

**बिड दस्तावेज़ / Bid Document**

बिड विवरण / Bid Details	
बिड बंद होने की तारीख/समय / Bid End Date/Time	24-07-2026 15:00:00
बिड खुलने की तारीख/समय / Bid Opening Date/Time	24-07-2026 15:30:00
बिड पेशकश वैधता (बंद होने की तारीख से) / Bid Offer Validity (From End Date)	120 (Days)
मंत्रालय/राज्य का नाम / Ministry/State Name	Ministry Of Finance
विभाग का नाम / Department Name	Department Of Economic Affairs
संगठन का नाम / Organisation Name	Security Printing And Minting Corporation Of India Limited (spmci)
कार्यालय का नाम / Office Name	3rd Floor Tower G World Trade Centre Nauroji Nagar
शिकायत निवारण के संपर्क विवरण / Contact details of Grievance redressal	HOD Email id : Buyer Email id: shubham.dhaker@spmci.com
वस्तु श्रेणी / Item Category	Operation And Maintenance Of Substation - Complete System
अनुबंध अवधि / Contract Period	2 Year(s)
उन्हीं/समान सेवा के लिए अपेक्षित विगत अनुभव के वर्ष / Years of Past Experience Required for same/similar service	5 Year (s)
इसी तरह की सेवाओं का पिछला आवश्यक अनुभव है / Past Experience of Similar Services required	Yes
वर्षों के अनुभव एवं टर्नओवर से एमएसई को छूट प्राप्त है / MSE Relaxation for Years Of Experience and Turnover	Yes   Complete
स्टार्टअप के लिए अनुभव के वर्षों और टर्नओवर से छूट प्रदान की गई है / Startup Relaxation for Years Of Experience and Turnover	Yes   Complete
विक्रेता से मांगे गए दस्तावेज़ / Document required from seller	Experience Criteria, Bidder Turnover, Certificate (Requested in ATC), Additional Doc 1 (Requested in ATC) *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer

बिड विवरण/Bid Details	
क्या आप निविदाकारों द्वारा अपलोड किए गए दस्तावेजों को निविदा में भाग लेने वाले सभी निविदाकारों को दिखाना चाहते हैं? संदर्भ मेनू है/Do you want to show documents uploaded by bidders to all bidders participated in bid?	No
बिड लगाने की समय सीमा स्वतः नहीं बढ़ाने के लिए आवश्यक बिड की संख्या। / Minimum number of bids required to disable automatic bid extension	2
दिनों की संख्या, जिनके लिए बिड लगाने की समय-सीमा बढ़ाई जाएगी। / Number of days for which Bid would be auto-extended	7
ऑटो एक्सटेंशन अधिकतम कितनी बार किया जाना है। / Number of Auto Extension count	2
बिड से रिवर्स नीलामी सक्रिय किया/Bid to RA enabled	Yes
रिवर्स नीलामी योग्यता नियम/RA Qualification Rule	H1-Highest Priced Bid Elimination
बिड का प्रकार/Type of Bid	Two Packet Bid
तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय /Time allowed for Technical Clarifications during technical evaluation	2 Days
अनुमानित निविदा मूल्य (सभी करों सहित) भारतीय रुपये में / Estimated Bid Value in INR (Inclusive of all taxes)	12435183.83
<b>Payment Timelines</b>	Payments shall be made to the Seller within <b>30</b> days of issue of service delivery acceptance certificate (SDAC) and on-line submission of bills (This is in supersession of 10 days time as provided in clause 12 of GeM GTC)
मूल्यांकन पद्धति/Evaluation Method	Total value wise evaluation
मूल्य दर्शाने वाला वित्तीय दस्तावेज ब्रेकअप आवश्यक है / Financial Document Indicating Price Breakup Required	Yes
मध्यस्थता खंड/Arbitration Clause	No
सुलह खंड/Mediation Clause	No

#### ईएमडी विवरण/EMD Detail

एडवाइजरी बैंक/Advisory Bank	Indusind bank
ईएमडी राशि/EMD Amount	250000

#### ईपीबीजी विवरण /ePBG Detail

एडवाइजरी बैंक/Advisory Bank	Indusind bank
ईपीबीजी प्रतिशत (%) / ePBG Percentage (%)	5.00
ईपीबीजी की आवश्यक अवधि (माह) / Duration of ePBG required (Months).	26

(a). जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित केटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज़ प्रस्तुत करने है। एमएसई केटेगरी के अंतर्गत केवल वस्तुओं के लिए विनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के दायरे से बाहर रखा गया है।/EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy.

(b). ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए। / EMD & Performance security should be in favour of Beneficiary, wherever it is applicable.

(c). ईएमडी और संपादन जमानत राशि लाभार्थी के पक्ष में होनी चाहिए। / Earnest Money Deposit (EMD) shall also be accepted by the buyer in the form of a surety bond.

#### लाभार्थी /Beneficiary :

Narmadapuram  
security paper mill, narmadapuram  
(Security Paper Mill, Narmadapuram)

बोली विभाजन लागू नहीं किया गया/ Bid splitting not applied.

#### एमआईआई अनुपालन/MII Compliance

एमआईआई अनुपालन/MII Compliance	Yes
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#### एमएसई खरीद वरीयता/MSE Purchase Preference

एमएसई खरीद वरीयता/MSE Purchase Preference	Yes
सूक्ष्म और लघु उद्यम मूल उपकरण निर्माताओं/सेवा प्रदाता को खरीद में प्राथमिकता, यदि उनका मूल्य $L1+X\%$ / Purchase Preference to MSE OEMs/ Service Provider available upto price within $L1+X\%$	15
सूक्ष्म और लघु उद्यम मूल उपकरण निर्माता/सेवा प्रदाता को खरीद में प्राथमिकता के लिए बिड की मात्रा का अधिकतम प्रतिशत / Percentage of Bid quantity/amount for MSE OEMs/ Service Provider Purchase preference	100

#### ट्रेड्स भुगतान संबंधी विवरण/TReDS Payment Details

**This Bid provides for Trade Receivables Discounting System (TReDS) as Preferred mode of payment. For MSME sellers, payments may be processed through a TReDS exchange in which the Buyer is registered, subject to applicable policy and regulatory guidelines. Accordingly, sellers intending to avail payment through TReDS are required to be registered with at least one TReDS exchange in which the buyer is registered.**

1. If the bidder is a Micro or Small Enterprise as per latest orders issued by Ministry of MSME, the bidder shall be relaxed from the eligibility criteria of "Experience Criteria" as defined above subject to meeting of quality and technical specifications. The bidder seeking Relaxation from Experience Criteria, shall upload the supporting documents to prove his eligibility for Relaxation.
2. If the bidder is a Micro or Small Enterprise (MSE) as per latest orders issued by Ministry of MSME, the bidder shall be relaxed from the eligibility criteria of "Bidder Turnover" as defined above subject to meeting of quality and technical specifications. If the bidder itself is MSE OEM of the offered products, it would be relaxed from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. The bidder seeking Relaxation from Turnover, shall upload the supporting documents to prove his eligibility for Relaxation.
3. If the bidder is a DPIIT registered Startup, the bidder shall be relaxed from the the eligibility criteria of "Experience Criteria" as defined above subject to their meeting of quality and technical specifications. The bidder seeking Relaxation from Experience Criteria, shall upload the supporting documents to prove his eligibility for Relaxation.
4. If the bidder is a DPIIT registered Startup, the bidder shall be relaxed from the the eligibility criteria of "Bidder Turnover" as defined above subject to their meeting of quality and technical specifications. If the bidder is DPIIT Registered OEM of the offered products, it would be relaxed from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. The bidder seeking Relaxation from Turnover shall upload the supporting documents to prove his eligibility for Relaxation.
5. Years of Past Experience required: The bidder must have experience for number of years as indicated above in bid document (ending month of March prior to the bid opening) of providing similar type of services to any Central / State Govt Organization / PSU. Copies of relevant contracts / orders to be uploaded along with bid in support of having provided services during each of the Financial year.
6. **Purchase preference to Micro and Small Enterprises (MSEs):** Purchase preference will be given to MSEs having valid Udyam Certificate and whose credentials are validated online through Udyam Registration portal as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail themselves of the Purchase preference, the bidder must be the manufacturer / OEM of the offered product on GeM. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises and hence resellers offering products manufactured by some other OEM are not eligible for any purchase preference. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service, and Buyer will decide eligibility for purchase preference based on documentary evidence submitted in case of product bids, whereas in case of services the eligibility is automatically validated. If L-1 is not an MSE and MSE Seller (s) has / have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such MSE Seller shall be given opportunity to match L-1 price and contract will be awarded for 100% (selected by Buyer) percentage of total quantity. The buyers are advised to refer the [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017. Benefits of MSE will be allowed only if seller is validated on-line in GeM profile as well as validated and approved by Buyer after evaluation of documents submitted.
7. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.
8. Past Experience of Similar Services: The bidder must have successfully executed/completed similar Services over the last three years i.e. the current financial year and the last three financial years(ending month of March prior to the bid opening): -
  1. Three similar completed services costing not less than the amount equal to 40% (forty percent) of the estimated cost; or
  2. Two similar completed services costing not less than the amount equal to 50% (fifty percent) of the estimated cost; or
  3. One similar completed service costing not less than the amount equal to 80% (eighty percent) of the estimated cost.
9. Reverse Auction would be conducted amongst all the technically qualified bidders except the Highest quoting bidder. The technically qualified Highest Quoting bidder will not be allowed to participate in RA. However, H-1 will also be allowed to participate in RA in following cases:
  - i. If number of technically qualified bidders are only 2 or 3.
  - ii. If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N.
  - iii. In case Primary product of only one OEM is left in contention for participation in RA on elimination of H-1.
  - iv. If L-1 is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE L-1

v. If L-1 is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII L-1

एक्सेल में अपलोड किए जाने की आवश्यकता /Excel Upload Required :

