# INVITATION FOR EXPRESSION (EOI)

## Vedanta Power Limited

## Meenakshi Energy Limited (1000 MW)

**Invites Expression of Interest (EOI)**

**for**

**Business Partners for**

**AI-enabled Coal Blending and Digital Brain Platform for Optimizing Coal Utilization, Fuel Cost and Plant Performance**

**From**

**Meenakshi Energy Limited**

**EOI. No.: MEL/26-27/02** **Date:26.09.2026**

# INVITATION FOR EXPRESSION (EOI)

**1.0** Introduction

**1.0.1** Meenakshi Energy Limited, (here in after referred as "MEL") a subsidiary of Vedanta Resources PLC, is one of India's leading private power producers delivering reliable power for a growing economy, that lights homes, touches lives, and drives transformation across the nation. With a total installed thermal power capacity of 1000 MW, the company supplies power to Discoms nationwide through long-term partnerships, while supporting emerging grid requirements. Its portfolio includes a 1,980 MW plant in Mansa, Punjab; 1200 MW in Sakti, Chhattisgarh; and a 600 MW unit in Jharsuguda, Odisha. Through operational excellence, technological leadership, and strategic capacity expansion, Vedanta Power Limited is reinforcing grid stability as a cornerstone of India's energy security.

**1.0.2** The company operates thermal power plants having total installed capacity of 4780 MW located at Punjab, Andhra Pradesh, Chhattisgarh and Odisha.

**1.0.3 Meenakshi Energy Limited (MEL) invites Expressions of Interest (EOI)** from established and technically competent technology companies, solution providers and system integrators for implementation of an AI-enabled Coal blending and Digital Brain Platform for optimizing coal utilization, fuel cost and plant performances. The objective of this EOI is to identify capable technology partners having demonstrated expertise Artificial Intelligence(AI), Machine learning (MI), optimization, coal blending, power plant analytics, digitalization and industrial data integration.

**1.1 Basic information:**

1.1.1 Plant capacity: 1000 MW (Phase 1 & 2)

# INVITATION FOR EXPRESSION (EOI)

**Location:**

**Meenakshi Energy Limited (1000 MW)**

Thamminapatnam (Village), Chillakur (Mandal), Tirupati district-Andhra Pradesh-524412, India.

**Latitude: 14.211195° N**

**Longitude: 80.090062° E**

**Nearest Railway Station:** Krishnapatnam Railway Station (KAPT), approx. 12 km from MEL Plant.

# INVITATION FOR EXPRESSION (EOI)

**2.0 Expression of Interest:**

MEL specifically invites “Expression of Interest (EOI)” from established and technically competent technology companies, solution providers and systems integrators for implementation of an an AI-enabled Coal blending and Digital Brain Platform for optimizing coal utilization, fuel cost and plant performances. The objective of this EOI is to identify capable technology partners having demonstrated expertise Artificial Intelligence(AI), Machine learning (MI), optimization, coal blending, power plant analytics, digitalization and industrial data integration.

**3.0 Purpose of this EOI:**

The purpose of this EOI is to assess the availability, capability, and suitability of technology partners and solution providers for developing an AI-enabled Coal Blending and Digital Brain Platform for Meenakshi Energy Limited (MEL). Through this process, MEL aims to understand the latest technological advancements, implementation approaches, digital architectures, AI/ML capabilities, and industry best practices available for optimizing coal blend selection, reducing fuel costs, improving plant efficiency, and enhancing operational decision-making. The EOI will also help MEL evaluate potential solution frameworks, identify competent implementation partners, and define the scope and roadmap for successful deployment of the proposed platform.

**4.0 Role of the Interested service provider**

4.1 **Assessment & Solution Design**

- Study MEL's existing coal handling, blending practices, laboratory systems, and plant operational processes.
- Assess available data sources, sensors, analyzers, DCS/SCADA systems, ERP, LIMS, and other plant systems.
- Prepare a detailed solution architecture, implementation roadmap, and technology deployment strategy.

**4.2 AI-Based Coal Blending Solution**

- Develop and implement AI/ML models for optimal coal blending considering coal quality, availability, cost, stock position, boiler requirements, and generation targets.
- Provide predictive recommendations to achieve desired fuel characteristics while minimizing generation costs.

4.3 **Digital Brain Platform Development**

- Design and deploy an integrated Digital Brain Platform that consolidates real-time and historical data from multiple plant systems.
- Develop predictive, prescriptive, and optimization models for operational decision support.

4.4 **System Integration**

- Integrate the solution with existing plant systems including DCS, PLC, SCADA, LIMS, SAP, coal stock management systems, and other relevant data sources.
- Ensure secure and reliable data acquisition, storage, and processing.

