

## INVITATION TO BID (ITB)

### SUPPLY OF IMPORTED NON-COKING COAL ON DAP MPL BASIS

<b>Enquiry reference no.:</b> <u>RFQ/Tata Power/ MPL/Coal/01/23-24</u>
<b>Title of Work:</b> <b>Supply of Imported Non-Coking Coal DAP MPL (MMMT) Siding Basis</b>
<b>Type of Bidding:</b> E-tendering (through Ariba online portal) / Two Part (Technical and Price bids under separate envelopes)
<b>Eoi Submission Due Date:</b> <b>8<sup>th</sup> November 2023</b> (This is the deadline for the submission of Expression of Interest only and should not be construed as Bid Submission Due Date which shall be separately conveyed to valid EOI participants through the Tata Power Ariba e-Sourcing Portal)
<b>Contact Details:</b> All communication including EOI submission shall be addressed to following officer/s: Mr. S K Mallick Email: <a href="mailto:skmallick@tatapower.com">skmallick@tatapower.com</a>  Copy of all communications shall be marked to (Cc): Mr. Y S Butola / Mr. S Chandolkar Email: <a href="mailto:yogendra.butola@tatapower.com">yogendra.butola@tatapower.com</a> / <a href="mailto:schandolkar@tatapower.com">schandolkar@tatapower.com</a>

The Tata Power Company Limited ("Owner") on behalf of Maithon Power Limited (MPL) invites Expression of Interest (EOI) from interested parties for the Two-Part e-Tendering Process of following Package:

Table 1

<b>Details</b>	<b>Tender Fee</b>	<b>Bid Security</b>
Supply of Imported Non-Coking Coal DAP MPL (MMMT) Siding Basis	INR 1000/- (INR One Thousand Only)  <i>To be submitted along with EOI.</i>	INR 5,00,000/- (INR Five Lakhs only).  <i>Bid Security to be submitted as a Bank Guarantee at the BID stage (and not with EOI)</i>

Maithon Power Limited (MPL) is a joint venture company of Damodar Valley Corporation (DVC) & Tata Power having installed capacity of 1050 MW located in the state of Jharkhand. The station operates on domestic coal. MPL intends to procure 1.50 Lakh MT of imported thermal coal in two Panamax shipments equivalent (75000 +/-10% Million MT) with delivery spread between December 2023 to March 2024.

Maithon Power Limited (MPL) (Buyer), hereby invites binding offers from global reputed coal suppliers for supply of imported non-coking thermal Coal from Indonesia on DAP MPL basis.

#### **Tender Fee & Timelines:**

a) Interested parties meeting the "Bidder Pre-Qualification Requirements" specified in this document can request tender document and participate in the bidding process by submitting the Expression of Interest (EOI) Letter along with the Tender Fee Payment details to the contact mentioned below not later than the mentioned EOI submission due date to below mentioned email addresses:

- Mails shall be addressed to (To): [skmallick@tatapower.com](mailto:skmallick@tatapower.com)

- Must mark copy to (cc): [yogendra.butola@tatapower.com](mailto:yogendra.butola@tatapower.com) / [schandolkar@tatapower.com](mailto:schandolkar@tatapower.com)
- b) EOI / requests without complete information and communication as above within deadline shall be liable to be rejected and will not be considered further. Request for extension of EOI submission date will not be entertained.
- c) Tender Fee, as indicated in the Table1 above may be paid through **NEFT** as per details for payment of Tender Fee given in Table2 below:

Table 2

<b>Details for payment of Tender Fee:</b>	
Bank details for submitting Tender fees through bank transfer / NEFT:	Beneficiary Name: The Tata Power Company Limited Bank Name: HDFC Bank A/c no: 00600110000763 IFS Code: HDFC0000060 A/c type: CC Branch Name & Address: HDFC Bank, Maneckji Wadia Building, Nanik Motwani Marg, Fort, Mumbai 400023
Deadline for tender fee payment and submission of EOI:	<b>8<sup>th</sup> November 2023.</b>

