	Technical specification for Supply of hardware for <b>LARA SUPER THERMAL POWER PROJECT, STAGE-II (2x800 MW)</b>	SPECIFICATION NO.	<b>PE-TS -508-101-Y 001</b>
---	---	----------------------	---------------------------------

## **SCOPE OF ENQUIRY**

This specification covers supply, installation and Operating System (OS) configuration of Hardware with 1-year default comprehensive on-site warranty and 3 years of comprehensive on-site Annual Maintenance Contract (AMC)/support as detailed in subsequent parts of the specification for 2x800MW- LARA SUPER THERMAL POWER PROJECT, STAGE-II project of customer NTPC.


## **TECHNICAL REQUIREMENTS**

### **[A] REQUIREMENT**


1. Supply, installation and configuration of two (2) computers at NTPC.
2. Offered hardware shall meet the minimum specification requirement for hardware as provided in the Section B.
3. The supplied hardware must be accompanied with necessary computer peripherals (Keyboard, mouse, monitor etc.). Any additional items such as cables needed to complete installation & configuration of the hardware shall be provided by the bidder.
4. All hardware shall have 1-year default comprehensive on-site warranty and 3 years of comprehensive on-site AMC/support. Service Level Agreement (SLA) shall be applicable for the entire contract period, details are given in the Section SLA.
5. All computers shall have genuine licensed software and perpetual in nature.
6. All supplied computer will be used and owned by NTPC. The supply items to be shipped and installed at following NTPC address:  
NTPC intelligent office,  
Telco Room 2nd floor inside DRC,  
CC EOC Hyderabad,  
Kavadiiguda, Secunderabad-80

### **[B] HARDWARE SPECIFICATIONS:**

<b>Computer Requirement</b>	
<b>Hardware/Software Recommendations</b>	Dell/ HP/Lenovo/Fujitsu or equivalent The vendors need to supply the complete unit prebuilt from the factory of OEM and all the components need to have OEM Part codes
	<b>OS:</b> Microsoft Window 10 Pro (64 bit) (version 1709 or higher). Microsoft .NET Framework 4.7.2

	Technical specification for Supply of hardware for <b>LARA SUPER THERMAL POWER PROJECT, STAGE-II (2x800 MW)</b>	SPECIFICATION NO.	<b>PE-TS -508-101-Y 001</b>
---	---	----------------------	---------------------------------

	<p>Recovery / image CD to be supplied for the requested OS. It should be upgradable to Windows 11 or the latest OS 64-bit version</p> <p><b>CPU:</b> Intel Core i7 Processor, 2.50 GHz (equivalent or higher), with 4 hardware cores(minimum)</p> <p><b>RAM:</b> Minimum 32 GB DDR4 2933 Mhz or higher RAM installed</p> <p><b>Hard disk drive:</b> 256GB PCIe NVMe TLC M.2 Solid State Drive, 1TB 7200rpm SATA 3.5" HDD</p> <p><b>USB Port:</b> Minimum 2 x USB 3.1 in front and minimum 4 x USB 3.1 in back</p> <p><b>Monitor:</b> OEM make, 24" Full HD with minimum Resolution of 1920 x 1200</p> <p><b>LAN:</b> GbE LAN or higher network interface, latency should be less than 1ms between client and database server</p> <p><b>Keyboard:</b> OEM make with 104 keys</p> <p><b>Mouse:</b> OEM make with 3 buttons with a scroll wheel</p> <p><b>Audio:</b> Integrated Audio with Internal speakers</p> <p><b>CD/DVD WRITER (CD/DVD-RW):</b> DVD +- RW multi-layer Drive, must support Multi-Read.</p> <p><b>Drivers:</b> CD having drivers suitable for Windows 10 Professional and latest OS, with installation / set up utilities to be provided.</p> <p><b>Software:</b> Microsoft Office Suite Business Edition 2019 or later Internet Explorer 10 or later. Microsoft Visual C++ Redistributable. Microsoft Data Access Components (MDAC) 2.8.1.</p> <p><b>3D graphics card:</b> NVIDIA Quadro P2000/P2200/M2000/AMD FirePro WX5100 DirectX support: Direct X12, Shader Model 5.1</p> <p><b>Peripheral Hardware/component:</b> Accompanied/ peripheral hardware for complete installation and configuration of above hardware at site</p> <p><b>Security Feature:</b> Chassis lock</p> <p><b>Warranty:</b> OEM Warranty/AMC/Support (labour, parts, on-site): minimum 1-year default comprehensive on-site warranty and 3 years of comprehensive on-site AMC/support.</p>
--	---


	Technical specification for Supply of hardware for <b>LARA SUPER THERMAL POWER PROJECT, STAGE-II (2x800 MW)</b>	SPECIFICATION NO.	<b>PE-TS -508-101-Y 001</b>
---	---	----------------------	---------------------------------

### [C] BILL OF QUANTITY (BOQ)

Sr. No.	Item Name	Measuring Unit	Qty.
1	Computer with 1-year default comprehensive on-site warranty as mentioned in Section B.	No.	2
2	3-year comprehensive on-site AMC/support charges for item at S. No. 1 above.	Lot	1

- Bidder shall submit Certificate of Conformance (CoC) and Data Sheet before dispatch of material.
- One-year default comprehensive warranty will start only after date of installation and successful demonstration of hardware working at NTPC address as per mutually agreed schedule in line with BHEL approved Data Sheets as submitted by bidder post-order.
- Demonstration of working of all hardware shall be done in network ready (server-client) manner, for acceptance.
- Comprehensive on-site AMC/support will start after completion of 1-year default on-site warranty period.

