Event Details				
Event No:SPMCIL/Currency Note Press Nashik/Technical/15/23-24/ET/65[AUTOMATIC POWER FACTOR CORRECT]				Event Status
Trade:Goods				Event Activated
Description of Event:AUTOMATIC POWER FACTOR CORRECT				Activities
Mode:E-Tender_HTML	Type Of Tender: Open	Bid Submission: Eventwise	Public Opening: YES	Published on: 03-08-2023 10:50:25.85 Activated on:03-08-2023 10:56:48.56 Tender Extended on: - Tender Opened on: - Price Opened on: - Event Cancelled on: -
EMD:480200.00 Tender Fee:Not Applicable		Document Upload:YES Coverwise Document Upload:YES		

Online Pre Bid Meeting	Bidding Period	Tender Opening Period	Price Bid Opening Date
Not Applicable	03.08.2023-11:00 AMTo05.09.2023-02:30 PM	05.09.2023-02:45 PMTo05.09.2024-02:45 PM	-

List Of Tender Document		
SL. No.	Document Details	Document Type
1	23-24-ET-65[AUTOMATIC POWER FACTOR CORRECT]-172128-NIT-1258614-6000018376S.pdf	NIT

Vendor Document Upload Checklist For Technical COVER	
SL. No.	Document Details
1	ALL THE REQUIRED DOCUMENTS AS PER SECTION IX ELEGIBILITY CRITERIA AS PER TENDER NO 6000018376

2	DULY SEALED AND SIGNED TENDER DOCUMENTS AS PER NIT UPLOADED TENDER DOCUMENTS NO. 6000018376
3	CONFIRMATION OF TECHNICAL SPECIFICATION AS PER SECTION VII OF THE TENDER DOCUMENTS NO.6000018376
4	CONFIRMATION OF DELIVERY SCHEDULE AS PER CLAUSE NO.01 OF SECTION VI OF THE TENDER DOCUMENTS NO.6000018376
5	CONFIRMATION OF PRICE VALIDITY FOR 120 DAYS FROM OPENING OF TECHNICAL BID IN FORM AS PER SECTION X OF TENDER DOCUMENTS NO.6000018376
6	THE FIRM HAS SUBMIT BID SECURITY DECLARATION AS PER ANNEXURE-I PROVIDED IN NIT DOCUMENTS TO BE PARTICIPATED UNDER MSME REGISTERATION

Vendor Document Upload Checklist For Price COVER	
SL. No.	Document Details
1	BIDDER HAS TO SUBMIT DULY FILLED SIGNED AND SEALED PRICE SCHEDULE IN THE FORMAT AS PER SECTION XI OF THE TENDER DOCUMENTS

Tender Committee Members						
Name	Designation	Office	Department	Email	Mobile No.	Encryption public key expiry date
KIRAN KUMAR VUPPALA	Jt. General Manager	Currency Note Press Nashik	Purchase,HR,Technical,Finanace,IT,Marketing,R and D,Others	V.Kirankumar@spmcil.com	9096000418	2024-03-03 00:00:00.0
TUSHARKUMAR PRAKASH MAHAJAN	DGM	Currency Note Press Nashik	IT	tushar.mahajan@spmcil.com	8275022966	2024-03-03 00:00:00.0

Common Terms		
SECTION VI : LIST OF REQUIREMENT		
Sl.No	Terms	Component
1	ACCEPTANCE OF SECTION VI : LIST OF REQUIREMENT AS PER TENDER NO.6000018376	Agree Only
SECTION VII : TECHNICAL SPECIFICATION		
Sl.No	Terms	Component
1	ACCEPTANCE OF SECTION VII : TECHNICAL SPERCIFICATION AS PER TENDER NO.6000018376	Agree Only
SECTION VIII : QUALITY CONTROL REQUIREMENT		
Sl.No	Terms	Component
1	ACCEPTANCE OF SECTION VIII : QUALITY CONTROL REQUIREMENT AS PER TENER NO.6000018376	Agree Only
SECTION IX : QUALIFICATION OR ELIGIBILITY CRITERIA		
Sl.No	Terms	Component
1	Experience and past performance: The bidder should have experience of having successfully completed an order for Supply, Installation, Testing Commissioning of APFC panel with associated items of similar or higher specification in any one year during last 5 years ending 31.03.2022.	Agree Only

2	Capacity and Capability: The bidder should having capacity of successfully completing order for Supply, Installation, Testing Commissioning of APFC panel with associated items of similar or higher specification. Note: All experience, past performance and capacity capability related data should be certified by the authorized signatory of the bidder firm.	Agree Only
3	Financial Standing: (a) Average Annual turnover of the bidder firm should be more than Rs. 96,04,000/- during last three years i.e. 2019-2020, 2020-2021 and 2021-2022. (b) Bidder firm should not have suffered any financial loss for more than one year during the last three financial years i.e. 2019-2020, 2020-2021 and 2021-2022. (c) The net worth of the firm should not be negative in FY 2021-22 and should not have eroded by more than 30% in the last three financial years i.e. 2019-2020, 2020-2021 and 2021-2022.	Agree Only
4	The bidder should submit Power of Attorney of the Authorized Signatory for signing the bid, entering in to contract, if awarded and for any other correspondences	Agree Only
5	The bidders shall enclose attested copy of GST Registration (in REG 06) & attested copy of PAN.	Agree Only

6	The bidder should give undertaking/declaration that they have read and understood all the terms & conditions of tender documents and submitting unconditional acceptance to all terms & conditions.	Agree Only
7	The bidder should give a declaration that they have not been black-listed/ debarred for dealing by Government of India in the past.	Agree Only
8	The firm should attach valid authorization certificate for offer product.	Agree Only
9	The interested bidder must be holding valid electrical contractor s licence/electrical supervisor licence issued by the competent authorities (State/Central) and copy of the same shall be enclosed along with the bid.	Agree Only
10	The firm shall attach the detailed product catalogue, certificates for all product along with the quotation.	Agree Only

11	Note:- (i) In support of experience & capability criteria, the bidder has to submit attested copies of P.O s, Experience certificates issue by customers. (ii) All experience, past performance & capacity/ capability related/data should be certified by the authorized signatory of the bidder firm. (iii) All financial standing data such as Balance Sheet, Profit & Loss account statement etc. should be certified by certified accountants e.g. Chartered Accounts or Cost Accountant. Financial statement duly certified by CA for year 2019-2020, 2020-2021 and 2021-2022 to be submitted with UDIN no. Bidder to furnish stipulated documents support of fulfillment of qualifying criteria. Non submission or incomplete submission of documents may lead to rejection of offer.	Agree Only
PRE BID MEETING		
Sl.No	Terms	Component
1	THE DATE AND TIME OF PRE-BID CONFERENCE IS 10:30 AM ON 16.08.2023. THE QUERIES OF THE BIDDERS SHOULD BE REACH AT LEAST TWO DAYS IN ADVANCE. SITE VISIT CAN BE DONE PRIOR TO PRE-BID CONFERENCE ONLY	Agree Only

Lot Details						
Lot Name 1	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 400 KVAR APFC Panel	1.0NO	INR	-	-

Lot No: 1 Specific Terms

Lot No: 1 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 2	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 125 KVAr Static VAR Generator	1.0NO	INR	-	-

Lot No: 2 Specific Terms

Lot No: 2 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 3	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 75A Neutral Current Compensator	1.0NO	INR	-	-

Lot No: 3 Specific Terms

Lot No: 3 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No

b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 4	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 3½C x 300 sq.mm XLPE Al. cable	15.0MTR	INR	-	-

Lot No: 4 Specific Terms

Lot No: 4 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 5	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 500 KVAR APFC Panel	1.0NO	INR	-	-

Lot No: 5 Specific Terms

Lot No: 5 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 6	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 50A Neutral Current Compensator	1.0NO	INR	-	-

Lot No: 6 Specific Terms

Lot No: 6 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 7	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 3½CX400 sq.mm XLPE Al. Cable	15.0MTR	INR	-	-

Lot No: 7 Specific Terms

Lot No: 7 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No

b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 8	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 150 KVAR APFC Panel	2.0NO	INR	-	-

Lot No: 8 Specific Terms

Lot No: 8 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 9	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 50A Neutral Current Compensator	2.0NO	INR	-	-

Lot No: 9 Specific Terms

Lot No: 9 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 10	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 60A Smart Power Conditioner	2.0NO	INR	-	-

Lot No: 10 Specific Terms

Lot No: 10 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 11	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 3½C X 120 sq.mm XLPE Al. Cable	30.0MTR	INR	-	-

Lot No: 11 Specific Terms

Lot No: 11 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No

b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 12	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 700 KVAR APFC Panel	1.0NO	INR	-	-

Lot No: 12 Specific Terms

Lot No: 12 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 13	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 500 KVAR APFC Panel	2.0NO	INR	-	-

Lot No: 13 Specific Terms

Lot No: 13 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 14	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 125 KVAr Static VAR Generator	3.0NO	INR	-	-

Lot No: 14 Specific Terms

Lot No: 14 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 15	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 3½C X 400 sq.mm XLPE Al. Cable	50.0MTR	INR	-	-

Lot No: 15 Specific Terms

Lot No: 15 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No

b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 16	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 50A Neutral Current Compensator	2.0NO	INR	-	-

Lot No: 16 Specific Terms

Lot No: 16 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 17	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 3½C X 70 sq.mm XLPE Al. Cable	15.0MTR	INR	-	-

Lot No: 17 Specific Terms

Lot No: 17 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 18	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 100 KVAR APFC Panel	1.0NO	INR	-	-

Lot No: 18 Specific Terms

Lot No: 18 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 19	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 200KVAR APFC Panel	1.0NO	INR	-	-

Lot No: 19 Specific Terms

Lot No: 19 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No

b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 20	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 300KVAR APFC Panel	1.0NO	INR	-	-

Lot No: 20 Specific Terms

Lot No: 20 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 21	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 500KVAR APFC Panel	1.0NO	INR	-	-

Lot No: 21 Specific Terms

Lot No: 21 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 22	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 150A Smart Power Conditioner	2.0NO	INR	-	-

Lot No: 22 Specific Terms

Lot No: 22 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 23	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 125 KVAr Static VAR Generator	3.0NO	INR	-	-

Lot No: 23 Specific Terms

Lot No: 23 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No

b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 24	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 3½C X 120 sq.mm XLPE Al. Cable	15.0MTR	INR	-	-

Lot No: 24 Specific Terms

Lot No: 24 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 25	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 3½C X 240 sq.mm XLPE Al. Cable	30.0MTR	INR	-	-

Lot No: 25 Specific Terms

Lot No: 25 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

Lot Details						
Lot Name 26	Category	Lot Description	Quantity/UOM	Currency	Ceiling Price	Estimated Price
AUTOMATIC POWER FACTOR CORRECTION	Electrical Goods/Equipment	Supply of 3½C X 400 sq.mm XLPE Al. Cable	15.0MTR	INR	-	-

Lot No: 26 Specific Terms

Lot No: 26 Price Parameters/ Formula					
Variable Name	Name of Parameters	Sub Total (Example: a+b)	Type of Component	Places of decimal	Lumpsum
a	BASIC PRICE	-	Numeric Text Only	2	No
b	FREIGHT AND INSURANCE CHARGES	-	Numeric Text Only	2	No
c	PACKING AND FORWARDING CHARGES	-	Numeric Text Only	2	No
d	GST AMOUNT (abc)	-	Numeric Text Only	2	No
Price formula: a+b+c+d (Up to 2 Decimal Place)					

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PR Number	PR Date	Indenter	Department
12004453	02.09.2022	A.M. (T.O.)	ELECTRICAL

Not Transferable

Security Classification:

TENDER DOCUMENT FOR PURCHASE OF: JOB WORK OF S.I.T.C.OF LV THYRISTOR SWITCHED AUTOMATIC POWER FACTOR CORRECITON PANEL WITH STATIC VAR GENERATOR, NEUTRAL CURRENT COMPENSATOR AND SMART POWER CONDITIONER AT VARIOUS SUBSTATIONS IN CNP.

Tender Number: 6000018376

This Tender Document Contains_____Pages.

