

बिड दस्तावेज़ / Bid Document

बिड विवरण / Bid Details	
बिड बंद होने की तारीख/समय / Bid End Date/Time	30-10-2026 15:00:00
बिड खुलने की तारीख/समय / Bid Opening Date/Time	31-10-2026 15:00:00
बिड पेशकश वैधता (बंद होने की तारीख से) / Bid Offer Validity (From End Date)	180 (Days)
मंत्रालय/राज्य का नाम / Ministry/State Name	Ministry Of Power
विभाग का नाम / Department Name	Ntpc Sail Power Company Ltd
संगठन का नाम / Organisation Name	Ntpc Sail Power Company Ltd
कार्यालय का नाम / Office Name	Nspcl Ssc Bhilai
शिकायत निवारण के संपर्क विवरण / Contact details of Grievance redressal	HOD Email id : ak.sahoo@nspcl.co.in Buyer Email id: preeti.yadu@nspcl.co.in
कुल मात्रा / Total Quantity	220
वस्तु श्रेणी / Item Category	M8564155002 , M8564156005 , M8564157008 , EMBKR64GN823 , EMBKR64GN824 , EMBKR64GN825 , Mandatory
GeMARPTS में खोजी गई स्ट्रिंग्स / Searched Strings used in GeMARPTS	ACB 3 POLE ELECT OPERTD STORED ENER 800A, ACB 3 POLE ELEC OPERTD STORED ENER 1000A, ACB 3 POLE ELEC OPERTD STORED ENER 1250A, BREAKERS 0point4KVX800A RETROFITTING, BREAKERS 0point4KVX1000A RETROFITTING, BREAKERS 0point4KVX1250A RETROFITTING, Mandatory spares
	Searched String: ACB 3 POLE ELECT OPERTD STORED ENER 800A Category not available on GeM for the text string uploaded by the buyer Searched String: ACB 3 POLE ELEC OPERTD STORED ENER 1000A Category not available on GeM for the text string uploaded by the buyer Searched String: ACB 3 POLE ELEC OPERTD STORED ENER 1250A Category not available on GeM for the text string uploaded by the buyer Searched String: BREAKERS 0point4KVX800A RETROFITTING

बिड विवरण / Bid Details	Circuit Breakers for DC Operation, XLPE Cable for Working Voltage up to and Including 1.1 KV Marked To IS 7098 (Part 1), Vacuum Circuit Breakers - Indoor type as per IS 13118, Moulded Case Circuit Breakers (MCCB) Conforming To IS/IEC 60947 (Part 2), Miniature Circuit Breaker Boards for Voltages Conforming To IS 13032, Muffle/Box Furnace (V2), Residual Current Operated Circuit Breakers (RCCB) without Integral Overcurrent Protection ISI Marked To IS 12640 (Part 1), Cotton Towelling And Towels Conforming To IS 7056 (V4), Residual Current Operated Circuit Breakers (RCBO) with Integral Overcurrent Protection ISI Marked To IS 12640 (Part 2), File/Folder (V3)
GeMARPTS में खोजा गया परिणाम / Searched Result generated in GeMARPTS	Searched String: BREAKERS 0point4KVX1000A RETROFITTING Circuit Breakers for DC Operation, XLPE Cable for Working Voltage up to and Including 1.1 KV Marked To IS 7098 (Part 1), Vacuum Circuit Breakers - Indoor type as per IS 13118, Moulded Case Circuit Breakers (MCCB) Conforming To IS/IEC 60947 (Part 2), Miniature Circuit Breaker Boards for Voltages Conforming To IS 13032, Muffle/Box Furnace (V2), Residual Current Operated Circuit Breakers (RCCB) without Integral Overcurrent Protection ISI Marked To IS 12640 (Part 1), Cotton Towelling And Towels Conforming To IS 7056 (V4), Residual Current Operated Circuit Breakers (RCBO) with Integral Overcurrent Protection ISI Marked To IS 12640 (Part 2), File/Folder (V3) Searched String: BREAKERS 0point4KVX1250A RETROFITTING Circuit Breakers for DC Operation, XLPE Cable for Working Voltage up to and Including 1.1 KV Marked To IS 7098 (Part 1), Vacuum Circuit Breakers - Indoor type as per IS 13118, Moulded Case Circuit Breakers (MCCB) Conforming To IS/IEC 60947 (Part 2), Miniature Circuit Breaker Boards for Voltages Conforming To IS 13032, Muffle/Box Furnace (V2), Residual Current Operated Circuit Breakers (RCCB) without Integral Overcurrent Protection ISI Marked To IS 12640 (Part 1), Cotton Towelling And Towels Conforming To IS 7056 (V4), Residual Current Operated Circuit Breakers (RCBO) with Integral Overcurrent Protection ISI Marked To IS 12640 (Part 2), File/Folder (V3) Searched String: Mandatory spares OEM Spares for Automobiles, Spare / Add on Antenna for Transreceiver / Repeater - Mobile / Static / Handheld, Spares for Tripper and Apron Feeder, Spares Tyre for Tyre Coupling (V2), Spares For Coal Mills Of Thermal Power Stations (GSECL), Shaft and Shaft Assembly as per Drawing (RCF), SPARE / Add On Bluetooth earphone Device For Transreceiver-Handheld
अधिसूचना के लिए चयनित प्रासंगिक श्रेणियाँ / Relevant Categories selected for notification	• Air Circuit Breaker Conforming To IS/IEC 60947 (Part 2)
बीओक्यू शीर्षक /BOQ Title	LT ACBs
एमएसएमई के लिए अनुभव के वर्षों और टर्नओवर से छूट प्रदान की गई है/MSE Relaxation for Years of Experience and Turnover	No

बिड विवरण/Bid Details	
स्टार्टअप के लिए अनुभव के वर्षों और टर्नओवर से छूट प्रदान की गई है /Startup Relaxation for Years of Experience and Turnover	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	3
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	3
बिड से रिवर्स नीलामी सक्रिय किया/Bid to RA enabled	No
बिड का प्रकार/Type of Bid	Two Packet Bid
प्राथमिक उत्पाद श्रेणी/Primary product category	M8564155002
तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय /Time allowed for Technical Clarifications during technical evaluation	3 Days
निरीक्षण आवश्यक (सूचीबद्ध निरीक्षण प्राधिकरण /जेम के साथ पूर्व पंजीकृत एजेंसियों द्वारा)/Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
Payment Timelines	Payments shall be made to the Seller within 30 days of issue of consignee receipt-cum-acceptance certificate (CRAC) 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
वित्तीय दस्तावेज की आवश्यकता है / Financial Document Required	Yes
मध्यस्थता खंड/Arbitration Clause	No
सुलह खंड/Mediation Clause	No

