



बैंक नोट मुद्रणालय, देवास (म.प्र.) 455 001  
**BANK NOTE PRESS, DEWAS (M. P.) 455 001**

(आईएसओ : 9001 एवं आईएसओ : 14001 प्रमाणित इकाई)

(ISO 45001 : 2018 Certified Unit)

भारत प्रतिभूति मुद्रण तथा मुद्रा निर्माण निगम लिमिटेड की इकाई

A Unit of Security Printing & Minting Corporation of India Limited

मिनिरत्न श्रेणी-I, सीपीएसई (भारत सरकार के पूर्ण स्वामित्वाधीन)

Miniratna Category - I CPSE (Wholly owned by Government of India)

CIN : U22213DL2006G0I144763



e-mail : [bnpdewas@spmcil.com](mailto:bnpdewas@spmcil.com)  
website : [www.bnpdewas.spmcil.com](http://www.bnpdewas.spmcil.com)

Ph. : 07272-255222  
Fax : 07272-255111

### NATIONAL INVITATION FOR EXPRESSION OF INTEREST (EOI)

1.	Name of the organization	:	Bank Note Press, Dewas, Madhya Pradesh 455001
2.	Type of the organization	:	A Miniratna Category-I CPSE and Wholly owned by Government of India
3.	EOI Reference No.	:	<b>BNP/P/ACP/Water Cooled Centrifugal Chiller /2022/EOI Dated 08.12.2022</b>
4.	EOI Title	:	<b>Expression of Interest (EOI) for SITC of 4 No. 525 TR Water Cooled Centrifugal Chiller at Main AC Plant</b>
5.	Category	:	Non-Security
6.	Sub-category	:	Capital / CAMC
7.	Date of Annoucement	:	08.12.2022
8.	Last date for submission	:	08.01.2023 before 14.30 hrs.
9.	Technical Specifications and Scope of Work	:	Placed at Annexure I
10.	Eligibility / Pre-qualification criteria:	:	Placed at Annexure II
11.	Procurement Process	:	Placed at Annexure III
12.	Specimen Response letter to EOI	:	Placed at Annexure IV



**Expression of Interest (EOI) for SITC of 4 No. 525 TR Water Cooled Centrifugal Chiller at Main AC Plant AT BANK NOTE PRESS DEWAS. (M.P.), INDIA.**

**BNP/P/ACP/Water Cooled Centrifugal Chiller /2022/EOI Dated:08.12.2022**

Bank Note Press, Dewas is an industrial unit of Security Printing & Minting Corporation of India limited (SPMCIL), wholly owned by Government of India, Ministry of Finance, Department of Economic Affairs. BNP was established in 1974 to print world class high quality bank notes of different denominations. Bank Note Press, Dewas has its own security printing ink manufacturing unit also.

Interested vendors fulfilling the eligibility criteria as given in Annexure II are requested to submit Expression of Interest as per format given in Annexure IV to this expression of interest. The Expression of Interest must be submitted with the brief profile of the firm, their past performance in similar operation, financial background etc. in support of the eligibility criteria. The Expression of Interest must be sent to the following address:

The Additional General Manager (Materials)  
For and on the behalf of The Chief General Manager  
Bank Note Press, Dewas (M.P.) 455001 India  
Phone No. 07272-268253/268468  
Email: [bnppurchase@spmcil.com](mailto:bnppurchase@spmcil.com)

Last date and Time for receipt of Expression of Interest : **On 08.01.2023**  
**At 14:30 Hrs. (IST)**

Date and Time of opening of Expression of Interest : **On 08.01.2023**  
**At 15:00 Hrs. (IST)**

Place of opening of Expression of Interest : **Administration Block,**  
**Bank Note Press,**  
**Dewas (M.P.) 455001 India**

**Delay due to postal/courier etc, will not be entertained. Tender received after the due date and time will be rejected.**



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**Details of Annexures:**

1. Technical Specifications and Scope of Work – Annexure I
2. Eligibility/Pre-qualification Criteria – Annexure II
3. Procurement Process - Annexure III
4. Specimen Response letter to EOI - Annexure IV

**For and behalf of Security Printing and Minting Corporation of India Limited**

**Diganta Kumar Deka**  
**Additional General Manager (Materials),**  
**Bank Note Press, Dewas (M.P.) 455001 India**  
**Phone No. 07272-268253/268468**

**Note:** The Company reserves the right to accept/reject any application at its sole discretion and / or cancel the entire exercise. Mere fulfilling the minimum eligibility criteria will not confer any right on the applicant to be called for discussion/selection.

