



NTPC Limited
(A Govt. of India enterprise)

Invites

**Expression of Interest
(EOI)**

for Proof of Concept (POC)

On

**“Deployment of On-Premise 5G Captive
Non-Public Network (CNPN) and its
Applications”**



DOCUMENTS OF EOI

This EOI document comprises of the following sections:

- (i) Section-I: Invitation for Expression of Interest
- (ii) Section-II: Information to APPLICANTs
- (iii) Section-III: Application Form and Annexures



SECTION-I:

INVITATION

FOR

EXPRESSION OF INTEREST (EOI)

DETAILED NOTICE INVITING EXPRESSION OF INTEREST (EOI)

EOI No.: STN-ENGG/2025-26/001

Date: -----

Expression of Interest for Demonstration and Deployment of on premise 5G Non-Public Captive Network (CNPN) and its application

- 1.0 NTPC is India's largest power utility with installed capacity of more than 85,000 MW (including its JVs). The company is engaged in the business of generation and sale of bulk power. NTPC is having pan-India presence with coal based, gas based, Hydro, Wind and Solar plants.
- 2.0 The evolution to fifth generation (5G) mobile networks marks a transformative era in telecommunications, offering remarkable enhancements in data transfer speeds, reduced latency, and the capability to support an extensive number of connected devices. Telecom Regulatory Authority of India (TRAI) is promoting Captive Non-Public Networks (CNPNs) to facilitate the digitization of key sectors.
- 3.0 NTPC is also looking for deployment of on-premises private 5G captive Non-Public network (CNPN) for power plants and is exploring 5G CNPN intensive use cases for formulating the 5G applications for power plant areas such as safety, surveillance, logistics and IOT device integration (Process parameters like pressure, temperature, vibration etc.).
- 4.0 The present EOI is for the installation of CNPN using 5G technology which offers significant potential benefits, including real-time monitoring and control, reliable high-speed, and low-latency communication networks, enhanced operational efficiency and robust cybersecurity frameworks to support modern power plant operations.
- 5.0 NTPC invites Expression of Interest (EOI) from willing APPLICANTs from India for installation of On-Premise 5G network alongwith applications such as:
 - a. Safety Application(smart helmets etc)
 - b. IoT-based monitoring
 - c. Mobile Handset
 - d. Intercom
 - e. Vehicle Smart Tag
 - f. Logistics (Supply chain monitoring)
 - g. Camera on Demand
 - h. Geo Fencing
 - i. Automation solutions or any other similar application in Thermal Power Plants.
 - j.
- 5.1 For the complete scheme Network cyber security to be applied. Successful Case studies to be provided for above showing the coverage area of the 5G CNPN network. Applicants to provide details of previous work orders in deployment of On-premise 5G network (CNPN) with successful running years.

5.2 Based on the details provided by the applicants, criteria for technical evaluation and shortlisting of applicants for on premise 5G network (as POC) based on use cases shall be decided. Based on technical evaluation and successful case studies, NTPC shall decide the modalities for engagement of vendor for the POC work.

6.0 Eligibility for Participation in EOI

- The APPLICANT shall be a Company / Sole Proprietorship / Partnership / Limited Liability Partnership / Consortium / Cooperative Society registered in India. The vendor should have valid UL License with the provision of CNPN.
- The APPLICANT shall submit details of on premise 5G network deployment and its use cases/running applications preferably from power plant industry along with supporting documents, such as end user certificates, coverage area etc. for establishing successful performance of 5G deployment for the period from the date of application.

7.0 DOWNLOAD AND SUBMISSION OF EOI

- A. Interested APPLICANTS may download the documents of EOI **free of cost** from <https://ntptender.ntpc.co.in>
- B. For consideration of EOI, APPLICANTS are required to e-mail signed and scanned copy of EOI, duly filled and complete in all respect, through e-mail mentioned hereunder.
avinashanand@ntpc.co.in, akhileshpoddar@ntpc.co.in
- C. APPLICANTS may send their queries related with EOI through e-mail at avinashanand@ntpc.co.in, akhileshpoddar@ntpc.co.in
- D. **Date of publication of EOI : 10.01.2026**
- E. Last date for submission of Application: 10 days from date of publication of EOI (till 17:00 hrs. IST)
- F. **Last date for queries/ seeking clarifications: 7 days from the date of publication of EOI**
- G. **Response Validity: 3 months from the last date for EOI Submission**
- H. NTPC shall not be liable for any postal/ Mail delivery issue and delays whatsoever in receipt of EOI documents and EOI received after the stipulated date and time shall not be entertained. EOIs submitted without supporting documents (as mentioned in Sec-I clause 5.0 and Annexures mentioned in Sec-III) will be summarily rejected.
- I. 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.

