

# A Business Case for Solar Module Manufacturing in Jordan: Powering Agricultural Growth

Educational analysis of manufacturing investment parameters and operational frameworks for renewable energy infrastructure investments.

Evolving the Turnkey Paradigm: Comprehensive Framework Assessments and Lifecycle Operational Intelligence from J.v.G. Technology GmbH.





## Report Details

Created as part of the  
PVKnowHow Knowledge  
Network

Prepared by J.v.G.  
Technology GmbH

European specialists in  
turnkey solar module  
production lines

# Jordan Renewable Energy Context

**50%**

**Target by 2030**

Electricity from renewable sources

**1.7**

**GW Capacity Addition**

Planned renewable installations

**27%**

**Current Share**

Renewable energy in grid

Solar or wind energy powers approximately 29 percent of the electricity grid and Jordan aims to reach 50 percent of electricity from renewables by 2030. The International Energy Agency (IEA) reported that Jordan will add 1.7 gigawatts (GW) of renewable capacity by the end of this decade.

# Regional Manufacturing Opportunity

## MENA Market Growth

- 65% of 53 GW capacity additions will be solar PV
- Regional manufacturing hub potential
- Export market access to neighboring countries

## Strategic Location Benefits

- Port proximity for logistics
- European market access
- Skilled workforce development infrastructure

# Local Manufacturing Rationale



## Supply Chain Resilience

Reduced import dependence  
and regional capacity building



## Technology Transfer

Technical expertise  
establishment and economic  
diversification



## Market Development

Domestic supply capability and  
regional export opportunities

# Turnkey Investment Structure

## Technical Components

- Semi-automated production equipment
- Quality control systems
- Installation and commissioning
- International certification compliance

## Knowledge Transfer Package

- Comprehensive technical training
- Production optimization protocols
- Ramp-up technical support
- Autonomous operation transition

# Risk Mitigation Framework

## Technology Risk

Proven manufacturing processes  
from established providers

## Operational Risk

Structured training and technical  
support during ramp-up

## Market Risk

Strong regional demand growth  
and government commitments





# Implementation Framework

1

## Foundation Phase

- Infrastructure preparation
- Regulatory compliance
- Workforce planning

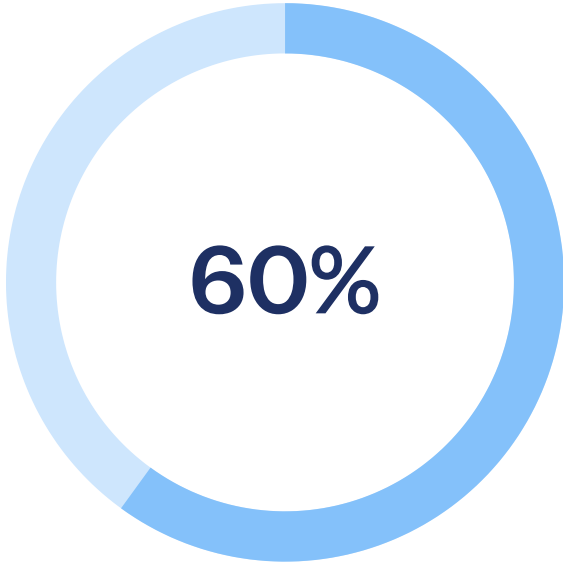
2

## Technology Transfer

- Equipment installation
- Training program delivery
- Quality system implementation

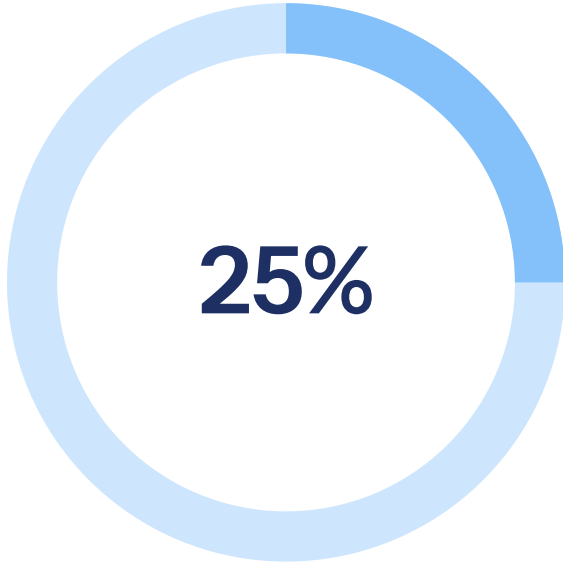


# Financial Structure Overview



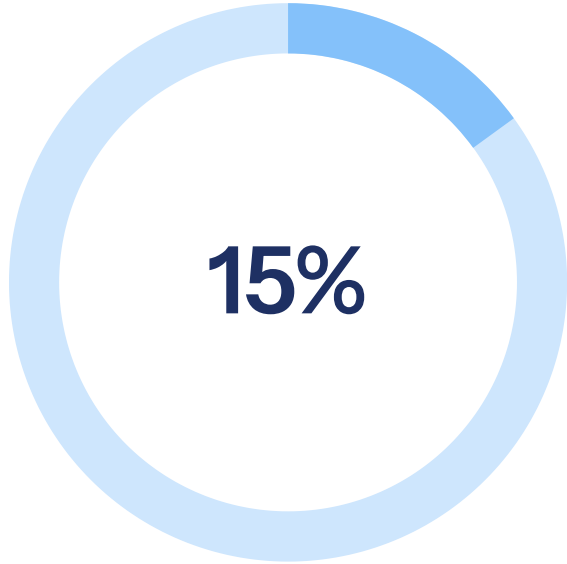
## Equipment & Technology

Production line and installation services



## Infrastructure

Facility development and preparation



## Working Capital

Operations and contingency reserves

# European Partnership Value

## Proven Technology

- Established manufacturing processes
- Quality assurance systems
- International standards compliance

## Training Excellence

- Structured technical programs
- Experienced specialist delivery
- Hands-on operational experience

# Key Project Data

**25–50**

**Scale (MW per year)**

Annual manufacturing capacity

**<12**

**Ramp-up (Months)**

Training to autonomous operation

## Target Application

Solar water pumping for  
agriculture

## Line Type

Automated, climate-adapted  
module production

## Region

Jordan

**Source:** PVKnowHow / J.v.G. Technology GmbH

# Investment Profile Characteristics

## Infrastructure Investment

Long-term asset with stable operational characteristics aligned with renewable energy growth

## Asset Diversification

Manufacturing infrastructure exposure to growing renewable energy sector

## Technology Leadership

Advanced manufacturing capabilities with European technical standards

# Strategic Analysis Summary

01

## Market Opportunity

Jordan's renewable energy targets create substantial manufacturing demand

02

## Risk Management

An experienced European turnkey provider reduces technology and operational risks

03

## Implementation Path

Proven methodology enables autonomous operation within structured timeframe

# Source & Authorship

J.v.G. Technology GmbH

Turnkey Solar Module Production Lines

PVKnowHow Knowledge Network

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