4.5 **Analytics, Visualization & Dashboards**

- Develop dashboards, KPIs, alerts, and reporting tools for management and operational teams.
- Provide real-time insights on coal quality, blending performance, fuel cost optimization, boiler performance, and operational efficiency.

4.6 **Implementation & Commissioning**

- Supply, configure, implement, test, commission, and stabilize the complete solution.
- Conduct performance validation and demonstrate achievement of agreed functional requirements.

**4.7 Training & Knowledge Transfer**

- Provide training to MEL personnel on system operation, model interpretation, dashboard utilization, and administration.

- Deliver comprehensive documentation, user manuals, and standard operating procedures.

4.8 **Support & Continuous Improvement**

- Provide post-commissioning support, maintenance, model tuning, and performance monitoring.
- Continuously improve AI/ML models based on operational feedback and changing plant conditions.

4.9 **Experience & Capability Requirements**

- Demonstrate proven experience in AI/ML-based industrial applications, coal blending optimization, power plant analytics, digital transformation, and industrial data integration.
- Possess expertise in power generation processes, fuel management, predictive analytics, optimization techniques, cloud/on-premise solutions, and cybersecurity.

**5.0 Required Information:**

5.1 Organization profile and brief history/Organization Chart

5.2 Details of relevant contracts executed during the last three year.

5.3 Client Name, Contract Period, Quantity Handled, and Contract Value

5.4 Audited Balance Sheets / audited financial statements for the last three (3) years.

5.5 Details of relevant experience and major assignments / projects handled.

5.6 Copies of Work Orders/Contracts and Completion Certificates/Performance Certificates

5.7 Declaration regarding non-blacklisting/debarment by any Government, PSU, or Private Organization

## INVITATION FOR EXPRESSION (EOI)

**6.0 Submission of EOIs:**

Interested and competent service providers shall submit their Expression of Interest, complete in all respects, by e-mail to: **commercial.mel@vedanta.co.in**

The EOI and supporting documents shall be submitted within 5 (Five) days from the date of the advertisement.

The submission should include the information and supporting documents listed under Section 5.0 and Annexure-I.

The EOI should be submitted in an organized and legible form, with all supporting documents clearly identifiable.

i. Each page of the documents submitted shall be duly authenticated by the

applicant.

ii. The language of submission of applications shall be in English.

For any further clarification/queries interested participants may write to **commercial.mel@vedanta.co.in**

MEL may request clarifications or additional relevant information from the participating service providers, if required

# INVITATION FOR EXPRESSION (EOI)

**Standard Format for Expression of Interest**

Date: _____

…….

…….

Meenakshi Energy Limited, Administrative Building,

Thamminaptnam,

Tiruapti, Andhra Pradesh, 524412

**Subject:** Expression of Interest (EOI) for AI-enabled Coal Blending and Digital Brain Platform for Optimizing Coal Utilization, Fuel Cost and Plant Performance

Dear Sir,

In response to your public advertisement in **[Insert the names of the newspaper and/or website]** on **[Insert date of the advertisement]** inviting EOI for, for implementation of an AI-enabled Coal blending and Digital Brain Platform for optimizing coal utilization, fuel cost and plant performances.

We have also attached information according to the standard form as per Annexure. The information furnished by us in this EOI is true, correct, and accurate to the best of our knowledge.

Sincerely yours,

On behalf of the firm/company/organization:

Signature: _____

Name of signatory; Designation; Company Seal/stamp

(Person signing the EOI and supporting documents should be an Authorized Signatory supported by necessary Board resolutions)

Sensitivity: Public (C4)

# INVITATION FOR EXPRESSION (EOI)

**Annexure – 1**

**1. Name and address.**

**i.** Name of the Firm/Company/Organization:
ii. Corporate Address:
iii. Registered Address:
iv. Telephone No:
v. Fax:
vi. Email:

**2.Contact Person:**

i. Name:
ii. Designation:
iii. Telephone No:
iv. Email:

**3.Company Profile:**

Core area of expertise:

Date of Incorporation:

CIN No .:

GST No.:

PAN No.:

Shareholding Pattern:

Financial Capability (Including Turnover, Reserve and Surplus etc)

**Key Operating parameters for last three years: [Installed Capacity, Utilization factor etc.]**

**4. Supporting Documents:**

[Provide Copy of Valid GST registration, copy of PAN of the firm; with their latest renewals where applicable, Audited Financials for last three financial years and vendor code details in case of MSE already registered with MEL.]

5.Experience/operation by the Firm/Company/Organization (Along with value and time of completion/ award):

6.Any other details

Sensitivity: Public (C4)