- d) **Expression of Interest letter to be submitted along with tender fee payment details should include the following details:**
- A covering letter duly stamped and signed by an authorized signatory clearly indicating the Tender Reference number and your EOI to participate in the tendering process.
  - Tender fee payment details / reference no (ensure that tender fee is received by us within specified deadline)
  - Bidder to indicate authorized person name, contact number and e-mail id (mandatory) of the person to whom RFQ / tender and all other communications to be addressed for this tender.
- e) Detailed Bid Document (also referred as RFQ) shall be issued through Tata Power e-tender portal (Ariba System) only to the parties submitting a valid EOI as per terms mentioned in this document.

**BID terms and condition:**

**Buyer:** Maithon Power Limited (MPL)

**Tenure:** The delivery for 1<sup>st</sup> shipment shall be during the period December 2023 To January 2024 and for the 2<sup>nd</sup> shipment can be spread between February 2024 to March 2024.

**Quantity:** Two Panamax equivalent volume shipment each 75000 MT +/-10%. 1<sup>st</sup> shipment shall be awarded against firm price bid to be submitted by each bidder and balance 1 shipment to be awarded at a later date at the sole discretion of MPL.

Bidder to accordingly quote firm quantity & price for 2 Panamax volume shipments (2 x 75000 MT +/-10%) to be delivered during for December 2023 – March 2024 at MPL Railway Siding (Siding code – MMMT).

Payments shall be made against the respective rake delivered to Maithon Power Limited MMMT Railway siding. Accepted Quantity shall be the lower of the RR Weight and the quantity measured by the online weighbridge installed at the MMMT siding.

**Coal Spec:** Low CV/ Mid CV (GCV range 4200 - 5100 GAR) Non-coking coal

**Price Basis:** Bidders are required to submit the price offer on DAP MPL Site (Siding code: MMMT) through rail mode in the “Price Bid” format as attached in Annexure 1.

In the event Bidder intent to quote more than one spec of coal, Bidders are requested to submit separate “Price Bid” format as attached in Annexure 1 for each spec of coal in the format “Specification for Coal Properties” specified in Annexure 2.

**Bid Evaluation:** Bids shall be evaluated on lowest Landed Energy Price (as per calculation details provided in Price Bid Format). Payment shall be made on the basis of delivered energy price basis i.e. the Landed Price per MT indicated in Price Bid Format shall be on the basis of the quoted GCV and shall be pro-rated to the actual delivered GCV to be measured at MPL site determined by an independent inspection agency.

**Price Variation:** There shall be no price variation of any kind. Bidders shall quote firm **ICI index linked** price for supply of coal for the specified quality.

The price shall be adjusted on the following basis as per the actual quality received:

- a)  $GCV \text{ (Delivered)} = \text{Agreed Price per MT} * \text{Actual delivered GCV (ARB)} / \text{Guaranteed GCV as per Price Basis.}$
- b) Moisture Correction = INR 100/- per MT for every 1% higher moisture than guaranteed.
- c) Sulphur = INR 50/- per MT for every 0.1% higher Sulphur than guaranteed.
- d) Ash = INR 50/- per MT for every 1% higher ash than guaranteed.

The Guaranteed Parameter shall be as per the agreed coal specifications against the agreed DAP Price. The above corrections are applicable subject to coal within the acceptable quality range and not falling in rejection criteria. Coal if supplied outside the acceptable quality range and falling in rejection criteria shall be liable for rejection.

**Payment Terms:** Payment shall be released on a rake-to-rake basis received against delivery within 30 days of the receipt of commercially clear and error free invoices for the respective rakes for the quantity measured at the MPL online weigh-bridge and adjusted to the actual quality delivered.