ईएमडी विवरण/EMD Detail

एडवाइजरी बैंक/Advisory Bank	State Bank of India
ईएमडी राशि/EMD Amount	500000

ईपीबीजी विवरण /ePBG Detail

आवश्यकता/Required	No
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(a). जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित कैटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज प्रस्तुत करने है। एमएसई कैटेगरी 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 :

NSPCL

NTPC SAIL Power Company Ltd, Account No: 40196404295, IFSC Code: SBIN0000330, Bank Name: State Bank of India, Branch Sector-1 Branch , Bhilai
(Ntpc Sail Power Company Ltd)

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

एमआईआई के लिए आरक्षित / Reserved for Make In India products

एमआईआई के लिए आरक्षित / Reserved for Make In India products	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	25

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. Bid reserved for Make In India products: : Procurement under this bid is reserved for purchase from Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. However, eligible micro and small enterprises will be allowed to participate. The minimum local content to qualify as a class 1 local supplier is denoted in the bid document. All bidders must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is

made along with their bid, failing which the bid is liable to be rejected. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020 . In case Buyer has selected Purchase preference to Micro and Small Enterprises clause in the bid, the same will get precedence over this clause.

2. 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 25% (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.

3. 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.

M8564155002

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

तकनीकी विशिष्टियाँ /Technical Specifications

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.N o.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Sunil Kumar Barnwal	490021,NSPCL PP-II, Inside Bhilai Steel Plant, P. O. Bhilai (East) Bhilai	90	120

M8564156005

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

तकनीकी विशिष्टियाँ /Technical Specifications

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

परिषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.N o.	परिषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Sunil Kumar Barnwal	490021,NSPCL PP-II, Inside Bhilai Steel Plant, P. O. Bhilai (East) Bhilai	15	120

M8564157008

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

तकनीकी विशिष्टियाँ /Technical Specifications

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

परिषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.N o.	परिषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Sunil Kumar Barnwal	490021,NSPCL PP-II, Inside Bhilai Steel Plant, P. O. Bhilai (East) Bhilai	9	120

EMBKR64GN823

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

तकनीकी विशिष्टियाँ /Technical Specifications

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

परिषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.N o.	परिषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Sunil Kumar Barnwal	490021,NSPCL PP-II, Inside Bhilai Steel Plant, P. O. Bhilai (East) Bhilai	85	120

EMBKR64GN824

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

तकनीकी विशिष्टियाँ /Technical Specifications

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

परिषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.N o.	परिषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Sunil Kumar Barnwal	490021,NSPCL PP-II, Inside Bhilai Steel Plant, P. O. Bhilai (East) Bhilai	12	120

EMBKR64GN825

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

तकनीकी विशिष्टियाँ /Technical Specifications

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

परिषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.N o.	परिषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Sunil Kumar Barnwal	490021,NSPCL PP-II, Inside Bhilai Steel Plant, P. O. Bhilai (East) Bhilai	8	120

Mandatory

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

तकनीकी विशिष्टियाँ /Technical Specifications

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

परिषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.N o.	परिषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Sunil Kumar Barnwal	490021,NSPCL PP-II, Inside Bhilai Steel Plant, P. O. Bhilai (East) Bhilai	1	120

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

1. **Generic**

OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates. The delivery period of quantity shall commence from the last date of original delivery order and in cases where option clause is exercised during the extended delivery period the additional time shall commence from the last date of extended delivery period. The additional delivery time shall be $(\text{Increased quantity} \div \text{Original quantity}) \times \text{Original delivery period (in days)}$, subject to minimum of 30 days. If the original delivery period is less than 30 days, the additional time equals the original delivery period. The Purchaser may extend this calculated delivery duration up to the original delivery period while exercising the option clause. Bidders must comply with these terms.

2. **Generic**

Bidder shall submit the following documents along with their bid for Vendor Code Creation:

- a. Copy of PAN Card.
- b. Copy of GSTIN.
- c. Copy of Cancelled Cheque.
- d. Copy of EFT Mandate duly certified by Bank.

3. **Generic**

Supplier shall ensure that the Invoice is raised in the name of Consignee with GSTIN of Consignee only.

4. **Buyer Added Bid Specific ATC**

Buyer Added text based ATC clauses

QUALIFYING REQUIREMENT

1.0 TECHNICAL CRITERIA:

1.1 The bidder should have executed Similar Work(s) during the preceding 7 (Seven) years reckoned as on the date of techno-commercial bid opening having::

(a) Executed value not less than ₹ 109.80 Lakhs in a Single Order (Exclusive of Taxes & Duties).

OR

(b) Executed value not less than ₹ 68.63 Lakhs each in Two Orders separately (Exclusive of Taxes & Duties).

OR

(c) Executed value not less than ₹ 54.90 Lakhs each in Three Orders separately (Exclusive of Taxes & Duties).

Note:

(i) The phrase “similar works” means: “work of supply and installation/retrofitting and commissioning of three Phase 415V or above ACB in any industrial organization / utility as on the date of techno-commercial bid opening”

(ii) The word “Executed” means the bidder should have achieved the criterion specified in the Qualifying Requirement even if the total contract is not completed/ closed. A work executed in the preceding seven (7) years, even it has been started earlier, will also be considered for meeting the requirement against Clause No.6.1.1 above. Agency has to furnish proof of executed value of the work in the form of copies of RA Bills, relevant PO copy and client’s Completion Certificate/ Final Deviation Statement etc. in support of meeting the qualifying requirement.

(iii) Reference work executed by bidder as a sub-contractor may also be considered provided the certificate issued by the main contractor is duly certified by the Project Authority specifying the work executed by the sub-contractor in support of the qualifying requirements.

(iii) All values as mentioned in Clause 6.1.1 shall be Exclusive of all taxes and duties.

2.0 FINANCIAL CRITERIA:

2.1 Average Annual Turnover of the bidder in the preceding three (3) financial years as on the date of techno-commercial bid opening shall not be less than ₹ 137.26 Lakhs (Rupees One Crore Thirty-seven Lakhs and twenty-six Thousand only).

2.2 In case where audited results for the last financial year as on the date of techno commercial bid opening are not available, the financial results certified by a practicing Chartered Accountant shall be considered acceptable. In case, Bidder is not able to submit the certificate from practicing Chartered Accountant certifying its financial parameters, the audited results of three consecutive financial years preceding the last financial year shall be considered for evaluating the financial parameters. Further, a Certificate would be required from the CEO/CFO as per the format enclosed in the bidding documents stating that the financial results of the Company are under audit as on the date of Techno commercial bid opening and the Certificate from the practicing Chartered Accountant certifying the financial parameters is not available.