Price breakup as per minimum wages - [1780549435.xlsx](#)

अतिरिक्त योग्यता /आवश्यक डेटा/Additional Qualification/Data Required

Please upload scope of work:[1780549268.pdf](#)

### Operation And Maintenance Of Substation - Complete System ( 1 )

तकनीकी विशिष्टियाँ /Technical Specifications

विवरण/ Specification	मूल्य/ Values
<b>कोर / Core</b>	
Operation And Maintenance Service Is Required For	Complete System
Type of Annual Maintenance Service Provider required	any
Status/condition of equipment/machine/system (At the time of bid)	Functional but outside AMC and Warranty
Cost of consumable/Material	Consumable to be provided by the buyer
Cost of spare parts	Spare parts to be provided by the buyer
<b>एडऑन /Addon(s)</b>	
<b>अतिरिक्त विवरण /Additional Details</b>	
Number of Dedicated managerial/supervisory staff required	1
Duty hours of dedicated mangerial/supervisory staff	8
Working days in a week for mangerial/supervisory staff	6
Number of dedicated skilled manpower required	9
Duty hours of dedicated skilled manpower	8
Working days in a week for skilled manpower	6
Number of dedicated semi-skilled manpower required	0
Duty hours of dedicated semi-skilled manpower	0
Working days in a week for semi-skilled manpower	0
Number of dedicated unskilled manpower required	6
Duty hours of dedicated unskilled manpower	8
Working days in a week for unskilled manpower	6

क्रेता द्वारा निर्धारित न्यूनतम मूल्य/Minimum Floor Price defined by Buyer

क्रेता द्वारा निर्धारित न्यूनतम मूल्य/Minimum Floor Price defined by Buyer	No
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**अतिरिक्त विशिष्टि दस्तावेज़ /Additional Specification Documents****परेषिती/रिपोर्टिंग अधिकारी /Consignees/Reporting Officer and Quantity**

क्र.सं./S.No.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	संसाधनों की मात्रा / Quantity(Please select 1 in case operation and maintenance service is required for complete system, otherwise mention actual quantity for each line item)	अतिरिक्त आवश्यकता /Additional Requirement
1	Biplab Basak	461005,Security Paper Mill ,Narmadapuram , Madhya Pradesh	1	<ul style="list-style-type: none"><li>Number of months for which Operations &amp; Maintenance service is required during contract period : 24</li></ul>

**क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें/Buyer Added Bid Specific Terms and Conditions****1. Generic**

OPTION CLAUSE 25% : The buyer can increase or decrease the contract quantity or contract duration up to 25 percent at the time of issue of the contract. However, once the contract is issued, the contract quantity or contract duration can only be increased up to 25 percent. Bidders are bound to accept the revised quantity or duration.

For lumpsum-based service contracts, the buyer may increase the scope of work and contract value up to 25 percent with the consent of the service provider

**2. Forms of EMD and PBG**

Bidders can also submit the EMD with Account Payee Demand Draft in favour of

SECURITY PAPER MILL,  
payable at  
NARMADAPURAM

Bidder has to upload scanned copy / proof of the DD along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date / Bid Opening date.

**3. Forms of EMD and PBG**

Bidders can also submit the EMD with Fixed Deposit Receipt made out or pledged in the name of A/C

SECURITY PAPER MILL, NARMADAPURAM

. The bank should certify on it that the deposit can be withdrawn only on the demand or with the sanction of the pledgee. For release of EMD, the FDR will be released in the favour of the bidder by the Buyer after making endorsement on the back of the FDR duly signed and stamped along with covering letter. Bidder has to upload scanned copy/ proof of the FDR along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date/ Bid Opening date

#### 4. **Forms of EMD and PBG**

Bidders can also submit the EMD with Banker's Cheque in favour of

SECURITY PAPER MILL,  
payable at  
NARMADAPURAM

. Bidder has to upload scanned copy / proof of the BC along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date / Bid Opening date.

#### 5. **Forms of EMD and PBG**

Bidders can also submit the EMD with Payment online through RTGS / internet banking in Beneficiary name

SECURITY PAPER MILL, NARMADAPURAM  
Account No.  
201003487038  
IFSC Code  
INDB0000449  
Bank Name  
Indusind Bank  
Branch address  
Ground Floor, Sat Rasta, Main Road, Narmadapuram (M.P) 461001

. Bidder to indicate bid number and name of bidding entity in the transaction details field at the time of on-line transfer. Bidder has to upload scanned copy / proof of the Online Payment Transfer along with bid.

#### 6. **Forms of EMD and PBG**

Successful Bidder can submit the Performance Security in the form of Account Payee Demand Draft also (besides PBG which is allowed as per GeM GTC). DD should be made in favour of

SECURITY PAPER MILL,  
payable at  
NARMADAPURAM

. After award of contract, Successful Bidder can upload scanned copy of the DD in place of PBG and has to ensure delivery of hard copy to the original DD to the Buyer within 15 days of award of contract.

#### 7. **Forms of EMD and PBG**

Successful Bidder can submit the Performance Security in the form of Fixed Deposit Receipt also (besides PBG which is allowed as per GeM GTC). FDR should be made out or pledged in the name of

SECURITY PAPER MILL, NARMADAPURAM  
A/C (Name of the Seller). The bank should certify on it that the deposit can be withdrawn only on the demand or with the sanction of the pledgee. For release of Security Deposit, the FDR will be released in favour of bidder by the Buyer after making endorsement on the back of the FDR duly signed and stamped along with covering letter. Successful Bidder has to upload scanned copy of the FDR document in place of PBG and has to ensure delivery of hard copy of Original FDR to the Buyer within 15 days of award of contract.

#### 8. **Forms of EMD and PBG**

Successful Bidder can submit the Performance Security in the form of Payment online through RTGS / internet banking also (besides PBG which is allowed as per GeM GTC). On-line payment shall be in Beneficiary name

SECURITY PAPER MILL, NARMADAPURAM

Account No.

201003487038

IFSC Code

INDB0000449

Bank Name

Indusind Bank

Branch address

Ground Floor, Sat Rasta, Main Road, Narmadapuram (M.P) 461001

. Successful Bidder to indicate Contract number and name of Seller entity in the transaction details field at the time of on-line transfer. Bidder has to upload scanned copy / proof of the Online Payment Transfer in place of PBG within 15 days of award of contract.

#### 9. **Certificates**

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

#### 10. **Buyer Added Bid Specific Scope Of Work(SOW)**

Text Clause(s)

### **SCOPE OF WORK:**

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#### **(I) Line Item 10 ( Hiring of Manpower and Services I<sup>st</sup> Year)**

Hiring of manpower (electrical) for 132/33 KV substation, PM#5 and NPP at SPMN.

Employment of Labour

1. The contractor shall comply with the requirement of statutory provisions and shall be solely responsible for fulfilment of all legal obligations under Contract Labour (reg. & abolition) Act, Inter State Migrant Workmen Registration of Employment and condition of Service Act, payment of Wages Act., Minimum Wages Act, Workmen's Compensation act, Employee's Provident Fund & and all other Industrial/Labour enactments and Rules made there under as applicable from time to time.

2. In case Owner incurs any liability towards payment of any dues, compensation, cost of any other liability of any kind whatsoever, due to non-fulfilment of statutory provisions under any industrial/Labour laws by the contractor, the same shall be made good by the contractor and Owner shall have full right to recover and claim the same against the contractor from his outstanding bills or otherwise. No Labour to stay at site.