**Load / Disch. Port:** Any (Bidder to specify country of origin, mine source, loading port, discharge port, inland loading railway siding etc. in the Bid).

**Freight:** To be arranged by the Seller till delivery to MPL site (DAP basis).

**Vessel Size:** Panamax Size vessel (75,000 MT  $\pm$  10%) – 2 nos.

**Bid Submission Due Date:** **Tentative 20<sup>th</sup> November 2023 till 17.00 Hrs (IST)**

(Final date shall be intimated to the EOI participants through the Ariba RFQ event)

**Bid Validity:** 30 days from the date of bid submission

**Pre-Qualification Requirement (PQR):**

The bidder shall fulfill the following criteria's and submit relevant supporting documents along with the Bid for each of the following:

**A. Technical:**

**1. Quality Parameters:** The bidder shall indicate the mine from which the offered coal shall be delivered and provide minimum two nos. of COA not older than 6 months from Bid Submission Due Date. Bidder may be asked additional information to access usability of the coal in the plant and MPL reserves its rights to accept / reject the COA without giving any explanation. Bidder shall not change the source mine and the offered coal shall meet all quality parameters as per the accepted COA.

**2. Production/Operational Capability:**

- I. Bidder should have proven similar experience in transportation of coal from overseas mine to loading port, arranging vessels and shipping to Indian ports, arranging for insurance, stevedoring, handling, storage, port clearances, inter-carting, arranging railway rakes, loading into rakes, transportation and delivery to client sidings.
- II. If the bidder is a trader, then the Bidder should submit undertaking/ authorization from the Miner from whom they intend to supply coal.

In addition to the above (i.e. Sr. No. A - 1 and 2 of Pre-qualification requirement), the bidder shall satisfy the following criteria:

- If the interested bidder is **Miner**, then the bidder should have:
  - i. Coal producing mine meeting the coal specification requirement as per Coal specification range.
  - ii. Country specific relevant mining license should remain valid during the entire contract agreement period.
  - iii. Executed quantity equal to or more than 1.0 million MT per annum for such coal.
- If the Bidder is **Trader / Marketing company** / authorized representative of Coal Mining Company, then the bidder should have:

- i. Valid Off-take agreements (documents pertaining to past performances) / MoU's / undertakings / authorizations with the mining companies, satisfying the above-mentioned conditions in Sr. No. A.2 of Pre-qualification requirement.
- ii. Executed quantity equal to or more than 1.0 million MT per annum for such coal in India.

## **B. Financial**

The bidder shall have adequate financial resources to execute the proposed contract concurrently along with their other commitments and shall meet the following conditions:

If the Bidder is a Miner, then the bidder shall have an Average Annual Turn Over of not less than USD 100 Million or its equivalent in any other currency during the last three financial years (FY-2022-2023, FY-2021-2022, FY-2020-2021)

If the Bidder is a Trader/ Coal Supplier, then the bidder shall have Average Annual Turn Over during last three financial years (as above) Rs. 250 Crores.

## **C. Documents to submitted for supporting PQR:**

The bidder shall submit the following documents to support their credentials against the PQR:

- i. Minimum two COAs of offered coal covering parameters as per Annexure – 2
- ii. Mine details with CCoW / IUPK validity (for Indonesian coal) / license / ownership
- iii. In case of trader / representative of miner submitting the EOI, Off-take agreement / MoU/ authorization / undertaking with miner
- iv. Contract / PO copies for similar experience (min. 2 no. reference cases in last 3 years) of delivering coal on DAP India Site basis.
- v. Audited copies of profit and loss account (P&L) and Balance sheet for the last three preceding financial years along with the Bid. In cases, where audited results for the last preceding financial year are not available, certification of financial statements from a practicing Chartered Accountant or Audit firms shall also be considered acceptable.