**All Addendum/Corrigendum to this EOI shall be uploaded only on website i.e. [www.spmcil.com](http://www.spmcil.com).**



**BNP/P/ACP/Water Cooled Centrifugal Chiller /2022/EOI Dated 08.12.2022**

**Background of the company**

Security Printing and Minting Corporation of India Limited (SPMCIL) is a Mini-Ratna Category-I CPSE and a wholly owned schedule 'A' Company of Government of India and is under the administrative control of Department of Economic Affairs, Ministry of Finance, Government of India. SPMCIL is engaged in the manufacture of currency/security paper, minting of coins, printing of banknotes, non-judicial stamp papers, postage stamps, travel documents, etc. having nine units including four mints (India Government Mint-Kolkata; India Government Mint-Hyderabad; India Government Mint-Mumbai and India Government Mint-Noida), two security presses (India Security Press, Nashik and Security Printing Press-Hyderabad), two currency presses (Currency Note Press, Nashik and Bank Note Press-Dewas) and one paper mill (Security Paper Mill-Hoshangabad) across the country.

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## **Annexure -I**

**(I). BNP/P/ACP/Water Cooled Centrifugal Chiller /2022/EOI Dated:08.12.2022**

### **A. Technical Specification & Scope of Work:**

#### **(Expression of Interest (EOI) for SITC of 4 No. 525 TR Water Cooled Centrifugal Chiller at Main AC Plant**

#### **Scope of work for SITC of Water Cooled Centrifugal Chillers with Oil Free Magnetic Bearing Compressors 525 TR capacity -4 Nos**

The Chillers should have at least the specifications as mentioned below however if recommended additional features other than as mentioned below should be included.

##### **1. Duty Condition:**

- a. Chilled water entering/leaving temperature: 10. 5° C / 5. 5° C
- b. Condenser water entering / leaving temperature: 35° C / 39° C
- c. Fouling factor Evaporator / Condenser: 0.001 / 0.0005 hr.ft<sup>2</sup>°F/Btu
- d. Refrigerant : HFC-134a
- e. Capacity : 525 ± 5% TR

**2. Capacity:** The capacity of the chillers can be more than 525 TR +/- 5 TR.

**3. Input Power Consumption (IKW):** The compressor offered shall be energy efficient, CFC free and shall not consume energy more than 0.64 IKW/TR. The lesser power consumption is preferred. The same shall be brought out by the firm all load percentage.

**4.** The chiller should be compatible to the existing condenser pumps and primary chilled water pumps and pipelines.

**5. Power Supply Requirement:** Chillers are working on LT power i.e. 415 volts +/- 5%, 3 phase, 50 Hz +/-5%.

6. **VFD:** The chiller should have in-built VFD installed for part load operation of chiller.
7. **Auto tube brushing system:** The condenser should have auto brushing / auto tube cleaning system. Which will clean the tubes of the condenser automatically after each interval as defined in the program.
8. **Plant system manager:** Plant system manager should be provided of the chiller make only or of the make acceptable by chiller manufacturer.
9. **LT Transformer :** SITC of 02 Nos. of LT transformers having Power rating 4500 KVA, No. of phases 3 phases, Frequency 50 Hz + / - 3%, Voltage HV 11 KV, Voltage LV (full load) 0.433 KV, Efficiency  $\geq 98.5\%$  and other technical specification as per Annexure-I
10. **Construction of Chiller :**
  - a. **Structure:** - The compressor and the control panel should be mounted on top of the condenser and cooler assembly.
  - b. **Compressor:** The compressor may be Centrifugal or Screw type.
  - c. **Water cooled condenser and Evaporator :**
    - i. The condenser should be ASME stamped heat exchanger.
    - ii. The shell and tube condenser should have externally & internally enhanced and highly efficient finned copper tubes
    - iii. The expansion of the tube should be with torque control process to avoid any possibility of leakage.
    - iv. The condenser end cover on both sides shall be marine water box type with hinges.
    - v. The water connection shall be made at sides with suitable flanges.