Details of Contact person in SPMCIL regarding this tender:

Name: V KIRAN KUMAR
Designation: Jt. General Manager (M)
Address: CNPN (Currency Note Press, Nashik)
India

KIRAN KUMAR VUPPALA
Digitally signed by KIRAN KUMAR VUPPALA
Date: 2023.08.02 15:54:05 +05'30'

SECURITY PRINTING AND MINTING CORPORATION OF INDIA LIMITED

Tender Number:6000018376

Section1: Notice Inviting Tender (NIT)

6000018376 /

(SPMCIL's Tender SI No.) (Date)

1. Sealed tenders are invited from eligible and qualified tenderers for supply of following goods & services:

Schd. No.	Brief Description of Goods/services	Quantity (with unit)	Earnest Money (In Rupee)	Remarks
1	Supply of 400 KVAR APFC Panel.	1.000 nos	Rs. 4,80,200/- Ruppes Four Lakhs Eighty Thousand Two Hundred only	
2	Suppy of 125 KVAr Static VAR Generator	1.000 nos		
3	Supply of 75A NeutralCurrent Compensator	1.000 nos		
4	Supply of 3½C x 300 sq.mm XLPE Al. cable	15.000 mtr		
5	Supply of 500 KVAR APFC Panel	1.000 nos		
6	Supply of 50A NeutralCurrent Compensator	1.000 nos		
7	Supply of 3½CX400 sq.mm XLPE Al. Cable	15.000 mtr		
8	Supply of 150 KVAR APFC Panel.	2.000 nos		
9	Supply of 50A NeutralCurrent Compensator	2.000 nos		

Schd. No.	Brief Description of Goods/services	Quantity (with unit)	Earnest Money (In Rupee)	Remarks
10	Supply of 60A Smart Power Conditioner	2.000 nos		
11	Supply of 3½C X 120 sq.mm XLPE Al. Cable	30.000 mtr		
12	Supply of 700 KVAR APFC Panel.	1.000 nos		
13	Supply of 500 KVAR APFC Panel	2.000 nos		
14	Supply of 125 KVAr Static VAR Generator	3.000 nos		
15	Supply of 3½C X 400 sq.mm XLPE Al. Cable	50.000 mtr		
16	Supply of 50A NeutralCurrent Compensator	2.000 nos		
17	Supply of 3½C X 70 sq.mm XLPE Al. Cable	15.000 mtr		
18	Supply of 100 KVAR APFC Panel.	1.000 nos		
	Supply of 200KVAR APFC Panel	1.000 nos		

SECURITY PRINTING AND MINTING CORPORATION OF INDIA LIMITED

Tender Number:6000018376

Schd. No.	Brief Description of Goods/services	Quantity (with unit)	Earnest Money (In Rupee)	Remarks
19				
20	Supply of 300KVAR APFC Panel	1.000 nos		
21	Supply of 500KVAR APFC Panel	1.000 nos		
22	Supply of 150A Smart Power Conditioner	2.000 nos		
23	Supply of 125 KVAr Static VAR Generator	3.000 nos		
24	Supply of 3½C X 120 sq.mm XLPE Al. Cable	15.000 mtr		
25	Supply of 3½C X 240 sq.mm XLPE Al. Cable	30.000 mtr		
26	Supply of 3½C X 400 sq.mm XLPE Al. Cable	15.000 mtr		

Type of Tender (Two Bid/ PQB/ EOI/ RC/ Development/ Indigenization/ Disposal of Scrap/ Security Item etc.)	TWO-BID National Competetive Bid
Dates of sale of tender documents:	AS PER MSTC E-PROCUREMENT PORTAL
Place of sale of tender documents	AS PER MSTC E-PROCUREMENT PORTAL
Closing date and time for receipt of tenders	AS PER MSTC E-PROCUREMENT PORTAL
Place of receipt of tenders	AS PER MSTC E-PROCUREMENT PORTAL
Time and date of opening of tenders	AS PER MSTC E-PROCUREMENT PORTAL
Place of opening of tenders	AS PER MSTC E-PROCUREMENT PORTAL
Nominated Person/ Designation to Receive Bulky	V KIRAN KUMAR

Tenders (Clause 21.21.1 of GIT)	Jt. General Manager (M)

2. Eligibility to participate as per Government of India's Public Procurement (Preference to Make in India) Order 2017 (as amended/ revised) and Ministry of Finance, Department of Expenditure, Public Procurement Division's Orders (Public Procurement 1, 2 and 3) F.No.6/18/2019-PPD dated 23rd/ 24th July 2020 (or any further amendments thereof) regarding eligibility of bidders from neighboring countries shall apply to this tender.
3. Please note that SPMCIL reserves its right to grant Purchase preferences in accordance with Government of India#s Public Procurement (Preference to Make in India) Order 2017 (as amended/ revised) and Public Procurement Policy for Micro and Small Enterprises (MSEs) Amendment Order, 2018 (as amended/ revised).
4. In case NIT/ SIT provide for uploading of bids to nominated E-Procurement portal, bidders must upload their bids along with scanned copies as required enclosures (including proofs of cost of Tender Documents and EMD as applicable - unless an online payment gateway is provided in the instruction) as per instructions given in this regard. Original copies of such scanned uploaded required enclosures must reach in physical form within the date and place as provided in such instructions, otherwise their uploaded bid, would be declared as unresponsive.
5. The tender documents are not transferable.
6. The bidder, their affiliates, or subsidiaries # including subcontractors or suppliers for any part of the contract # should not stand declared ineligible/ blacklisted/banned/ debarred by any Government Agency anywhere in the world, for participating in its tenders, under that country's laws or official regulations. A declaration to this effect shall be submitted by the bidder in the Tender Form (Section X).
7. SUBMISSION OF TENDER: As per E-Procurement Portal. Bidders must upload their bids along with scanned copies as required enclosures (including proofs of cost of Tender Documents and EMD as applicable - unless an online payment gateway is provided in the instruction) as per instructions given in this regard. Original copies of such scanned uploaded required enclosures must reach in physical form within the date and place as provided in such instructions, otherwise their uploaded bid, would be declared as unresponsive.
8. In case of order material in your favour for Rs. 2,50,000/- or above, the supplier shall furnish the performance security amount/ Security Deposit(S.D) (10% of the ordered value) after issue of Purchase order by CNP, Nashik Road in favour of SPMCIL, Unit CNP, payable at Nashik. The performance security will be return back without any interest to successful bidder after the completion of all contractual obligations.
9. The bidders participating with MSME registration certificate has to submit Bid Security Declaration as per Annexure-1. Non submission of same will be treated as non responsive.
10. No exemption will be given for deposition of performance guarantee to any DIC/SSI/MSE/NSIC registered firm.
11. Any dispute in the matter will be under Nashik (Maharashtra) Jurisdiction only.
12. Right of acceptance: - The Chief General Manager, Currency Note Press reserves the right to reject any or all tenders without assigning any reason thereof.
13. Clarification of Tender Documents: A Bidder requiring any clarification or elucidation on any issue of the tender documents may take up the same with SPMCIL in writing or by fax / e-mail/ telex not later than twenty one days (unless otherwise specified in the SIT) prior to the prescribed date of submission of tender.
14. Any queries regarding the tender you may please contact at 0253-2454493 or 2461318. E-mail-purchase.cnpnashik@spmcil.com.

.....

.....
(Name Designation, Adress telephone number etc
of the officer signing the document)

For and on behalf of
.....

Section II: General Instructions to Tenderers (GIT)

Part 1: General Instructions Applicable to all type of Tenderers

Please CLICK the link for further details
https://spmcil.com/uploaddocument/GIT/new.pdf

Bidders are requested to download 61 pages by clicking the above given link and submit the same duly stamped and signed along with tender document. Unsigned/stamped printouts of these pages are not acceptable.

Section III: Specific Instructions to Tenderers (SIT)

The following Special Instructions to Tenderers will apply for this purchase. These special instructions will modify/ substitute/ supplement the corresponding General Instructions to Tenderers (GIT) incorporated in Section II. The corresponding GIT clause numbers have also been indicated in the text below:

In case of any conflict between the provision in the GIT and that in the SIT, the provision contained in the SIT shall prevail.

(Clauses of GIT listed below include a possibility for variation in their provisions through SIT. There could be other clauses in SIT as deemed fit.)

Sr No	GIT Clause No.	Topic	SIT Provision
01	3.	ELIGIBLE TENDERERS	Applicable
02	3.4	ELIGIBLE GOODS AND SERVICES (ORIGIN OF GOODS)	Not Applicable
03	6.1	THE TENDER DOCUMENTS INCLUDES:	Applicable
04	8	PREBID CONFERENCE	Applicable. The date & time of pre-bid conference is 10:30 am on 16.08.2023. The queries of the bidders should be reach at least two days in advance. Site visit can be doene prior to pre-bid conference only.
05	9	TIME LIMIT FOR RECEIVING REQUEST FOR CLARIFICATION OF TENDER DOCUMENTS	No further queries are entertained and site visit after pre-bid conferecne.
06	10.1	THE TECHNICAL BID TO BE SUBMITTED BY TENDERER SHALL CONTAIN THE FOLLOW	No Change
07	11.2	TENDER CURRENCY	Supplier is requested to quote price within 2 Decimal place.Quotation with price quote beyond 2 decimal place is ignored.
08	12.1	TENDER PRICES	Applicable
09	12.2, 33, 36.1	SCHEDULE WISE EVALUATION	Not Applicable
10	12.6	GST DETAILS	No Change
11	14	PVC CLAUSE & FORMULA	Not Applicable
12	14.4 TO 14.7	EXCHANGE RATE VARIATION (ERV)	Not Applicable
13	16.2 A) TO C)	DOCUMENTS ESTABLISHING TENDERER#S ELIGIBILITY AND QUALIFICATIONS	Applicable
14	18.4, 18.5	EARNEST MONEY DEPOSIT (EMD)	Applicable;(Bidder has to submit Bid Security Declaration)
15	19	TENDER VALIDITY	120 Days from the date of opening of tender
16	20.4	NUMBER OF COPIES OF TENDERS TO BE SUBMITTED	Single Copy
17	20.8	TWO BID SYSTEM	Applicable
18	20.9	E-PROCUREMENT	Applicable. Submission of Documents as per NIT Clause No. 07

Sr No	GIT Clause No.	Topic	SIT Provision
19	34. AND 35.1	COMPARISON ON CIF DESTINATION BASIS	FOR CNP Nashik Road Basis
20	35.2 TO 35.6	ADDITIONAL FACTORS FOR EVALUATION OF OFFERS AND PREFERENTIAL SCHEMES	APPLICABLE
21	43	PARALLEL CONTRACTS	NOT APPLICABLE
22	44.1	SERIOUS MISDEMEANOURS	No Change
23	44.3	INTEGRITY PACT	Not Applicable
24	45.1	NOTIFICATION OF AWARD	No Change
25	50.	APPLICABILITY OF ADDITIONAL GIT FOR RATE CONTRACTS	Not Applicable
26	51.	APPLICABILITY OF ADDITIONAL GIT FOR PQB TENDERS	Not Applicable
27	52.	APPLICABILITY OF ADDITIONAL GIT FOR TENDERS INVOLVING SAMPLES	Not Applicable
28	53.	APPLICABILITY OF ADDITIONAL GIT FOR EOI TENDERS	Not Applicable
29	54.	APPLICABILITY OF ADDITIONAL GIT FOR TENDERS FOR DISPOSAL OF SCRAP	Not Applicable
30	55.	APPLICABILITY OF ADDITIONAL GIT FOR DEVELOPMENT/ INDIGENIZATION TENDER	Not Applicable

Section IV: General Conditions of Contract (GCC)

Please CLICK the link for further details
https://spmcil.com/uploaddocument/GCC/new.pdf

Bidders are requested to download 36 pages by clicking the above given link and submit the same duly stamped and signed along with tender document. Unsigned/stamped printouts of these pages are not acceptable.

Section V: Special Conditions of Contract (SCC)

The following Special Conditions of Contract (SCC) will apply for this purchase. The corresponding clauses of General Conditions of Contract (GCC) relating to the SCC stipulations have also been incorporated below. These Special Conditions will modify/ substitute/ supplement the corresponding (GCC) clauses.

Whenever there is any conflict between the provision in the GCC and that in the SCC, the provision contained in the SCC shall prevail.