Note:

1. Other income shall not be considered for computing annual turnover.

2. The figures indicated in 2.1 are Exclusive of Taxes and Duties

ANNEXURE-I: SCOPE OF WORK

Supply, retrofitting, testing and commissioning of LT 800A, 1000A & 1250A ACB (Air Circuit Breakers) for o

ne-to-one replacement in existing Air circuit breakers of NSPCL, PP-2, Bhilai

I. SCOPE OF WORK FOR SUPPLY

1.0 Existing Technical Specification of LT air circuit breakers at PP-2:

A) Line Item – 10.10:

Existing 800A air circuit breakers specification:

1. Quantity: 90 No's
2. Make: L&T
3. Rated current: 800A
4. Rated voltage: 415V AC
5. Frequency : 50 Hz
6. Making Capacity: 120KA
7. Breaking capacity: 45KA
8. Short time current: 43.3 KA 1 sec
9. Insulation voltage: 500 V
10. Pole : 3
11. Ambient temp. of switchgear: 50 deg.
12. Operation : Manual
13. Protection : DN Release

B) Line Item – 10.20:

Existing 1000A air circuit breakers specification:

1. Quantity : 15 No's
2. Make : L&T
3. Rated current : 1000A
4. Rated voltage : 415V AC
5. Frequency : 50 Hz
6. Making Capacity : 120KA
7. Breaking capacity : 45KA
8. Short time current : 43.3 KA 1 sec
9. Insulation voltage : 500 V
10. Pole : 3
11. Ambient temp. of switchgear : 50 deg.
12. Operation : Manual
13. Protection : DN Release

C) Line Item – 10.30:

Existing 1250A air circuit breakers specification:

1. Quantity : 9 No's

2. Make : L&T
3. Rated current : 1250A
4. Rated voltage : 415V AC
5. Frequency : 50 Hz
6. Making Capacity : 140KA
7. Breaking capacity : 55KA
8. Short time current : 43.3 KA 1 sec
9. Insulation voltage : 500 V
10. Pole : 3
11. Control supply : 220 V DC
12. Closing coil : 220V DC
13. Tripping coil : 220V DC
14. Ambient temp. of switchgear : 50 deg.
15. Operation : Electrical
16. Protection : DN Release

2.0 SCOPE OF SUPPLY OF MATERIAL

A) Schedule 1 (M8564155002)

There are a total of 85 air circuit breakers of 800A of L&T make at various location in PP2 as given in Annexure-1. These 85 no's of ACB will be retrofitted with the new breakers and 5 nos. of breakers shall be kept as spares (The spare breakers to be supplied along with cradle assembly and all accessories required for retrofitting. It should also be ensured that the spare breakers can be fitted in existing breakers of same capacity on one-to-one replacement).

Air Circuit Breaker Technical Specifications -

1. Conform to IS / IEC 60947-2 & IEC 60947-2
2. Rated Current - 800 A
3. Rated/ Max operational voltage at 50 Hz: 415 V/ 500 V AC or above
4. Rated insulation voltage at 50 Hz: 1000 V
5. Rated Impulse withstand voltage: 12 KV
6. Breaking current: 50 KA for 1 sec or better
7. Rated Making Capacity - 120 KA or better
8. Short time fault withstand capacity, 50KA for 1 sec.
9. Operating frequency: 50HZ
10. No. Of poles: 3
11. Utilization Category: B
12. In-built Electrical & Mechanical Anti-Pumping
13. Electrically operated (EDO) draw out type
14. Manual operation provision

15. PROTECTION: Microprocessor based numerical relay/release (Overload, Short Circuit- instantaneous, ID MT Over current, Earth Fault). Release shall have communication facility.

16. Measurement (Current, voltage, frequency)

17. Spring charging motor: 220v AC

18. Closing coil & tripping shunt coil: 110V AC

19. ACB control voltage: 110v AC

20. Provision for bypassing in-built Protection release

21. All ACB shall have Under Voltage release tripping provision

B) Schedule 2 (M8564156005)

There are a total of 12 air circuit breakers of 1000A of L&T make at various location in PP2 as given in Annexure-1. These 12 no's of ACB will be retrofitted with the new breakers and 3 nos. will be kept as spares (The spare breakers to be supplied along with cradle assembly and all accessories required for retrofitting. It should also be ensured that the spare breakers can be fitted in existing breakers of same capacity on one-to-one replacement).

Air Circuit Breaker Technical Specifications –

1. Conform to IS / IEC 60947-2 & IEC 60947-2

2. Rated Current – 1000 A

3. Rated/ Max operational voltage at 50 Hz: 415 V/ 500 V AC or above

4. Rated insulation voltage at 50 Hz: 1000 V

5. Rated Impulse withstand voltage: 12 KV

6. Breaking current: 50 KA for 1 sec or better

7. Rated Making Capacity – 120 KA or better

8. Short time fault with stand capacity 50KA for 1 sec.

9. Operating frequency: 50HZ

10. No. Of poles: 3

11. Utilization Category: B

12. In-built Electrical & Mechanical Anti-Pumping

13. Electrically operated (EDO) draw out type

14. Manual operation provision

15. PROTECTION: Microprocessor based numerical relay/release (Overload, Short Circuit- instantaneous, ID MT Over current, Earth Fault). Release shall have communication facility.

16. Measurement (Current, voltage, frequency)

17. Spring charging motor: 220v AC

18. Closing coil & tripping shunt coil: 110V AC

19. ACB control voltage: 110v AC

20. Provision for bypassing in-built Protection release

21. All ACB shall have Under Voltage release tripping provision

C) Schedule 3 (M8564157008)

There are a total of 8 air circuit breakers of 1250A of L&T make at various location in PP2 as given in Annexure-1. These 8 no's of ACB will be retrofitted with the new breakers and 1 no. will be retrofitted as spare.