- vi. The condenser and evaporator shall be designed for 100% capacity.
  - vii. The cooler should be fitted with refrigerant level control, side glass, oil recovery system, pressure gauges etc. wherever required.
  - viii. The system shall be equipped with pressure relieving valves located on the top surface for the purpose of relieving excessive refrigerant pressure to the atmosphere, a three way shut off valve separating the two valves. One valve should remain in the system at all times and the second valve should act as a stand by. If one relief valve of the two valve set fails the shut off valve may be used to isolate the faulty relief valve, while the other valve should provide pressure protection.
- d. **Expansion Valve:** The chiller shall be fitted with an electronic expansion valve to achieve accurate control of refrigerant mass flow,
- e. **Starter:** Soft starter for smooth loading of motor shall be provided in a separate cubical panel.
- f. **Control Panel:**
- i. The control panel shall be designed and mounted on the top surface of condenser / evaporator at one end.
  - ii. At least the following safeties features should be directly sensed by the controller and acted upon.
  - iii. High condenser pressure, Low condenser pressure, Low suction pressure, Low Oil Pressure, Anti-freeze, Compressor motor over load on current, High Oil Temperature, Low Oil level.
  - iv. The other safeties which are sensed by other devices but action is to be taken by the controller like Over voltage, Under voltage, Single phasing, Reverse phasing, Unbalanced voltage ,Over heat of motor winding, Low condenser water flow, Low chilled water flow, Low lube oil temperature, Low oil pressure etc.

- v. The controller should be programmed for automatic start-up on resumption of power after power failure.
- vi. The controller should have internal 7-day, and holiday clock with programmable time scheduling.

**11. Performance Test:** Supplier shall show the performance of each chiller including its capacity of running on test bed at manufacturer work stimulating the load and operating parameters as per AHRI standard. The tenderer shall produce a valid certificate for the test bed from AHRI.

**12. Work Portion:**

- a. The tenderer may kindly note that above shall be for the complete work including transportation, loading, unloading at site and keeping the equipment at decided place.
- b. Installation of new chiller in place of existing centrifugal chiller.
- c. The condenser and chilled water connection should be made in our existing 24 inch dia. water header.
- d. Isolating valve, flow control valve, flow meter and suitable flanges, bolts & nuts shall be installed in condenser and evaporator inlet and outlet water lines.
- e. Temperature and pressure gauges shall be installed in condenser and evaporator inlet and outlet water lines.
- f. Positioning on foundation installation, testing and commissioning of chillers.
- g. First charge of Refrigerant & Lubricant Oil.



- h. Supply, installation, testing & commissioning of HVAC Electrical panel with electrical cabling from incomer to the chiller starter panel. The tenderer shall also do the complete electric cabling with earthing from the supply point to the starter and to the motor.
- i. Tenderer shall also connect the unit to the existing condenser header and chilled water header.
- j. Tenderer shall also provide suitable isolating valves and flow regulating valves, MS pipe and end fitting etc. in those lines.
- k. The work shall cover all incidental works of cabling earthing, foundation grouting etc.

**13. Start Up of each machine:** Startup services and acceptance trials should be provide in presence of the Suppliers service engineer for a long as time as is necessary to ensure proper operation and maintenance of the unit but in no case not less than 10 full working days (24 Hrs.) for each Chiller separately.

**14. Time for completion of works:**

- a. The firm will supply the First Chiller after successful performance test within 4 months and complete the installation and commissioning in next 1 month. Total completion period will be 5 months from date of placement of order.
- b. The firm will supply the Second Chiller after successful performance test within 1 month from successful installation and commissioning of First Chiller and complete the installation and commissioning in next 1 month. Completion period for Second Chiller will be 7 months from date of placement of order.
- c. The firm will supply the Third Chiller after successful performance test within 1 month from successful installation and commissioning of Second Chiller and complete the installation and commissioning in next 1 month. Completion period for Third Chiller will be 9 months from date of placement of order.
- d. The firm will supply the Fourth Chiller after successful performance test within 1 month from successful installation and commissioning of Third Chiller and



complete the installation and commissioning in next 1 month. Completion period for Fourth Chiller will be 11 months from date of placement of order.

**15. Training & Technical Documentation:**

- a. Hard copy of the Chiller selection sheet should be provided
- b. Operation manual and maintenance manual in Hard copy –3 sets should be provided for each machine
- c. Training to 6 persons of Bank Note Press will be given at the chiller manufacturing works in operation and maintaining of each chiller separately.

NOTE: 1.The requirement given is tentative after giving consideration to our existing needs. Firm may suggest advancement of technology as adoption. The competent authority at BNP has power to make any changes in the interest of BNP.

2. Dismantling and shifting of existing 525 TR kirloskar make chiller & shifting out of BNP being a contractor's property on buy back basis.

3. Firm shall provide pay back certification on the basis of new energy efficient power saving chiller with respect to old chiller.

