

Based on our understanding, glassglobal Group hereby submits its proposal to act as Owner's Engineer for the planned 1 × 1,200 tpd solar glass manufacturing facility in the Kingdom of Saudi Arabia. The project represents a cornerstone industrial investment supporting Saudi Vision 2030 through the localization of advanced manufacturing capabilities and the establishment of a globally competitive solar glass value chain.

## EXECUTIVE SUMMARY

The development of Saudi Arabia's first state of the art solar glass manufacturing facility is a capital intensive, technically complex, and strategically visible undertaking. Project success depends on disciplined engineering execution, rigorous EPC oversight, strict schedule control, and a rapid, stable ramp up to guaranteed performance levels.

As Owner's Engineer, glassglobal Group acts as Vision Industries' independent technical and commercial representative, safeguarding CAPEX, schedule, and performance objectives across the full project lifecycle. Our mandate is focused on early risk identification, robust governance structures, and continuous verification of EPC deliverables to ensure bankability, operational reliability, and long term competitiveness.

## PROJECT UNDERSTANDING

The project comprises the development of a state of the art solar glass manufacturing plant with a nominal capacity of 1 × 1,200 tons per day. The facility requires advanced furnace technology, tight process control, high optical and surface quality, stable coating performance, and energy efficient melting systems.

From Financial Investment Decision to commercial production, the anticipated project duration is approximately 24 months, encompassing engineering, procurement, construction, commissioning, and ramp up.

## ROLE OF THE OWNER'S ENGINEER

glassglobal Group acts on behalf of the Owner and independently of the EPC contractor, safeguarding Vision Industries' technical, commercial, and schedule interests throughout all project phases.

Our role is strictly limited to verification, coordination, governance, and risk mitigation. No EPC responsibilities, design liabilities, or performance obligations are assumed.

glassglobal Group would consider it a privilege to be entrusted with the role of Owner's Engineer for this landmark project and stands ready to support Vision Industries in its successful realization. We look forward to your feedback and to the opportunity of further discussions.

## 1.) Scope of Services

### 1.1. EPC Selection and Contract Preparation

glassglobal Group provides structured technical support during EPC prequalification, tendering, and evaluation. EPC concepts, execution strategies, schedules, and technical assumptions are critically reviewed to identify scope gaps and project risks at an early stage.

Performance guarantees, acceptance criteria, and technical schedules are aligned with the Owner's objectives, and EPC technical annexes are reviewed to ensure contractual clarity and enforceability.

- Technical support during EPC prequalification and tendering
- Review and comparison of EPC technical concepts and execution strategies
- Identification of scope gaps, technical risks, and unrealistic assumptions
- Defining performance guarantees, acceptance criteria, key technical schedules
- Review of technical annexes to the EPC contract

### 1.2 Engineering and Procurement Oversight

Engineering and procurement activities are continuously overseen throughout Basic Engineering, FEED, and Detailed Engineering phases. All deliverables are reviewed for compliance with Owner requirements and solar glass specific performance criteria.

Particular focus is placed on major equipment packages, including furnace, float line, coating systems, cold end, utilities, and automation, as well as on procurement strategies and vendor technical evaluations.

- Review of Basic, FEED, and Detailed Engineering deliverables
- Verification of compliance with solar glass specifications and Owner requirements
- Technical review of major equipment packages
- Oversight of procurement strategy and vendor technical evaluations

### 1.3 Construction, Commissioning, and Ramp-Up

During construction and commissioning, glassglobal Group monitors technical compliance and execution quality against approved designs. Commissioning and start up procedures are reviewed to ensure safe and orderly execution.

Support is provided during performance testing and ramp up to achieve guaranteed capacity, product quality, yield, and energy consumption within the shortest possible stabilization period.

- Monitoring of construction progress and technical compliance
- Review and approval of commissioning and start-up procedures
- Support during performance testing and acceptance
- Technical support during ramp-up

### 1.4 Documentation and Handover

All as built documentation, operating manuals, and maintenance documentation submitted by the EPC contractor are reviewed for completeness and consistency.

glassglobal Group supports the structured handover from project execution to Saudi operations teams to ensure a smooth transition into stable plant operation.