Air Circuit Breaker Technical Specifications -

1. Conform to IS / IEC 60947-2 & IEC 60947-2
2. Rated Current - 1250 A
3. Rated/ Max operational voltage at 50 Hz: 415 V/ 500 V AC or above
4. Rated insulation voltage at 50 Hz: 1000 V
5. Rated Impulse withstand voltage: 12 KV
6. Breaking current: 55 KA for 1 sec or better
7. Rated Making Capacity - 140 KA or better
8. Short time fault with stand capacity 50KA for 1 sec.
9. Operating frequency: 50HZ
10. No. Of poles: 3
11. Utilization Category: B
12. In-built Electrical & Mechanical Anti-Pumping
13. Electrically operated (EDO) draw out type
14. Manual operation provision
15. PROTECTION: Microprocessor based numerical relay/release (Overload, Short Circuit- instantaneous, ID MT Over current, Earth Fault). Release shall have communication facility.
16. Measurement (Current, voltage, frequency)
17. Spring charging motor: 220v DC
18. Closing coil & tripping shunt coil: 220V DC
19. ACB control voltage: 220v DC
20. Provision for bypassing in-built Protection release
21. All ACB shall have Under Voltage release tripping provision

3.0 GENERAL TECHNICAL REQUIREMENTS

A. Retrofit breaker compartment

1. A single common solution with same hardware is required as a common solution for all the breakers listed. All the breakers should have closed door operation.
2. Existing bus bars shall be retained as it is with minor modification if required.
3. The circuit breakers shall be mounted on a withdrawable assembly which shall move horizontally from service position to isolate position and back. For complete withdrawal from the panel, the assembly shall bring the breaker completely out of the panel for further removal using telescopic trolleys.
4. The existing door of the breaker to be replaced with new door with proper sealing to avoid any opening or dust ingress in the compartment.
5. Testing of the breaker shall be possible in TEST position from local control as well as remote.
6. Necessary guide channels shall be provided in the breaker compartments for proper alignment of auxiliary contacts when breaker is being moved to SERVICE position. A crank or lever arrangement shall preferably be provided for smooth and positive movement of breaker between Service and Isolated position.

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7. The rack out assembly shall have distinct SERVICE, TEST and ISOLATED positions. It should be possible to close the breaker compartment door in isolated position also, so that the switchgear retains its specified degree of protection. All doors, removable covers and glass windows shall have neoprene gaskets all around.

8. New enclosure parts are required which shall be fixed along with retrofitted breaker. It should be constructed with rolled steel sections. The doors and covers shall be constructed from cold rolled steel sheets of 2.0 mm or higher thickness.

9. The switchgear shall be cooled by natural air flow and forced cooling shall not be accepted.

10. Safety shutters shall be provided to cover up the fixed contacts on bus bar when the breaker is moved to ISOLATED position. The shutters should move automatically, through a linkage with the movement of the breaker. A clearly visible warning label "Isolate elsewhere before opening" shall be provided on the shutters. Breaker compartment doors shall have pad locking facility.

11. The breaker and the auxiliary compartments provided on the front side shall have strong hinged doors. Breaker compartment doors shall have pad locking facility.

12. In the Service position, the breaker shall be so secured that it is not displaced by short circuit forces. Jumpers and other components of the switchgear shall also be properly supported to withstand all possible short circuit forces corresponding to the short circuit rating specified.

13. The new enclosure shall be constructed with rolled steel sections. The doors shall be constructed from CRS sheets of 2 mm or higher thickness

B. Circuit Breakers

1. The circuit breakers shall be of air break type. They shall comprise of three separate, identical single modular pole interrupting units, operated through a common shaft by a sturdy operating mechanism. Circuit Breakers should meet all the fault making and breaking capacities mentioned in 'Technical Parameters'. An arrangement of two breakers in parallel to meet a specified current rating shall not be acceptable.

2. Breaker shall have all internal release suitable for feeder protection.

3. Accessories like closing coil, shunt trip shall be of proper rating to avoid failures during breaker abnormalities.

4. All the Accessories are to be pre-wired so as to ease installation with no critical setting.

5. The breaker shall be tested as per IS-13947-2 / IEC-60947-2. Manufacturer's factory test certificates should be supplied along with the breaker. Factory test certificate shall be valid from last 10 years from the date of incorporation of type test conducted from NABL accredited lab

6. It should be possible for the manufacturer to provide IP54 cover for the breaker.

7. Circuit breaker shall be of re-strike free, stored energy operated and trip free type. Motor wound closing spring charging shall only be acceptable.

8. There should be a mechanical indication for the breaker position - SERVICE, TEST and ISOLATED positions. It should also have a mechanical indication for SPRING CHARGED/DISCHARGED.

9. Interlocks shall be provided to ensure that the breaker shall close only in the Service, Test and Isolated positions when the breaker is in the cradle. But this should not prevent the breaker from closing in fully retracted position (when it is on the trolley or a workbench).

10. Breaker should have manual mechanical trip and close mechanism also with lockable shroud. It should also be provided with manual spring charging mechanism.

11. The breakers shall have under voltage tripping and bypassing provision.

12. Breaker should have a non-resettable counter.

13. Breaker should have 6NO+6NC potential free auxiliary contacts for external use.

14. Spares like pole assembly & main operating mechanism should be available as standard spare & in case of failure of these it should be possible to replace them at the site. The vendor has to give a guarantee of

minimum 6 years for breaker spares availability

15. Isolating Contacts for main power circuit shall be silver plated, of self-aligning type, of robust design and capable of withstanding the specified short circuit currents. They shall preferably be shrouded with an insulating material. Plug and socket contacts for auxiliary circuits shall also be silver plated, sturdy and of self-aligning type having a high degree of reliability.

16. All working part of the mechanism shall be of corrosion resisting material. Bearings which require greasing shall be equipped with pressure type grease fittings. Bearing pins, bolts, nuts and other parts shall be adequately secured and locked to prevent loosening or change in adjustment due to repeated operation of the breaker and the mechanism.

17. The operating mechanism shall be such that failure of any auxiliary spring shall not prevent tripping and shall not lead to closing or tripping of circuit breaker. Failure of any auxiliary spring shall also not cause damage to the circuit breaker or endanger the operator.

18. Mechanical indicators shall be provided on the breaker to indicate OPEN / CLOSED conditions of the circuit breaker and CHARGED / DISCHARGED conditions of the closing spring. An operation counter shall also be provided. These shall be visible without opening the breaker compartment door.

19. The rated control supply voltage shall be as mentioned elsewhere under Technical parameters. The closing coil and spring charging motor shall operate satisfactorily at all values of control supply voltage between 85 and 110 percent of the rated voltage.

20. The shunt trip coil shall operate satisfactorily under all operating conditions of the circuit breaker up to its rated short circuit breaking current at all values of control supply voltage between 80 and 120 percent of the rated voltage. The trip coil shall be so designed that it does not get energized when its healthiness is monitored by indicating lamps (Red) and one trip coil supervision relay.

21. The time taken for charging of closing spring shall not exceed

20 seconds. The spring charging shall take place automatically after a closing operation. Breaker operation shall be independent of the spring charging motor which shall only charge the closing spring. Opening spring shall get charged automatically during closing operation.

22. Spring charging motors shall be capable of starting and charging the closing spring twice in quick succession without exceeding acceptable winding temperature when the control supply voltage is anywhere between 85% and 110% of the rated voltage. The initial temperature shall be as prevalent in the switchgear panel during full load operation with 50 deg. C ambient air temperature. The motor shall be provided with short circuit protection. The manual spring charging lever should be available in breaker, so that the breaker's spring can be charged, if aux supply of spring charging motor fails.

