

# 65 KLPD Project Snapshot – Vendor Brief

Penukonda Biofuels | Andhra Pradesh, India

## Project Overview

Penukonda Biofuels is developing a 65 KLPD grain-based bioethanol plant in Penukonda, Andhra Pradesh, designed to supply IS:15464-compliant fuel ethanol to Oil Marketing Companies in Southern India. The project is progressing from FEL-0 to FEL-1 and is open for qualified EPC, PMC, and technology partnerships.

## Plant Snapshot

- Capacity: 65 KLPD (Grain-Based, 1G Ethanol)
- Feedstock: Maize, Broken Rice, Damaged Food Grains
- Daily Grain Requirement: ~165–170 TPD
- Water Requirement: 250–300 KLD (Net, Zero Liquid Discharge)
- Power: 2.5 MW Captive Co-generation
- By-product: ~45–50 TPD DDGS
- Land Requirement: ~15–20 Acres
- Project Stage: FEL-0 complete | FEL-1 in progress

## Process Configuration

The plant includes grain milling and enzymatic liquefaction, high-efficiency fermentation using thermotolerant yeast, and multi-pressure distillation with dehydration to achieve 99.8% v/v ethanol purity. Modular and skid-mounted systems will be adopted where feasible to accelerate execution.

## Zero Liquid Discharge (ZLD)

The facility is designed as a fully compliant ZLD biorefinery, incorporating decanter centrifuges, multi-effect evaporators, steam tube bundle dryers, and condensate polishing units. More than 95% of process water is recycled, with no liquid effluent discharge.

## Vendor Engagement

Penukonda Biofuels invites Expressions of Interest from EPC contractors, PMCs, and technology licensors with demonstrated experience in grain-based distilleries and ZLD systems. Strong HSE performance and execution capability are mandatory.