(Clauses of GCC listed below include a possibility for variation in their provisions through SCC. There could be other clauses in SCC as deemed fit)

Sl.No.	GCC Clause No.	Topic	SCC Provision
01	1.2	ABBREVIATIONS:	No Change
02	6.1, 6.3 & 6.5	PERFORMANCE BOND/ SECURITY	10 % of the total contract price valid for 60 days beyond completion of contractual obligations including warranty period: if any.
03	8.2	PACKING AND MARKING	Not Applicable
04	9	INSPECTION AND QUALITY CONTROL	Not Applicable
05	11.2	TRANSPORTATION OF DOMESTIC GOODS	No Change
06	12.	INSURANCE	No Change
07	14.1	INCIDENTAL SERVICES	Not Applicable
08	15	DISTRIBUTION OF DESPATCH DOCUMENTS FOR CLEARANCE/ RECEIPT OF GOODS	Not Applicable
09	16.2, 16.4	WARRANTEE CLAUSE	Applicable: 24 months from the date of acceptance and completion of work.
10	19.3	OPTION CLAUSE	The buyer reserves the right to increase/decrease the supply order quantity by 25% at the same terms and conditions during the Currency of the contract and supplier is bound to accept it.
11	20.1	PRICE ADJUSTMENT CLAUSE	Not Applicable
12	21.	TAXES AND DUTIES	1) If the tenderer fails to include taxes and duties in the tender, no claim thereof will be considered by purchaser afterwards. 2) TDS will be deducted as per prevailing rates.
13	22.	TERMS AND MODE OF PAYMENTS	100% Payment will be made within 30 days after receipt of suitability and acceptance of material. The payment will be made through NEFT/RTGS mode only
14	24.1	QUANTUM OF LD	Applicable (The Applicable GST if LD is levied will be collected from the firm's invoice).
15	25.1	BANK GUARANTEE AND INSURANCE FOR MATERIAL LOANED TO CONTRACTOR	Not Applicable
16	33.1	RESOLUTION OF DISPUTES	No Change
17	36.3.2,36.3.9	DISPOSAL/ SALE OF SCRAP BY TENDER	Not Applicable

Section VI: List of Requirements

Schedule No.	Breif Description of goods and services (Related Specifications etc.are in Section-VII)	Accounting Unit	Quantity	Amount of Earnest Money	Remark
1	Supply of 400 KVAR APFC Panel.	nos	1.000	442000.00INRFOUR LAKH EIGHTY THOUSAND TWO HUNDRED ONLY	
2	Suppy of 125 KVAr Static VAR Generator	nos	1.000		
3	Supply of 75A NeutralCurrent Compensator	nos	1.000		
4	Supply of 3½C x 300 sq.mm XLPE Al. cable	mtr	15.000		
5	Supply of 500 KVAR APFC Panel	nos	1.000		
6	Supply of 50A NeutralCurrent Compensator	nos	1.000		
7	Supply of 3½CX400 sq.mm XLPE Al. Cable	mtr	15.000		
8	Supply of 150 KVAR APFC Panel.	nos	2.000		
9	Supply of 50A NeutralCurrent Compensator	nos	2.000		
10	Supply of 60A Smart Power Conditioner	nos	2.000		
11	Supply of 3½C X 120 sq.mm XLPE Al. Cable	mtr	30.000		
12	Supply of 700 KVAR APFC Panel.	nos	1.000		
13	Supply of 500 KVAR APFC Panel	nos	2.000		
14	Supply of 125 KVAr Static VAR Generator	nos	3.000		
15	Supply of 3½C X 400 sq.mm XLPE Al. Cable	mtr	50.000		
16	Supply of 50A NeutralCurrent Compensator	nos	2.000		

Schedule No.	Breif Description of goods and services (Related Specifications etc.are in Section-VII)	Accounting Unit	Quantity	Amount of Earnest Money	Remark
17	Supply of 3½C X 70 sq.mm XLPE Al. Cable	mtr	15.000		
18	Supply of 100 KVAR APFC Panel.	nos	1.000		
19	Supply of 200KVAR APFC Panel	nos	1.000		
20	Supply of 300KVAR APFC Panel	nos	1.000		
21	Supply of 500KVAR APFC Panel	nos	1.000		
22	Supply of 150A Smart Power Conditioner	nos	2.000		
23	Supply of 125 KVAr Static VAR Generator	nos	3.000		
24	Supply of 3½C X 120 sq.mm XLPE Al. Cable	mtr	15.000		
25	Supply of 3½C X 240 sq.mm XLPE Al. Cable	mtr	30.000		
26	Supply of 3½C X 400 sq.mm XLPE Al. Cable	mtr	15.000		

1. Required Delivery Schedule: The successful bidder has to work to be completed within 06 months from the date of issue of Purchase Order.
2. Required Terms of Delivery: - FOR Currency Note Press, Nashik Road including stacking and unloading properly at site by the firm as shown by our representative.
3. Destination: - CURRENCY NOTE PRESS, JAIL ROAD, NASHIK ROAD 422 101
4. Preferred Mode of Transportation: - BY ROAD.
5. Bid Validity: 120 days from due date of tender.
6. Bidder have to open the link provided in Section II, IV & XII onwards and take print out of all the documents available and then sign and stamp each and every paper and submit along with the technical tender.
7. All the copies of tenders shall be complete in all respects with all their attachments/enclosures duly numbered.
8. RISK PURCHASE:
(a) If the supplier after submission of tender and due acceptance of the same, i.e. after placement of contract fails to abide by the terms & conditions of these tender documents, or fails to supply the deliverables as per delivery schedule given or at any time repudiates the contract, the purchaser shall have the right to Invoke the Security-cum-Performance Guarantee if deposited by the supplier and procure stores/take services from other agencies at the risk & consequence of the supplier. The cost difference between the alternative arrangement and supplier tendered value will be recovered from the supplier along with other incidental charges.
(b) In case of supply/job work through alternative sources at lower price, if any, then no benefit on this account will be passed on to the supplier.
(c) For all the purpose the award of contract will be considered acceptance of tender and formal contract pending signing of agreement. Supplier has to abide by all the terms and conditions of tender.
9. Warranty: The firm shall be Warranty for minimum Two year for the acceptance and completion of all job work.
10. Bank Details: Copy of Cancelled Cheque or the Bank details on the letter head signed by Authorized signatory to be submitted.

ANNEXURE-II (Details of location wise list of substation and related items)		
Sr. No.	Item Description	Qty
A)	**SUBSTATION 01:**	
I)	**TRANSFORMER NO: 01**	
1.	400kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor Shunt Capacitor System along with Power Factor Controller and Series Reactor confirming to relevant IS standard	01 Nos.
2.	Static VAR Generator 125 KVAr, 480VAC, 3Ph.	01 Nos
3.	Neutral Current Compensator	01 Nos.
4.	Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade,Armoured XLPE Cable of Size 3 ½ Core, 300 Sq.mm	15 Mtr
II)	**TRANSFORMER NO: 02**	
1.	500kVAr@ 440V, 3Ph, 50Hz, Auto Switched ThyristorShunt Capacitor System along with Power Factor Controller and Series Reactor confirming to relevant IS standard	01 Nos.
2.	Neutral Current Compensator	01 Nos.
3.	Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade,Armoured XLPE Cable of Size 3 ½ Core, 400 Sq.mm	15 Mtr
B)	**SUBSTATION 02:**	
I)	**TRANSFORMER NO: 01**	
1.	150kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor Shunt Capacitor System along with Power Factor Controller and Series Reactor confirming to relevant IS standard	01 Nos.
2.	Neutral Current Compensator	01 Nos.
3.	Smart Power Conditioner 60 Amp, 400V AC/440VAC, 3Ph,4 wire.	01 Nos.
4.	Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade,Armoured XLPE Cable of Size 3 ½ Core, 120 Sq.mm	15 Mtr
II)	**TRANSFORMER NO: 03**	
1.	150kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor Shunt Capacitor System along with Power Factor Controller and Series Reactor confirming to relevant IS standard	01 Nos.
2.	Neutral Current Compensator	01 Nos.
3.	Smart Power Conditioner 60 Amp, 400VAC/440VAC, 3Ph, 4 wire.	01 Nos.
4.	Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade,Armoured XLPE Cable of Size 3 ½ Core, 120 Sq.mm	15 Mtr

C)	**SUBSTATION 03:**	
I)	**TRANSFORMER NO: 01**	
1.	700kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor Shunt Capacitor System along with Power Factor Controller and Series Reactor confirming to relevant IS standard	01 Nos.
2.	Static VAR Generator 125 KVAr, 480VAC, 3Ph.	01 Nos
3.	Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade,Armoured XLPE Cable of Size 3 ½ Core, 400 Sq.mm	20 Mtr
II)	**TRANSFORMER NO: 03**	
1.	500kVAr@ 440V, 3Ph, 50Hz, Auto Switched ThyristorShunt Capacitor System along with Power Factor Controller and Series Reactor confirming to relevant IS standard	01 Nos.
2.	Static VAR Generator 125 KVAr, 480VAC, 3Ph.	01 Nos
3.	Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade, Armoured XLPE Cable of Size 3 ½ Core, 400 Sq.mm	15 Mtr
III)	**TRANSFORMER NO: 03-A**	
1.	500KVAr@ 440V, 3Ph, 50Hz, Auto Switched [Thyristor(LVAS-T)] Shunt Capacitor System along with Power Factor Controller and Series Reactor confirming to relevant IS standard	01 Nos
2.	Static VAR Generator 125 KVAr, 480VAC, 3Ph.	01 Nos
3.	Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade, Armoured XLPE Cable of Size 3 ½ Core, 400 Sq.mm	15 Mtr
D)	**SUBSTATION 04:**	
I)	**TRANSFORMER NO: 02**	
1.	50 Amp Neutral Current Compensator	01 Nos.
II)	**TRANSFORMER NO: 03**	
1.	50 Amp Neutral Current Compensator	01 Nos.
2.	Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade,Armoured XLPE Cable of Size 3 ½ Core, 70 Sq.mm	15 Mtr
E)	**SUBSTATION 05:**	
I)	**TRANSFORMER NO: 01**	
1.	100kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor Shunt Capacitor System along with Power Factor Controller and Series Reactor confirming to relevant IS standard	01 Nos.

2.	Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade,Armoured XLPE Cable of Size 3 ½ Core, 120 Sq.mm	15 Mtr
II)	**TRANSFORMER NO: 02**	
1.	Smart Power Conditioner 150 Amp, 400VAC/440VAC, 3Ph, 4 wire	01 Nos.
III)	**TRANSFORMER NO: 03**	
1.	Smart Power Conditioner 150 Amp, 400VAC/440VAC, 3Ph, 4 wire	01 Nos.
IV)	**TRANSFORMER NO: 04**	
1.	200kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor Shunt Capacitor System along with Power Factor Controller and Series Reactor confirming to relevant IS standard	01 Nos.
2.	Static VAR Generator 125 kVAr,480VAC, 3Ph.	01 Nos
3.	Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade, Armoured XLPE Cable of Size 3 ½ Core, 240 Sq.mm	15 Mtr
V)	**TRANSFORMER NO: 05**	
1.	300kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor Shunt Capacitor System along with Power Factor Controller and Series Reactor confirming to relevant IS standard	01 Nos.
2.	Static VAR Generator 125 kVAr, 480VAC, 3Ph.	01 Nos
3.	Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade, Armoured XLPE Cable of Size 3 ½ Core, 240 Sq.mm	15 Mtr
VI)	**TRANSFORMER NO: 07**	
1.	500kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor Shunt Capacitor System along with Power Factor Controller and Series Reactor confirming to relevant IS standard	01 Nos.
2.	Static VAR Generator 125 kVAr, 480VAC, 3Ph.	01 Nos
3.	Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade, Armoured XLPE Cable of Size 3 ½ Core, 400 Sq.mm	15 Mtr

SECTION VII: TECHNICAL SPECIFICATIONS

01. Supply of 400 KVAR APFC Panel :

Supply of 400kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor(LVAS-T) Shunt Capacitor System along with Power Factor Controller and 7% Series Reactor consisting of [100Kx2+50Kx2+25Kx3 + 15Kx1 + 10Kx1] steps of APP Capacitors confirming to relevant IS standard with its latest amendment if any.

APFC MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Auto-Switched Thyristor MAKE:- SHREEM/ CTR or equivalent.
Series Reactor MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Qty-01 Nos.

02. Suppy of 125 KVAr Static VAR Generator :

Supply of 480V AC, 3 Phase 125 KVAr Static VAR Generator which dynamically supports the load reactive current locally, even with highly fluctuating loads to assures close to unity or unity power factor operation at all time. It is capable for Power Factor Correction under Unbalanced Loading Conditions. Smart inverter architecture of SVG is used to ensure the unity or close to unity power factor operation even under the presence of large single-phase and/or two-phase loads.

