

राष्ट्रीय कोशिका विज्ञान केंद्र
NATIONAL CENTRE FOR CELL SCIENCE
(An Autonomous Institution of the Department of Biotechnology, Govt. of India)
N.C.C.S. Complex, Ganeshkhind, Pune University Campus, Pune 411007

Name of the work : Design, Supply, Installation, Testing and Commissioning of 11KV SF6 Gas Insulated metal enclosed RMU at NCCS, Pune

Tender Ref. No. : NCCS/MAINT./RMU/320/2016/1;Dt.03/12/2016

List of technically qualified and shortlisted prospective bidders for the above work is as below.

Sr.No.	Name of Bidder	Remark
1	M/s. Manani Electricals, Mumbai	Qualified
2	M/s. A-One Engineering Services, Pune	Qualified
3	M/s. Electel Services, Pune	Qualified
4	M/s. Mahalaxmi Electromech Systems Pvt Ltd, Pune	Qualified
5	M/s. Sameer Electro systems Pvt Ltd, Pune	Qualified
6	M/s. JVS Engineering, Pune	Qualified

Commercial bids of the above bidders will be opened on 31/01/2017 at 2.30 PM at NCCS, Pune.

All the short listed bidders are requested to present for opening of commercial bids.



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N.C.C.S. Complex, Ganeshkhind, Pune University Campus, Pune 411007.

REVISED

PART-II (COMMERCIAL / PRICE BID)

**DESIGN, SUPPLY, INSTALLATION, TESTING AND
COMMISSIONING OF 11KV SF6 GAS INSULATED
METAL ENCLOSED RMU WITH TRANSFORMER
PROTECTION AT N.C.C.S., PUNE**

DUE DATE FOR SUBMISSION: 26/12/2016 @ 13 HRS

TO BE SUBMITTED TO:

The Director
National Centre for Cell Science
Pune University Campus,
Pune 411007 (Maharashtra, India)



NAME AND ADDRESS OF BIDDER: _____

REVISED BILL OF QUANTITY

NCCS/MAINT./RMU/320/2016/1

03/12/2016

Sr. No.	Item Description	Unit	Qty	Supply		Installation	
				Unit Rate	Amount	Unit Rate	Amount
				(Rs.)	(Rs.)	(Rs.)	(Rs.)
1	<p>Supply, transport, delivery, loading unloading, Inspection, Testing and Commissioning of 11 KV, 3 Phase, 20KA for 1 Sec, 50Hz, manual operated SF6 Gas Insulated, Metal enclosed, Indoor type RMU with Transformer Protection at NCCS, Pune having Compact (non-extensible) and comprising one Load Break Isolator (630A) as Incomer and two SF6 Gas Insulated Vacuum Circuit breakers (630A) as Outgoing for outgoing cables to Distribution Transformer (1500KVA X 2Nos),</p> <p>with earth switch having protection fuses of suitable rating 11KV, suitable for mounting on existing cable of size 3C X 185 Sq.mm with necessary touch proof termination kits/boots with termination of HT Cables (for one incoming and two outgoing cables), hardwares like lugs/ ferules etc.,</p> <p>Transformers Protection having</p> <ul style="list-style-type: none"> - O/C & E/F protection relays - with eight windows annunciator for OTA, WTA, BA and OTT, WTT, BT relays -Under & Over voltage relay -Necessary Current Transformer (CT) & Potential (Voltage) Transformer (PT) as per IEC/ IS. -24VDC Power Pack with factory assembled and duly wired tested etc. LED Indications <p>Necessary wiring, connections etc., as per specifications and approved brands, confirming IEC/IS latest amendments,</p> <p>required necessary foundation for installation of new RMU with Transformer Protection and to cover cable trench opening with necessary checker plates / trenches, necessary MS Channel supports supports & fabrication works for mounting RMU as per site condition etc. Complete Job.</p>	No.	1				



Sr. No.	Item Description	Unit	Qty	Supply		Installation	
				Unit Rate	Amount	Unit Rate	Amount
				(Rs.)	(Rs.)	(Rs.)	(Rs.)
2	Dismantling and removing of existing floor mounted, 12 KV, 3 Phase, 50 Hz, 40KA for 3 Sec, 100KA Making Capacity, 1600A, Indoor type, metal enclosed, Compact, Minimum Oil Circuit Breakers (MOCB) having one incomer and two outgoing for distribution transformer (1500KVA), protection having EF / OC relays, Three Vector meter, Auxillary and tripping relays, faults annunciator, analog meters such as Ammeters, Voltmeter, Frequency meter, Energy meters, PF meter and indicating lamps, selector switches on Panel, Make: Eswaran & Sons Engg Ltd, Chennai, Type: 12MG, Mfg. year: 1994, As per IEC 56 /IS-52516, Dimensions: 2590mm(L)X 2865mm(W)X 2072mm(H) having total weight-1250Kgs(Approx)	No.	1				
3	Buyback Credit value for existing MOCB HT panel (description as per Sr. No.2)	No.	1				
4	Supply, installation, testing and commissioning of 12 Core x 2.5 Sqmm Multistrand Copper Armored Control Cable from Transformer to RMU with necessary hardwares like lugs, ferrules etc. Complete.	Mtr	50				
5	Supply, installation, testing and commissioning of Heat shrink straight Through joint for 11 KV cables for 3CX185 Sqmm HT XLPE including necessary accessories, supports, hardwares like lugs/ ferrules, insulation tape etc. with necessary pressure testing. Complete job.	Nos.	1				
6	Supply, installation, testing and commissioning of Copper Earthing strips, 25mmX5 mm with necessary hardwares etc for body earthing. Complete Job.	Mtr	10				
7	Charges for Liasioning, coordinating and follow up with MSEDCL and Electrical Inspector If any.	Job	1				
Total Amount (Rs.)							
Service Tax @ 15 % (Rs.)							
Gross Amount (Rs.)							