## **Scope of Work and Technical Specification:**

### **1. Scope of work:**

- i. Supply of non-coking steam coal of foreign origin with end to end responsibility till delivery up to Maithon Power Limited (MPL) plant at Maithon, Uttar Jharkhand, India as per the specifications specified under Annexure-2
- ii. The scope of work shall include but not limited to arranging for transportation from overseas mine to loading port, arranging vessels and shipping to Indian ports, arranging for insurance, stevedoring, handling, storage, port clearances, inter-carting, arranging railway rakes, loading into rakes, transportation, and delivery at the Maithon Power Limited (MPL) plant at Maithon, Uttar Jharkhand, India.
- iii. Any activities incidental to the above scope e. g. including clearing and forwarding of the consignments like customs clearance, coordination with port, railways and any applicable statutory authorities etc. that may be required for overall execution of the Contract shall also be deemed to be part of scope of work whether or not specifically stated in the Scope of Work.
- iv. Indenting, EDRM sanction, further scheduling of rakes & liaising with railways shall be in Contractor's scope (documentation if any only will be provided by MPL).
- v. Contractor shall not bunch the rakes and shall arrange logistics in due consultation with Owner's logistics team considering the unloading capacity. Any demurrage due to bunching by Contractor shall be to Contractor's account.
- vi. Being a DAP contract, any loss of freight due to under loading, overloading etc. shall be to Contractor's account only. Only demurrage charges if any due to delay in unloading at Owner's end for reasons attributable to Owner shall be to Owner's account. Any demurrage charges levied by the Railways at loading end shall be to Contractor's account
- vii. All liaison, coordination at load port, discharge port, railways, handling agents etc. shall also be part of scope of work of Bidder. In case any payments are required to be made directly by MPL to any of the intermediate statutory bodies / logistics providers e.g. custom duty, railway freights including any penalties thereon, the same shall be debited to Bidder account for reconciling overall cost to MPL on DAP basis.
- viii. Bidder shall arrange for requisite plots at the port for stocking Coal to be supplied to MPL.
- ix. Bidder shall be responsible for watch and ward (including, keeping a check to avoid coal from catching fire) of the Coal stock at such plots at port. They shall be responsible for

preventing theft of cargo, quality deterioration for any reason including due to mixing of cargo with inferior Coal, extraneous material, etc. All costs and penalties arising out of such happenings shall be borne by and to the account of Bidder.

x. In order to have up-to-date information about indenting, loading, dispatches and movement of coal rakes on daily basis, the Bidder will keep Fuel Sourcing Group, MPL informed on the following matters on daily basis:

- a. Rakes indented
- b. Rakes being loaded
- c. R.R. Details i.e. RR No., FNR No., RR Wt., Details of indent against which the Rake loaded etc.
- d. Rakes in pipeline
- e. Likely time of receipt of rakes at MPL MMT siding.
- f. Copy of RR immediately after generation.
- g. Original RR to be submitted within 7 days of receipt of rake.

The above information may be shared as per the predetermined methodology (by email), generally @ 09.00 A.M. on a daily basis.

Any penalty/claim made/raised by Railway due to non-availability of RR copy, the same shall be deducted from Bidder's payable. In case of any other penalty/claim observed by government, Bidder needs to settle the same before the rake reaches MPL Plant.

Bidder to essentially inform MPL Railway operations team and CHP team as soon as the rake arrives at serving station to MPL Railway siding (MMMT) and track it's movement and alert MPL Railway operations team and CHP team as and when rake is entering MPL premises. Bidder is also expected to identify rake nomenclature and match each wagon with respect to Railway Receipt (RR) and take up with Railways in case of missing wagons or other discrepancy (if any).

## **2. Delivery Point:**

The Delivery Point for Coal will be up to the designated location i.e. up to the MPL Railway Siding and as per the direction of engineer in charge of CHP/Fuel Sourcing at MPL Plant at Maithon. The Bidder will intimate MPL representatives in advance regarding delivery schedules, rake loading, rake movement intimations on a regular basis. Bidders are advised to visit site and make their own assessment of pre-effective site conditions /



infrastructure facilities at MPL plant. No deviations / price implication shall be allowed for any pre-effective conditions.