Controller - ARM based MCU
Control method - Adaptive Artificial Neural Network based
Dynamic Response Time - 100 micro seconds or better
Correction Time - 10 milli seconds or better
Parallel Operation - 50 modules per CT set
Parallel Communication Mini-USB/CAN Bus
Paralleling Options - Master-Slave / Multi-Master Noise Level
Display 7" TFT/LED Touch-Screen
MAKE:- SHREEM or equivalent.
Qty- 1 Nos

03. Supply of 75A Neutral Current Compensator:

Supply of 75 Ampere Neutral Current Compensator. The purpose of installation of NCC is to avoid heating of neutral bus bars or burning/insulation failures of neutral cables, shifting of neutral potential w.r.t earth potential, unacceptable unbalanced or asymmetry in phase to neutral voltages and damage to sensitive loads, disturbance in synchronization voltages for connected active power converter, reduction in life of incomer transformer etc. It will be suitable for system voltage 3 phase 415v/440v

+/- 10%, 50Hz +/- 3 % AC, capable to reduce the earth current and supply neutral current to near zero irrespective of the unbalanced load neutral current caused by linear as well as non-linear loads. It will be capable to retain supply neutral voltage near to earth zero potential or as per the standard even for large earth resistance or when supply neutral gets disconnected for some reasons (which avoids tripping or damaging of sensitive loads connected to the same supply bus) and capable of reducing and eliminate main problems in the electrical / electronic installations. It will eliminate performance dependency of load neutral connection to supply neutral point or earth. Use of only magnetic component, reliable, robust and economical, rating as per requirement are to be used to ensure virtually no maintenance for NCC. The neutral current compensator will be integral in each APFC panel with provision of separate compartment and supply switching ON/OFF arrangement through MCCB of appropriate rating depending on current rating of NCC.
Make – SHREEM / CTR /L&T/Epcos/BCH or equivalent.
Qty- 1 Nos

04. Supply of 3½C x 300 sq.mm XLPE Al. cable:-

Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade, Armoured XLPE Cable of Size 3 ½ Core, 300 Sq.mm. As per IS Standard.
MAKE:- Polycab/Finolex or equivalent.
Qty- 15 Mtr

05. Supply of 500 KVAR APFC Panel :-

Supply of 500kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor(LVAS-T) Shunt Capacitor System along with Power Factor Controller and 7% Series Reactor consisting of [100Kx3+50Kx2+25Kx2 + 15Kx2 + 10Kx2] steps of APP Capacitors confirming to relevant IS standard with its latest amendment if any.

APFC MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Auto-Switched Thyristor MAKE:- SHREEM/ CTR or equivalent.
Series Reactor MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Qty- 1 Nos

06. Supply of 50A Neutral Current Compensator:-

Supply of 50 Ampere Neutral Current Compensator. The purpose of installation of NCC is to avoid heating of neutral bus bars or burning/insulation failures of neutral cables, shifting of neutral potential w.r.t earth potential, unacceptable unbalanced or asymmetry in phase to neutral voltages and damage to sensitive loads, disturbance in synchronization voltages for connected active power converter, reduction in life of incomer transformer etc. It will be suitable for system voltage 3 phase 415v/440v

+/- 10%, 50Hz +/- 3 % AC, capable to reduce the earth current and supply neutral current to near zero irrespective of the unbalanced load neutral current caused by linear as well as non-linear loads. It will be capable to retain supply neutral voltage near to earth zero potential or as per the standard even for large earth resistance or when supply neutral gets disconnected for some reasons (which avoids tripping or damaging of sensitive loads connected to the same supply bus) and capable of reducing and eliminate main problems in the electrical / electronic installations. It will eliminate performance dependency of load neutral connection to supply neutral point or earth. Use of only magnetic component, reliable, robust and economical, rating as per requirement are to be used to ensure virtually no maintenance for NCC. The neutral current compensator will be integral in each APFC panel with provision of separate compartment and supply switching ON/OFF arrangement through MCCB of appropriate rating depending on current rating of NCC.

Make – SHREEM / CTR /L&T/Epcos/BCH or equivalent
Qty- 1 Nos

07. Supply of 3½CX400 sq.mm XLPE Al. Cable :

Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade, Armoured XLPE Cable of Size 3 ½ Core, 400 Sq. mm. As per IS Standards.
MAKE:- Polycab/Finolex or equivalent.
Qty- 15 Mtr

08. Supply of 150 KVAR APFC Panel.:

Supply of 150kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor(LVAS-T) Shunt Capacitor System along with Power Factor Controller and 7% Series Reactor consisting of [100Kx1+25Kx1 + 15Kx1 + 10Kx1] steps of APP Capacitors confirming to relevant IS standard with its latest amendment if any.

APFC MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Auto-Switched Thyristor MAKE:- SHREEM/ CTR or equivalent.
Series Reactor MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Qty- 2 Nos

09. Supply of 50A Neutral Current Compensator:

Supply of 50 Ampere Neutral Current Compensator. The purpose of installation of NCC is to avoid heating of neutral bus bars or burning/insulation failures of neutral cables, shifting of neutral potential w.r.t earth potential, unacceptable unbalanced or asymmetry in phase to neutral voltages and damage to sensitive loads, disturbance in synchronization voltages for connected active power converter, reduction in life

of incomer transformer etc. It will be suitable for system voltage 3 phase 415v/440v +/- 10%, 50Hz +/- 3 % AC, capable to reduce the earth current and supply neutral current to near zero irrespective of the unbalanced load neutral current caused by linear as well as non-linear loads. It will be capable to retain supply neutral voltage near to earth zero potential or as per the standard even for large earth resistance or when supply neutral gets disconnected for some reasons (which avoids tripping or damaging of sensitive loads connected to the same supply bus) and capable of reducing and eliminate main problems in the electrical / electronic installations. It will eliminate performance dependency of load neutral connection to supply neutral point or earth. Use of only magnetic component, reliable, robust and economical, rating as per requirement are to be used to ensure virtually no maintenance for NCC. The neutral current compensator will be integral in each APFC panel with provision of separate compartment and supply switching ON/OFF arrangement through MCCB of appropriate rating depending on current rating of NCC.

Make – SHREEM / CTR /L&T/Epcos/BCH or equivalent
Qty- 2Nos

10. Supply of 60A Smart Power Conditioner:

Supply of 60 Ampere, 400V AC/440V AC, 3 Phase, 4 Wire Smart Power Conditioner. It is an IGBT based advanced Active Harmonic filter With Two Level Inverter Topology in standalone type from 25 A to 300 A as per suitable design wherever applicable as per site condition. It has Designed PF compensation of any range inductive to capacitive Control philosophy based on closed loop Adaptive Artificial Neural Network (ANN) Fully functional Power Analyzer with 15- channel or as per the site condition requirement, real time Oscilloscope with 7" Multi Touch Capacitive TFT /LED display Closed loop, 32 bit FPU DSP based fully digital control. It has Internal CAN BUS communication for increased reliability-Ultra Fast Computation PF Compensation, Harmonic filtering, Load Current Balancing Filters. Any individually selectable harmonics (0 to 100%) simultaneously in a range Desired harmonic levels can be pre-set for each individual harmonic Peak compensating Current of 2.25 times rms value.
Dynamic Response Time: 100 µSec (60 µSec for 3-Level) with 20 mS response time or better.
Filter Power Loss : less than 2.5 % of equipment rating
Installation: Free standing, Floor Mounting with Front access with cooling facility as per the design,
Operating Temperature : 45 deg. C. No derating required for entire operating range.
Standard models: Available with for IP 20

MAKE: SHREEM or equivalent.
Qty- 2 Nos

11. Supply of 3½C X 120 sq.mm XLPE Al. Cable:-

Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade, Armoured XLPE Cable of Size 3 ½ Core, 120 Sq.mm. As per IS Standards.

MAKE:- Polycab/Finolex or equivalent.
Qty- 30 Mtr

12. Supply of 700 KVAR APFC Panel :-

Supply of 700kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor(LVAS-T) Shunt Capacitor System along with Power Factor Controller and 7% Series Reactor consisting of [100Kx5+50Kx2+25Kx3 + 15Kx1 + 10Kx1] steps of APP Capacitors confirming to relevant IS standard with its latest amendment if any.

APFC MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Auto-Switched Thyristor MAKE:- SHREEM/ CTR or equivalent.
Series Reactor MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Qty- 1 Nos

13. Supply of 500 KVAR APFC Panel :-

Supply of 500kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor(LVAS-T) Shunt Capacitor System along with Power Factor Controller and 7% Series Reactor consisting of [100Kx3+50Kx2+25Kx3 + 15Kx1 + 10Kx1] steps of APP Capacitors confirming to relevant IS standard with its latest amendment if any.

APFC MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Auto-Switched Thyristor MAKE:- SHREEM/ CTR or equivalent.
Series Reactor MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Qty- 2 Nos

14. Supply of 125 KVAr Static VAR Generator:

Supply of 480V AC, 3 Phase 125 KVAr Static VAR Generator which dynamically supports the load reactive current locally, even with highly fluctuating loads to assures close to unity or unity power factor operation at all time. It is capable for Power Factor Correction under Unbalanced Loading Conditions. Smart inverter architecture of SVG is used to ensure the unity or close to unity power factor operation even under the presence of large single-phase and/or two-phase loads.

Controller - ARM based MCU
Control method - Adaptive Artificial Neural Network based

Dynamic Response Time - 100 micro seconds or better
Correction Time - 10 milli seconds or better
Parallel Operation - 50 modules per CT set
Parallel Communication Mini-USB/CAN Bus
Paralleling Options - Master-Slave / Multi-Master Noise Level
Display 7" TFT/LED Touch-Screen
MAKE:- SHREEM or equivalent.
Qty- 3 Nos

15. Supply of 3½C X 400 sq.mm XLPE Al. Cable :

Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade, Armoured XLPE Cable of Size 3 ½ Core, 400 Sq.mm As per IS standards.

MAKE:- Polycab/Finolex or equivalent.
Qty- 50 Mtr

16. Supply of 50A Neutral Current Compensator:

Supply of 50 Ampere Neutral Current Compensator. The purpose of installation of NCC is to avoid heating of neutral bus bars or burning/insulation failures of neutral cables, shifting of neutral potential w.r.t earth potential, unacceptable unbalanced or asymmetry in phase to neutral voltages and damage to sensitive loads, disturbance in synchronization voltages for connected active power converter, reduction in life of incomer transformer etc. It will be suitable for system voltage 3 phase 415v/440v +/- 10%, 50Hz +/- 3 % AC, capable to reduce the earth current and supply neutral current to near zero irrespective of the unbalanced load neutral current caused by linear as well as non-linear loads. It will be capable to retain supply neutral voltage near to earth zero potential or as per the standard even for large earth resistance or when supply neutral gets disconnected for some reasons (which avoids tripping or damaging of sensitive loads connected to the same supply bus) and capable of reducing and eliminate main problems in the electrical / electronic installations. It will eliminate performance dependency of load neutral connection to supply neutral point or earth. Use of only magnetic component, reliable, robust and economical, rating as per requirement are to be used to ensure virtually no maintenance for NCC. The neutral current compensator will be integral in each APFC panel with provision of separate compartment and supply switching ON/OFF arrangement through MCCB of appropriate rating depending on current rating of NCC.
Make – SHREEM / CTR /L&T/Epcos/BCH or equivalent
Qty- 2 Nos

17. Supply of 3½C X 70 sq.mm XLPE Al. Cable:

Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade, Armoured XLPE Cable of Size 3 ½ Core, 70 Sq.mm. As per IS Standards.

MAKE:- Polycab/Finolex or equivalent.
Qty- 15 Mtr

18. Supply of 100 KVAR APFC Panel:-

Supply of 100kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor(LVAS-T) Shunt Capacitor System along with Power Factor Controller and 7% Series Reactor consisting of [50Kx1+ 25Kx1 + 15Kx1 + 10Kx1] steps of APP Capacitors confirming to relevant IS standard with its latest amendment if any.

APFC MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Auto-Switched Thyristor MAKE:- SHREEM/ CTR or equivalent.
Series Reactor MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Qty- 1 Nos

19. Supply of 200KVAR APFC Panel :-

Supply of 200kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor(LVAS-T) Shunt Capacitor System along with Power Factor Controller and 7% Series Reactor consisting of [100Kx1+50Kx1+25Kx1 + 15Kx1 + 10Kx1] steps of APP Capacitors confirming to relevant IS standard with its latest amendment if any.