3. All contractors' employees shall wear safety shoes, helmet, goggles, hand gloves, nose masks and any other required personal protection equipment such identifications marks as may be provided by contractor on work site and duly approved by Owner. General conditions for working The contractor shall keep his work spot, site office and Surroundings neat, clean and tidy. It should be free from dust, rubbish, scrap, surplus materials and unwanted tools and equipment. All scaffolding and temporary structure, including the tools and equipment shall be removed as soon as the job for which they are intended are completed. All equipment and material to be taken inside the sub-station /Building shall be cleaned thoroughly before taking them inside. SPM has right to stop the work, if the contractor fails to improve upon the cleanliness after having been notified. SPM will have the right to withdraw the work-permit for any of the workmen for reasons of misconduct, incompetence in work, violation of safety and fire rules, negligence on duty etc.

The knowledge/Information about availability of manpower on a daily basis shall be responsible of contractor or himself. The contractor should ensure availability through his representative throughout the contract period who shall be responsible for manpower availability and their record keeping The contractor shall deploy persons as detailed below.

i. Electrician (Skilled): Having Certificate in Electrician/Wireman trade issued by ITI/Local authorities/Govt. of India and with minimum 3 years' experience in the relevant field. ii. Helpers (Un-skilled): Minimum of 2 years' experience in this field.

Ensuring round the clock availability of persons in all shifts on 24 X 7 basis FOR 132KV SUBSTATION.

1. 1 Electrician and 1 Helper in all 3 shift and one electrician in general shift and 1 reliever have to be deployed.

(4 Electrician and 3 helpers per day) AT 132kv SUBSTATION technically capable for the scope of work mentioned below.

2. 5 ELECTRICIAN AND 3 HELPERS PER DAY to be deployed for PM5 and NPP electrical work technically capable for the scope mentioned below

3. Thus total 16 workmen have to be ensured by contractor ( 10 electrician and 6 helper) , so that 15 persons per day must be deployed (Also 1 leave reliever to be kept by the contractor).

4. One Supervisor having Diploma and experience of HT work of 2 years have to be deployed for overall supervision of electrical maintenance work. All the instructions regarding execution of work shall be given to supervisor, who will execute the work on behalf of SPM.

Scope of the work for operation of 132KV substation

The scope of work:

Operation of 132 kV Substation.

The Operation envisage all the required tasks to ensure

- a) Maximum system availability.
  - b) Most efficient, effective and optimum usage of electrical system.
  - c) Enhance the life expectancy of equipment's.
  - d) Regular operation of equipment's.
  - e) Compliance of safety rules and regulations.
  - f) Assistance in Preventive maintenance / scheduled maintenance.
  - g) Assistance in Break down maintenance.
  - h) Maintaining uninterrupted power supply.
  - i) Maintenance of proper records of operation and maintenance (Log book, Registers,).
- I. Operation of Sub-stations.
- a) Switching ON and Switching OFF of 132kV, 33kV Circuit Breakers, Isolators, 132kV incoming and outgoing Breakers, HT Panels, Yard Lights etc. as and when required according to load requirements and instructions from SPM.
  - b) Maintaining records of all the operations and records of loads such as voltage, current, power factor, frequency, connected load, energy consumption on Hourly/daily/weekly/fortnightly/monthly/quarterly/half yearly and yearly basis.
  - c) Maintaining records of power failures with reasons.

- d) Observing the yard and control room continuously and reporting any problem or faults to the SPM which require major / minor improvements/repairs.
- e) Maintaining system handing over and taking over charge sheets.
- f) Maintaining records of maintenance.
- g) With prior intimation to SPM ,Changing the taps of transformers as and when required.
- h) Attending the faults and restoration of the power supply without delay.
- i) Follow permit system (Line Clearance) and maintain a permit book to facilitate system maintenance with out

accident/mishaps. Providing assistance in preventive maintenance such as maintenance of defective insulators, lightning arrestors, cables, transformers, Isolators, Breakers, control room wiring etc., Contractor has to maintain a check list for preventive maintenance & upkeep the system accordingly. However contractor has to prepare a

detailed check list covering all the required items and submit for Engineering Officer Cum Officer In-charge approval before being implemented. The Operation of 132/33 kV Switchyard, 13/33KV Outdoor Sub Station , HT &LT Switch Gear and Distribution Systems involves deployment of right persons as mentioned above for operation and these persons would be responsible for the work contracted for this purpose. The main jobs will include:

- a. Routine Surveillance of 132/33 kV Switch Yard, indoor / outdoor equipment's like Control Relay Panels, Station Metering Panel, Switchyard Control Panel, AC& DC Distribution Boards.
- b. Routine Surveillance of 132/33 kV Switch Yard Outdoor equipment's such as Power Transformers,SF6/Vacuum Circuit Breakers and their respective Field Control Panels, Isolators and their Respective Field Control Panels, Air Compressors, CTs, VTs, LAs etc., Distribution Transformers and all Indoor HT Boards and LT Distribution System.
- c. Routine/Monthly maintenance of 132/33 kV overhead line/underground cables by trimming the tree branches below the lines.
- d. Filling up of Approved Data Sheets for the different Indoor & Outdoor equipment's of 132/33 kV Switch Yard, raising deficiency reports and communicating to SPM.
- e. Recording all tripping of breakers and other events that occur in the order of sequence with the time of occurrence correctly and record them in Log Book.
- f. Carrying out operations correctly and accurately and recording the same in the relevant Log Books.
- g. Strictly following operating instructions given by the SPM.
- h. Observing all safety precautions and ensure safety to men and material and the equipment during the contract period.
- i. Attending to all emergencies which may arise during the contract period such as equipment failures, fire accidents, etc., shall get acquainted with the operations of all equipment's covered under the contract.
- j. Attending to all Telephone calls and issue receipt message promptly.
- k. Preparing daily reports and periodic returns in the prescribed format in duplicate and submit to the concerned SPM.
- l. Assuming responsibility for the equipment & other materials kept at the Sub- station area.

m. Assuming responsibility for any damages that occur due to mal-operation of equipment and shall make good the

loss suffered by SPM.

n. To be alert and attending to all operations and events promptly without any delay.

o. Updating of interruptions Register, Call register, Data Book. Apart from the above, the contractor shall carry out

the checks in the document during the contract period daily.

## **TECHNICAL AND GENERAL SPECIFICATIONS**

-

### **1. TOOLS & TACKLES:**

All tools and tackles required for the safe and satisfactory operation and maintenance including preventive and

break down maintenance of the substation and related equipment will be provided by SPM. The careful maintenance and management of these tools will be the responsibility of the agency.

### **2. OPERATIONS: Hourly:**

1. Taking readings of all meters installed at control panels, ACDB, DCDB, Battery Charger etc.

2. Air and Gas pressures of Gas circuit breakers.

3. Oil & Winding temperatures of Transformers.

4. Taking the reading of surge arrestor counters of Lightning Arrestors,

5. Checking any sparking or flash over / hotspots in the substation.

Daily:

1. Checking the operation of compressors of Circuit breaker.

2. Visual inspection of Isolators contacts for proper position.

3. Checking oil levels of all bushings, Main & OLTC Conservator, CTs and PTs, etc.

4. Checking oil leakages if any for Transformers, CTs & PTs & taking appropriate action for its timely repair.

5. Checking air / gas/ oil leakages if any for Circuit Breakers

6. Checking the condition of Silica gel.

7. Checking of Battery & Charger DC voltage.

8. Cleaning of premises, Control relay panels etc.

9. Maintaining log books and daily check list.

10. Grass removal from yard and surroundings of the substation

11. Checking Deposition of dust and dirt on Insulators.

12. Checking Locks and doors of substation are in good condition.

13. Checking no leaks have developed in the roof. Ventilating systems.

14. Checking the heating systems are working normally.

15. Checking the prescribed safety aids are in place and in good order.

16. Checking the earthing connections for proper connectivity.
17. Checking the packing of cables entering and leaving the trenches or tunnels within the premises is intact.
18. Checking the ventilating louvers is not damaged.
19. Checking the access roads to the oil filled devices is not obstructed.
20. Draining the air / moisture from air conservators of circuit breakers.
21. Trouble shooting and repair of Electrical circuit's components in case of any abnormal conditions.
22. Checking Yard and control room lighting.

Weekly:

1. Checking Yard and control room lighting circuit.
2. Checking of individual battery voltage, liquid level, specific gravity, contacts, applying of petroleum jelly, etc.

Monthly:

1. Checking Auto/ Manual operations of OLTC.
2. Checking earthing points and their contact tightness wherever required.
3. Checking and sealing of cable entry holes.
4. Preparation of monthly checklist and events log for the month.

Events:

1. Logging auto / manual operations of OLTC.
2. Logging the breakdown events with relay indications etc.
3. Logging shut down events, log of operations during shut down period.
4. Logging of on /off of feeders in the 132kV, 33kV distribution system.
5. Maintaining visitor registers along with their comments and details of their visits.