### 3. Range of Acceptable Coal Specification:

Sr. No	Parameters	Unit of Measurement	Typical	Range	Rejection
1	Calorific Value (As Received -AR)	Kcal / Kg	4200	4200 – 5100	Less than 200 from the offered spec.
2	Sulphur	%	0.4% (AR)	<0.8% (AR)	> 1% (ARB)
3	Ash	%	4.0% (AR)	<10% (AR)	> 13% (ARB)
4	Total Moisture (AR)	%	35% (AR)	<35 % (AR)	> 37% (AR)
5	Volatile Matter	%	38 % (AD)	35-42 % (AR)	
6	HGI		55	40-70	
7	Ash IDT	Deg C	1170	1150-1400	
8	Coal Sizing				
		>50 mm	2%		
		<50 mm	98%		
		Fines < 2mm	15%		>25%

The quality measurement shall be as per ASTM/ ISO Standard.

Detailed commercial terms & conditions shall be provided to the interested parties expressing their interest through the Ariba RFQ Event as Annexure 3 to this EOI.

### 4. Quality Assessment:

- The quality shall be assessed at unloading point by NABL accredited Laboratory of third-party inspection agency (TPIA).
- This quality analysis result of TPIA will be final and used for all commercial / invoicing purposes and shall be binding for both the parties, MPL as well as contractor/supplier. In case of any dispute, referee sample available at MPL shall be used and analysis can be done at an independent NABL accredited lab.
- The entire cost of referee sample analysis shall be borne by the challenging party.
- Please note that ARB GCV for the coal received shall be calculated with this formula:

$$\text{GCV(ARB)} = \text{GCV(ADB)} * (100 - \text{Total Moisture}) / (100 - \text{Inherent Moisture})$$

- e. Contractor shall ensure coal supplied shall not be outside the acceptable agreed specification range and MPL shall have right to reject coal / terminate contract in case the quality is outside the acceptable range for parameters mentioned under the rejection criteria.
- f. Contractor shall dispatch coal rake from their railway siding to MPL private siding [siding code: MMT] at Maithon, Jharkhand.

**5. LD for Delay in Deliveries:**

In case of delay in deliveries, Contractor shall pay Owner by way of liquidated damages 0.5% of the contract value of the undelivered portion for every week or part thereof delay in delivery subject to a maximum of 5% of the undelivered portion contract value.

**6. Contract Performance Bank Guarantee (CPBG):**

The Contractor shall within 15 days of Effective Date submit an on demand, unconditional and irrevocable bank guarantee towards contract security for an amount equivalent to 5% of the total contract value valid till the end of the contract period and having a claim period of 6 months from the expiry date. BG shall be as per the format prescribed by Owner.