APFC MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Auto-Switched Thyristor MAKE:- SHREEM/ CTR or equivalent.
Series Reactor MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Qty- 1 Nos

20. Supply of 300KVAR APFC Panel:-

Supply of 300kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor(LVAS-T) Shunt Capacitor System along with Power Factor Controller and 7% Series Reactor consisting of [100Kx2+50Kx1+25Kx1 + 15Kx1 + 10Kx1] steps of APP Capacitors confirming to relevant IS standard with its latest amendment if any.

APFC MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Auto-Switched Thyristor MAKE:- SHREEM/ CTR or equivalent.
Series Reactor MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Qty- 1 Nos

21. Supply of 500KVAR APFC Panel :

Supply of 500kVAr@ 440V, 3Ph, 50Hz, Auto Switched Thyristor(LVAS-T) Shunt Capacitor System along with Power Factor Controller and 7% Series Reactor consisting of [100Kx3+50Kx2+25Kx3 + 15Kx1 + 10Kx1] steps of APP Capacitors confirming to relevant IS standard with its latest amendment if any.

APFC MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Auto-Switched Thyristor MAKE:- SHREEM/ CTR or equivalent.
Series Reactor MAKE:- SHREEM/ CTR/ EPCOS/ BCH/ L&T or equivalent.
Qty- 1 Nos

22. Supply of 150A Smart Power Conditioner :

Supply of 150 Ampere, 400V AC/440V AC, 3 Phase, 4 Wire Smart Power Conditioner. It is an IGBT based advanced Active Harmonic filter With Two Level Inverter Topology in standalone type from 25 A to 300 A as per suitable design wherever applicable as per site condition. It has Designed PF compensation of any range inductive to capacitive Control philosophy based on closed loop Adaptive Artificial Neural Network (ANN) Fully functional Power Analyzer with 15- channel or as per the site condition requirement, real time Oscilloscope with 7" Multi Touch Capacitive TFT /LED display Closed loop, 32 bit FPU DSP based fully digital control. It has Internal CAN BUS communication for increased reliability-Ultra Fast Computation PF Compensation, Harmonic filtering, Load Current Balancing Filters. Any individually selectable harmonics (0 to 100%) simultaneously in a range Desired harmonic levels can be pre-set for each individual harmonic Peak compensating Current of 2.25 times rms value.
Dynamic Response Time: 100 µSec (60 µSec for 3-Level) with 20 mS response time or better
Filter Power Loss : less than 2.5 % of equipment rating
Installation: Free standing, Floor Mounting with Front access with cooling facility as per the design,
Operating Temperature : 45 deg. C. No derating required for entire operating range.
Standard models: Available with for IP 20
MAKE: SHREEM or equivalent.
Qty- 2 Nos

23. Supply of 125 KVAr Static VAR Generator :

Supply of 480V AC, 3 Phase 125 KVAr Static VAR Generator which dynamically supports the load reactive current locally, even with highly fluctuating loads to assures close to unity or unity power factor operation at all time. It is capable for Power Factor Correction under Unbalanced Loading Conditions. Smart inverter

architecture of SVG is used to ensure the unity or close to unity power factor operation even under the presence of large single-phase and/or two-phase loads.

Controller - ARM based MCU
Control method - Adaptive Artificial Neural Network based
Dynamic Response Time - 100 micro seconds or better
Correction Time - 10 milli seconds or better
Parallel Operation - 50 modules per CT set
Parallel Communication Mini-USB/CAN Bus
Paralleling Options - Master-Slave / Multi-Master Noise Level
Display 7" TFT/LED Touch-Screen
MAKE:- SHREEM or equivalent.
Qty- 3 Nos

24. Supply of 3½C X 120 sq.mm XLPE Al. Cable:

Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade,Armoured XLPE Cable of Size 3 ½ Core, 120 sq.mm.As per IS Standards.

MAKE:- Polycab/Finolex or equivalent.
Qty- 15 Mtr

25. Supply of 3½C X 240 sq.mm XLPE Al. Cable:-

Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade,Armoured XLPE Cable of Size 3 ½ Core, 240 Sq.mm.As per IS Standards.

MAKE:- Polycab/Finolex or equivalent.
Qty- 30 Mtr

26. Supply of 3½C X 400 sq.mm XLPE Al. Cable:-

Supply of Multistranded, Aluminum Conductor, PVC Insulated and sheathed 1.1KV Grade,Armoured XLPE Cable of Size 3 ½ Core, 400 Sq.mm.As per IS Standards.

MAKE:- Polycab/Finolex or equivalent.
Qty- 15 Mtr

SECURITY PRINTING AND MINTING CORPORATION OF INDIA LIMITED

TENDER NO: 6000018376

SCOPE OF WORK:

Design, fabrication, supply, installation, testing & commissioning of standalone Thyristor switched automatic power factor correction panel boards with Static VAR Generator, Neutral Current Compensators and Smart Power Conditioner in CNP's existing substations by discarding existing old contactor based APFC panels to meet Maharashtra State Electricity Distribution Corporations (MSEDCL's) new norms of power factor assessment & harmonics level as per scope and detail technical specifications attached here within.

TERMS AND CONDITIONS:

A. Thyristor switched automatic power factor correction panel boards with Static VAR Generator, Neutral Current Compensators and Smart Power Conditioner:
Design, Fabrication and supply of Thyristor switched automatic power factor correction panel boards with Static VAR Generator, Neutral Current Compensators and Smart Power Conditioner as per ratings, with installation, testing and commissioning at sites having following specifications and features described.

I) HOUSING
a)The panel will be suitable for indoor, Class IP42 protection
b)It will be Floor mounted, free standing, double access (front and rear, as per the site condition) confirming to latest IS Standards.
c)Design, material selection and workmanship will be such as to present a neat appearance outside and inside.
d)Its Base will be supported by heavy duty M.S. channel/section of size 100 x 100 mm.
e)It will be fabricated out of CRCA grade sheet steel of 2.0 mm thick for outer enclosure and 1.6 mm for compartments.
f)Bus bars will be three phase and neutral and of Aluminium rated for a temperature rise of 35°C over the ambient temperature specified based on bare conductor ratings complying with requirement of relevant IS Standards. All the bus bars including that of neutral will be full rated for the load current. Each bus bar will be directly and easily accessible on removal of the front cover and will be supported on non-hydroscopic Insulator blocks to with-stand thermal and dynamic overloads during system short circuits. The neutral as well as earth bus bar will be capable of withstanding the fault level as mentioned above. All connections to bus bar will be through lugs, bolts, nuts and spring washers. It will be fixed to the mounting place at least two places.
g)All bus bars and its tapings will be sleeved (with heat shrinkable colour coded sleeves for phase identifications) air insulated.
h)Connections from the main bus bars to the functional circuits will be arranged and supported so as to withstand without any damage or deformation, the thermal and dynamic stresses due to short circuit currents.
i)For all design purposes the temperature will be considered as 50 Degree Centigrade.
j)The design will ensure generous availability of space for ease of installation and maintenance of cabling and adequate safety for working in vertical section without coming in to accidental contact with live parts in adjacent section.
k)All the Current transformers will be resin/epoxy cast as per relevant IS and will be mounted properly.

l)Routing of all control cables will be planned such that it will not cross any live parts.
m)All insulated materials used in the construction of the panel will be non-hygroscopic, duly treated to withstand the effect of high humidity, high temperature and tropical ambient service conditions.
n)The apparatus and circuits in the APFC/NCC panel will be so arranged as to facilitate their operation and maintenance and at the same time to ensure the necessary degree of safety.
o)The PDB will be provided with two lifting hooks at the top, two earthing terminals on both sides and detachable cable entry glands.
p)It will be duly powder coated with RAL 7032 in Siemens grey shade.
q)It will have adequate cooling facility (or as per panel requirement) arrangements to ensure no heating of components and exhaust out heat generated due to switching electrical/electronics components.
r)Considering the space constraints the size of panel shall be so design to suit site condition.
s)The feeder and circuit marking will be made with color stickers or annodised plate.
t)It will have Auto/Manual selector switch for selection of particular Capacitor banks for testing or as required by the user.
u)It will have required metering, selector switches and indications.
v)Anti-vibrating pad of synthetic rubber or suitable will be provided as per site condition.
w)It will have neoprene gasket to all opening doors/covers.
x)It will have required shrouding inside the panel and in front of power components and power terminals as per standards.
i.All terminals will be provided with group markers.
ii.Power terminal blocks will be separated from each other by replaceable insulated spacers.

II)OPERATING MODE:
Automatic Power Factor Correction System Panel with AUTO/MANUAL selectable modes.

III)OPERATING VOLTAGE:
3 phase 440V +/-10%, 50Hz AC+ 3%

IV)OPERATING TEMPERATURE:
+5 to +55 Degree Celsius.

V)FEATURES:
Zero voltage switching terminology with intelligent electrical/electronic control, Smooth, surge less, transient free switching of capacitors which will not cause disturbance to sensitive networks or neighbouring equipment, Fast and fine correction of power factor, Line chokes for Thyristors, di/dt protection and detuned filter usage, Transient free switching causes long life of system components without limitations of number of switching operations, Current freewheeling low wattage resistors across Series Reactors to reduce insulation stress which forms RLC circuit.

VI)INCOMER:
i)Upto 500 KVAr capacitor panel:-
Four Pole,50 KA, Moulded Case Circuit Breaker (MCCB) with front operated door coupled rotary operating mechanism, with suitable current rating as per the KVAr rating of panel,
Make – Siemens / L&T/ABB/schnieder or equivalent

ii) Above 500 KVAr capacitor panel:-
Four Pole, 1600 Amp/440v AC+/-10 %,50HZ +/- 3 %,50KA, Microprocesor based protection, EDO type, Air circuit breaker with earth fault trip ,under voltage trip facility. The breaker shall also have the facility for Manual operation.
Make – Siemens / L&T/ABB/schnieder or equivalent.

VII)OUTGOING/BANK SWITCHING PROTECTION:
Four/Three Pole,50KA, Moulded Case Circuit Breakers having current rating suitable to KVAr rating of the capacitor bank/banks of the respective feeder
Make – Siemens / L&T/ ABB/schnieder or equivalent.

VIII)CAPACITOR BANK STEP CONFIGURATION:
The details of capacitor banks with step configuration are as per given details and under any circumstances the total KVAr rating of the bank will not be less than that specified in this technical specification. All the capacitor banks are to be switched based on the power factor requirement through electrical /electronic switched thyristor modules.

IX)TYPE OF CAPACITORS TO BE USED:
3 Phase, 440V, 50Hz,
The capacitor should be MPP heavy duty cylindrical type designed for 525V AC with resin filled providing specified KVAR rating at operation conditions of 440V AC with life expectancy of ≥ 1,70,000 hrs
Make – SHREEM / CTR /L&T/EPCOS or equivalent.

The capacitor will be self-healing with over pressure disconnect or, shock hazard protection terminals, pre mounted ceramic discharge resistor. It will have very high life expectancy. The dielectric loss will be very low at ambient temperature and rated voltage.

X)SWITCHING DEVICE:
Thyristor (SCR) module equipped with SCR, heat sink and firing module, Zero differential voltage switching of Thyristor with precise automatic zero detection logic (Zero voltage switching ON and Zero current switching OFF), Smooth, fast and transient free switching of capacitors, very fine correction of reactive power which is absolutely advanced and unique, immediate response to the reactive power demand for fast varying inductive/non-linear load, the rating of thyristor will be as per capacitor bank rating. The selected Thyristors will be suitable for switching the capacitor modules with ultrafast smooth switching to improve the power factor. The thyristor panel will have forced cooling. It will have LEDs to indicate the fault conditions, On/Off, healthy conditions etc. The indication for thyristor in operation will be through suitable "RED" and "GREEN" LED lamps. The thyristor will have adequate protection through semiconductor fuses and of appropriate rating. It will have three phase current limiting reactors required as per circuit designs. Thyristor power controller will have the provision for detecting the capacitor failures and thyristor failures through suitable indicators. Necessary auxiliary supply voltage as per Thyristor module selections will be planned.
“Thyristor Modul shall have a rated PIV of 2200V or Better”.
Make - SHREEM / CTR or equivalent

XI)APFC CONTROLLER:

Menu driven, microcontroller based, Automatic power factor controller, suitable for three CT Thyristor switched APFC panels, CT secondary 1 or 5 A selectable , 12 steps minimum or as per site requirement. The Controller shall display messages like : Over voltage, over current, under voltage, no voltage, over/under compensated, harmonics (THD) exceeded, over temperature etc. through digital display having characters suitable to read from at least 2/3 feet distance, display / uploading / editing options for various display parameters, general parameters, system parameters, fault parameters and step parameters, step ON/OFF indications, auxiliary/measurement voltage 415/440 V +/- 10%, 50 HZ +/-, 30% AC, Overall size: As per design, Solid state command output rating 30mA, 12V DC, Measurement accuracy: Class-1, operating temperature: 0-55 degree Celsius, screw able, plug in type connectors with 2.5 sq.mm max capacity, plastic/metallic instrument casing with rear metal plating, suitable IP protection , modes of operation: AUTO and MANUAL, it will enable three phase measurement of multiple grid parameters like: Voltage, current, reactive power, active power, apparent power, energy, frequency, harmonics,temperature etc. It will display and store of maximum values (voltage, current, outputs, temperature, THD) switching operations and operation time. It will have 3 position selector switch along with locking key for manual/automatic operations for auto as well as manual operations/maintenance purpose. It will have step switching indicator to indicate the activated step switches and there will also be means to manually switching On/Off the step switches. It will be Type tested for EMI/EMC compliance to IEC 61000.