23. As long as power supply is available to the spring charging motor, a continuous sequence of closing and opening operations shall be possible. One open-close- open operation of the circuit breaker shall be possible after failure of power supply to the motor of a closed breaker.

24. Motor windings shall be provided with class E insulation or better. The insulation shall be given tropical and fungicidal treatment for successful operation of the motor in a hot, humid and tropical climate.

25. Circuit breaker shall be provided with inter pole barriers of flame proof insulating materials. The use of inflammable materials shall not be acceptable.

C. Control and Interlocks

1. The circuit breaker will normally be controlled from local by means of TNC switches mounted on a local control panel at approx. 15-meter distance from breaker. The location of local control panel will be provided by NSPCL. It should also be possible to operate the breaker in TEST/SERVICE/SWITCHGEAR position by means of a TNC switch mounted on breaker control cubicle. Apart from that, provision should also be made in breaker control cubicle for operating the breaker from remote. The remote control panels will be placed at the following locations:

- CHP PCC
- CW pump house PCC

2. The voltage level of ON/OFF commands will be freezed after award of contract and ON/OFF feedback will be C/N/O type unless otherwise specified.

3. The basic control scheme shall be developed as per the sample schematic logics and should be modifiable for any changes at site.
4. Facilities shall be provided for mechanical tripping of the breaker and for manual charging of the stored energy mechanism for a complete duty cycle, in an emergency.
5. Each panel shall have two separate limit switches, one for the Service position and the other for TEST position. Each of these limit switches shall have at least TWO (2) contacts which shall close in the respective positions.
6. Movement of breaker between SERVICE and ISOLATED positions shall be mechanically prevented when the breaker is closed. An attempt to withdraw a closed breaker shall not trip it rather the breaker draw-out mechanism shall become locked and inaccessible if breaker is ON.
7. Closing of the breaker shall be possible only when breaker is either in ISOLATED, TEST or in SERVICE position and shall not be possible when breaker is in between.

following conditions.

- i. OFF position feedback should be available in the following positions i.e. Breaker isolated or removed from compartment and OFF or Breaker in Service or Test position and OFF.
 - ii. ON position feedback shall be available in the following positions i.e. Breaker in Service or Test position and ON.
9. Breaker disturbance signal shall be extended when Breaker NOT in Service position.
 10. Breaker disturbance signal shall be extended when Breaker not ready to close if-
 - Trip circuit not healthy.
 - ii. Overload/Motor Start fail operated.
 - iii. Electrical fault operated.
 - iv. Spring not charged.
 - v. Closing circuit control supply not available.
 - vi. Emg. stop push button operated.
 11. Suitable reliable arrangement should be provided to ensure that the remote feedback do not change in case of a Failure of control supply in the breaker panel when the breaker is in service. The additional NO & NC contacts of the breaker to be given through mechanical latch contactor/VAJC type relays or similar.
 12. It shall be possible to easily make out whether the breaker in SERVICE OR ISOLATED POSITION even when the compartment door is closed.

4.0 AUXILIARY POWER SUPPLY:

All the breakers that will be installed in outgoing feeders of switchboard shall be suitable for auxiliary power supply 110V AC with tolerance of 85% to 110% of rated voltage & shall be finalized during detailed engineering. In each section of the switchgear there should be two nos of control transformers with main/stand by and auto switching of supply if one supply fails or vice versa. The vendor has to do the modification work of power supply and control supply in the existing switchgear. Vendor shall also install control bus in the existing switchgear panel for distribution of control supply.

Breakers installed for incomers of switchboard shall be suitable for auxiliary power supply 220V DC with tolerance of 85% to 110% of rated voltage. The source of 220V DC will be supplied by NSPCL up to the switchboard. Distribution of auxiliary power up to the breaker is in the scope of contractor

II. SCOPE OF WORK FOR RETROFITTING

The scope of work shall include design, manufacture, shop testing, supply, transportation & complete insurance, handling and storage at site, complete installation, testing, retrofit and commissioning of 415V ACB type breakers with protection release in phased manner.

1.0 DETAILED SCOPE OF WORK (Vendor's scope)

1. Unloading/loading of supplied panels components, breakers and other related material at site location specified by owner are in the scope of vendor.
2. Shifting of new breakers from the place of unloading to the proposed location of installation is in the scope of vendor.
3. Retrofitting of 415V breaker in the existing switchgears.
4. Protection setting calculation & implementation, building of logic diagrams for switchgear as per M/s NS PCL given scheme and requirement. All protection settings should be programmable and modifiable at site. The vendor has to set the protection as per the existing setting or detailed engineering to be done by the vendor for protection setting.
5. Dismantling of existing panel components wherever required.
6. Erection of all new components which are required.
7. Fitting of new panel door.
8. Pre commissioning test of all components.
9. Earthing of new system as per IS/IEC standards
10. Pre-commissioning tests of Retrofitted breaker.
11. Pre-commissioning test of protection releases.
12. Shifting of dismantled panels from switchgear to the place specified by the owner at site.
13. Complete internal, inter-panel & intra-panel cabling/ wiring which include laying, designing & termination required for complete commissioning of the system.
14. Preparation & submission of test reports, commissioning records after completion of work.
15. The entire requirement shall be evaluated and finalized by the bidder during detailed engineering in consultation with the owner.
16. In CHP MCC/ Dredge pump house MCC/CW pump house PCC/HP-LP pump house MCC, a separate control supply of 110V AC to be provided by the vendor with necessary wires/cables.
17. Indication lamps should be LED with LVGP features to avoid mal-operation of breakers due to LED failure.

2.0 EXCLUSIONS FROM SCOPE OF WORK

1. All building and major civil works.
2. Auxiliary 220V DC Power supply at terminal point for operation of breaker shall be in owner's scope.

3.0 INPUT FROM THE VENDOR

1. The vendor shall be responsible for collecting all the information or data of existing equipment/ material / systems. The Owner shall only assist the contractor wherever possible to provide information /data.
2. The vendor shall identify all interface issues with owner, and shall be responsible for such interfacing, coordination and exchange of all necessary information.
3. The vendor shall make his own necessary arrangements for boarding and lodging arrangement for their personnel.
4. All testing instruments, tools and tackles required for erection, testing and commissioning of breaker and the Protection system are in the scope of vendor. He shall also produce a valid certificate of calibration for all measuring instruments used.