### **General Instructions to Bidders:**

- 1) The bid invitation is issued in the name of Bidder and is non-transferable.
- 2) Bidder shall acknowledge the receipt of the tender within one working day from the Date of issue of this Invitation to Bid.
- 3) Bidders shall review the entire Bidding document and ensure the given objectives expected herein can be achieved or the technical requirements can be met in totality.
- 4) Bidder must carefully go through all commercial conditions of contract before quoting the price.
- 5) MPL reserves the right to accept or reject any or all bids or cancel/ withdraw the enquiry without assigning any reason whatsoever. In such an event, no claim shall be made arising out of such action.
- 6) Any time prior to the deadline for submission of Bid, MPL may for any reasons, whether at their own initiative or in response to clarifications requested by Bidders, modify the enquiry including specification by amendment. The amendment will be notified in writing to all qualified Bidders to whom the enquiry has been issued and will be binding on them. The Bidder shall acknowledge the receipt of the amendment promptly upon the receipt of the same. In order to afford Bidders time in preparing of Bid due to amendment, Tata Power may, at its discretion, extend the deadline set for submission of the Bid.
- 7) MPL will not be liable for any expenses whatsoever incurred by the Bidder for the preparation and submission of bids.
- 8) The buyer reserves the right to award the contract to one or more parties either for full quantity or part thereof. It is deemed to be accepted that you agree to our confidentiality clause (As mentioned below) of the enquiry document.
- 9) Bidders shall submit the details of existing contracts (Unpriced/without Price) and the details of clients (Name and Contact details) for whom such type of coal is supplied.
- 10) THE U.S. GOVERNMENT / UNITED NATIONS have in place sanctions against certain Countries, Related Entities & Individuals. Bidders (Miners / Marketing companies / Traders) should not fall in purview of any of these sanctions.
- 11) The bidders should warrant that they have not defaulted in past in performing their obligation. They should not have been blacklisted / debarred by any Power Utility. Declaration to this effect is to be furnished on their letter head.
- 12) The bidders should have experience of satisfactory execution of long-term contract with leading Power companies. Bidder shall submit name and contact details of such company's representative.
- 13) The interested bidder should provide copy of the Registration Certificate in the Country of Incorporation.
- 14) Bidders meeting the PQR and desiring to Bid against this EOI shall submit their Expression of Interest to the officials specified in the Tender Timelines section. An RFQ will be sent to all valid EOIs through

the Tata Power e-Sourcing Portal (Ariba). **Bid shall be strictly submitted through Ariba system only.** Please note all future correspondence regarding the tender, bid submission, pre-bid query etc. will be only through Tata Power e-Tender system (Ariba). The complete Bid documents with price proposal and other terms and conditions along with credentials in support of prequalifying requirement is to be submitted on Tata Power e-tender System (Ariba) only. Open email bids (other than through Ariba) shall be liable for rejection.

- 15) The bid must be kept valid for our acceptance till 30 days from the Bid Submission Due Date. Tata Power may request Bidders' consent to an extension of the period of validity.
- 16) User manual to guide the bidders to submit the bid through e-Tender system (Ariba) is also enclosed. Tata Power shall in no way be responsible for late receipt of bids.
- 17) Bidders are advised to send their bid well in time on or before Bid Submission Due Date. The e-Sourcing Portal (Ariba) will not be allow Bidders to submit /upload the Bid once the event time is closed.
- 18) Each Party shall treat all information received from the other Party relating to the transaction contemplated herein as confidential and proprietary (the "Confidential Information") and shall not disclose any Confidential Information to any third party, other than to any Governmental Instrumentality as required by law or in judicial proceedings or to advisors, lenders or investors (or prospective lenders or investors) and consultants to or affiliates (or their employees) or employees of the Parties, who are in each case bound by the same terms of confidentiality or by a duty not to disclose to unauthorized parties, except for such Confidential Information as may be publicly available other than as a result of a breach of this Article or as may be required to be disclosed by process of law.

**ANNEXURE 1**  
**PRICE BID FORMAT**

Maithon Power Limited (MPL) – Price Bid  
(On a Letterhead of the Bidder)

Sl. No	Particulars	UoM	Quantity (A)	Unit Rate (B)	INR Value C= A*B
1.	Basic Coal Price DAP MPL Siding	MT			
2.	GST	% of Sr. 1			
3.	Coal Cess	MT			
4.	Landed Price DAP MPL Siding Including Taxes (1+2+3)	MT			
5.	Offered Gross Calorific Value (GCV)	Kcal/Kg			
6.	Landed Energy Price (LEP) calculated as: LEP = (4C * 1000 ) / ( 1A * 5A) <b>(Note: Bid shall be evaluated on lower Basic Energy Price Basis)</b>	INR/MKCal			
	LEP in words: Indian Rupees _____ per metric ton of coal delivered at MPL siding.				