- J. Language of the responses to EOI or any query/clarifications/correspondences shall be in English only.
- K. APPLICANTs shall mention the name and contact details of two persons, with complete address, phone number and official email id.
- L. The responsibility of Compliance of all applicable statutory provisions are within the entire scope of the Agency and shall indemnify NTPC in case of any claim, procedure, dispute what so ever towards the execution of the work in its entirety.
- M. 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.

8.0 Validity of Responses :

The APPLICANT shall submit the responses which shall remain valid up to three (3) months after the response Deadline ("Response Validity"). NTPC reserves the right to reject any response which does not meet the above-mentioned validity requirement.

NTPC may solicit the APPLICANT's consent for an extension of the period of validity of the response. The request and the response in this regard shall be in writing. In the event any APPLICANT refuses to extend its response validity as requested by NTPC, NTPC shall terminate processing of such APPLICANT's responses. An APPLICANT accepting NTPC request for validity extension shall not be permitted to modify its response.



SECTION-II: INFORMATION TO APPLICANTS

1.0 General Information

NTPC has a fleet of thermal power plants consisting of more than 85000 MW capacity (including JV's) and more than 20000 MW thermal capacity is under construction at various locations. Presently we have different systems in place like CLIMS (Contractors Labour Information Management System), CCTV systems for safety and surveillance, remote process parameters connected to control system etc. The goal of on premise 5G (CNPN) network deployment is to bring it all in the umbrella of 5G network with advance features like monitoring, surveillance and better connectivity building safer and more secure power plant. This shall help in monitoring, timely response, strengthen preparedness in event of any unforeseen scenarios.

2.0 Objective of EOI

As part of our strategic initiatives to enhance connectivity solutions, NTPC is looking to conduct Proof of Concept (POC) at mutually agreed sites for on-premises 5G network deployment, where bidder's solution can be evaluated for its performance, scalability, and integration capabilities.

Deployment of onsite 5G network intends to monitor site in real time with use of on demand 5G camera, Labor movements with smart helmets, better connectivity with push to talk devices, handsets etc. to enhance security and surveillance at stations/projects.

The objective of this POC is to demonstrate the feasibility, efficiency, and operational advantages of onsite 5G network solutions in real-time environments and evaluation of the same for usage in NTPC power plant.



SECTION-III: APPLICATION FORM AND ANNEXURES

Instructions to APPLICANTS

- This Expression of Interest (EOI) is to identify interested parties for the Scope of Work mentioned particularly at clause no-5 of the Detailed Notice Inviting Expression of Interest (EOI)
- For expression of interest, Application Form and Annexures given in Section-III shall be duly filled and sent to NTPC by the APPLICANT in soft copy. Following are the list of Annexures:
 - **Annexure -1:** Application Form
 - **Annexure- 2:** APPLICANT's Profile
 - **Annexure- 3:** Acceptance of Fraud Prevention Policy of NTPC
 - **Annexure- 4:** Information as desired at Clause No. 03 of Detailed Notice Inviting EOI and any other information which applicant wants to provide
 - **Annexure-5:** Check list
- **APPLICANTS should go through Section-I and Section-II thoroughly before filling in and submitting the application.**
- Along with submission of application & form, APPLICANT must ensure that they have provided following information without which EOI shall be rejected:
 - GSTN and PAN of firm (or individual if applying as individual).
 - Address/ Contact number/ e-mail address/ Name of Contact person.
 - Completely filled check list as per Annexure-5

(EXPRESSION OF INTEREST: APPLICATION FORM)

(To be submitted on APPLICANT's Letter Head)

Ref No.

