

- **Turnkey Maintenance**
  - Preventative & Corrective Maintenance
  - Predictive Maintenance
- **Operations Management**
  - O&M Cycle Management
  - Spares Management
- **Enhanced Testing & Diagnostics**
  - Electrical and Mechanical Testing
  - Thermography
- **Actionable In-Depth Reporting**
  - Detailed O&M Reporting
  - Technical Analysis
- **Asset Management Support**
  - Claims Management
  - Technical Interface
  - E&S Regulatory Compliance
  - Grid Compliance
- **Performance Engineering**
  - 24/7 Intelligence Monitoring
  - In-house CMMS Platform
  - Fault Detection & Trend Analysis
  - Real-time Fault Detection & Reporting



## — Robust Power Services

Our Power Services encompass all aspects of power product components, delivering a comprehensive range of both foundational and tailored O&M, testing, and commissioning services covering MV and HV switchgears, RMUs, transformers, protection and interconnection systems

## — Robust Power Services

- **Baseline & Critical Maintenance**
  - Preventative & Corrective Maintenance
  - Emergency Response
  - Predictive Maintenance
- **Value-Added Services**
  - Performance Optimization
  - Retrofit & Upgrades
- **Testing & Commissioning**
  - Functional Testing
  - System Integration Testing
- **Site Acceptance Tests**
  - Verification of Installation Quality & System Performance
  - Compliance Testing
- **Comprehensive Testing Catalogue**
  - Insulation Resistance
  - Dielectric Frequency Response
  - Power Factor Testing
  - Transformer Turns Ratio
  - Sweep Frequency Response
  - Dissolved Gas Analysis
  - Contact Resistance
  - Relay Testing
  - Partial Discharge
  - Thermal Imaging
  - Circuit Breaker Timing

## — Strategic Services

Our Strategic services are especially designed to capitalize on MASE's extensive field-proven experience in operating, maintaining, and managing power systems and facilities. This comprehensive approach offers a diverse value proposition that encompasses technical, operational, and financial aspects



## — Strategic Services

- **Technical Due Diligence**

- Asset Condition Assessment
- Risk Analysis & Mitigation
- Regulatory Compliance Review

- **M&A Support Services**

- Technical Asset Valuation
- Performance Analysis
- Integration Planning

- **Rehabilitation & Repowering**

- System Retrofitting
- Control System Modernization
- Capacity Expansion & Optimization

- **Solar Cleaning Solutions**

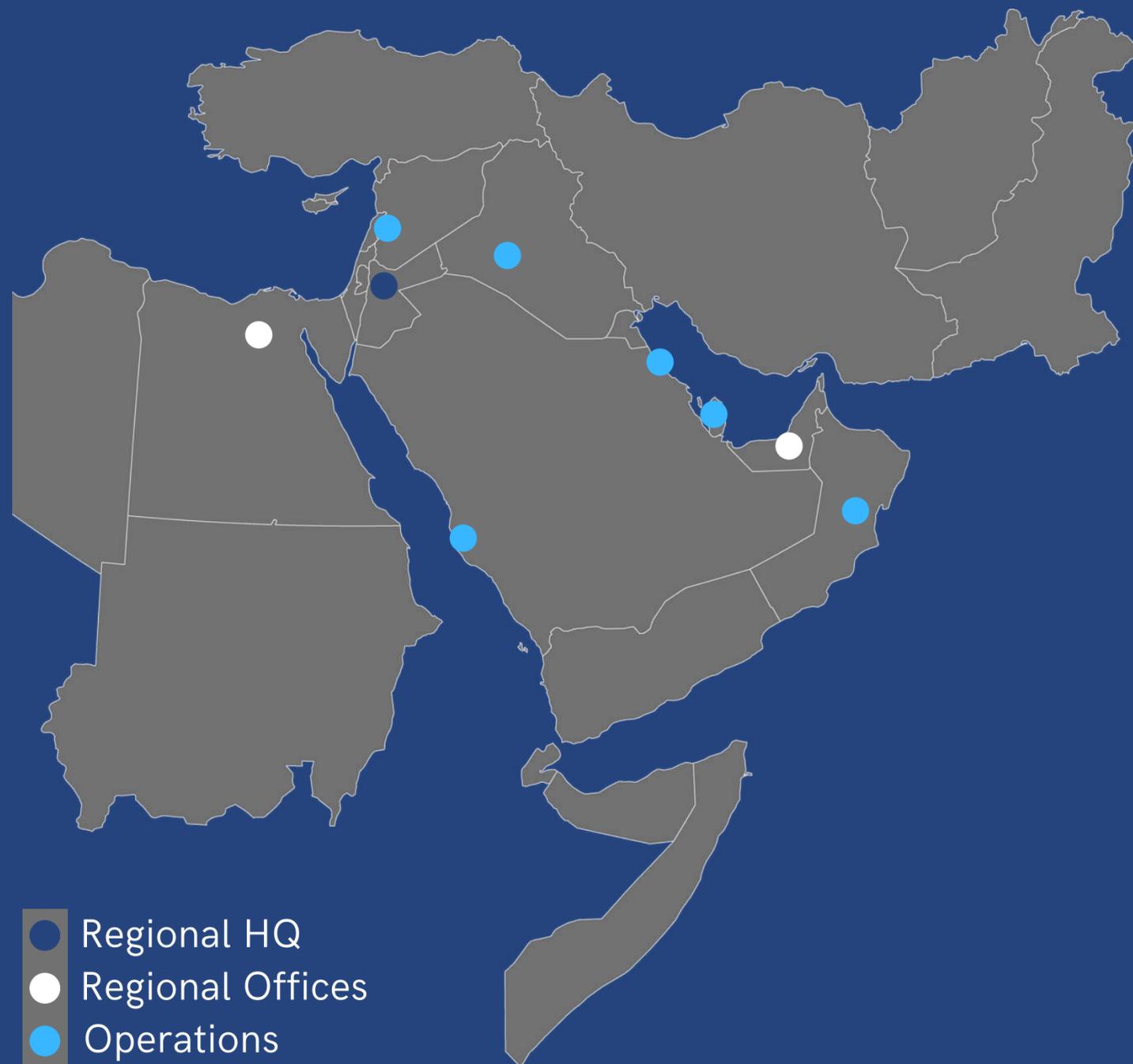
- Specialized Cleaning
- Specialized Tracking
- Soiling Analysis
- Advanced Robotics