We have thoroughly examined and understood the instructions, scope of work and the terms and conditions etc. covered in the ITB issued by MPL, being fully aware of nature and scope of work required.

We hereby confirm our acceptance and compliance to all the provisions of the ITB Document. We declare that the work will be executed strictly in accordance with the requirement and ITB provisions and good industry practice. We confirm that we have taken into account all taxes and levies (GOI/State Govt/Bodies) applicable as on date. All taxes, duties, levies, cess etc shall be deemed to be included in the Landed DAP MPL Siding Price. Bidder shall consider full duty without any exemptions and MPL shall not be liable to issue any concessional duty certificate of any kind.

We agree to abide by this Bid as stipulated in the Bid Documents and it will remain binding upon us once accepted by MPL within the validity.

Signature: .....

Name: .....

Designation: .....

**ANNEXURE 2**

**SPECIFICATION FOR COAL PROPERTIES**

Maithon Power Limited (MPL)

<b>COAL SPECIFICATIONS</b>					
<b>COAL BRAND:</b>					
<b>COAL MINE:</b>					
<b>COMPANY:</b>					
<b>LOCATION:</b>					
<b>LOADING PORT:</b>					
<b>Parameters</b>	<b>Units</b>	<b>Certificate of Analysis</b>	<b>Typical (Range)</b>	<b>Guaranteed</b>	<b>Rejection</b>
Higher Heating Value	kcal/kg (ad)				
	kcal/kg (ar)	√			
Total Moisture	% (ar)	√			
Proximity Analysis					
Inherent Moisture	% (ad)	√			
Ash	% (ad)				
	% (ar)	√			
Volatile Matter	% (ad)				
	% (ar)	√			
Fixed Carbon	% (ad)				
	% (ar)	√			
Total Sulfur	% (ad)				
	% (ar)	√			
Hardgrove Grindability Index		√			
Ash Fusion Temperatures	Reducing Atmosphere				
	Degrees Celsius				
Initial Deformation Sphere		√			
Hemisphere		√			
Flow		√			
Ash Fusion Temperatures	Oxidising Atmosphere				
	Degrees Celsius				
Initial Deformation Sphere					
Hemisphere					
Flow					
Size Analysis: mm					
+50		√			
-50		√			
-2.0		√			

<b>(COAL BRAND) SPECIFICATIONS</b>			
<b>COAL BRAND:</b>			
<b>COAL MINE:</b>			
<b>COMPANY:</b>			
<b>LOCATION:</b>			
<b>LOADING PORT:</b>			
<b>Parameters</b>	<b>Units</b>	<b>Certificate of Analysis</b>	<b>Typical</b>
<b>Ultimate Analysis</b>	Dry Ash Free		
Carbon	%		
Hydrogen	%		
Nitrogen	%	√	
Sulfur	%		
Ash	%		
Oxygen (by difference)	%		
Chlorine	% (dry basis)		
<b>Mineral Analysis of Ash</b>	Dry Basis		
Silica (SiO <sub>2</sub> )	%		
Alumina (Al <sub>2</sub> O <sub>3</sub> )	%		
Titanium (TiO <sub>2</sub> )	%		
Iron (Fe <sub>2</sub> O <sub>3</sub> )	%		
Calcium (CaO)	%		
Magnesium (MgO)	%		
Sodium (Na <sub>2</sub> O)	%		
Potassium (K <sub>2</sub> O)	%		
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	%		
Sulfur (SO <sub>3</sub> )	%		
<b>Ash Analysis Trace Elements And Heavy Metals</b>	<b>mg/kg</b>		
Mercury	mg/kg		
Cadmium	mg/kg		
Lead	mg/kg		
Arsenic	mg/kg		
Chromium	mg/kg		

**ANNEXURE 3**

**COMMERCIAL TERMS AND CONDITIONS / CONTRACT TEMPLATE**

Will be issued through Ariba to the parties submitting valid EOI.