Date:

**Additional General Manager, Station Engineering
NTPC Limited, WR-II HQ,
Plot No. 87, Sector 24, Atal Nagar, Nava Raipur
Raipur, Chhattisgarh-492018**

Dear Sir,

Sub: Expression of Interest for Proof of Concept (POC) on Deployment of on premise 5G Captive Non-Public Network (CNPN) and its Application, as per Detailed Notice Inviting Expression of Interest (EOI), (Ref No. EOI No.: EOC/Station Engi/2025-26/5G CNPN) dated 10.01.2026.

We, the undersigned, express our interest for the subject EOI and declare the following:

- (a) We are duly authorized to represent and act on behalf of _____ (name of the firm/company/individual).
- (b) We have examined and have no reservations to the EOI document including Amendment No(s) & Clarification No(s)_____ (if any).
- (c) With reference to your invitation for EOI dated _____, we are furnishing herewith all the required details as per the prescribed Annexures.
- (d) We hereby express our willingness to participate in RFP/ forth coming tender as and when NTPC Ltd invite the same.
- (e) NTPC and /or its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents and information submitted in connection with this application and to seek clarifications from our bankers/suppliers and clients.
- (f) This application will also serve as authorization to seek/ request information as deemed necessary from any individual or authorized representative of any institution referred in the supporting document provided by APPLICANT.

(Annexure-1)

(g) NTPC and /or its authorized representatives may contact the following nodal persons for further information on any aspects of the application:

Name and designation of contact Person	Address for Communication	Telephone No	Email ID

(h) This application is made in full understanding that:

Through this EOI, NTPC intends to identify interested and capable parties in India for deployment of On-site private 5G Captive Non-Public network (CNPN) with intended applications mentioned in section-I .

This EOI is not intended for empanelment of APPLICANT or pre-qualification of applicant as well as any right to receive the enquiry for bidding /RFQ by the applicant.

1. EOI process will be subject to verification of all information submitted at the discretion of NTPC.
2. NTPC Ltd 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.

(i) We declare that we have read and abide by the provisions of Fraud Prevention Policy of NTPC and submit the form of Acceptance of Fraud Prevention Policy duly filled as per NTPC's format.

(j) The undersigned declare that the statements made and the information provided in the duly completed application are complete, true and correct in every detail.

SIGNATURE

(AUTORISED SIGNATORY)
(DATE/NAME/DESIGNATION/PLACE)
(OFFICE STAMP)

Applicant's Profile

1. Name of the interested party:

2. Address :

3. Classification of Company

Public Limited

Partnership

Limited/Private

Limited

Others

Please Specify:

4. Contact Details (Max 02 person) NAME:

DESIGNATION:,

MOBILE NO.:

EMAIL-ID:

5. Years of experience in the business:

6. Annual Turnover

7. Details of recently executed works, details of the works in the form of videos and photos.

SIGNATURE

(AUTORISED SIGNATORY)

(DATE/NAME/DESIGNATION/PLACE)

(OFFICE STAMP)

(FORM FOR ACCEPTANCE OF FRAUD PREVENTION POLICY)

We have read the contents of Fraud Prevention Policy of NTPC displayed on the tender website <https://htpctender.ntpc.co.in/> and undertake that we shall strictly abide by the provisions of Fraud Prevention Policy of NTPC.

SIGNATURE

(AUTORISED SIGNATORY)
(DATE/NAME/DESIGNATION/PLACE)
(OFFICE STAMP)

(Annexure-4)

Information as desired at Clause No. 03 of Detailed Notice Inviting EOI

(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.

SIGNATURE

(AUTORISED SIGNATORY)
(DATE/NAME/DESIGNATION/PLACE)
(OFFICE STAMP)

Sl. No.	Information Desired	Provided (Yes/No)	Remarks if any (specially if answer to column 3 is "No")
1	On site private 5G network deployed (preferably from power plant industry)		
2	List of 5G deployed applications		
3	List of supplies including 5G RAN, spectrum and equipment's like Smart helmets, IOT sensors, 5G camera, Push to talk devices, handsets etc.		
4	Documents of previous work		
5	Client certificates for successful running years		
6	Coverage Area of 5G CNPN network		

SIGNATURE

**(AUTORISED SIGNATORY)
(DATE/NAME/DESIGNATION/PLACE)
(OFFICE STAMP)**