- **OEM Service Partnerships**

- Authorized Maintenance & Repairs
- Access to OEM Technical Support
- Spares Procurement & Management

## Growing Regional Coverage

We're cultivating a rapidly expanding regional presence, strategically positioned to provide **localized support** while catering to the dynamic demands of our clients and empowering **agile scalability** of service coverage across the MENA and GCC regions



# Globally Recognized Credentials, Trusted by Leading Asset Owners, Developers and Lenders



Fastest Growing O&M in the Middle East



Best Power & Energy Solutions Provider

Leader in Solar-Asset Services Platforms



First O&M in MENA to qualify under SPE O&M Mark

Assets we operate are financed by some of the world's leading lending institutions



European Bank

FMO

Entrepreneurial Development Bank



International Finance Corporation  
WORLD BANK GROUP

Creating Markets, Creating Opportunities



PROPARCO  
GROUPE AFD

البنك العربي  
ARAB BANK



## —— QHSE Commitment

Our commitment to the highest standards of quality, health, safety, and environmental responsibility encompasses every aspect of our operations from the office to the field



## —— Positive Impact

We make a meaningful difference in the communities where we work and beyond, implementing responsible practices, and supporting initiatives that enhance our social footprint

[↗ Watch the Video](#)

## MASE Headquarters

Arabia Group Complex  
3rd Floor  
260 Arar Street  
Amman, **Jordan**

## MASE Gulf

Accelerator Building  
Masdar City  
Abu Dhabi, **UAE**  
+971 54 318 2282 | gcc@mase-energy.com

## MASE North Africa

Regional Cairo Office  
Cairo, **Egypt**  
+20 114 4588004 | africa@mase-energy.com

## Commitment & Policy

QHSE Statement

ESG

Equal Employment



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## QSHE Statement

At MASE, we are committed to upholding the highest standards of Quality, Health, Safety, and Environmental responsibility in alignment with global benchmarks and regulations. Our commitment extends to adhering to the ESG Performance Standards set by the International Finance Corporation (IFC), ISO standards and requirements, and the benchmarks and standards mandated by local laws and regulations in the countries and regions in which we operate.

**Quality:** We strive for excellence in every aspect of our operations, ensuring compliance with global quality standards and requirements.

**Health and Safety:** The health and safety of our employees, partners, and communities are paramount. We implement robust health and safety management systems in accordance with international standards, ensuring a safe and healthy work environment for everyone involved in our operations.

**Environment:** We are dedicated to environmental stewardship and sustainability, aligning our practices with global best practices and regulations. We implement measures to minimize our environmental impact, conserve resources, and promote sustainable development in the communities where we operate.