### 3. MAINTENANCE

This Maintenance scope of contractor in this tender is limited to minor issues like maintenance of power factor ,

wiring of control panel , RTCC , transformer marshalling box and fan circuit, lighting of control room , street light ,

high mast and other LT supply . However attendant of substation are expected to provide assistance during major

maintenance activities (to be carried out separately by SPM) like repair ,replacement, breakdown maintenance

overhauling of 132 KV Transformer , 132 KV and 33 KV CT,PT,LA and Isolator , 132 SF6 breaker , 33 KV VC B ,

FCB charger , UPS , DG set and 132KV and 33 KV Relay panel etc.

A. Transformers:

Hourly:

- a) Check oil & winding temperatures, check for abnormalities & recording them.
- b) Observe and record Load (amperes) and Voltage. Check against rated figure.

c) Visual check for overheating if any at terminal connections (Red hots) and observation for any unusual internal

noise. This check is must in each shift.

Daily:

a) Observation of oil levels in (i) main conservator tank (ii) OLTC conservator (iii) bushings and examining for oil

leaks if any from the transformer.

b) Checking the colour of silica gel in the breather and also oil level of the oil seal. If silica gel colour changes from

blue to pink by 50% the silica gel is to be reconditioned or replaced.

c) Visual check of explosion vent diaphragm for any cracks.

Monthly:

a) Physical examination of diaphragm of vent pipe for any cracks.

b) Cleaning of bushings, inspect for any cracks or chippings of the porcelain and checking of tightness of clamps

and jumpers.

c) Measurement of IR values of transformer with suitable megger according to the rating of the transformer .

Recording of the values specifying the temperature at which measurements are taken

d) Cleaning of Silica gel breather.

e) Checking of temperature alarms by shorting contacts by operating the knob.

Quarterly:

a) Testing of main tank oil for BDV. b) Testing of OLTC oil for BDV.

b) Checking of all connections on the transformer for tightness such as bushings, tank earth connection.

**B. Circuit Breakers:**

Hourly:

a) Check Air and Gas pressure.

Daily:

a) Check the operation of compressors /motors. Check timing and sound.

b) Check gas density in each shift.

Monthly:

a) Air cleaning with blower.

b) Cleaning of circuit breaker body and bushings.

c) Auxiliary contacts cleaning.

d) Tightening of nuts and bolts.

e) Checking breaker Operation (Local/Remote operation).

f) Check anti-condensation protection.

g) Check of motor control

h) Checking and sealing of cable entry holes.

### C. Lightning Arrestors

Daily :

a) Checking the readings of surge arrestor counters.

Monthly:

a) Cleaning of porcelains Insulators of LA.

Quarterly:

a) Removing of bird nests, if any.

b) Records of the number of operations of the Arrestor should be maintained and if more number of operations are

seen then the same should be informed to the concerned authority.

### D. Isolators

Daily:

a) Visual Inspection

Monthly:

a) Clean the porcelain insulators and inspection for cracks and chip off.

b) Check for tightness of nuts and bolts, drive tube locknuts, drive lever and phase coupling plan bolts etc.,

Quarterly:

a) Open the dis-connector and earthing switch and inspect the contacts. (Wipe the contact surface with solvent).

b) Check for contact surface coating/wearing.

### E. Current Transformers

Daily:

a) Visual Check

b) Check for Oil leakage

Monthly:

a) Clean the porcelain insulators and inspect for cracks and chip off.

b) Secondary connection of the CT should be intact.

Daily:

a) Check Oil level and check for any leakage

b) Chattering sounds

Monthly:

a) Cleaning of Bushing

b) Checking for Oil level & topping up of oil if required

c) Checking of secondary fuse & fuse contacts.

Half yearly:

a) Check the I.R. value of each Voltage Transformer and keep records.

b) Check the Pressure Diaphragm. If the pressure diaphragm is defective, replace it with new one as per the

Procedure explained in the instruction manual.

c) If the insulation resistance of the Voltage transformer is low it can be improved by oil filtration under vacuum.

d) Attending to oil leakage in the VT. If it is due to failure of gaskets, the gaskets need to be replaced (Gas

Should be provided by the contractor)

G. Switch Yard (All equipment including structures that are not covered elsewhere)

a) Checking the yard at periodic intervals and attend to any unusual observations, defects, sparks, loose contacts,

red hot spots and loose bolts and nuts etc., and informing the concerned authority. The records of operational

Persons shall also be consulted for this purpose.

b) Checking the earth resistance of earthing half-yearly.

c) Checking the Protection and control circuit of each equipment monthly.

d) Checking of operation and interlock of all equipment's monthly.

e) The premises should be kept neat and clean.

H. Control & Relay Panels:

Daily:

a) Check for any tripping chattering in the electrical parts, abnormal noise, overheating in the panels.

b) Check whether indication lamps, annunciator lights, bell, buzzers and hooter are working.

c) Check all terminal cubicles for healthy contacts, minor repairs/services/cleaning etc.

d) Observe the annunciation window, and there is any alarm then consults the concerned authority.

e) Check panel for proper closing.

f) Cleaning of relay cases of dirt etc.

g) Cleaning the panels, relay covers, blowing dust from inner side of panels.

h) Voltage of DC supply.

i) Physical checks of all wiring & connections.

Monthly:

a) Check for the proper working of all ammeters, voltmeters, relays, contactors malfunction etc.

b) Clean the panels from inside with the help of the blower/ vacuum cleaners.

c) Check all the cables for overheating, tightness of the glands, lugs & crimping.

d) Check the fuse-link & fuse holders.

e) Check the control wiring of the panel along with the controls for the proper functioning and tripping at the present parameters.

f) Tightening of all earthing connections.

Yearly: a) Check the operation of MCB, relays, Etc.,

Repairs:

a) The following items can be replaced and made the circuit functional with MCB, Contactors, Cable termination with glands, relays, selector switch, indicating lamps, voltmeter, ammeter, fuse holders etc. (All material to be provided by SPM).

#### I. 415V Distribution System (Main DBs and DBs):

##### Daily:

- a) Visual inspection & proper doors closing.
- b) Check whether indication lamps, selector switch, ammeter, MCBs etc are working.

##### Quarterly:

- a) Check if all the panels are ingress protected.
- b) Checking of termination of incoming and outgoing cables
- c) Routing of cables for new loads if required (only flexible cables and indoor). d) At the time of adding new cable

proper tags and ferruling must be done.

- e) Cleaning of the panel.
- f) Checking and sealing of cable entry holes.
- g) Tightening of all earthing connections.

##### Repairs:

If any component is found malfunctioning it has to be replaced. Material will be provided by SPM.

#### J. CABLE NETWORK:

##### Monthly:

- a) Visual inspection of cables.
- b) Checking all cable terminals & joins for overhauling /loose connections and tightening, terminating, rejoining, if

required termination will be done by the contractor and material will be provided by SPM.

- c) Checking and recording of IR values of all cables with Megger of suitable range.

#### K. EARTHING SYSTEM:

##### Daily:

- a) Watering and proper closing of earth pit chamber

##### Quarterly:

- a) Checking of all earthing connections, joints and cleaning and tightening thereof.
- b) Checking and recording of earth resistance of all points, pits and taking corrective action to improve it, if required.
- c) Identification marking and updating the details of the indication board

#### L. METERS:

##### Yearly:

- a) Checking of each meter (analog/digital) for its correct operation.

##### Quarterly:

- a) Visual inspection and cleaning from outside.

#### M. ENERGY METERS:

1. Note down the energy meter reading as per scheduled time and monitor the power consumption.
2. Submit daily report /log books on power consumption.

#### SCOPE OF WORK FOR ELECTRICAL MAINTENANCE WORK IN PM5 AND NPP

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##### General conditions for working

The contractor shall keep his work spot, site office and surroundings neat, clean and tidy. It should be free from dust, rubbish, scrap, surplus materials and unwanted tools and equipment. SPM will have the right to withdraw the work-permit for any of the workmen for reasons of misconduct, Incompetence in work, violation of safety and fire rules, negligence on duty etc. The knowledge/Information about availability of manpower on a daily basis shall be responsible of contractor himself. The contractor should ensure availability through his representative throughout the contract period who shall be responsible for manpower availability and their record keeping The contractor shall deploy persons as detailed below

- i). Electrician (Skilled): Having Certificate in Electrician/Wireman trade issued by ITI/Local authorities/Govt. of India or diploma (Electrical) and with minimum 3 years' experience in the relevant field.
- ii). Helpers (Un-skilled): Minimum 5th pass and must have minimum 3 years working experience in similar / relevant field.