- Review of as-built documentation
- Review of operating manuals and maintenance documentation
- Support during final handover to Saudi operation teams

## 2. Project Organization

2.1. glassglobal Group deploys a senior multidisciplinary team comprising Owner's Engineer leadership, glass process and furnace specialists, cold end and quality experts, electrical, automation, and utilities specialists, commissioning and ramp up experts, as well as planning and QA QC support.

- Lead Owner's Engineer and Project Director
- Glass process and furnace specialists
- Cold end, handling, and quality specialists
- Electrical, automation, and utilities experts
- Commissioning and ramp-up specialists
- Planning, QA/QC, and interface management support

Onsite presence in KSA will be provided as required by project phase and critical milestones.

### 3. Methodology and Approach

#### 3.1. Owner's Engineer Execution Methodology

glasssglobal Group applies a proven Owner's Engineer methodology focused on investor protection, schedule certainty, and performance assurance. Execution is governed through formal stage gate reviews linked to EPC milestones, structured multidisciplinary design reviews, KPI based EPC monitoring, and disciplined change management to prevent scope creep and uncontrolled CAPEX escalation.

Project execution is structured across pre FID EPC tender support, post FID engineering and construction oversight, and focused start up and stabilization support to ensure rapid achievement of guaranteed operational performance.

#### 3.2. Project Phase Breakdown

glasssglobal Group's services cover the full project lifecycle, starting with pre-FID and EPC tender support, including technical risk assessment and contract structuring. Following Financial Investment Decision, glasssglobal Group will provide execution oversight during engineering, procurement, and construction.

In the final phase, focused support will be provided during start-up and stabilization to ensure rapid achievement of guaranteed output, quality, and operational performance.

- Pre-FID and EPC tender support, including risk assessment and contract structuring
- Post-FID execution oversight covering engineering, procurement, and construction
- Start-up and stabilization phase support ensuring rapid achievement of guaranteed output and quality

#### 3.3. Governance, Reporting, and Communication

A transparent governance and reporting framework is implemented throughout the project. glasssglobal Group issues regular technical and progress reports, including schedule, cost, and performance analyses, as well as structured risk and opportunity reporting.

Management and investor decision making is supported through participation in steering committee meetings.

- Monthly technical and progress reports
- Schedule, cost, and performance deviation analysis
- Risk and opportunity reporting with mitigation measures
- Support during steering committee and investor meetings

### 3.4. Risk Management Focus

A live project risk register is maintained throughout execution. Key risk areas include furnace lifetime and energy efficiency, yield ramp up, coating performance stability, interface risks between process units, and performance testing definitions.

EPC assumptions are actively challenged to safeguard schedule and contractual guarantees.

### 3.5. Solar Glass Technical Focus

Solar glass specific requirements are addressed with particular emphasis on low iron glass specifications, optical performance, coating quality and long term stability, yield sensitivity, breakage risks, ramp up economics, and energy efficiency.

Continuous alignment with downstream photovoltaic module producer requirements is ensured.

- Low-iron glass specifications and optical performance
- Coating quality, uniformity, and long-term stability
- Yield sensitivity, breakage risks, and ramp-up economics
- Energy consumption and melting efficiency
- Alignment with downstream PV module producer requirements

### 3.6. Saudi Arabia Localization and Knowledge Transfer

In alignment with Saudi Vision 2030, glasssglobal Group supports localization objectives through structured knowledge transfer, workforce development concepts, and a controlled handover from EPC execution to Saudi plant management and operations.

- Local workforce ramp-up and training concepts
- Structured knowledge transfer to Saudi operations teams
- Smooth handover from EPC execution to local plant management

## 4. Key Assumptions & Exclusions

4.1. The EPC contractor retains full responsibility for design, construction, performance, and guarantees. glasssglobal Group acts exclusively as independent reviewer and advisor. No transfer of EPC risks or liabilities to the Owner's Engineer is assumed. The project schedule is based on timely EPC appointment and Financial Investment Decision.

## 5. Commercial Proposal

## 5.1. Fee Structure

- Lump-sum fee: USD 4.9 million

The fee covers the full Owner's Engineer scope over an anticipated 24-month project duration. Extended onsite presence, lender support, or prolonged ramp-up assistance can be provided under separately agreed add-on modules.