**Continuous Improvement:** We continuously monitor and evaluate our QHSE performance against global benchmarks and standards, striving to exceed industry expectations and drive continuous improvement across our operations.

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## ESG Commitment

At MASE, we recognize the importance of Environmental, Social, and Governance (ESG) considerations in driving sustainable business practices and creating long-term value for our stakeholders.

**Environmental Stewardship:** We are committed to minimizing our environmental footprint and promoting sustainable practices in accordance with global standards and regulations. We implement measures to reduce waste, conserve resources, and mitigate our impact on the environment, striving to meet and exceed international ESG benchmarks.

**Social Responsibility:** MASE is dedicated to making a positive impact on the communities where we operate. We prioritize social initiatives, diversity, and inclusion, and are committed to localization of our workforce by prioritizing the hiring and development of local communities. Our goal is to foster economic growth, empower local communities, and create shared value for all stakeholders.

**Governance Integrity:** We uphold the highest standards of corporate governance, transparency, and ethical behavior in alignment with global best practices and regulations. We implement robust internal controls, adhere to regulatory requirements, and promote accountability and integrity throughout our organization.

**Continuous Engagement:** We actively engage with our stakeholders to understand their concerns and expectations regarding ESG issues.



# Supplement: Project References & Track Record

## Some of our Key Clients



**+ 1,500 MWp**

Installed capacity  
under management

**> 500**

Serviced  
assets

**3**

Regional  
hubs

**MASE**

# Select O&M Project References 1/2

Project	Capacity	Location	Project	Capacity	Location
Middle East Insulation	0.205 MWp		Jabri Restaurants	1.21 MWp	
Kamal Osman Jamjoom Facility	0.246 MWp		Ministry of Education	2.00 MWp	
SNOC	0.330 MWp		Umniah Telecom I	2.43 MWp	
Elcome	0.311 MWp		Nabooda Factories	3.09 MWp	
Jordan Hospital	0.596 MWp		Al Al Bait University	3.30 MWp	
AMI Middle East	0.615 MWp		Wadi Al Ash Complex	4.10 MWp	
BPC Le Chocolat Factory	0.869 MWp		Umniah Telecom II	4.78 MWp	
Unilever Middle East	1.00 MWp		Umniah Telecom III	4.87 MWp	

## Select O&M Project References 2/2

Project	Capacity	Location	Project	Capacity	Location
Ministry of Energy Azraq	5.23 MWp		Royal Jordanian Air Force	12.01 MWp	
Classic Fashion Apparel	5.45 MWp		HCT C&I Portfolio	13.00 MWp	
Nestle Middle East	5.55 MWp		Falcon Ma'an	23.10 MWp	
Umniah Telecom IV	5.68 MWp		Sharaf DGE C&I Portfolio	30.13 MWp	
Masdar City	10.00 MWp		SEPCO South Amman	46.00 MWp	
Shamsuna	10.01 MWp		Al Safawi	66.69 MWp	
Arabia One	11.52 MWp		Sheikh Zayed Solar Park	103 MWp	
SEPCO Azraq	10.00 MWp		Masdar Baynouna	246 MWp	



### Key Projects - Commercial

# MEI 205 kWp

The Yellow Door Energy Solar PV Plant in Jebel Ali Free Zone operates within a corporate BOT scheme for Middle East Insulation

**Location:** JAFZA - Dubai, UAE  
**Installed capacity:** 205 kWp  
**Commissioning date:** 2018  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE Services Middle East



### Key Projects - Commercial

# KOJ 246 kWp

The Yellow Door Energy Solar PV Plant in Dubai, UAE operates within a corporate BOT scheme for Kamal Osman Jamjoom (KOJ)

**Location:** Dubai, UAE  
**Installed capacity:** 246 kWp  
**Commissioning date:** 2019  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE Services Middle East





### Key Projects - Commercial

# ELCOME 311 kWp

The Yellow Door Energy Solar PV Plant in Dubai, UAE operates within a corporate BOT scheme for Elcome

**Location:** Dubai, UAE  
**Installed capacity:** 311kWp  
**Commissioning date:** 2018  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE Services Middle East



### Key Projects - Commercial

# JO Hospital 246 kWp

This Yellow Door Energy Solar PV Plant in Sult, Jordan operates under a corporate PPA with Jordan Hospital

**Location:** Sult, Jordan  
**Installed capacity:** 596 kWp  
**Commissioning date:** 2019  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE





