NTPC Limited

(A Government of India Enterprise)



INVITATION FOR

EXPRESSION OF INTEREST (EOI)

For

Supply of Biomass for NTPC LTD.'s Lara Super Thermal Power Project
Stage-II (2x800 MW) Expansion Project, Chattisgarh- India

DETAILED NOTICE INVITING EXPRESSION OF INTEREST (EOI)

EOI No.: NTPC/PE/EOI/13/2022-23 Date: 15-09-2022

NTPC is Inviting an Expression of Interest for supply of torrefied Biomass for NTPC LTD.'s Lara-II Expansion Project, Chattisgarh - India

1. NTPC Limited (A Government of India Enterprise) intends to purchase torrefied biomass for its Lara STPP-II Expansion Project at chattisgarh, India approximately after 4 years from now for about 4500 Metric Tons per day. In this regard, NTPC Limited invites Expression of Interest (EOI) from any Indian entity. (Hereinafter called APPLICANT).

Note: This EOI is to identify prospective entities for the supply of torrefied biomass on sustainable basis as also enable establishing long term supply chain.

2. DOWNLOAD AND TIMELINES FOR SUBMISSION OF EOI

- **a.** Interested APPLICANTs may download the documents of EOI free of cost from www.ntpctender.com & https://eprocurentpc.nic.in
- b. Last date for submission of EOI : 30.09.2022
- 3. NTPC encourages submission of EOI in soft copy. For consideration of EOI, APPLICANTs are required to e-mail softcopy of EOI, completed in all respect, through e- mail mentioned hereunder. If APPLICANTS also wish to submit hard copy of the EOI, the same can be submitted either in person or by registered/ speed post till the last date of submission of EOI to the following address: -

To: bibekkumar@ntpc.co.in **CC to:** pawandwivedi@ntpc.coin

Project Engineering (Mechanical), NTPC Limited, Kavadiguda,Hyderabad

4. NTPC reserves the right to reject or accept any or all applications, cancel/withdraw the EOI process without assigning any reason whatsoever and in such case, APPLICANT shall not have any claim arising out of such action. NTPC bears no responsibility or liability of any kind in reference to the EOI.

Detailed EOI

1. INTRODUCTION

- i. NTPC Limited produces around 300 billion units of electricity annually through its cluster of gas, coal, hydro and RE based power stations of more than 69 GW capacity spanning across the country. Further NTPC plans targets RE capacity of 60 GW by 2032.
- ii. NTPC Ltd., in keeping focus on power generation in environmentally responsible manner, has already initiated biomass co-firing at its thermal power plants. This is also mandated by the policy as issued & later revised by the Ministry of Power (Government of India) in Oct. 2021 for "Biomass Utilization for power generation through co-firing in Coal based Power Plants". Accordingly, it intends to co-fire biomass at its Lara-II expansion power project at Chattisgarh, India.
- The ultimate objective is to reduce carbon emission of coal fired power plant and simultaneously reducing air pollution by discouraging stubble burning by way of co-firing with coal.

2. <u>INTENT OF THE EXPRESSION OF INTEREST (EoI)</u>

- i. NTPC's conventional coal-based fleet is required to mandatory co-fire biomass towards environment protection as also towards compliance of MoP policy guidelines in this regard.
- i. The above is to be achieved by way of blending of biomass pellets (torrefied only) along with coal.
- ii. The purpose of this EOI is to identify prospective potential entities for the supply of torrefied biomass on sustainable basis and subsequently build long term supply chain. It is intended to co-fire biomass in the Lara-II expansion project for the complete useful life of the plant.

3. CRITERIA FOR PARTICIPATION:

- i. The Applicant of the EOI should be any entity capable of supplying torrefied biomass on sustained basis for long term (min. 7 years).
- i. The general specifications for the intended torrefied biomass for future procurement purpose is given at Annexure-A & B. for power generation through biomass co-firing in pulverized coal fired units.

4. The Applicants should note that:

- a. For expression of interest, Application Form and Annexures given shall be duly filled and sent to NTPC by the APPLICANT in soft copy.
- b. Applicants should go through EOI document thoroughly before filling and submitting the application form and annexures.
- c. Applicants shall mention the name and contact details of two persons, with complete address, phone number and email id.
- d. NTPC Ltd. may, at its sole discretion, ask for additional information/ documents and/ or seek clarifications from the Applicant(s) after the Deadline for submission of response, inter alia, for the purpose of removal of inconsistencies or infirmities in their responses.
- e. This EOI is non-committal.

5. Enquiries and clarifications

Any clarifications on the EOI may be sought to the following via email:

To: bibekkumar@ntpc.co.in **CC to:** pawandwivedi@ntpc.coin

6. Corrigendum

At any time before the last date of submission of EOIs, NTPC may, for any reason, whether at its own initiative or in response to a clarification requested by an Applicant, modify the EOI document. The amendment will be posted on the website and will be binding on the Applicants and the Applicant will give due consideration to the same, while they submit their EOIs, and would invariably enclose documents/information, as required, on account of the amendment, as a part of the EOI. NTPC may, at its discretion, extend the deadline for the submission of EOIs.

7. Preparation of the response to Eol

The application of EOI consists of the following:

(a) Filled up all annexures.

8. Submission of the response to Eol

All the pages of the response should be duly signed by the authorized signatory.

The responses to the EOI should be submitted within the Deadline at the address provided in this EOI to the following emails:

- I. bibekkumar@ntpc.co.in
- II. pawandwivedi@ntpc.co.in

9. Opening of responses to the Eol

The responses to the EOI shall be opened as per the time schedule 15:00 HRS at date as mentioned in the document and will be communicated to the Applicants via e- mail. In the event of any of above dates falling on a day which is not a working day or which is a public holiday, the responses shall be opened on the next working day at the same venue and time.