Make – SHREEM / CTR/EPCOS/BCH/L&T or Equivalent

XII)SERIES REACTOR:

Detuned, copper wound-iron core dry type reactors with filter factor 7% having rated voltage 440V and KVAr rating (output) suitable to corresponding capacitor bank, manufactured as per relevant latest IS Standards, Insulation class F but temperature raise restricted to class B . Fully copper wound with tin plated terminals for connections, Noise level as low as possible at rated load, Inductance phase value within limits, Temperature raise not exceeding 50-55 °C above ambient. Coil wound with multiple conductors to reduce skin effect, Adequate cushion provided to avoid heating due to leakage flux, mechanical sturdy design to withstand vibrators to keep low noise and ensure performance guarantee. The detuning reactors will be supplied with normally closed thermistor contact to be connected in series with the power factor regulating step switching relay to ensure its opening when the reactor iron core has heated. The reactors will have high harmonic loading capacity, low losses, high linearity to avoid choke tilt, low noise and long expected life.

Make - SHREEM / CTR /EPCOS/BCH/L&T or equivalent

XIII)NEUTRAL CURRENT COMPENSATOR (NCC):

The purpose of installation of NCC is to avoid heating of neutral bus bars or burning/insulation failures of neutral cables, shifting of neutral potential w.r.t earth potential, unacceptable unbalanced or asymmetry in phase to neutral voltages and damage to sensitive loads, disturbance in synchronization voltages for connected active power converter, reduction in life of incomer transformer etc. It will be suitable for system voltage 3 phase 415v/440v +/- 10%, 50Hz +/- 3 % AC, capable to reduce the earth current and supply neutral current to near zero irrespective of the unbalanced load neutral current

caused by linear as well as non-linear loads. It will be capable to retain supply neutral voltage near to earth zero potential or as per the standard even for large earth resistance or when supply neutral gets disconnected for some reasons (which avoids tripping or damaging of sensitive loads connected to the same supply bus) and capable of reducing and eliminate main problems in the electrical / electronic installations. It will eliminate performance dependency of load neutral connection to supply neutral point or earth. Use of only magnetic component, reliable, robust and economical, rating as per requirement are to be used to ensure virtually no maintenance for NCC. The neutral current compensator will be integral in each APFC panel with provision of separate compartment and supply switching ON/OFF arrangement through MCCB of appropriate rating depending on current rating of NCC.
Make – SHREEM / CTR /L&T/Epcos/BCH or equivalent

XIV)Smart Power Conditioner (SHR-SPC)
IGBT based advanced Active Harmonic filter
Two Level Inverter Topology in standalone type with from 25 to 300 A as per suitable design wherever applicable as per site condition.
Design PF compensation of any range inductive to capacitive Control philosophy based on closed loop Adaptive Artificial Neural Network (ANN) Fully functional Power Analyzer with 15- channel or as per the site condition requirement, real time Oscilloscope with 7" Multi Touch Capacitive TFT /LED display Closed loop, 32 bit FPU DSP based fully digital control.
Internal CAN BUS communication for increased reliability-Ultra Fast Computation PF Compensation, Harmonic filtering, Load Current Balancing
Filters any individually selectable harmonics 0 to 100% simultaneously in a range Desired harmonic level can be or
pre-set for each individual harmonic compensating current 2.25times rms value .
Dynamic Response Time 100 µSec (60 µSec for 3-Level) with 20 mS responce time or better
Filter Power Loss : less than 2.5 % of equipment rating
Installation :Free standing, Floor Mounting with Front access with cooling facility as per the design, Operating Temperature : 45 deg. C. No derating required for entire operating range.
Standard models available with for IP 20

XV)STATIC VAR GENERATOR
Static VAR Generator system dynamically supports the load reactive current locally, even with highly fluctuating loads to assures close to unity or unity power factor operation at all time.
It should be capable for Power Factor Correction Under Unbalanced Loading conditions. Smart inverter architecture of SVG to ensures the unity or close to unity power factor operation even under the presence of large single-phase and/or two-phase loads

Controller - ARM based MCU
Control method - Adaptive Artificial Neural Network based
Dynamic Response Time - 100 micro seconds or better
Correction Time - 10 milli seconds or better
Parallel Operation - 50 modules per CT set

Parallel Communication Mini-USB/CAN Bus
Paralleling Options - Master-Slave / Multi-Master Noise Level
Display 7" TFT/LED Touch-Screen

XVI)CONTROL WIRING:
Control wiring in Polycab or Finolex make FRLS PVC insulated stranded conductors of size 2.5 mm^2 or higher size for CT circuit and of size 1.5 mm^2 for PT circuit and rest of wiring with each wire ends provided with lugs and ferrule marking labels as per circuit diagram, provided with DIN connectors, control fuses/MCBs, cable ties and PVC wiring conduit/trunk of suitable rating for protection purpose. All wires will be identified by numbered ferrules at each end. Provision will be made.

XVII)METERING AND INDICATION:
Each APFC panel will be provided with 22.5 mm Ø LED indicating lamps for indication of incomer supply healthy, various capacitor bank operating status and 96 x 96 mm size digital meters to show various electrical parameters like voltage, current, frequency, power and power factors etc.

B) SLTTC:
Electrical cable of suitable size as mentioned above, XLPE, Aluminium, 1.1 KV, complete with copper earthing conductors.
Make – Polycab /Finolex/CCI/Havells or equivalent

After installation of respective panels, firm should carry out laying and termination of the XLPE armored multistrand Aluminum conductor cables complete with double run of earthing conductor, required size glands, cable identification tags, hard ware, saddles labeling, lugs, etc. Supply of required size lugs, cable glands, GI clamps/saddles, sensing current transformers, control cable etc. along with double run of 12 SWG GI earth conductors is also included in this scope.

It includes:-
a.Laying, termination of power and control cables in respective panel and CNP's source PDB, Testing and commissioning.
b.Connecting the earth terminals to CNP's existing earth grid through 12 SWG double run GI earth conductor.
c.The end termination at both ends (APFC+NCC and LT PDB panel of respective panel) will be done through glands and required size lugs.
d.Making provision of CT sensing cables (6 core or Suitable, 2.5 mm^2 multi-stranded copper conductors with PVC insulation and steel armouring) from respective LT PDB of the transformers to corresponding APFC+NCC panels and terminations at both ends.
e.Charging of respective panels.
f.Cable Makes: Polycab or equivalent ISI stamped and marked.
g.Glands: BRACO or equivalent.

C) ITC of Panels:-

Installation, testing and commissioning of the above panels with the following brief scope of work but not limited to this,
i)The indoor type panel will be erected in place of existing conventional APFC panels in different substations.
ii)This will require discarding existing panels and installing new panels at that place or as per the site conditions to suit ease for installation.
iii) Firm should make necessary arrangement to install these panels securely with proper leveling, orientation properly fastened to the flooring.
iv) Supply, installation, testing and termination of required sensing CTs, 3 nos. per APFC panel, of appropriate size, shape, class, rating and ratios.
v) Marking and labeling of APFC+NCC panels for panel nos., Incoming supply details, Bank raings, NCC rating etc.
vi) Setting of APFC controller for getting desired power factor i.e. Unity or very close to unity.
vii) Training to operating persons regarding setting, operation and maintenance of the APFC+NCC panels.
viii) To observe performance of APFC+NCC panels for one month cycle and submission of report/result showing the achieved Power Factor.

D) Dismantling of APFC Old Panels:-
a. Disconnection and discarding of existing APFC panels in substations, complete in phase manner to make space to new panels one by one without affecting the power factor of working loads and shifting the same to CNP's scrap yard at a designated place in CNP premises. In some substations if it is not possible to dismantle the panel, in that case existing capacitors shall be disconnected & removed and that panel made defunct/ isolated.

E) Incoming Supply of new APFC Panel to be taken from existing horizontal bus bar.

SPECIAL TERMS AND CONDITIONS:-

I. Entire work i.e. Supply Installation Testing and Commissioning (SITC) work has to be done by Firm on Turnkey basis.
a. The entire work is for making a new provision of design, fabrication, supply, installation, testing and commissioning of standalone Thyristor switched automatic power factor correction panel boards with Static VAR Generator, neutral current compensator, Smart power conditioner in CNP's existing substations by discarding existing old APFC panel to meet MSEDCL's new norms of power factor and compensate neutral current and harmonics level as per scope given. The entire system shall be compatible for SCADA implementation .
b. Though CNP has given the design requirements but before execution of work, firm should carry out the analysis of load variation, PF variation, THD, currents in neutral etc. w.r.t proposed loads/areas at various time of the day using required instruments. Based on the loads analysis, if it is felt essential to make any addition/changes in the equipment ratings (not less than the required details) to get the desired result in PF, Harmonics and Neutral

Leakage Current, then the same will be required to make within the offered rates/order cost. After installation of the APFC panels, all requirements will be tested to ensure that the target values are achieving.

c. Since the new panel are to be installed in place of existing working panels, if required, firm should make suitable arrangement by discarding, disconnecting, shifting, erecting at another place, then re-connecting, re-terminating the power/control cables temporarily and put in normal working of the existing panel(s) till the installation of new panel(s) in place is completed so as to avoid penalty to CNP by MSEDCL for not maintaining/fall in the power factor.

d. Firm should submit, along with the technical bid, the General Arrangement (GA) Drawing showing tentative overall dimensional details along with Single Line Diagram (SLD) showing interconnection scheme of all equipment, their ratings viz. ACB/MCCB/SDF, Thyristor module, Series Reactor, Capacitor bank and metering and indication etc. in respect of the offered APFC/SVG/NCC/SVG/ Smart Power Conditioner panels.

e. Firm has to submit along with technical bid, the various product catalogues showing technical details and features of the panel equipment and panel accessories. Firm has to provide complete specification for all major items that are to be supplied. Firm has to categorically mention the makes and models of the system offered.

f. Firm should give an undertaking that they will provide after sales support which includes supply of spares and consumables for next 10 years.

g. Firm should confirm in writing along with the bid that all the offered switchgears and control and indication devices are of proven technology, latest type and the spares required for the offered APFC panels will be made available for the next 10 years.

h. Firm has to give in writing that the offered Switchgear and its accessories are not obsolete and they will provide the after sales services for the next 10 years and consumables required for the system will be readily available in the market for next 10 years.

i. Firm has to confirm in the technical bid that the offered APFC panels proposed to supply will improve the system power factor above 0.99 to 1.00, neutral leakage current and harmonics within specified limits.

j. All items of equipment and system covered under this specification will be complete in all respects and any item of equipment or accessory not specifically mentioned in this specification but considered essential for efficient and satisfactory operation of individual equipment and system as a whole will be included in the offer in the same cost and price.

k. Any material or accessory which may not have been specifically mentioned but which is necessary or usual for satisfactory and trouble free operation and maintenance of the equipment will be furnished without any extra cost.

l. All material and equipment supplied under this specification will be new and unused.

m. The completion cum suitability report to release the payment will only be issued if the APFC panels supplied and installed improves our installation power factor above 0.99 upto 1.00 (lag/lead) observed in billing month as followed by MSEDCL, failing which firm has to make required additions/alterations/changes within the same order value to get desired power factor .

n. The BOQ is tentative defining only the major equipment and their related integration works but all the auxiliaries and necessary hardware, systems or any other material required for such integration will be supplied by firm to complete it as a whole system in the same scope and in same cost and price.

o. Firm should submit detail GA drawings, layout plan of the panel, civil works and cable routes for approval of CNP authorities prior to starting the work.
p. Since the work is to be carried out in working substation, the shut downs will be planned by CNP as per CNP's convenience.
q. Since the entire work is to be completed on turnkey basis, all related civil works(if any), all tools tackles, measuring equipment or any services including that of lifting and shifting and digging devices etc. complete with required manpower for completion of this project in all respects will be brought and arranged by the firm.
r. CNP will provide only free electricity and water.
s. Firm should give all the final lay out drawings, SLD, drawing/manuals of major switchgear and relay assemblies, Test report etc. in triplicate in hard copy format after completion of work.