4. Operating cost calculation between oil free magnetic bearing compressor and normal centrifugal compressor.

**Technical specification for 02 nos. LT transformer**

Sr. No	Description	Particulars
1	Equipment	Oil immersed transformer
2	Quantity	2
3	Power rating	4500 KVA
4	No. of phases	3 phases
5	Frequency	50 Hz + / - 3%
6	Voltage HV	11 KV
7	Voltage LV (full load)	0.433 KV
8	No load transformation ratio	11 KV / 0.433 KV
9	Vector group	Dyn 11
10	Efficiency	>=98.5%
11	Impedance voltage at rated current and frequency	Impedance voltage at rated voltage and frequency should be given along with the offer meeting the requirement of system fault level and voltage regulation.
12	Type of tap changer	Off circuit tap changer with a tapping range of +5% to -5% in steps of 2.5%
13	Type of cooling	ONAN
14	Temperature rise	
15	Winding (by resistance method)	55 deg C temp rise over 50deg ambient
16	Top oil (by thermometer)	50 deg C temp rise over 50 deg ambient

17	Type of installation	Indoor
18	System highest voltage	12 KV (HV)
19	Insulation level	
A	One minute power frequency withstand voltage	28 KV (HV winding) 3 KV (LV winding)
B	Impulse withstand voltage	75 KV (HV winding)
20	Terminal details	
A	HV line	Cable box (XLPE cable)
B	LV line	Cable box suitable for terminating 400 sqmm
C	LV neutral	One neutral as part of LV cable and second neutral for system earthing.
26	System fault level	
	HV side	4.6 KA
	LV side	50 KA
27	Details of cooling system	Detachable tank mounted radiators
28	Provision / accommodation of CTs LV neutral	CT is to be provided for Protection.



**SERVICES & EQUIPMENT TO BE EXCLUDED**

- a) Installation and erection of transformer.
- b) Civil work such as transformer foundation, cable trenches etc.
- c) External power connection for HV & LV side of transformer.
- d) HV termination kits.
- e) SITC of Earth pit -02 nos
- f) Connection to earth pit .

**B. CHECKLIST**

Sr. No.	Checklist	Checklist (YES/NO)
1	Have you understood the complete requirement?	
2	Have you provided the Bill of Material (BOM) required for overall completion of upgradation/replacement?	
3	Have you provided generic specifications for the BOM items?	
4	Have you quoted rates of the BOM items along with applicable GST and Freight?	
5	Have you quoted buyback unit rates for the item which need to be replaced?	
6	Have you quoted CAMC (without manpower) Rates on yearly basis for 5 years?	

**(II). General Requirements:**

- 1. The firms will ensure that their interests, duly sealed and signed, complete in all respects as per instructions contained in the Invitation to E.O.I. Documents, are dropped in the tender box located at the address given above on or before the closing date and time indicated above, failing which the interests will be treated as late and rejected.



2. The firm should furnish the firm's name, full postal address (Office), Phone Number and Fax Number; Name of the authorized contact person and e-mail address.
3. The firm should not have been blacklisted /debarred for dealing by Government of India, any State Govt. or any PSU, in any manner and an undertaking should be submitted along with the Bid, to this effect.
4. Participants are required to stamp and provide their authorized signature on every page of the E.O.I. document and all the supporting documents submitted as a token of acceptance to the mentioned terms and conditions.
5. Interested firms have to submit attested copies of various license certificates like Trade License, GSTIN Registration Certificate, Service Tax Registration Certificate, PAN Registration Certificate and other registration certificates as required as per the prevalent Prices & Registrations of the Govt. of Madhya Pradesh/ Govt. of India with their application.
6. Participating Firms has to submit Budgetary Quote with break-up along with detailed Technical Specification/Scope of Work.
7. The vendor should have the basic facilities and expertise in similar technology/field at global/national level.



## **Annexure -II**

### **Eligibility/Pre-qualification Criteria**

1. **Status:** The applicant should be either proprietary firm/ Limited Liability Partnership (LLP)/company/Partnership/ (legal entity) registered under relevant regulation of the respective Country. The applicant should be in business of manufacturing/supplying of such type of Items/ Services.
2. **Experience:**
  - a. The firm should have past experience in supply & Installation of same / identical Items to any Industries in the last 05 financial year ending on **31.03.2021** Relevant documentary proofs are to be submitted along the offer.
  - b. The interested bidders should also submit along with Expression of Interest a list of parties to whom they have supplied similar type of Items/Services with details and customer satisfaction report form their clients.
3. **The bidder should also confirm specifically that:**
  - a. Applicant is competent and legally authorized to submit and/or to enable into legally binding contract.
  - b. The firm should confirm their annual supply/manufacturing capacity for such Items/ Services.
  - c. Applicant will absolve the purchaser against any infringement of patent rights and other contract provisions.
4. The bidder firm should have not been blacklisted/ debarred by BNPMIPL/BRBNMPL/SPMCIL/Government of India for participation in tender as on the last date of submission of EOI. An undertaking for the same should be furnished.
5. The copy of audited balance sheet and Profit and loss account for last three financial years ending **31.03.2021** are to be submitted along with the proposal.