**(Signature and Stamp of the Bidder)**


	Technical specification for Supply of hardware for <b>LARA SUPER THERMAL POWER PROJECT, STAGE-II (2x800 MW)</b>	SPECIFICATION NO.	<b>PE-TS -508-101-Y 001</b>
---	---	----------------------	---------------------------------

### [D] SCHEDULE of SUPPLY, INSTALLATION and AMC

1	Zero Date	Date of PO
2	Supply & Installation of hardware at NTPC address	12 Weeks from the date of PO
3	Service request raised during AMC by BHEL/NTPC.	All issues must be resolved within 5 working days of NTPC from the date of raising the issue.

- a) Bidder shall submit Certificate of Conformance (CoC) and Data Sheet before dispatch of material.
- b) One-year default comprehensive warranty will start only after date of installation and successful demonstration of hardware working at NTPC address as per mutually agreed schedule in line with BHEL approved Data Sheets as submitted by bidder post-order.
- c) Demonstration of working of all hardware shall be done in network ready (server-client) manner, for acceptance.
- d) Comprehensive on-site AMC/support will start after completion of 1-year default on-site warranty period.


**(Signature and Stamp of the Bidder)**

	Technical specification for Supply of hardware for <b>LARA SUPER THERMAL POWER PROJECT, STAGE-II (2x800 MW)</b>	SPECIFICATION NO.	<b>PE-TS -508-101-Y 001</b>
---	---	----------------------	---------------------------------

### **Service Level Agreement (SLA)**

1. SLA will be applicable for the entire contract period.
2. If the performance of any machine is not found satisfactory, the same has to be made working/functional within next 5 working days of NTPC from raising of call/reporting to support desk.
3. The bidder shall offer 1-year default comprehensive warranty and Comprehensive on-site AMC/support at the designated location & shall cover each and every part of the Computer including parts having limited life etc. The purchaser is not liable to pay any extra charges on any account during warranty period.
4. Any part or parts fail or proved defective during the contract period owing to defect in design, material or workmanship, the bidder shall have to repair/replace them at the place of installation to make the system fully functional without asking for any charges.
5. The cost of labour and any other associated expenditure for resolution of issues shall be borne by the bidder.


**(Signature and Stamp of the Bidder)**

	Technical specification for Supply of hardware for <b>LARA SUPER THERMAL POWER PROJECT, STAGE-II (2x800 MW)</b>	SPECIFICATION NO.	<b>PE-TS -508-101-Y 001</b>
---	---	----------------------	---------------------------------

### **IMPORTANT NOTES FOR BIDDER:**

1. Bidder to comply with the requirement of BOQ & PQR. Bidder to submit documents supporting PQR compliance.
2. All software licenses shall be valid and perpetual.
3. Demonstration of working of all hardware shall be done in network ready (server-client) manner, for acceptance.
4. Following duly filled-in formats to be signed, stamped with company seal and submitted by the bidders with technical offer:
  - a. Technical Specification
  - b. "Quoted" entered for each item in Un-Priced Schedule.
  - c. PQR and documents supporting PQR compliance
  - d. Schedule of Supply, Installation and AMC
  - e. SLA
  - f. Bidder to confirm that there is no deviation with respect to technical specification
5. Documentation Requirement: Post Order
  - a. Technical data sheet of complete unit like CPU, SMPS, SSD, Mouse, Keyboard etc.
6. Packing Details: Packing shall be suitable for electronic item with proper signage on the packing.

**(Signature and Stamp of the Bidder)**

	Technical PQR for Supply of hardware for <b>LARA SUPER THERMAL POWER          PROJECT, STAGE-II (2x800 MW)</b>	SPECIFICATION NO.	<b>PE-TS -508-101-Y 001</b>
---	--	----------------------	-----------------------------

### **TECHNICAL PQR**

Bidder should fulfil the following qualification criteria. Bids from any bidder not meeting these qualification criteria shall not be considered for final evaluation.

- The bidder should be authorized partner/reseller/dealer of OEM. Bidder needs to submit proof (Manufacturer Authorization Form (MAF) for the same.
- Verifiable Purchase Order not older than 5 years.

**(Signature and Stamp of the Bidder)**