

**NOTICE INVITING EXPRESSION OF INTEREST**

**SUPPLY OF BIOMASS PELLETS TO  
2X210 +2X660 MW IB THERMAL POWER PLANT  
ODISHA POWER GENERATION CORPORATION,  
AT BANHARPALI,JHARSUGUDA ODISHA**

**OPGCL invites applications from eligible agencies, for supply of Biomass Pellets as per EOI Documents.**

**1.0 Brief Scope of Work:**

The scope of work under this package shall include supply, loading, transport and delivery of agro / crop residue based biomass pellets at OPGCL site as per following:

- a) The default mode of transportation is covered truck with the waterproof arrangement.
- b) Unloading shall be in the scope of OPGC provided material is loosely filled in the Carriage vehicle. Carriage vehicles should be fully covered and water proofed during transportation to prevent the material from rain, sunlight and dust aspects.
- c) The supplier may supply the material i.e. Biomass pellets packed in bags. In that case, the supplier shall unload the material at his own cost and extra charges, if any, shall be borne by the supplier.
- d) Before unloading, samples shall be tested for moisture content. However, the HGI report shall be submitted by the Supplier with each carriage vehicle/consignment at the time of supply.
- e) Demurrage, if any, on the carriage vehicle for reasons attributable to the Supplier will be borne by the Supplier.
- f) The pellets supplied shall adhere to the technical specification given in EOI document.
- g) Detailed scope and methodology of Registration is as specified in the EOI Documents.

## 2. Technical Specification of Torrefied Biomass pellets:

The bidder shall quote the price for **Torrefied Pellets & Non torrefied Pellets** and its GCV (ARB\*). The pellets shall have technical specification as given in following Table-1 and shall submit declaration for the same.

Any variation in GCV or Fines % age beyond the limit specified in technical specification shall be rationalized as per Price and Quantity Adjustment formula as given in this document.

**Table: 1 Technical Specification for Torrefied and Non-Torrefied Biomass pellet**

Technical data	Unit	Specification for Torrefied pellet
Base material	-	Agro/ crop residue
Diameter**	m	Diameter: Not more than 25mm
Fines % (length<3 mm)(ARB*)	Wt %	Fines $\leq$ 5%
Gross Calorific Value (GCV-ARB*)	Kcal/ kg	<b>Should not be less than 3400 Kcal/Kg</b>
Moisture (ARB*)	Wt %	$\leq$ 15% (not more than 15%)
Bulk Density	<b>Kg/ M3</b>	Not less than 600
HGI		Not less than 50

\*ARB - As Received Basis

\*\*During contract period, diameter of biomass pellets may be revised/modified based on result of test firing on mutual consent basis without any financial/cost implication to either OPGCL or supplier.

Raw Material for manufacturing of Torrefied and Non-torrefied pellet should adhere to Biomass Policy of GOI

### 3. Price adjustment for GCV variation

Stipulation of limits for Quoted GCV Based on the Base material and Mixing material as per technical specification, Bidder is required to quote GCV value of biomass in Kcal/Kg for Torrefied/Non torrefied pellet within the range as mentioned below.

Minimum Limit- 3400

Maximum Limit- 4500

Supplier shall supply the agro/crop residue based Torrefied/non torrefied biomass pellets of GCV not less than 3400 kcal/kg. Price shall be adjusted for GCV variation of supplied material as given below:

**a. For GCV more than or equal to 3400 Kcal/Kg:**

$$\text{Adjusted Price} = [\text{Quoted Price} \times \text{Actual GCV (ARB)}] / (\text{Quoted GCV (ARB)})$$

**b. For GCV less than 3400 Kcal/Kg and more than or equal to 3000 Kcal/Kg:**

$$\text{Adjusted Price} = 0.75 \times [\text{Quoted Price} \times \text{Actual GCV (ARB)}] / (\text{Quoted GCV (ARB)})$$

Note: In case, supplier is found to frequently supply the material of GCV less than 3400 Kcal/Kg or found to take deviations in other technical parameters, warning letter shall be issued to supplier.

However, if material is supplied below 3400 Kcal/Kg in more than 3 (Three) instances during the currency of contract even after issuing warning letter then Contract shall be liable for cancellation.

Material supplied of GCV less than 3000 Kcal/Kg is liable for rejection and no payment shall be made for already delivered and consumed.

\*Actual GCV shall be measured at OPGCL site in "As received basis (ARB)".

#### 4. SUPPLY DURATION:

The bidder should ensure an Initial Supply of **Torrefied Pellets & Non torrefied Pellets 100 MT (17 MT Torrefied & 83 MT Non torrefied)** to conduct the pilot test (Trial of Biomass) in the Boiler. Post successful review of the performance and reliability of the biomass firing, supply on continuous/daily basis for remaining period shall be considered as per the condition mentioned in document. The supplier shall start delivery of material within 15 days from the issue of purchase order.

**(Note:-Preference will be given to supplier who will supply both torrefied & non torrefied pellets.)**

#### 5. Testing standard/Method:

Torrefied and Non-Torrefied biomass pellets sample shall be tested in the OPGCL site lab as per following or equivalent standard given in the table-3: -

**Table 3: Testing and Standard**

SN	Technical data	Testing Standard/Method
1.	Diameter	ISO 17829 or equivalent method may be referred.
2.	Fines % (< 3 mm) (ARB)	ISO 18846 or equivalent method may be referred.
3.	Gross Calorific Value (ARB)	IS 1350 or equivalent method may be referred.
4.	Moisture (ARB)	IS 1350 or equivalent method may be referred/ Handheld moisture meter may also be used.

#### 6. Rejection of Consignment:

The consignment of torrefied biomass pellets arrived at OPGCL shall initially be tested for following before unloading and shall be rejected in case the parameter exceeds the rejection level given in following table- 4

**Table 4: Rejection Level**

Technical Data	Unit	Rejection Level
Moisture (ARB*)	Wt	More than 15% (>15%)
GCV (ARB)	Kca	Less than 3000 Kcal/kg
Chlorine	%	>0.5
Sulphur	%	>0.25

\*ARB - As Received Basis.