4.0 DRAWING AND DOCUMENTS

1. Minimum six sets of final as built drawing, six sets of O&M manual, engineering data, factory test reports, site test & commissioning reports shall be submitted by the vendor in hard copy.
2. Vendor shall also submit as built drawings and manuals in hard copies as well as soft copies

5.0 DEVIATIONS

1. The Bidder is required to submit with his proposal a detailed list of any and all exceptions taken to this specification.
2. In absence of such a list, it will be understood and agreed that Bidder's proposal is based on strict conformance to this specification in all respects.
3. The requirement is not intended to prohibit Bidders from offering alternative quotations for equipment which they consider equal to or superior to that specified for the intended service and for which he believes he can show economic and/or technical advantages.

6.0 SUPPLY OF EQUIPMENT AND MATERIAL

1. The vendor shall be responsible for design, engineering, manufacture, testing & inspection at manufacturer works, supply transportation, insurance, delivery at site, complete erection and supervision, site testing and inspection and successful commissioning of all the equipment and materials listed at Bill of Materials of the specification, detailed elsewhere in specification and as shown in the tender drawing.
2. Any item though not specifically mentioned but is required to complete the retrofitting works in all respect for its safe, reliable, and efficient and trouble-free operation shall also be taken to be included and same shall be supplied and erected by the party without any extra cost.
3. The quantities of equipment/ material indicated in PR, indicated in this specification are for the purpose of bidding only. Any item which is not mentioned in PR but essential as per technical specification, then vendor shall quote for them also.
4. The vendor shall, however supply and erect and construct as per the quantities finalized during / after detailed engineering, execution of works and shall be paid accordingly.
5. All consumables, wastages and damages shall be to the account of the vendor.

7.0 ERECTION WORKS

1. The vendor shall construct, erect and install all the equipment and material for retrofitting of 415V Switchgear's LT breakers covered under the PR.
2. The vendor shall be responsible for provision of all labour, tools, plants and supervisory staff for safe, reliable, proper and correct erection of project components.
3. The vendor shall ensure periodic cleaning of work sites and removal of all waste material, packing material and leftovers and their proper disposal.
4. As the work is to be carried out in an existing charged power plant, the party has to employ competent manpower and supervision personnel.
5. The vendor is solely and fully responsible for the safety of personnel and materials. Any damages to the existing equipment shall be made good by the party as directed by the Engineer-In-Charge at no extra cost to the Owner.

8.0 FUNCTIONAL GUARANTEE AND LIQUIDATED DAMAGE

1. The bidder shall guarantee that equipment offered shall meet the rating and performance requirements stipulated for various equipment covered in the specification. The bidder shall also furnish a declaration in the schedule provided for the purpose in bid forms.
2. If the guarantees are not established at factory tests, then the owner at his discretion may reject the equipment or accept it after assessing.
3. Vendor has to ensure that no tripping takes place due to mal-operation of release or due to improper configuration/settings. For every tripping attributable to above reason, a justification needs to be submitted by the party. In case the problems persist M/s NSPCL may request supplier to change the release. Still if the problem persists M/s NSPCL may impose a penalty. The value of penalty shall be limited to a maximum 5 % value of Commissioning portion only.

The detail of Liquidated damages to be paid for delay shall be as under:

A-DELIVERY:

- a. The circuit breakers and materials will be deemed to have been delivered only when all its components and parts are also delivered. If certain materials are not delivered in time, the equipment shall be considered as undelivered till missing parts are delivered.
- b. The Liquidated damages for delay in supply shall be one half of one percent (1/2%) of the total contract value, per week.

B- RETROFITTING:

- a. The retrofitting of the breakers shall be deemed completed only when successful load trial for 1 month is completed.
- b. The Liquidated damages for delay in successful trial operation on account of the contractor within the stipulate time under the contract shall be one half of one percent (1/2%) of the total value of ACB & retrofitting charges (pro rata basis) per week.

Liquidated Damage for material delivery & Retrofitting shall be evaluated separately & there shall be ceiling of five percent (5%) of total contract value as a whole.

9.0 DEFECT LIABILITY

1. The defect liability period shall be 12 months from the date of successful commissioning of the breakers on pro rata basis.
2. During the guarantee period vendor shall attend all the defects within very short notice of EIC.

10.0 COMPLETION SCHEDULE: -

1. The total work from supply to retrofit to be completed within 24 months from the date of LOI. However, completion time may be extended for another 06 months at the same PO T&C considering the availability of work front, since most of the retrofit works are to be carried out in auxiliary Switchgear (LT Sec-1,2,3 & 4) which feeds supply to all the essential drives of boiler and TG, for which planned shutdown is required. Vendor must be ready to work in odd hours and on holidays also including Sunday. Bidder has to complete installation/ commissioning/ functional test during the stipulated period only. Party shall depute enough manpower to do the work round the clock to complete the job as per schedule.
2. Party shall assess the job properly during pre-bid period and has to mention any deviation required during the pre-bid query only. Once the contract has been finalized, no deviation in period of completion shall be accepted if there is delay from vendor side.
3. The bidder shall submit GA drawings and circuit diagram for approval to NSPCL within one month from the date of award.
4. Supply of material within Six months from the date of receipt of approved drawings.
5. Intimation period prior to any start of work will be given at least 20 days by the EIC.

11.0 TESTING AND COMMISSIONING

1. The scope includes testing and commissioning of all equipment, sub-systems and systems of the retrofitting work and putting them into successful operation.
2. Manual operation of breakers completely assembled to be tested at site.
3. Power closing / opening operation, manually and electrically at extreme condition of control supply voltage.
4. Closing and tripping time.
5. Trip free and anti-pumping operation.
6. IR values, resistance and minimum pick up voltage of coils.
7. Simultaneous closing of all the three phases.
8. Check electrical and mechanical interlocks provided.

9. Checks on spring charging motor, correct operation of limit switches and time of charging
10. All functional checks.
11. The scope shall include but not limited to the requirements given elsewhere in the specification.
12. The party shall be responsible to provide all necessary testing and commissioning personnel, tools test equipment, etc.

12.0 TOOLS AND TACKLES

1. All tools and tackles required for execution of the job shall be arranged by the vendor.
2. The Party shall also supply at site one set of all special tools & tackles, etc. which are required by the maintenance staff to maintain the system successfully at no extra cost.
3. The list of such tools and tackles to be enclosed with the offer.

13.0 MANDATORY SPARES: -

1. Mandatory spares as per Annexure-A has to be supplied along with the breakers. The unit rates of the mandatory spares to be quoted along with the bid. The overall price to be indicated in PR which will be included in the bidding process of the tender enquiry.
2. List of recommended spares for each rating ACBs along with price with validity of 1 year.

NOTE: The Agency has to comply all statutory requirements such as timely payment of wages to the workers employed. Labour insurance, ESI, PF, etc. are to be obtained and submitted before releasing of any RA bill.