GENERAL REQUIREMENTS

a. The entire work will be carried out on turnkey basis hence only supply or only services or partial offer for SITC will not be considered. The firm shall ensure that the all offered items of the entire job work shall be as per applicable IS standards .
b. In order to have a clear idea of CNP's requirements, the participating firms are required to visit CNP before submitting the quote for site survey prior to pre-bid meeting and submission of queries to get satisfied themselves as regards to the complete requirement scope. Any queries later on for any under visualization as respect to the total scope will not be entertained. Firm has to submit an undertaking along with the bid that they have understood the complete scope and have no complaints in this regard. No further queries are entertained & site visit after pre-bid meeting.
c. The supply part and service part are inter-related to each other in view of achieving final result; hence the work is to be carried out on Turnkey .
d. Firm should carry out the work during normal working hours of Currency Note Press form 8.00am to 5.00pm excluding Sundays and holidays. However, CNP has the discretion to permit the work during lunch hours/extended hours or on Sundays/Holidays as the case may be.
e. Firm should submit Police Verification report of their employees posted for the said work and will follow all the safety and security norms of CNP.
f. Firm should carry out the installation, testing and commissioning of the equipment at the site shown by CNP Officials. Firm should arrange all materials including consumables, manpower, installation, testing tools etc. required for installation, testing and commissioning work. All kind of works including Civil, Electrical, Mechanical, Carpentry, welding, drilling, etc. as required for installation of equipment/components will be in the scope of firm being Turnkey job.
g. Firm is completely responsible for installation, testing and commissioning of the equipment, cabling, interfacing and all related activities such as packing, uncrating, inspection, etc. for which CNP will provide the required space at its premises. Firm should arrange by their own, all the required tools tackles, lifting and shifting equipment etc. for installation and will make their own transportation arrangements.
h. Firm should carry out complete installation, testing and commissioning work through their competent Personnel/ Supervisors and workmen. All materials will be handled with due care and would avoid any damage to CNP's property and its personnel. Any damage will be made good without any cost to CNP.

i. Firm and their team of manpower will have to follow all the Safety and Security regulations of CNP's Safety Department and CISF.
j. Dismantling and shifting of any obstructions or making clear the path of installation from minor obstructions will be taken care by the firm for proper installation of the equipment.
k. Necessary training for the successful operation, maintenance and trouble shooting of the whole system to CNP's official will be included.
l. The mobile phones, cameras, CDs and Laptops etc. will not be allowed inside the factory being a security organization.
m. Firm should obey safety and security norms of CNP.

TRAINING

a. Firm should give complete information and training for operation and maintenance of the system, Auto/manual operations of the system, parameter reading and settings, functional operation of the system, maintenance of the APFC, repairs of Thyristor modules, operation and settings of power factor control, precautionary measures to be taken while working on the panel for at least 04 working days. Firm should provide a detailed training manual in hard bound 3 copies to CNP prior to start of training.

DOCUMENTATION

a. Firm should prepare system drawing and schematics, system configuration, connection diagram, circuit diagram, equipment layout details, mounting arrangement drawings, cable routing and termination details for the proposed SITC work.
b. After completion of the work, firm should provide three copies of Operation and Maintenance manual, Instruction manual of the APFC panels, single line diagram, circuit diagrams, Detailed manual and product catalogues of all switchgear and thyristor control modules and APFC controller. Periodical maintenance procedure of the equipment, fault finding manual for the Thyristor control module, operation and maintenance manuals of major switchgears, detailed spare parts list of all switchgear and control gear including capacitor banks, MCCB, Thyristor controller, APFC controller etc.
c. Firm should submit all Test Certificates.

TESTING AND INSPECTION

a. The APFC panel will be completely assembled, wired and tested for operation to ensure correctness of its functions.
b. The APFC panel will be tested for acceptance/routine tests as specified in the relevant latest Indian Standards.
c. Completely assembled APFC panel will be tested for its temperature rise with the simulated conditions.
d. The APFC controller operation will be simulated for its control towards operation of all the capacitor banks.
e. Operation of all functions of APFC panel in auto as well as manual mode.
f. Certificates for all routine and type tests for Capacitor banks in accordance with respective IS should be furnished.
g. Capacitance of capacitor banks, Sealing Test, AC voltage Test between terminal and container (for capacitor unit and bank), IR test between terminal and container (For

capacitor unit and bank) as per technical data sheet, Test of efficiency of discharge device etc.
h. Earth continuity Test.
i. Functioning of all metering and indications.
j. Functioning of APFC with respect to changes in CT current.
k. Functioning of NCC and testing resultant current passing through the neutral.
l. The required load arrangement for the APFC+NCC for Testing will be arranged by firm at work.
m. Firm should submit the Test reports of all APFC panel.

SECURITY NORMS TO BE FOLLOWED

a. Firm should be responsible for ensuring safety of their employees.
b. Firm should be responsible for any act of Contractor which amounts to contraventions of any act/provisions of Factories Act 1948 and other statutory laws.
c. Firm should ensure and monitor the following:
i) Firm should depute competent personnel, who will be responsible for the Safety of the employees working under.
ii) Firm should provide all Personal protective equipment to their employees and will ensure use for their safety.
iii) Any electrical connections will be taken only with the written permission from electrical department of CNP.
iv) Firm should ensure that their employees will not "smoke" in CNP premises and will not bring any mobile, pen drives, cameras or any such electronic gadgets.
v) Firm should ensure that their hand tools, other equipment, etc. are maintained in good working condition and will also ensure that their employees are safe and free from any risk and in good health condition.
vi) All the electrical equipment and machine(s) brought by firm should be properly electrically grounded and guarded for their safe working.
vii) For working at height, welding works, gas cutting works, excavation works, working on fragile roof, working on electrical lines or any work of similar nature, the Principal agency and firm should inform the Safety department in advance and seek "permit to work" from Safety Department of CNP.

SECURITY AND SAFETY CODE

a. Safety code to be followed by contractor/their employees. Firm should follow all Safety Rules and regulations prevalent in CNP and follow all statutory obligations.
b. Police Verification report in respect of contractor and his employees:
i. Firm's personnel will submit Police verification report (PVR) brought from Police Authorities before start of the work. Unless the PVR is not submitted, permission to work will not be granted. The PVR will be considered valid for a period of one year from the date of issue and if the work is extended beyond that period, a new PVR will be submitted.
ii. Firm should coordinate with CISF, Safety department, fire-fighting department and user department of CNP. The firm shall ensure all the safety and security norms of CNP and will ensure that the machine/plant equipment is fully protected from any fire, theft etc. damages.

iii. In case of any major or minor accident at site, they will inform the Safety Department immediately and the sole responsibility of such cases will be with the firm only.
iv. During the execution of the project, no compensation and penalty to any employee of firm should be borne by CNP. All legal and other formalities from local department/government will be dealt by the firm.

I. Add.Terms and Conditions:

1) Transportation of Goods: The transportation of goods/services to be procured will be done by the supplier on FOR CNP Basis. The total cost of the transportation should be considered in the price bid of the item to be procured.
2) Insurance: Specific insurance cover for each consignment / supply is to be given by firm, as applicable.
3) Distribution of Dispatch of Documents for clearance/ Receipt of Goods: The supplier shall send all the relevant dispatch documents well in time to CNP Nashik to enable CNP Nashik to clear or receive (as the case may be) the goods in terms of the contract.
4) Warranty Clause:
a) The equipment shall be warranted against any type of defects arising due to design, fault ,material, workmanship, poor packing and damage during transportation and unloading/shifting/lifting, storage and for trouble free operation.
b) The firm will have to give certificate that the goods supplied under this Contract are new and unused.
c) The Warranty shall remain valid for a period of minimum two years from the date of successful installation, testing, commissioning and acceptance at site.
d) CNP shall promptly notify any claims arising under this warranty. Upon receipt of such notice from CNP, the successful bidder/supplier shall repair or replace the defective goods or services or part thereof without any cost to CNP.

Taxes and Duties: If the tenderer fails to include the taxes and duties as per law of the land in the tender, no claim thereof will be considered by purchaser at a later stage.

SECTION VIII : QUALITY CONTROL REQUIREMENTS

SAFETY CODES TO BE FOLLOWED BY THE CONTACTORS/THEIR EMPLOYEES.

1. The principle firm to whom the job work has been assigned will be primarily responsible to ensure the safety of all their employees working under them while they work inside factory premises.

2. The principle firm to whom the job work has been assigned will be responsible for any act of the contractors, which amounts to contravention of any provision of the Factory Act 1948 and the Maharashtra factory rules 1963.

3. The principle firm to whom the job work has been assigned will ensure and monitor the following:-

3.1 The firm has to nominate one of the competent supervisors, who in addition to his duty will also be responsible to look after the safety of employees working under them and safety of nearby other plant equipment.

3.2 The firm will provide personal protective equipment to his employees to ensure their safety.

3.3 Electrical connection will be taken only with the written permission from the electrical department CNP.

3.4 The firm will ensure that the hand tools, power tools, forklifts, Hydra, ladders, slings and equipment etc. are maintained in good working condition and will also ensure that they are safe and free from risk to employees.

3.5 All the machines brought by contractor for their job work should be properly guarded/ maintained in proper condition for their safe working.

3.6 All the lifting machines, lifting tackles, chain ropes, pulleys etc. will not be allowed in factory premises unless they are thoroughly and certified by the competent person(as per Factory act 1948) once in every Six month.

3.7 In Case of any accident, the firm representative will arrange to inform it to the safety dept. CNP immediately. The agency will also arrange to inform the inspector of Factories Nashik. The agency will provide proper information to the inspector of factories and safety officer during their inspection.

3.8 Selected contractor needs to provide PVR of Supervisor/ labour's/person's entering in press premises.

SECURITY PRINTING AND MINTING CORPORATION OF INDIA LIMITED

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Section IX: Qualification / Eligibility Criteria

MINIMUM ELIGIBILITY CRITERIA

The following shall be the minimum eligibility criteria for selection of bidders:

1. **Experience and past performance**:

The bidder should have experience of having successfully completed an order for Supply, Installation, Testing & Commissioning of APFC panel with associated items of similar or higher specification in any one year during last 5 years ending 31.03.2022.

2. Capacity and Capability:

The bidder should having capacity of successfully completing order for Supply, Installation, Testing & Commissioning of APFC panel with associated items of similar or higher specification.

Note: All experience, past performance and capacity/ capability related data should be certified by the authorized signatory of the bidder firm.

3. **Financial Standing**:

(a) Average Annual turnover of the bidder firm should be more than Rs. 96,04,000/- during last three years i.e. 2019-2020, 2020-2021 and 2021-2022.

(b) Bidder firm should not have suffered any financial loss for more than one year during the last three financial years i.e. 2019-2020, 2020-2021 and 2021-2022.

(c) The net worth of the firm should not be negative in FY 2021-22 and should not have eroded by more than 30% in the last three financial years i.e. 2019-2020, 2020-2021 and 2021-2022.

4. The bidder should submit Power of Attorney of the Authorized Signatory for signing the bid, entering in to contract, if awarded and for any other correspondences.

5. The bidders shall enclose attested copy of GST Registration (in REG 06) & attested copy of PAN.

6. The bidder should give undertaking/declaration that they have read and understood all the terms & conditions of tender documents and submitting unconditional acceptance to all terms & conditions.

7. The bidder should give a declaration that they have not been black-listed/ debarred for dealing by Government of India in the past.

8. The firm should attach valid authorization certificate for offer product.

9. The interested bidder must be holding valid electrical contractor's licence/electrical supervisor licence issued by the competent authorities (State/Central) and copy of the same shall be enclosed along with the bid.

10. The firm shall attach the detailed product catalogue, certificates for all product along with the quotation.

11. Note:-

(i) In support of experience & capability criteria, the bidder has to submit attested copies of P.O's, Experience certificates issue by customers.