### Key Projects - Commercial

**AMI**  
**615 kWp**

The Yellow Door Energy Solar PV Plant in  
Jebel Ali Free Zone operates within a  
corporate BOT scheme for AMI Middle East

**Location:** JAFZA - Dubai, UAE  
**Installed capacity:** 615 kWp  
**Commissioning date:** 2018  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE Services Middle East



### Key Projects - Commercial

**BPC**  
**869 kWp**

The Yellow Door Energy Solar PV Plant in  
Dubai Industrial City in UAE operates  
within a corporate BOT scheme for BPC Le  
Chocolat LLC

**Location:** Dubai Industrial City, UAE  
**Installed capacity:** 869 kWp  
**Commissioning date:** 2019  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE Services Middle East





### Key Projects - Commercial

# Unilever 1.00 MWp

The Yellow Door Energy Solar PV Plant in Dubai, UAE operates under a corporate PPA with Unilever.

**Location:** Dubai, UAE  
**Installed capacity:** 1,000 kWp  
**Commissioning date:** 2018  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE Services Middle East



### Key Projects - Commercial

# Jabri 1.21 MWp

This Yellow Door Energy Solar PV Plant in Sult, Jordan operates under a corporate PPA with Jabri Restaurants.

**Location:** Sult, Jordan  
**Installed capacity:** 1,211 kWp  
**Commissioning date:** 2019  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE





Key Projects - Commercial

# Nabooda 3.09 MWp

The Yellow Door Energy Solar PV Plant in Dubai Industrial City, UAE operates under a corporate PPA with Unilever.

**Location:** Dubai, UAE  
**Installed capacity:** 3,089 kWp  
**Commissioning date:** 2019  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE Services Middle East



Key Projects - Commercial

# Umniah I 2.43 MWp

The Yellow Door Energy Umniah Solar PV Plant is one of three facilities operating within a corporate BOT scheme for Jordan's third largest telecom operator Umiah

**Location:** Azraq, Jordan  
**Installed capacity:** 2,430 kWp  
**Commissioning date:** 2019  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE





Key Projects - Commercial

# Wadi AA 4.10 MWp

The Yellow Door Energy Wadi Al Ash Solar PV Plant comprises two separate facilities within a corporate BOT scheme

**Location:** Dubai, UAE  
**Installed capacity:** 4,100 kWp  
**Commissioning date:** 2019  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE Services Middle East



Key Projects - Commercial

# Umniah III 4.87 MWp

The Yellow Door Energy Umniah Solar PV Plant is one of three facilities operating within a corporate BOT scheme for Jordan's third largest telecom operator Umiah

**Location:** Dulail, Jordan  
**Installed capacity:** 4,870 kWp  
**Commissioning date:** 2020  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE





### Key Projects - Commercial

## CF Apparel 5.45 MWp

The Classic Fashion Solar PV Plant operates within a corporate BOT scheme for one of Jordan's largest apparel factories

**Location:** Mafrag, Jordan  
**Installed capacity:** 5,445 kWp  
**Commissioning date:** 2020  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE



### Key Projects - Commercial

## Nestle 5.55 MWp

The Yellow Door Energy Nestle Middle East Solar PV Plant is Nestle's flagship project in the region. It operates within a corporate BOT scheme

**Location:** Dubai, UAE  
**Installed capacity:** 5,557 kWp  
**Commissioning date:** 2017  
**Business scheme:** Corporate PPA  
**Developer:** Yellow Door Energy  
**Operator:** MASE Services Middle East





#### Key Projects - Utility

## Masdar City 10 MWp

The Masdar City Solar PV Plant was developed by Masdar. It is one of the first utility-scale solar PV plants in the region. In 2019, Masdar entrusted MASE with the operations and maintenance of the plant



**Location:** Abu Dhabi, UAE  
**Installed capacity:** 10,000 kWp  
**Commissioning date:** 2010  
**Business scheme:** PPA  
**Developer:** Masdar,  
**Lender(s):** undisclosed  
**Operator:** MASE Services Middle East

#### Key Projects - Utility

## Shamsuna 10.01 MWp

The Shamsuna Solar PV Plant is part of Jordan's Round I Program. It was developed by a regional private equity and is financed by leading international banks



**Location:** Aqaba, Jordan  
**Installed capacity:** 10,010 kWp  
**Commissioning date:** Nov 2016  
**Business scheme:** PPA fixed tariff  
**Developer:** Catalyst Private Equity  
**Lender(s):** IFC (World Bank)  
**Operator:** MASE