14.0 QUALITY ASSURANCE: GENERAL REQUIREMENT

1. All materials, components and equipment covered under this specification shall be procured, manufactured, erected, commissioned, and tested at all the stages as per a comprehensive Quality Assurance Programme.
2. The manufacturer shall submit their Quality Plan after award of the PO which will be approved and accepted by NSPCL after review. PDI clause will be applicable for this PR.
3. All major bought out Items will be subject to owner's approval.

15.0 SWITCHGEAR WIRING:

1. All inter cubicle wiring and connections between panels of same switchboard including all bus wiring for AC and DC supplies shall be provided/done by the vendor.
2. All internal wiring shall be carried out with 650 V grade, single core, 1.5 sq. mm. stranded copper wires having minimum of seven strands per conductor and color coded, PVC insulation. CT circuits shall be wired with 2.5 sq. mm. wires which otherwise are similar to the above.
3. All wiring shall be properly supported neatly arranged, readily accessible and securely connected to equipment, terminals and terminal blocks. Wiring troughs or gutters to be used for this purpose.
4. Internal wire terminals shall be made with solderless crimping type tinned copper lugs which shall firmly grip the conductor. When wires are being looped either ring-type, U-type or Flat pin type lugs of proper size are to be used. Insulation sleeves shall be provided over the lugs.
5. Printed ferrules marked to correspond with panel wiring diagram shall be fitted at both ends of each wire. The wire identification marking shall be in accordance with IS: 375. Red Ferrules should be provided on trip circuit wiring
6. Interconnection to adjacent panels if any shall be brought out to a separate set of terminal blocks located near the slots or holes, meant for the interconnecting wires. Arrangement shall permit neat layout and easy interconnections to adjacent panels.

16.0 TYPE TESTS:

1. All equipment to be supplied shall be of type tested design. The Party shall submit for Owner's approval the reports of all the type tests as listed in this specification and carried out within last ten years from the

date of bid opening. These reports should be for the tests conducted on the equipment similar to those proposed to be supplied under this contract and the test(s) should have been either conducted at an independent laboratory or should have been witnessed by a client.

2. In case the Party is not able to submit report of the type test(s) conducted within last ten years from the date of bid opening, or in case the type test report(s) are not found to be meeting the specification requirements, the Party shall conduct all such tests under this contract at no additional cost either at third party lab or in presence of client/owner's representative and submit the reports for approval.

3. All routine tests as per the specification and relevant standards shall be carried out. Charges for these shall be deemed to be included in the equipment price.

4. The following type tests reports on circuit breaker / circuit breaker panels, of each voltage class and current rating shall be submitted.

i. Short circuit duty test on circuit breaker, mounted inside the panel offered Short time withstand test on circuit breaker, mounted inside panel offered together with CTs, bushings and separators.

ii. Power frequency withstand test on breaker mounted in side panel.

iii. Lightning impulse withstand test on breaker mounted in side panel.

iv. Measurement of resistance of main circuit.

v. Mechanical operation test

5. Full functionality of the release including protection/metering to be demonstrated using secondary injection procedures.

6. All equipment furnished under this specification shall be subject to test by authorized quality assurance personnel of the bidder and Employer's representatives during manufacture, erection and on completion. The approval of the Employer or passing such inspections or tests will not, however, prejudice the right of the Employer to reject the equipment if it does not comply with the specifications when erected or fails to give complete satisfaction in service. Quality assurance system followed by manufacturer should preferably be in line with IEC61850 Part 10.

7. Two (2) protected soft copies of the approved test results shall be furnished with the equipment. These shall include complete reports and results of the routine tests and type tests (if the latter is carried out) on equipment.

17.0 ROUTINE TESTS:

1. All acceptance and routine tests as per the specification and relevant standards shall be carried out. Charges for these shall be deemed to be included in the equipment price

2. The manufacturer has to carry out all the tests as per the approved Quality Plan

18.0 COMMISSIONING CHECKS/TESTS:

After installation of breaker, power and Control wiring and connections, vendor shall perform commissioning checks as listed below to verify proper operation of switchgear / panels and correctness of all equipment in all respects. In addition, the vendor shall carry out all other checks and tests recommended by the manufacturers.

General

1. Check for any physical damage

2. Check tightness of all bolts, clamps and connecting terminals

3. Check earth connections.

4. Check cleanliness of insulators and bushings

5. Check heaters are provided or not

6. H.V. test on complete switchboard with CT & breaker in position.

7. Check all moving parts are properly lubricated.

8. Check for alignment of bus bars with the insulators to ensure alignment and fitness of insulators.
9. Check for interchangeability of breakers.
10. Check continuity and IR value of space heater.
11. Check earth continuity for the complete switchgear board.

Circuit Breakers

1. Check alignment of trucks for free movement.
2. Check correct operation of shutters.
3. Check slow closing operation (if provided)
4. Check control wiring for correctness of connections, continuity and IR values.
5. Manual operation of breakers completely assembled.
6. Power closing / opening operation, manually and electrically at extreme condition of control supply voltage.
7. Closing and tripping time.
8. Trip free and anti-pumping operation.
9. IR values, resistance and minimum pick up voltage of coils.
10. Simultaneous closing of all the three phases.
11. Check electrical and mechanical interlocks provided.
12. Checks on spring charging motor, correct operation of limit switches and time of charging
13. All functional checks.

Cubicle Wiring

1. Check all switch developments.
2. It should be made sure that the wiring is as per relevant drawings. All interconnections between panels shall similarly be checked.
3. All the wires shall be Insulation tested to earth at 1kV DC.
4. Functional checking of all control circuit e.g. closing, tripping interlock, supervision and alarm circuit including proper functioning of component / equipment.
5. Check ferruling, terminations, and connections.
6. Wire ducting.
7. Gap sealing and cable bunching.

Note: This is only an indicative list. Drawing of the existing scheme will be provided to successful vendor during detail engineering stage. Party has to work out detail interface, terminal schedule, wiring drawing to match the existing scheme and any new scheme proposed and submits for owner's approval.

19. TRAINING

Vendor shall arrange for imparting training to 03 persons at its manufacturing site or in his own training center if any.

III. CHECKLIST TO BE FILLED BY VENDOR

S.No. Description

1. Compliance of Scope & Technical Specifications.
2. Compliance of Terms & Conditions.

3. Supply of mandatory spares

NOTE: Vendor has to submit the filled above checklist for technical review.

ANNEXURE-II

MANDATORY SPARES: Attached

ANNEXURE-III

QUANTITY BREAKUP: Attached

Annexure-IV

Terms and Conditions:

A. For Supply Part

1. Inspection clause:

- All ACBs shall be subject to inspection at manufacturer's works as per approved Quality Plan .
- PDI clause shall be applicable.
- Final inspection shall be carried out at NSPCL store after receipt and before installation.