6. All documents are to be submitted in English/Hindi language only. If the documents are in other language English translation copy shall be furnished along with the documents.
7. The Department of Industrial Policy and Promotion (DIPP) Public Procurement order no. P-45021/2/2017-BE-II dated 15.06.2017 shall be applicable.

**Note:-**

1. All experience, past performance and capacity/capability related data should be certified by the authorized signatory of the bidder firm.
2. All financial standing data should be certified by certified accountant's along with UDIN No. e.g., Chartered Accounts (CA) in India and Certified Public Accountant/Chartered Accountants of other countries.

Bidder to furnish stipulated documents in support of fulfillment of essential qualifying criteria. Non-submission of documents may lead to rejection of offer.





## **Annexure-III**

### **Procurement Process**

Following are the details of the process of BNP, Dewas.

1. At first the EOI for procurement of above items/services is published.
2. The firms participating in the EOI are called for details presentation and discussion regarding their offer of service/goods.
3. Later on open Tender will be floated comprising of 2/3 parts namely PQB, Techno-Commercial Bid & Financial Bid which are to be submitted in two/three separate double sealed envelopes on or before the due date of submission of tender. The envelopes containing Bids shall be super scribed as "Pre-Qualification Bid", "Techno-Commercial Bid", "Financial Bid" as the case may be.

Date: 08.12.2022



**Annexure-IV**

**BNP/P/ACP/Water Cooled Centrifugal Chiller /2022/EOI Dated:08.12.2022**

**WE HAVE GONE THROUGH THE ABOVE REFERRED EOI AND UNDERSTOOD YOUR REQUIREMENTS WITH RESPECT TO EXPRESSION OF INTEREST FOR Expression of Interest (EOI) for SITC of 4 No. 525 TR Water Cooled Centrifugal Chiller at Main AC Plant AT BANK NOTE PRESS DEWAS. (M.P.), INDIA.**

We fulfill the eligibility criteria and undertake that;

1. We have noted, understood and agreed to all the terms and condition of the EOI. In token of our acceptance, we have enclosed the EOI documents duly signed by the authorized representative.
2. I / We and are Proprietary firm/ Limited Liability Partnership (LLP)/Company/Partnership and I /We have enclosed the registration certificate issued by the registration authorities as applicable in the country of origin as documentary evidence. ( Please indicate as applicable)
3. I/ We have supplied/Provided similar Items/Services to \_\_\_\_\_ nos. of manufacturers/printing presses etc. globally or within India from years\_\_\_\_\_ to \_\_\_\_\_. I / we have enclosed the work offer/customer satisfaction certificate/completion certificate issued by \_\_\_\_\_ as documentary evidence.
4. We have the total experience of \_\_\_\_\_ years in the related field as on **31.03.2021.**
5. The average annual turnover for last three financial years i.e.**2021-2020, 2019-2020, 2018-19**, is INR\_\_\_\_\_. I/We have enclosed the annual report/statement of accounts (preferably audited) and a statement of average annual turnover of last 3 years duly authenticated by an authorized official of the Company/firm.
6. We declare that have not been black listed/debarred by BNPMIPL/BRBNMPL/SPMCIL/Government of India for participation in tender.
7. We also enclose our brief profile and list of our major clients for your consideration.
8. We will be interested to present out proposal and demonstrate our past performance/details of the system being offered to you at a meeting at your convenience.



9. We are enclosing copy of English translation of the documents which are not in English/Hindi.

For \_\_\_\_\_

(Name and designation of officer)

**Enclosures:**

1. Duly sealed and signed each and every page of EOI
2. Registration certificates
3. Work order or completion certificate
4. PAN Card copy and copy of GST registration certificate.
5. Brief profile and list of major clients.
6. Budgetary Quote with break-up of Taxes & Other Charges, if any.
7. Generic Specifications of the proposed system.
8. Delivery Period.