10. Costs and expenses towards response to EOI

The Applicants shall bear all the costs associated with the preparation of the response and participation in discussions and finalization & execution of the documents related with this EOI, regardless of the conduct or outcome of this short-listing/ selection process.

Annexure-1

FORMAT FOR COVERING LETTER CUM UNDERTAKING

(The covering letter should be on the Letter Head of the Applicant)

Date : ______
Place : _____

To, _____

Sub.: (INVITATION FOR EXPRESSION OF INTEREST)

Ref.: Eol No.______, dated_______(the "Eol")

Dear Sir.

We, the undersigned [insert name of the "Applicant"] having read, examined and understood in detail the (INVITATION FOR EXPRESSION OF INTEREST). We confirm that neither we nor any of our Parent Company/ Affiliate/ Ultimate Parent Company has submitted response other than this response directly or indirectly in response to the aforesaid EOI.

- 1. We give our unconditional acceptance to the EOI, issued by NTPC, as amended. In token of our acceptance to the EOI, the same have been signed & stamped by us and enclosed to the response.
- 2. We have submitted our response strictly as per provisions and formats of the EOI, without any deviations, conditions and without mentioning any assumptions or notes.
- 3. We hereby unconditionally and irrevocably agree and accept that the decision made by NTPC in respect of any matter regarding or arising out of the EOI shall be binding on us. We hereby expressly waive any and all claims in respect of EOI process. We confirm that there are no litigations or disputes against us, which materially affect our ability to participate or function under the obligations with regard to EOI.

4. Details of the contact person are furnished as below:

	Name: Designation: Address: Contact numbers: email id:
5.	We are enclosing herewith the entire response containing duly signed formats in electronic format sent via email to: as per the EOI for consideration.
6.	It is confirmed that our response is consistent with all the requirements of sub- mission as stated in the EOI and subsequent communications from NTPC, it any.
7.	The information submitted in our response is complete, strictly as per the requirements stipulated in the EOI and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our response.
W	e remain,
Yo	ours sincerely
	ame, Designation and Signature of Authorized Person in whose name Power of corney is issued)

Annexure-2

INFORMATION TO BE SUBMITTED BY APPLICANT

(Note: Documents in support of meeting the respective requirement shall be submitted by the Applicant.)

- 1. Name of the Entity:
- 2. Legal status of the Entity:
- 3. Brief description of the Entity including details of its business groups/subsidiaries/ affiliates:
- 4. Existing commercial/ demonstration facilities (if any)- Locations, Capacity
- 5. Date of Incorporation (if any):
- 6. Date of Commencement of Business (if any):
- 7. Full address including Telephone nos. / Fax nos.:
 - a. Registered Office:
 - b. Head Office:
 - c. Address for communication:
 - d. Contact Details:
 - e. Office Address in India, if any:
- 8. Quantity (MT/Year) of torrefied biomass intended to be supplied on sustained basis
- 9. Identify prospective states for sourcing of raw material
- 10. Whether the facility for processing torrefied biomass is existing: Yes/No
 - a. If Yes, provide details:
 - b. If No, then provide details of the future plan:
- 11. Documents to be enclosed:

Technical Credentials – Relevant Product/System catalogues, Experience /Reference List (if any), Copies of Customer Certificates, Engineering strengths, collaborations/tie-ups with manufacturer (if applicable), quality accreditations, logistics infrastructure etc.

Financial Credentials – Copies of Audited Financial statements (Annual Reports) for last 3 years (if any).

12. Any other documents considered relevant.

(Sign & Entity Seal)
Authorized signatory

Annexure-3

INFORMATION TO BE SUBMITTED BY APPLICANT

Biomass Supply Information

S.N.	Information Required	Years	1.	2.	3.	4.	5.	6.	7.
	•	Unit	1						
1.	Sourcing State	Name							
2.	Yearly Quantity Supply	MT/Year							
3.	Duration of supply	Years							
4.	Characteristics of biomass	Details							
5.	Price offered (INR/Metric Tonnes)	INR							

(ANY OTHER INFORMATION)

If Applicant desires to share any other additional Information relevant to the work / assignment like brochure, future plan or any suggestion, it may be given in this Annexure.

Annexure-A

Characteristic of Torrefied Rice Straw

Analysis was carried out using the powdered torrefied rice straw samples and the results of various testing for the specific sample is tabulated below:

a. Proximate Analysis (wt %, Air Dried Basis)

М	Ash	VM	FC		
6.68	21.66	47.68	23.98		

b. Ultimate Analysis (wt %, Air Dried Basis)

С	Н	N	S	0	
46.65	3.93	1.13	0.14	19.81	

c. Ash Fusion Temperature under reducing conditions: °C

IDT	ST	HT	FT		
1134	1357	1374	1422		

d. Ash Elemental Analysis (Elements expressed as Oxides in %w/w)

	Na2O	MgO	Al203	SiO2	P2O5	SO3	K20	CaO	TiO2	MnO	Fe2O3
Γ	2.423	7.783	4.623	67.48	1.9	1.9	6.15	4.21	0.39	0.03	2.83

Annexure-B

Technical details for Torrefied Biomass pellet

S.N.	Technical Data	Unit	Specifications for Torrefied Pellet
1.	Diameter	mm	In case of cylindrical shape: Diameter: Not more than 35 mm Length: Random For other shapes: No dimension should exceed 35 mm.
2.	Fines % (<3 mm) (ARB*)	Wt%	fines ≤ 5%
3.	Gross Calorific Value (GCVARB*)	Kcal/Kg	to be quoted by the bidder (Not less than 3400 Kcal/Kg)
4.	Moisture (ARB*)	Wt%	<= 15% (not more than 15%)

^{*}ARB - As Received Basis