2. Guarantee/ warranty Clause:

All supplied ACBs and associated accessories shall be guaranteed against manufacturing defects and poor workmanship for a period of 12 months from the date of successful commissioning .

3. PBG Clause: @ 5% of total PO value.

4. Fitment Guarantee:

- All new ACBs (800A, 1000A, 1250A) shall be suitable for one-to-one retrofit in existing L&T A CB panels without major modification
- Spare breakers shall also be fully compatible for installation in existing panels.

5. Documents required with Bid for Bid evaluation: Vendors are requested to submit Techno-commercial offer along with endorsed "tender document, nil deviation certificate, SPC and Drawings along with QP acceptance"

6. Documents required along with material Supply:

a. Guarantee/warranty certificate

b. Test certificate from NABL / Govt Approved Lab is to be submitted along with material supply as per technical specifications.

c. Mandatory spares list and recommended spares with price validity of one year

7. Drawing and QP Approval:

- Vendor shall submit QP, GA drawings, wiring diagrams, terminal schedule within one month of award
- Manufacturing shall start only after approval.

8. Payment Terms:

- 85% of supply portion after receipt and acceptance at site, submission of documents & 5% after submission of PBG.
- 10% after successful commissioning of each retrofit (pro-rata basis).

9. Delivery period and Schedule:

Delivery to be completed preferably within 04 months from receipt of PO. However, the vendor must endeavour to supply material at the earliest.

10. Bid Evaluation Criteria: Bid Evaluation shall be done on Total Value wise.

11. Special Instructions:

a) Items to be quoted strictly, as per Item long text.

b) Any deviations in material specifications have to be clarified prior to bid submission, any clarifications post bid opening will not be acceptable.

c) Type test certificate for similar type of items approved from NABL / Govt Approved Lab is to be submitted along with material supply

d) Routine test is to be conducted as per scope of work and reports are to be submitted along with material

I supply.

e) Third Party Liability Insurance policy to be taken by the Contractor as per GCC

B. For Retrofitting Part

1. Scope Specific Terms and Conditions (if any):

a. Dismantling of existing L&T ACBs.

b. Supply, retrofitting, testing and commissioning of new 800A, 1000A & 1250A ACBs

c. Functional testing including manual & electrical operation, interlocks, IR values, trip-free mechanism, anti-pumping, etc.

d. Successful load trial of 1 month required for completion

2. General Terms and Conditions

1. It is very urgent nature of jobs, so, workers of agency should be available at site at a round the clock basis.

2. Party shall visit site before quoting to understand the quantum, scope & site conditions.

3. All other related works with breaker retrofitting will be in the scope of the contractor.

3. Mobilization

Party has to mobilize the manpower and all machineries with tools & Tackles as per instruction of EIC

4. NSPCL Inputs

1. 3-phase, 4 wire AC supply will be arranged by NSPCL free of cost.

2. Existing scheme drawings shall be provided during detail engineering.

3. Shutdown schedule will be informed by NSPCL in advance

4. Vehicle for shifting ACB and accessories from PP2 stores to job location will be arranged by NSPCL. However safety of material during shifting to be ensured by the vendor.

5. Performance Guarantee:

Performance guarantee/ defect liability period will be 12 months from date of commissioning. G/W is limited to the work done /spares in vendor's scope.

5. Contractor's Inputs

Party's scope of supply:

1. All tools & tackles required for execution shall be arranged by vendor

2. All the testing equipment for ACB shall be arranged by the contractor. All the test equipment must have

valid calibration certificate from Govt. approved Lab. / NABL accredited.

3. All T&P, testing equipment, special T&P for dismantling and commissioning etc. will be arranged by the contractor. Vendor has to submit validity certificate of T&P as applicable from.

4. Suitable Skilled and technical manpower for carrying the activities in 24hr basis.

6. Scrap:

Dismantled materials to be handled as per EIC instruction.

7. Safety Clauses

1. Contractor has to provide necessary safety equipment/T&P to their workmen & ensure safety measures during execution.

2. The contractor shall be fully responsible for the safety of his workers during loading/unloading of the material and duration of the retrofitting work.

3. All tools, safety belts, safety shoes, helmet, lifting jacks of suitable capacity, ropes, D-shackle & Slings shall be in the scope of the contractor and shall have valid test certificate.

4. Party shall have to furnish test certificates of the slings, chain blocks etc. for checking by NSPCL safety department.

8. Penalty Clause

A. In case the work is delayed in part or in full as per above time schedule, the compensation for delay will be payable by the vendor in accordance with the provision of NSPCL General Conditions of Contract.

B. The party should provide personal protective equipment's to his employees / workers and in the event of non-providing the same by the date specified in the contract, it may be provided by NSPCL at Contractor's risk and cost.

9. Statutory and others:

The people working under the said contract shall be covered by ESI, PF & other statutory compliances as may be required for working in the state of Chhattisgarh.

10. Special Terms and Conditions

1. Contractor shall coordinate all the activities at the time of loading and unloading of the ACB & accessories in NSPCL PP#2 premises at the time of transferring the material to job location.

2. All materials supplied shall be of reputed make and confirming to respective IS for the specific use. Prior approval for make of items to be taken from EIC

3. The dates of actual shutdown shall be informed to the party, 15 days in advance.

4. It may so happen that all the jobs as mentioned may not be executed at a stretch, party has to be prepared accordingly.

5. Accordingly party has to mobilize the site as per instruction of EIC.

6. If the contractor wants to sublet then prior written approval shall be taken from the EIC.

11. Wage Escalation clause: NA

12. Performance Guarantee and Security deposit

1. Security deposit: NA

2. Performance Bank guarantee shall be submitted by the vendor which will be released after completion of 12 months from date of commissioning of equipment's.

13. Quantity Variation Clause:

+/- 20% or As per GCC.

14. Period of Contract Validity:

Contract will be valid for a period of 24 months from the date of start and will be extended up to SIX months on same rate, terms & conditions.

15. Period of Contract Execution: As per Period of contract validity

16. Tentative Date of Start: As per EIC Instruction

17. Time Extension Clause: Extended up to SIX months on same rate, terms & conditions

18. Quality and Inspection Clause: As per scope of works

19. Indemnity Bond Clause: NA

20. Freight Clause: NA

21. Accommodation Clause: Accommodation shall be in the party's scope

22. Travel Charges: Travel shall be in the party's scope

23. Local Conveyance Clause: local transport shall be in the party's scope

24. Contract Agreement: As per GCC

25. List of Attachments: As per scope of works.

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5. 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 (other than EMD and signed Integrity Pact - which can be submitted within 5 days of bid opening) 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.

[यह बिड सामान्य शर्तों के अंतर्गत भी शासित है /This Bid is also governed by 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 कार्यवाई 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---