##### The scope of work:

-

The Maintenance envisage all the required tasks to ensure as per instruction of SPM engineers

- a) Maximum system availability.
- b) Most efficient, effective and optimum usage of electrical system.
- c) Enhance the life expectancy of equipment's.
- d) Regular operation and maintenance of equipment's.
- e) Compliance of safety rules and regulations.
- f) Break down maintenance in shift as well as in general shift.
- g) Maintaining uninterrupted power supply.
- h) Maintenance of proper records of operation and maintenance (Log book, Registers,).
- i) Switching ON and OFF of electrical panels
- l) Daily energy consumption reading
- m) Attending all emergencies which may arise during the contract period such as equipment failure fire accident etc.
- n) Follow permit system and maintaining of permit book to facilitated system maintenance without accident/mishap.

#### **TOOLS AND TACKLES :**

All tools and tackles required for safe and satisfactory maintenance including preventive and break down maintenance will be provided by SPM.

Safety shoes Helmets , dress with special codes like agencies name logo and other PPE will be scope of bid

der. The careful maintenance and management of this tools will be the responsibility of the agency.

Eligibility criteria:

**“The firm should have class A contractor license issued by electrical regulatory authority government of Madhya Pradesh”.**

Firm having Class A contractor license from other state should endorse their electrical license from electrical regulatory government of Madhya Pradesh.

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## **(II) Line Item 20 ( Hiring of Manpower and Services II<sup>nd</sup> Year)**

Hiring of manpower (electrical) for 132/33 KV substation, PM#5 and NPP at SPMN.

Employment of Labour

1. The contractor shall comply with the requirement of statutory provisions and shall be solely responsible for fulfilment of all legal obligations under Contract Labour (reg. & abolition) Act, Inter State Migrant Workmen Registration of Employment and condition of Service Act, payment of Wages Act., Minimum Wages Act, Workmen's Compensation act, Employee's Provident Fund & and all other Industrial/Labour enactments and Rules made there under as applicable from time to time.

2. In case Owner incurs any liability towards payment of any dues, compensation, cost of any other liability of any kind whatsoever, due to non-fulfilment of statutory provisions under any industrial/Labour laws by the contractor, the same shall be made good by the contractor and Owner shall have full right to recover and claim the same against the contractor from his outstanding bills or otherwise. No Labour to stay at site.

3. All contractors' employees shall wear safety shoes, helmet, goggles, hand gloves, nose masks and any other required personal protection equipment such identifications marks as may be provided by contractor on work site and duly approved by Owner. General conditions for working The contractor shall keep his work spot, site office and Surroundings neat, clean and tidy. It should be free from dust, rubbish, scrap, surplus materials and unwanted tools and equipment. All scaffolding and temporary structure, including the tools and equipment shall be removed as soon as the job for which they are intended are completed. All equipment and material to be taken inside the sub-station /Building shall be cleaned thoroughly before taking them inside. SPM has right to stop the work, if the contractor fails to improve upon the cleanliness after having been notified. SPM will have the right to withdraw the work-permit for any of the workmen for reasons of misconduct, incompetence in work, violation of safety and fire rules, negligence on duty etc. The knowledge/Information about availability of manpower on a daily basis shall be responsible of contractor himself. The contractor should ensure availability through his representative throughout the contract period who shall be responsible for manpower availability and their record keeping The contractor shall deploy persons as detailed below

i. Electrician (Skilled): Having Certificate in Electrician/Wireman trade issued by ITI/Local authorities/Govt. of India and with minimum 3 years' experience in the relevant field. ii. Helpers (Un-skilled): Minimum of 2 years' experience in this field.

Ensuring round the clock availability of persons in all shifts on 24 X 7 basis FOR 132KV SUBSTATION.

1. 1 Electrician and 1 Helper in all 3 shift and one electrician in general shift and 1 reliever have to be deployed.

(4 Electrician and 3 helpers per day) AT 132kv SUBSTATION technically capable for the scope of work mentioned below.

2. 5 ELECTRICIAN AND 3 HELPERS PER DAY to be deployed for PM5 and NPP electrical work technically capable for the scope mentioned below

3. Thus total 16 workmen have to be ensured by contractor ( 10 electrician and 6 helper) , so that 15 persons per day must be deployed (Also 1 leave reliever to be kept by the contractor).

4. One Supervisor having Diploma and experience of HT work of 2 years have to be deployed for overall supervision of electrical maintenance work. All the instructions regarding execution of work shall be given to supervisor, who will execute the work on behalf of SPM.

### **Scope of the work for operation of 132KV substation**

#### **The scope of work:**

Operation of 132 kV Substation.

The Operation envisage all the required tasks to ensure

- a) Maximum system availability.
  - b) Most efficient, effective and optimum usage of electrical system.
  - c) Enhance the life expectancy of equipment's.
  - d) Regular operation of equipment's.
  - e) Compliance of safety rules and regulations.
  - f) Assistance in Preventive maintenance / scheduled maintenance.
  - g) Assistance in Break down maintenance.
  - h) Maintaining uninterrupted power supply.
  - i) Maintenance of proper records of operation and maintenance (Log book, Registers,).
- I. Operation of Sub-stations.
- a) Switching ON and Switching OFF of 132kV, 33kV Circuit Breakers, Isolators, 132kV incoming and outgoing Breakers, HT Panels, Yard Lights etc. as and when required according to load requirements and instructions from SPM.
  - b) Maintaining records of all the operations and records of loads such as voltage, current, power factor, frequency, connected load, energy consumption on Hourly/daily/weekly/fortnightly/monthly/ quarterly/half yearly and yearly basis.
  - c) Maintaining records of power failures with reasons.
  - d) Observing the yard and control room continuously and reporting any problem or faults to the SPM which require major / minor improvements/repairs.
  - e) Maintaining system handing over and taking over charge sheets.
  - f) Maintaining records of maintenance.
  - g) With prior intimation to SPM ,Changing the taps of transformers as and when required.
  - h) Attending the faults and restoration of the power supply without delay.
  - i) Follow permit system (Line Clearance) and maintain a permit book to facilitate system maintenance without

accident / mishaps. Providing assistance in preventive maintenance such as maintenance of defective insulators, lightning arrestors, cables, transformers, Isolators, Breakers, control room wiring etc., Contractor has to maintain a check list for preventive maintenance & upkeep the system accordingly. However contractor has to prepare a

detailed check list covering all the required items and submit for Engineering Officer Cum Officer In-charge approval before being implemented. The Operation of 132/33 kV Switchyard, 13/33KV Outdoor Sub Station

, HT & LT Switch Gear and Distribution Systems involves deployment of right persons as mentioned above for operation and these persons would be responsible for the work contracted for this purpose. The main jobs will include:

a. Routine Surveillance of 132/33 kV Switch Yard, indoor / outdoor equipment's like Control Relay Panels, Station

Metering Panel, Switchyard Control Panel, AC & DC Distribution Boards.

b. Routine Surveillance of 132/33 kV Switch Yard Outdoor equipment's such as Power Transformers, SF6/Vacuum Circuit Breakers and their respective Field Control Panels, Isolators and their Respective Field Control Panels, Air Compressors, CTs, VTs, LAs etc., Distribution Transformers and all Indoor HT Boards and LT Distribution System.

c. Routine/Monthly maintenance of 132/33 kV over head line/underground cables by trimming the tree branches

below the lines.

d. Filling up of Approved Data Sheets for the different Indoor & Outdoor equipment's of 132/33 kV Switch Yard,

raising deficiency reports and communicating to SPM.

e. Recording all tripping of breakers and other events that occur in the order of sequence with the time of occurrence correctly and record them in Log Book.

f. Carrying out operations correctly and accurately and recording the same in the relevant Log Books.

g. Strictly following operating instructions given by the SPM.

h. Observing all safety precautions and ensure safety to men and material and the equipment during the contract

period.

i. Attending to all emergencies which may arise during the contract period such as equipment failures, fire accidents,

etc., shall get acquainted with the operations of all equipment's covered under the contract.

j. Attending to all Telephone calls and issue receipt message promptly.

k. Preparing daily reports and periodic returns in the prescribed format in duplicate and submit to the concerned

SPM.

l. Assuming responsibility for the equipment & other materials kept at the Sub-station area.

m. Assuming responsibility for any damages that occur due to mal-operation of equipment and shall make good the

loss suffered by SPM.

n. To be alert and attending to all operations and events promptly without any delay.

o. Updating of interruptions Register, Call register, Data Book. Apart from the above, the contractor shall carry out

the checks in the document during the contract period daily.

#### TECHNICAL AND GENERAL SPECIFICATIONS

##### 1. TOOLS & TACKLES:

All tools and tackles required for the safe and satisfactory operation and maintenance including preventive and

break down maintenance of the substation and related equipment will be provided by SPM. The careful

maintenance and management of these tools will be the responsibility of the agency.