(ii) All experience, past performance & capacity/ capability related/data should be certified by the authorized signatory of the bidder firm.

(iii) All financial standing data such as Balance Sheet, Profit & Loss account statement etc. should be certified by certified accountants e.g. Chartered Accounts or Cost Accountant. Financial statement duly certified by CA for year 2019-2020, 2020-2021 and 2021-2022 to be submitted with UDIN no.

Bidder to furnish stipulated documents support of fulfillment of qualifying criteria. Non submission or incomplete submission of documents may lead to rejection of offer.

TENDER NO: 6000018376

Section X: Tender Form

To,
Currency Note Press, Nashik
A Unit of Security Printing & Minting
Corporation of India Limited
Wholly Owned by Govt. of India
Nashik

Ref: Your Tender document No. 6000018376 dated:

We, the undersigned have examined the above-mentioned tender enquiry document, including amendment No. --------, dated --------- (if any), the receipt of which is hereby confirmed. We now offer to supply and deliver……. (description of goods and services) in conformity with your above referred document for the sum shown in the price schedule(s), attached herewith and made part of this tender.

If our tender is accepted, we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the List of Requirements.

We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of GCC clause 6, read with modification, if any, in Section V –"Special Conditions of Contract", for due performance of the contract.

We agree to keep our tender valid for acceptance for a period upto -------, as required in the GIT clause19, read with modification, if any in Section-III –"Special Instructions to Tenderers" or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender upto the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.

We confirm that in case of downloaded Tender Document, we have not changed/edited its contents. We realise that in case any such change is noticed at any stage including after the award of contract, we would be liable to action under clause 44 of the GIT.

We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.
We also solemnly declare as under:

SECURITY PRINTING AND MINTING CORPORATION OF INDIA LIMITED

TENDER NO: 6000018376

1. MSMEs Status:

Having read and understood the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 (as amended and revised till date), and solemnly declare the following:

(a) Company /Partnership Firm /Proprietary Concern / Society/Trust / NGO/Others (Please Specify): .....
(b) Micro/ Small / Medium Enterprise/ SSI/ Govt. Deptt. / PSU/ Others: ....
(c) Name of MSME Registering Body (NSIC/ DIC/ KVIC/KVIB etc.): .....
(d) MSME Registration no. (with copy of registration):.....
(e) Udyog Aadhaar Memorandum no.....
(f) Whether Proprietor/ Partner belongs to SC/ ST or Women category.
(Please specify names and percentage of shares held by SC/ST Partners) : .....

2. Make in India Status:

Having read and understood the Public Procurement (Preference to Make in India PPP_MII) Order, 2017 (as amended and revised till date) and related notifications from the relevant Nodal Ministry/ Department, and solemnly declare the following:

(a) Self-Certification for category of supplier:
- Class-I Local Supplier/
- Class-II Local Supplier/
- Non-Local Supplier.

(b) We also declare that
- There is no country whose bidders have been notified as ineligible on reciprocal basis under this order for offered product, or Tender Form

SPMCIL

- We do not belong to any Country whose bidders are notified as ineligible on reciprocal basis under this order.

3. Restrictions on procurement from bidders from a country or countries, or a class of countries under Rule 144 (xi) of the General Financial Rules 2017 having read and understood the Order (Public Procurement No. 1) issued vide F.No.6/18/2019-PPD dated 23rd July 2020 (and its amendments if any) by Department of Expenditure, Ministry of Finance under the above provision and solemnly declare the following:

- We do not belong to any Country whose bidders are notified as ineligible under this order

4. Debarment Status: Please state whether business dealings with you currently stand suspended/ banned by any Ministry/ Deptts. of Government of India or by any State Govt:

- Yes (with period of Ban)
- No, We, solemnly declare that neither we nor any of our affiliates or subsidiaries– including subcontractors or suppliers for any part of the contract– do not stand declared ineligible/ blacklisted/ banned/ debarred by any Government Agency anywhere in the world, for participating in its tenders, under that country's laws or official regulations.

5. Penalties for false or misleading declarations: I/we hereby confirm that the particulars given above are correct and complete and also undertake to advise any future changes to the above details. We understood that any wrong or misleading self-declaration by us would be violation of code of Ethics and would attract penalties as mentioned in this tender document, including debarment.

.....
(Signature with date)
.....
(Name and designation)
Duly authorized to sign tender for and on behalf of
.....
.....

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SECTION XI: Price Schedule

SUMMARY OF PRICE SCHEDULE (FOR INDIAN BIDDERS): PRICES SHOULD BE ON FOR, CNP, NASHIK ROAD BASIS.

TENER NO.6000018376 **(AS PER MSTC E-PROCUREMENT PORTAL)**
(Indigenous Offers)

To,
Currency Note Press, Nashik
A Unit of Security Printing & Minting
Corporation of India Limited
Wholly Owned by Govt. of India, Nashik
OFFER FORM for Tender No. 6000018376 Date of opening .....Time.....Hours.....
We ..... hereby certify that we are established firm of manufacturers / authorized agents of M/s..... with factories at ..... which are fitted with modern equipment and where the Production methods, quality control and testing of all materials and parts manufactured or used by us are open to inspection by the representative of ...(Name of Purchaser). We hereby offer to supply the following items at the prices indicated below:

Sr. No.	**Item description**	**UOM (Unit of measurement)**	**HSN/SAC CODE**	**Unit Rate (Rs.)**	**IGST @....%**	**CGST @.....%**	**SCGT @.....%**	**Total rate per unit (Rs) (FOR CNP, Nashik) inclusive of GST, and other charges(Rs.)**	**Qty.**	**Total Amount (Rs.)**
1	2	3	4	5	6	7	8	9= (5+6+7+8)	10	11=(9*10)
1	**Supply of 400 KVAR APFC Panel**	Nos							1	

2	**Suppy of 125 KVAr Static VAR Generator**	Nos							1	
3	**Supply of 75A Neutral Current Compensator**	Nos							1	
4	**Supply of 3½C x 300 sq.mm XLPE Al. cable**	Mtr							15	
5	**Supply of 500 KVAR APFC Panel**	Nos							1	
6	**Supply of 50A Neutral Current Compensator**	Nos							1	
7	**Supply of 3½CX400 sq.mm XLPE Al. Cable**	Mtr							15	
8	**Supply of 150 KVAR APFC Panel**	Nos							2	
9	**Supply of 50A Neutral Current Compensator**	Nos							2	
10	**Supply of 60A Smart Power Conditioner**	Nos							2	
11	**Supply of 3½C X 120 sq.mm XLPE Al. Cable**	Mtr							30	
12	**Supply of 700 KVAR APFC Panel**	Nos							1	
13	**Supply of 500 KVAR APFC Panel**	Nos							2	

14	**Supply of 125 KVAr Static VAR Generator**	Nos							3	
15	**Supply of 3½C X 400 sq.mm XLPE Al. Cable**	Mtr							50	
16	**Supply of 50A Neutral Current Compensator**	Nos							2	
17	**Supply of 3½C X 70 sq.mm XLPE Al. Cable**	Mtr							15	
18	**Supply of 100 KVAR APFC Panel**	Nos							1	
19	**Supply of 200KVAR APFC Panel**	Nos							1	
20	**Supply of 300KVAR APFC Panel**	Nos							1	
21	**Supply of 500KVAR APFC Panel**	Nos							1	
22	**Supply of 150A Smart Power Conditioner**	Nos							2	
23	**Supply of 125 KVAr Static VAR Generator**	Nos							3	
24	**Supply of 3½C X 120 sq.mm XLPE Al. Cable**	Mtr							15	
25	**Supply of 3½C X 240 sq.mm XLPE Al. Cable**	Mtr							30	

26	**Supply of 3½C X 400 sq.mm XLPE Al. Cable**	Mtr							15	
27								**Grand Total (Rs.)**		

1. Scope of Supply: (Cost break-up of the quoted cost, showing inter-alia costs of all the concomitant Installation/ Commissioning/ Training/ Technical Support/ incidental services/ software/ accessories, considered necessary to make the proposal self-contained and complete must be indicated here.)

2. Taxation Details:
a) PAN number
b) Type of GST Registration (Registered, Unregistered, Composition, SEZ, RCM etc.)
c) GSTIN number
d) Registered Address as per GST registration and Place of Delivery for GST Purpose
e) Contact Names, Nos. & email IDs for GST matters (Please mention primary and secondary contacts)
.....

3. It is hereby certified that we have understood the General and Special Instructions to Tenderer's (GIT and SIT), and also the General and Special Conditions of Contract (GCC and SCC) attached to the tender and have thoroughly examined specifications/ Quality Control Requirements and other stipulations in Section VII & VIII – Technical Specifications and Quality Control Requirements; and are thoroughly aware of the nature of stores required and our offer is to supply stores strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the General and Special Conditions of Contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

4. We hereby offer to supply the stores detailed above or such portion thereof, as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of ---- days from the date of opening of tender (i.e., up to ----), We shall be bound by the communication of acceptance dispatched within the prescribe time.

Dated.....
Signature and seal of Manufacturer/Bidder

Note:
(i) The Bidder may prepare their own offer forms as per this proforma.
(ii) No change in the proforma is permissible.
(iii) No erasures or alternations in the text of the offer are permitted. Any correction made in the offer shall be initialed by the bidder.
(iv) This Section should not bring in any new Technical Parameter that has not been mentioned in the Technical Bid.

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SECTION XII: QUESTIONNAIRE
SECTION XIII: BANK GUARANTEE FORM OF EMD
SECTION XIV: MANUFACTURER'S AUTHORIZATION FORM
SECTION XV: BANK GUARANTEE FORM FOR PERFORMANCE SECURITY
SECTION XVI: CONTRACT FORM
SECTION XVII: LETTER OF AUTHORITY FOR ATTENDING A BID OPENING
SECTION XVIII: SHIPPING ARRANGEMENT FOR LINER CARGOES
SECTION XIX: PROFORMA OF BILLS FOR PAYMENTS
Please CLICK the link for further details
http://cnpnashik.spmcil.com/SPMCIL/UploadDocument/SBDTEMPLATE1.pdf

TWO BID, SINGLE STAGE (TWO PACKETS) TENDER BIDDER'S CHECK LIST BEFORE TENDER SUBMISSION

Part I: - TECHNO-COMMERCIAL BID

Sr. No.	Tender Submission Check Points	Check before submission Tick (√)
1	EMD FEE /Bid Security Declaration	
2	Tender Document duly Seal & Signed	
3	Term of Delivery :- FOR, CNP Nashik road, duly unloaded	
4	Tender Validity 120 days as per the tender	
5	Technical Specification –Section VII as per tender	
6	Submit Manufacturer's Authorization form (As Applicable)	
7	Accept the Warranty clause as per tender (As Applicable)	
8	Submit the documents as per Qualification / Eligibility criteria – Section IX (As Applicable)	
9	Fill Tender Form – Section X duly seal & sign (Without mentioning price)	
10	Delivery Period: Acceptance of delivery period as per Section VI of tender Document.	
11	Blank price schedule format as per Section XI indicating 'XXXX'	
12	Power of Attorney for signing the bid document and contract, if awarded.	
13	Section II - General Instructions to Tenderer's (GIT)	
14	Section IV - General Conditions of Contract (GCC)	
15	Section XII to XIX of Tender Documents	

Part II: - PRICE BID

Sr. No.	Tender Submission Check Points	Check before submission Tick (√)
1	Price Bid as per Section XI (Price including all taxes & other charges)	

…… (Bidder's Seal & Sign)

SECURITY PRINTING AND MINTING CORPORATION OF INDIA LIMITED

TENDER NO : 6000018376

Bid Security Declaration Format

(To be printed on letter head of bidder)

Date:

To,
The Chief General Manager
Currency Note Press
Nashik Road

Sub: Bid Security Declaration-Reg.
Ref: 1. Tender No. _____ Dtd: _____
2. Bidder's offer no. _____ Dtd: _____

I, _____ (Name of authorized signatories), on behalf of M/s. _____ (Bidder's name and address), duly authorized to sign the tender document and enter into contract (if awarded), herewith accept that if the bidder withdraw (or) modify our bid during period of validity i.e. within120 days of opening of bid etc., the bidder will be suspended/debarred/blacklisted for a period of two years from the due date of the tender.

(Signature of Authorized Signatory)

Designation:
Name of Bidder:
Seal:

(Non submission of this declaration may result in disqualification)