### Key Projects - Utility

## Azraq 10 MWp

The Azraq Solar PV Plant is part of SEPCO's utility-scale solar PV asset portfolio with plants across Jordan



**Location:** Azraq, Jordan  
**Installed capacity:** 10,135 kWp  
**Commissioning date:** 2020  
**Business scheme:** PPA  
**Developer:** SEPCO  
**Lender(s):** undisclosed  
**Operator:** MASE

### Key Projects - Utility

## Sharaf DGE 30.15 MWp

The Sharaf DGE solar portfolio comprises of 90+ distributed solar PV assets located across the UAE with an installed capacity of 30+ MW



**Location:** Various UAE  
**Installed capacity:** 30,150 kWp  
**Commissioning date:** 2021-2023  
**Business scheme:** C&I  
**Developer:** Sharaf DGE  
**Lender(s):** undisclosed  
**Operator:** MASE Services Middle East





#### Key Projects - Utility

## S Amman 46.33 MWp

The South Amman Solar PV Plant is part of SEPCO's utility-scale solar PV asset portfolio with plants across Jordan

**Location:** South Amman, Jordan

**Installed capacity:** 46,330 kWp

**Commissioning date:** 2020

**Business scheme:** PPA fixed tariff

**Developer:** SEPCO

**Lender(s):** Local financing

**Operator:** MASE



#### Key Projects - Utility

## Al Safawi 66.69 MWp

The Al Safawi Solar PV plant is part of Jordan's second round renewable energy IPP program

**Location:** Safawi, Jordan

**Installed capacity:** 66,690 kWp

**Commissioning date:** April 2019

**Business scheme:** PPA fixed tariff

**Developer:** Arabia, FRV (ALJ Energy)

**Lender(s):** EBRD, FMO

**Operator:** MASE





Key Projects - Utility

# Sh. Zayed 103 MWp

The Sheikh Zayed Solar PV Plant is part of SEPCO's utility-scale solar PV asset portfolio with plants across Jordan



**Location:** Quweira, Jordan  
**Installed capacity:** 103,00 kWp  
**Commissioning date:** 2018  
**Business scheme:** PPA fixed tariff  
**Developer:** SEPCO  
**Lender(s):** Local financing  
**Operator:** MASE

Key Projects - Utility

# Baynouna 250 MWp

The Baynouna Solar PV plant is the largest solar PV plant in Jordan and one of the largest facilities in the region



**Location:** Madouna, Jordan  
**Installed capacity:** 249,000 kWp  
**Commissioning date:** May 2021  
**Business scheme:** PPA fixed tariff  
**Developer:** Masdar, Taaleri  
**Lender(s):** IFC  
**Operator:** MSTs  
**O&M Subcontractor:** MASE



# Supplement: Specialized Service Cases

Examples of Specialized In-House Services Delivered by MASE Across Managed Assets:

- Turnkey replacement and commissioning of an RMU for a Power Electronics inverter
- Replacement of current transformers (CTs) at an ABB MV/HV substation
- Temporary transformer retrofit inside an SMA inverter skid
- Redesign and full mechanical/electrical retrofitting of a Siemens switchgear



# — Transformer Replacement - 2 MVA 33/0.4 kV RMU-Integrated Unit (Solar PV Plant in Jordan)

- **Issue:** Catastrophic internal failure in existing transformer due to insulation breakdown.
- **MASE Response:**
  - Coordinated design review, procurement, and turnkey installation of a new transformer.
  - Managed removal of the failed unit and integration of the new unit within RMU cabinet constraints.
- **Testing:**
  - DGA, sweep frequency response analysis
  - Insulation resistance and winding resistance tests
  - Functional tests and cold commissioning
- **Outcome:** Full transformer replacement completed on schedule with restored supply continuity and improved thermal/load performance.

# — Switchgear Maintenance & Retrofit – 33 kV Siemens GIS (Solar PV Plant in Jordan)

- **Issue:** Aging switchgear showing signs of mechanical wear and electrical degradation, including faulty interlocks and abnormal operating sounds.
- **MASE Response:**
  - Conducted a full mechanical and electrical retrofit, including interlock reconfiguration and gas compartment servicing.
  - Replaced worn auxiliary contacts and executed corrective alignment.
- **Testing:**
  - Partial discharge (PD) scanning
  - High potential (HiPot) testing
  - Functional trip and close sequence testing
- **Outcome:** Equipment restored to safe operating condition with extended life expectancy and reduced operational risk.