## 2. OPERATIONS: Hourly:

1. Taking readings of all meters installed at control panels, ACDB, DCDB, Battery Charger etc.
2. Air and Gas pressures of Gas circuit breakers.
3. Oil & Winding temperatures of Transformers.
4. Taking the reading of surge arrestor counters of Lightning Arrestors,
5. Checking any sparking or flash over / hotspots in the substation.

## Daily:

1. Checking the operation of compressors of Circuit breaker.
2. Visual inspection of Isolators contacts for proper position.
3. Checking oil levels of all bushings, Main & OLTC Conservator, CTs and PTs, etc.
4. Checking oil leakages if any for Transformers, CTs & PTs & taking appropriate action for its timely repair.
5. Checking air / gas/ oil leakages if any for Circuit Breakers
6. Checking the condition of Silica gel.
7. Checking of Battery & Charger DC voltage.
8. Cleaning of premises, Control relay panels etc.
9. Maintaining log books and daily check list.
10. Grass removal from yard and surroundings of the substation
11. Checking Deposition of dust and dirt on Insulators.
12. Checking Locks and doors of substation are in good condition.
13. Checking no leaks have developed in the roof. Ventilating systems.
14. Checking the heating systems are working normally.
15. Checking the prescribed safety aids are in place and in good order.
16. Checking the earthing connections for proper connectivity.
17. Checking the packing of cables entering and leaving the trenches or tunnels within the premises is intact.
18. Checking the ventilating louvers is not damaged.
19. Checking the access roads to the oil filled devices is not obstructed.
20. Draining the air / moisture from air conservators of circuit breakers.
21. Trouble shooting and repair of Electrical circuit#s components in case of any abnormal conditions.
22. Checking Yard and control room lighting.

## Weekly:

1. Checking Yard and control room lighting circuit.
2. Checking of individual battery voltage, liquid level, specific gravity, contacts, applying of petroleum jelly, etc.

## Monthly:

1. Checking Auto/ Manual operations of OLTC.

2. Checking earthing points and their contact tightness wherever required.
3. Checking and sealing of cable entry holes.
4. Preparation of monthly checklist and events log for the month.

Events:

1. Logging auto / manual operations of OLTC.
2. Logging the breakdown events with relay indications etc.
3. Logging shut down events, log of operations during shut down period.
4. Logging of on /off of feeders in the 132kV, 33kV distribution system.
5. Maintaining visitor registers along with their comments and details of their visits.

### 3. MAINTENANCE

This Maintenance scope of contractor in this tender is limited to minor issues like maintenance of power factor ,

wiring of control panel , RTCC , transformer marshalling box and fan circuit, lighting of control room , street light ,

high mast and other LT supply . However attendant of substation are expected to provide assistance during major

maintenance activities (to be carried out separately by SPM) like repair ,replacement, breakdown maintenance

overhauling of 132 KV Transformer , 132 KV and 33 KV CT,PT,LA and Isolator , 132 SF6 breaker , 33 KV VC B ,

FCB charger , UPS , DG set and 132KV and 33 KV Relay panel etc.

#### A. Transformers:

Hourly:

- a) Check oil & winding temperatures, check for abnormalities & recording them.
- b) Observe and record Load (amperes) and Voltage. Check against rated figure.
- c) Visual check for overheating if any at terminal connections (Red hots) and observation for any unusual internal noise. This check is must in each shift.

Daily:

- a) Observation of oil levels in (i) main conservator tank (ii) OLTC conservator (iii) bushings and examining for oil

leaks if any from the transformer.

- b) Checking the colour of silica gel in the breather and also oil level of the oil seal. If silica gel colour changes from

blue to pink by 50% the silica gel is to be reconditioned or replaced.

- c) Visual check of explosion vent diaphragm for any cracks.

Monthly:

- a) Physical examination of diaphragm of vent pipe for any cracks.
- b) Cleaning of bushings, inspect for any cracks or chippings of the porcelain and checking of tightness of clamps

and jumpers.

c) Measurement of IR values of transformer with suitable megger according to the rating of the transformer

Recording of the values specifying the temperature at which measurements are taken

d) Cleaning of Silica gel breather.

e) Checking of temperature alarms by shorting contacts by operating the knob.

Quarterly:

a) Testing of main tank oil for BDV. b) Testing of OLTC oil for BDV.

b) Checking of all connections on the transformer for tightness such as bushings, tank earth connection.

B. Circuit Breakers:

Hourly:

a) Check Air and Gas pressure.

Daily:

a) Check the operation of compressors /motors. Check timing and sound.

b) Check gas density in each shift.

Monthly:

a) Air cleaning with blower.

b) Cleaning of circuit breaker body and bushings.

c) Auxiliary contacts cleaning.

d) Tightening of nuts and bolts.

e) Checking breaker Operation (Local/Remote operation).

f) Check anti-condensation protection.

g) Check of motor control

h) Checking and sealing of cable entry holes.

C. Lightning Arrestors

Daily :

a) Checking the readings of surge arrestor counters.

Monthly:

a) Cleaning of porcelains Insulators of LA.

Quarterly:

a) Removing of bird nests, if any.

b) Records of the number of operations of the Arrester should be maintained and if more number of operations are

seen then the same should be informed to the concerned authority.

D. Isolators

Daily:

a) Visual Inspection

Monthly:

- a) Clean the porcelain insulators and inspection for cracks and chip off.
- b) Check for tightness of nuts and bolts, drive tube locknuts, drive lever and phase coupling plan bolts etc.,

Quarterly:

- a) Open the disconnecter and earthing switch and inspect the contacts. (Wipe the contact surface with solvent).
- b) Check for contact surface coating/wearing.

#### E. Current Transformers

Daily:

- a) Visual Check
- b) Check for Oil leakage

Monthly:

- a) Clean the porcelain insulators and inspect for cracks and chip off.
- b) Secondary connection of the CT should be intact.

Daily:

- a) Check Oil level and check for any leakage
- b) Chattering sounds

Monthly:

- a) Cleaning of Bushing
- b) Checking for Oil level & topping up of oil if required
- c) Checking of secondary fuse & fuse contacts.

Half yearly:

- a) Check the I.R. value of each Voltage Transformer and keep records.
- b) Check the Pressure Diaphragm. If the pressure diaphragm is defective, replace it with new one as per the procedure explained in the instruction manual.
- c) If the insulation resistance of the Voltage transformer is low it can be improved by oil filtration under vacuum.
- d) Attending to oil leakage in the VT. If it is due to failure of gaskets, the gaskets need to be replaced (Gaskets should be provided by the contractor)

#### G. Switch Yard (All equipment including structures that are not covered elsewhere)

- a) Checking the yard at periodic intervals and attend to any unusual observations, defects, sparks, loose contacts, red hot spots and loose bolts and nuts etc., and informing the concerned authority. The records of operational

persons shall also be consulted for this purpose.

- b) Checking the earth resistance of earthing half-yearly.
- c) Checking the Protection and control circuit of each equipment monthly.

d) Checking of operation and interlock of all equipments monthly.

e) The premises should be kept neat and clean.

#### H. Control & Relay Panels:

##### Daily:

a) Check for any tripping chattering in the electrical parts, abnormal noise, overheating in the panels.

b) Check whether indication lamps, annunciator lights, bell, buzzers and hooter are working.

c) Check all terminal cubicles for healthy contacts, minor repairs/services/cleaning etc.

d) Observe the annunciation window, and there is any alarm then consults the concerned authority.

e) Check panel for proper closing.

f) Cleaning of relay cases of dirt etc.

g) Cleaning the panels, relay covers, blowing dust from inner side of panels.

h) Voltage of DC supply.

i) Physical checks of all wiring & connections.

##### Monthly:

a) Check for the proper working of all ammeters, voltmeters, relays, contactors malfunction etc.

b) Clean the panels from inside with the help of the blower/ vacuum cleaners.

c) Check all the cables for overheating, tightness of the glands, lugs & crimping.

d) Check the fuse-link & fuse holders.

e) Check the control wiring of the panel along with the controls for the proper functioning and tripping at the present parameters.

f) Tightening of all earthing connections.

Yearly: a) Check the operation of MCB, relays, Etc.,

##### Repairs:

a) The following items can be replaced and made the circuit functional with MCB, Contactors, Cable termination with glands, relays, selector switch, indicating lamps, voltmeter, ammeter, fuse holders etc. (All material to be provided by SPM). I. 415V Distribution System (Main DBs and DBs):

##### Daily:

a) Visual inspection & proper doors closing.

b) Check whether indication lamps, selector switch, ammeter, MCBs etc are working.

##### Quarterly:

a) Check if all the panels are ingress protected.

b) Checking of termination of incoming and outgoing cables

c) Routing of cables for new loads if required (only flexible cables and indoor). d) At the time of adding new cable

proper tags and ferruling must be done.

e) Cleaning of the panel.

f) Checking and sealing of cable entry holes.

g) Tightening of all earthing connections.

Repairs:

If any component is found malfunctioning it has to be replaced. Material will be provided by SPM.

#### J. CABLE NETWORK:

Monthly:

a) Visual inspection of cables.

b) Checking all cable terminals & joins for overhauling /loose connections and tightening, terminating, rejoining, if

required termination will be done by the contractor and material will be provided by SPM.

c) Checking and recording of IR values of all cables with Megger of suitable range.

#### K. EARTHING SYSTEM:

Daily:

a) Watering and proper closing of earth pit chamber

Quarterly:

a) Checking of all earthing connections, joints and cleaning and tightening thereof.

b) Checking and recording of earth resistance of all points, pits and taking corrective action to improve it, if required.

c) Identification marking and updating the details of the indication board

#### L. METERS:

Yearly:

a) Checking of each meter (analog/digital) for its correct operation.

Quarterly:

a) Visual inspection and cleaning from outside.

#### M. ENERGY METERS:

1. Note down the energy meter reading as per scheduled time and monitor the power consumption.

2. Submit daily report /log books on power consumption.

### **SCOPE OF WORK FOR ELECTRICAL MAINTENANCE WORK IN PM5 AND NPP**

#### General conditions for working

The contractor shall keep his work spot, site office and surroundings neat, clean and tidy. It should be free from dust, rubbish, scrap, surplus materials and unwanted tools and equipment.

SPM will have the right to withdraw the work-permit for any of the workmen for reasons of misconduct, incompetence in work, violation of safety and fire rules, negligence on duty etc.

The knowledge/Information about availability of manpower on a daily basis shall be responsible of contractor or himself. The contractor should ensure availability through his representative throughout the contract period who shall be responsible for manpower availability and their record keeping. The contractor shall deploy persons as detailed below

i). Electrician (Skilled): Having Certificate in Electrician/Wireman trade issued by ITI/Local authorities/Govt. of India or diploma (Electrical) and with minimum 3 years experience in the relevant field.

ii). Helpers (Un-skilled): Minimum 5th pass and must have minimum 3 years working experience in similar /

relevant field.

**The scope of work:**

The Maintenance envisage all the required tasks to ensure as per instruction of SPM engineers

- a) Maximum system availability.
- b) Most efficient, effective and optimum usage of electrical system.
- c) Enhance the life expectancy of equipments.
- d) Regular operation and maintenance of equipments.
- e) Compliance of safety rules and regulations.
- f) Break down maintenance in shift as well as in general shift.
- g) Maintaining uninterrupted power supply.
- h) Maintenance of proper records of operation and maintenance (Log book, Registers,).
- i) Switching ON and OFF of electrical panels
- l) Daily energy consumption reading
- m) Attending all emergencies which may arise during the contract period such as equipment failure fire accident etc.
- n) Follow permit system and maintaining of permit book to facilitated system maintenance without accident/mishap.

**TOOLS AND TACKLES :**

All tools and tackles required for safe and satisfactory maintenance including preventive and break down maintenance will be provided by SPM.

Safety shoes Helmets , dress with special codes like agencies name logo and other PPE will be scope of bidder. The careful maintenance and management of this tools will be the responsibility of the agency.

**Eligibility criteria:**

**The firm should have class A contractor license issued by electrical regulatory authority government of Madhya Pradesh.**

Firm having Class A contractor license from other state should endorse their electrical license from electrical regulatory government of Madhya Pradesh.

11. **Buyer Added Bid Specific ATC**

Buyer Added text based ATC clauses

**ATC:**

**OPERATION OF 132KV SUBSTATION:**

- 1. **Location of work:** Security Paper Mill, Narmadapuram (M.P.)-461005
- 2. **Liquidated Damages (LD) Clause:** If the contractor fails to deliver the goods and/or services or any instalment thereof within the Delivery Period, SPM Narmadapuram shall, without prejudice to other rights and remedies available to SPM, Narmadapuram under the contract, deduct from the contract price, as Liquidated damages, a sum equivalent to the rate of 0.5 per cent of the delivered price of the delayed goods and/or services for each week of delay or part thereof until actual delivery or performance.

ce, subject to a maximum deduction of the 10% of the delayed goods or services.

**3. GIT & GCC:** The terms and conditions, guidelines of SPMCIL Procurement Manual Version 3.0, 2024 will be applicable to this bid at any stage to avoid any conflict at later stage. Kindly refer General Instructions to Tenderer (GIT) and General Conditions of Contract (GCC) of SPMCIL Procurement Manual Version 3.0 for additional terms and conditions as per the links given below:

- I. **GIT:** <https://www.spmcil.com/wp-content/uploads/2024/06/GIT-3.0-1.pdf>
- II. **GCC:** <https://www.spmcil.com/wp-content/uploads/2024/06/GCC-3.0-1.pdf>

**4.** SPM (as Buyer) is liable to deduct TDS u/s 194Q @ applicable rate on goods purchases (if applicable). In case of deduction of TDS under section 194Q; the Supplier (Vendor) need not to charge TCS u/s 206C (1H) on invoicing on or after 01.07.2021.

**5. GST Return:** Supplier should file the GST returns for outward supplies in time. In case of any Input Credit Loss to SPM by way of their failure to file GST Returns in time, SPM reserves the right to withhold the payment of further supplies till production of evidence of filing of Returns.

**6. Contract Period:** 02 year from the date of issue of GeM Contract.

**7. Price bid breakup:** Bidders are requested to submit price break-up of financial bid in price bid only. Offers of Bidders quoting less than prevalent minimum wages shall be rejected straightway.

**8. Scope of Work:** Bidder shall submit duly seal & signed copy of Scope of Work.

**9. Anti-Bribery Management System (ABMS):** By participating in this tender, the suppliers/Vendors/Contractors are deemed to have undertaken that they shall not give or take, any financial or non-financial bribe, to or from anyone during the tender or during the execution of the contract thereafter and if they notice any such incident happening, they shall report it to Vigilance.

**10. Common IP Addresses:** Bidders may please note that GeM is capturing and showing the IP addresses used by the Buyer and the Bidder(s)/Seller(s). The received bids having matching/common IP address with either Bidder(s)/Seller(s) or Buyer, shall be outrightly rejected & shall not be considered for further evaluation.

**11. Pre-Qualification Criteria:**

**a. Experience & Past Performance:** The bidder should have experience of having successfully completed similar kind of services of value Rs.24,87,037/- in any one of the last five years ending on '31.03.2025'.

**b. Capability:** The bidder must have capability to provide the relevant services.

**c. Financial Standing:** The average annual financial turnover of the bidder during the last three years, ending on '31.03.2025', should be at least Rs.24,87,037/- as per the annual report (audited balance sheet and profit & loss account) of the relevant period, duly authenticated by a Chartered Accountant/ Cost Accountant in India.

i) The net worth of the Bidder should not be negative on '31.03.2025' and also

ii) Should not have eroded by more than 30% in the last three years, ending on '31.03.2025'.

Note 1: To ascertain this criteria net worth of initial and last financial year should be compared.

Note 2: For MSEs and Start-ups (registered for the tendered item) all financial criteria shall be exempted.

**12.** The Contractor/Service provider is required to submit complete rates/Quotations only after satisfying each and every condition as laid down.

13. Rate/Quotations should be in compliance with the Minimum Wages Act and any other relevant Acts/ Orders of Government of India that is applicable. **The minimum wages rate is prescribed vide Circular no. File No. 1/6(3)/2025-Is-II Dated 30.03.2026 issued by the Chief Labour Commissioner(C), Ministry of Labour & Employment, New Delhi.** Amendments may be done as per minimum wages rates prescribed by RLC. Offer of the bidder quoting less than minimum wages shall be rejected.
14. The service provider/contractor shall be responsible for paying wages to contract labour at rates not less than the minimum wages as notified by the appropriate government.
15. That the Contractor shall pay and continue to pay Minimum Wages to the workers and if it is found that at less wages were paid, contract will be terminated forthwith and the deficient wages will be deducted by the Buyer from tenderer and paid directly to the workers employed by them and further, payment to the firm will be made only on satisfactory performance of work for each period as certified by the User and HR Department.
16. Insurance cover protecting the agency against all claims applicable under Employees State Insurance Act, 1948, shall be taken by the contractor / service provider. The contractor / service provider shall arrange necessary Insurance coverage for any person deployed by him even for a short duration. This Buyer shall not entertain any claim arising out of mishap if any, that may take place. In the event of any liability/claim falling on buyer, the same shall be reimbursed/indemnified by the contractor/service provider.
17. Contractor/service provider shall be directly responsible for any/all disputes arising between him and his personnel and keep this office indemnified against all actions, losses, damages, theft, expenses and claims whatsoever arising thereof.
18. Contractor shall be solely responsible for payment of wages/salaries other benefits and allowances to his personnel that might become applicable under any Act or order of the Government including the Minimum Wages Act. Buyer shall have no liability whatsoever in this regard and the Contractor shall indemnify the buyer against any/ all claims which may arise under the provisions of various Acts, Government Orders etc.
19. Deduction towards EPF and ESI etc. be factored in rates being quoted on per month basis and the same would not be payable over and above the rates thus quoted. The contractor / service provider would be liable for ensuring compliance with the relevant rules and regulations as notified by the Government in this regard from time to time.
20. It is made clear that the engagement of the contractor/service provider does not in any way confer any right to the contractor/service provider or the persons that may be deployed by him with the Buyer for claiming any regular or part time employment with the Buyer.
21. **GST Return:** Supplier should file the GST returns for outward supplies in time. In case of any Input Credit Loss to SPM by way of their failure to file GST Returns in time, SPM reserves the right to withhold the payment of further supplies till production of evidence of filing of Returns.
22. **Resolution of Disputes:** If dispute or difference of any kind shall arise between SPM, Narmadapuram and the supplier in connection with or relating the contract, the parties shall make every effort to resolve the same amicably by mutual consultations. If the parties fail to resolve their dispute or difference by such mutual consultation within 21 days of its occurrence, then, unless otherwise provided in the SCC, either SPM, Narmadapuram or the supplier may seek recourse to settlement of disputes through arbitration act 33.2.
23. **Kindly submit Land border sharing clause and blacklisted/debarred in your firm's letter head as below format:**

**Land border sharing clause:**

Bidders should submit undertaking regarding Compliance of Restrictions under Rule 144 (xi) of GFR 2017 as per DOE Order (Public Procurement No.4) dated 23.02.2023 (as amended from time to time) regarding restrictions on procurement from a bidder of a country which shares a land border with India as follows:

Undertaking regarding of Land Border Sharing Clause

To,

M/s Security Printing and Minting Corporation of India Limited

Ref : - GEM/BID/2026/B/XXXXXX Dated : - XX/XX/XXXX

Dear Sir,

We have read the clause regarding provisions for procurement from a Bidder which share a land border with India, we certify that, bidder M/s (Name of Bidder) is:

(i) Not from such a country [ ]

(ii) If from such a country, has been registered with the Competent Authority. [ ]

(Evidence of valid registration by the Competent Authority shall be attached)

(Bidder is to tick appropriate option ( ) above.

We hereby certify that bidder M/s (Name of Bidder) fulfills all requirement in this regard and is eligible to be considered against the tender.

{Signature of Authorized Signatory of Bidder}

Name : \_\_\_\_\_

Designation : \_\_\_\_\_

Seal :

**24. blacklisted/debarred declaration:**

Bidders are requested to submit following undertaking on their letterhead:

We have not been blacklisted/debarred by DoE, MoF, Gol; DEA, MoF, Gol; SPMCIL; procuring unit of SP MCIL for participation in tenders. The information provided above is correct and true to the best of my knowledge and belief.

**Non-Disclosure Agreement: Successful bidder has to sign Non Disclosure Agreement with SPM Narmadapuram as per format attached in ATC Document.**

**25. Documents Checklist:-** The participating bidder shall also submit the documents as per following mentioned order:-

- a) Seal & signed Bid/Tender document as an unconditional acceptance of all terms & conditions of bid.
- b) Latest Udyam Certificate, if bidder is claiming any benefits against MSE Policy.
- c) Undertaking regarding non-blacklisting
- d) Declaration about compliance of land border sharing clause
- e) Documents related to experience/capability.
- f) CA Certified Audited balance sheet and Profit & Loss statement for FY 2022-23, 2023-24, 2024-

25

**12. Buyer Added Bid Specific ATC**

Buyer uploaded ATC document [Click here to view the file.](#)

**अस्वीकरण/Disclaimer**

The Additional Terms and Conditions (ATC) have been incorporated by the Buyer after approval of their Competent Authority. The Buyer ,is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any restriction arising in the bidding process due to these ATCs and including the modification of technical specifications and / or terms and conditions governing the bid.All representations / grievances pertaining to the ATC clauses shall be raised with the buyer organization directly and not with GeM.If any of the clause(s) is/are incorporated by the Buyer regarding the following, the bid & resultant contract shall be treated as null & void. Further, GeM reserves the right, at its sole discretion, to cancel the bid forthwith, without issuance of any prior notice or intimation :-

1. Publishing Custom / BOQ bids for items for which regular GeM categories are available (unless such Custom / BOQ item is bunched with the major regular product Category Item).
2. Mandating procurement of / from specific Brand / Make / Model / Manufacturer / Dealer except in case of Single Bid / Proprietary Article Certificate (PAC) Buying.
3. Inclusion of disqualification criteria related to suspension of seller / service provider, where such suspension period has already expired.
4. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
5. Publishing bids on GeM for procurement of works.

6. Procurement of Goods by creating a Service bid on GeM & vice-versa.
7. Seeking sample with bid or approval of samples during bid evaluation process. However, trial / sample, as the case may be, shall be permitted in cases where trial / sample are allowed as per approved and published procurement policy of the Buyers' controlling Ministry / Department / State / Public Sector Enterprises Headquarters. If there is any violation of trial / sample clause with regard to approved policy of the Buyers' Ministry / Department / State / Public Sector Enterprises Headquarters, then this is to be determined and redressed by the concerned Buyer Organisation only.
8. Seeking experience from specific organization / department / institute only or from foreign / export experience.
9. Creating bid for items from incorrect categories.
10. Reference of conditions published on any external site or reference to external documents/clauses.
11. Asking for any Tender fee / Bid Participation fee, as the case may be.
12. Buyer added ATC Clauses which are in contravention of clauses defined in bid detail section, including specifications, EMD Detail, ePBG Detail and MII and MSE Purchase Preference sections of the bid, unless otherwise allowed by the applicable GeM GTC.
13. Any ATC clause in contravention with GeM GTC Clause 4 (xiii) (h) will be invalid. In case of multiple L1 bidders against a service bid, the buyer shall place the Contract by selection of a bidder amongst the L-1 bidders through a Random Algorithm executed by GeM system.
14. In a category based bid, adding additional items, through buyer added, additional scope of work/ additional terms and conditions/or any other document. If buyer needs more items along with the main item, the same must be added through bunching category based items or by bunching custom catalogues or bunching a BoQ with the main category based item, the same must not be done through ATC or Scope of Work.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

**All GeM Sellers/Service Providers shall ensure full compliance with all applicable labour laws, including the provisions, rules, schemes and guidelines under the four Labour Codes i.e. the Code on Wages, 2019; the Industrial Relations Code, 2020; the Occupational Safety, Health and Working Conditions Code, 2020; and the Code on Social Security, 2020 as and when notified and brought into force by the Government of India.**

**For all provisions of the Labour Codes that are pending operationalisation through rules, schemes or notifications, the corresponding provisions of the pre-existing labour enactments (such as The Minimum Wages Act, 1948, The Payment of Wages Act, 1936, The Payment of Bonus Act, 1965, The Equal Remuneration Act, 1976, The Payment of Gratuity Act, 1972, etc. and relevant State Rules) shall continue to remain applicable.**

**The Seller/ Service Providers shall, therefore, be responsible for ensuring compliance under:**

- **All notified and enforceable provisions of the new Labour Codes as mentioned hereinabove; and**
- **All operative provisions of the erstwhile Labour Laws until their complete substitution.**

**All obligations relating to wages, social security, safety, working conditions, industrial relations etc. and any other statutory requirements shall be strictly met by the Seller/ Service Provider. Any non-compliance shall constitute a breach of the contract and shall entitle the Buyer to take appropriate action in accordance with the contract and applicable law.**

**This Bid is governed by the General Terms and Conditions, conditions stipulated in Bid and Service Level Agreement specific to the Service, as the case may be, as provided in the Marketplace.**

**However, in case of Service, if any condition specified in General Terms and Conditions is contradicted by the conditions stipulated in Service Level Agreement specific to said Service, then it will over-ride the conditions in the General Terms and Conditions.**

This Bid is governed by the [सामान्य नियम और शर्तें/General Terms and Conditions](#), conditions stipulated in Bid and [Service Level Agreement](#) specific to this Service as provided in the Marketplace. However in case if any condition

specified in सामान्य नियम और शर्तें/General Terms and Conditions is contradicted by the conditions stipulated in Service Level Agreement, then it will over ride the conditions in the General Terms and Conditions.

जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।/In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws.

**---धन्यवाद/Thank You---**