(Gross Amount in words:)

Note: Gross Amount including removing old functioning of MOCB HT Panel and supply, installation, testing and commissioning of SF6 Gas Insulated, Metal enclosed, Indoor type RMU with transformer protection with interconnection of all cables, termination, hardware etc and successful working of the panel, documentation and training in all complete respect with credit of old HT Panel.



Signature and seal of the Bidder

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NATIONAL CENTRE FOR CELL SCIENCE

(An Autonomous Institution of the Department of Biotechnology, Govt. of India)
Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411007.

Minutes of the Pre-Bid meeting for Tender Design, Supply, Installation, Testing and Commissioning of 11KV SF6 Gas Insulated Metal Enclosed RMU at N.C.C.S., Pune.

Tender Ref. No. : NCCS/MAINT./RMU/320/2016/1 dated 03/12/2016
Date : 13/12/2016 @15 Hrs
Venue : Old Seminar Hall, NCCS, Pune

Clarification of all the queries raised by prospective bidders during pre-bid is as listed below.

Sr. No.	Particulars	Published	Corrected / Revised
1	Technical Bid & Commercial Bid-RMU	RMU	Required RMU with transformer protection-Having provision for one incomer feeder from existing RMU and two outgoing feeders for 1500 KVA X 2 Nos. of Transformers with necessary transformer protection. It consist of - O/C & E/F protection relays - with eight windows annunciator for OTA, WTA, BA and OTT, WTT, BT relays -Under voltage relay, -Necessary Current Transformer (CT) & Potential Transformer (PT) as per IEC/ IS. -24V DC Power pack with factory assembled and duly wired tested etc.
2	Duration for shutdown for replacement of old HT Panel by new RMU Panel with transformer protection		Existing NCCS activities requires continuous round "O" clock electrical supply for various laboratory equipments and Scientific Research Experiments. Considering the gravity of situation, the replacement of old HT Panel with new RMU panel with Transformer protection should be carried out in minimum shut down time. Shutdown will be given to contractor when Engineer-in- Charge himself satisfied that all necessary materials,



			<p>tools, tackles and manpower are available at site with micro level planning. Contractor should make necessary efforts to carry out this work in as possible as minimum shutdown time. Max shutdown time for this work will be allowed only 6 hrs.</p> <p>To complete installation of new RMU in minimum shutdown it is decided to install new RMU adjacent to the left side of existing HT panel. All control cabling termination to RMU and laying new cable in trench, earthing etc will be carried out without shutdown. Shutdown only given for control wiring termination at both transformers protective relays and termination of HT cables to new RMU.</p>
3	Technical Bid & Commercial Bid- Rated Breaking Capacity	25 KA for 1 Sec	Min 20 KA for 1 Sec
4	Technical Bid & Commercial Bid- Rated Making Capacity	62.5 KA for 1 Sec	Min 50 KA for 1 Sec
5	Technical Bid- Indemnity Bond Page No.14 of 56	The Contractor shall indemnify, protect and save NCCS against all claims, losses, costs, damages, expenses, action suits and other proceedings, resulting from infringement of any patent, trademarks, copyrights etc. or such other statutory Infringements in respect of all the cold room equipments etc. supplied by him	The Contractor shall indemnify, protect and save NCCS against all claims, losses, costs, damages, expenses, action suits and other proceedings, resulting from infringement of any patent, trademarks, copyrights etc. or such other statutory Infringements in respect of all the RMU with transformer protection etc. supplied by him



6	Technical Bid- Colour Shade for RMU Page No.26 of 56 and 28 of 56.	Dark Grey Code 632 as per BS 381C Front cover- RAL7012 Side and Cable Cover- RAL7035	As per MFG Standard.
7	Technical Bid- Completeness of Installation, Page No.38 of 56	Contractor should also supplied min. 2 sets of special tools required for maintenance and service of breakers free of cost to NCCS e.g. manual spring charging handle, breaker pull in / out handle, specified spanners etc.	Contractor should also supplied 1 set of special tools required for maintenance and service of breakers free of cost to NCCS e.g. manual spring charging handle, breaker pull in / out handle, specified spanners etc.
8	Commercial Bid		Commercial Bid considering the revised specifications for RMU with Transformer Protections and additional items like HT Cable Joint kits, Copper Body earthing and control cable will be uploaded on NCS website. All prospective bidders are requested to go through the above changes and formulate their bids accordingly. All other terms and conditions are remain same.



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Savitribai Phule Pune University Campus, Ganeshkhind Pune 411007.

PART- I (TECHNICAL BID)

**DESIGN, SUPPLY, INSTALLATION, TESTING AND
COMMISSIONING OF 11KV SF6 GAS INSULATED METAL
ENCLOSED RMU AT N.C.C.S., PUNE**

DUE DATE FOR SUBMISSION: 26/12/2016 @ 13 HRS

TO BE SUBMITTED TO:

**The Director
National Centre For Cell Science
Savitribai Phule Pune University Campus,
Ganeshkhind
Pune 411007 (Maharashtra, India)**

NAME AND ADDRESS OF BIDDER:_____

TENDER FEE: Rs.500/-

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2. PRESS NOTICE TO BE ISSUED FOR PUBLICATION IN NEWSPAPERS

राष्ट्रीय कोशिका विज्ञान केंद्र NATIONAL CENTRE FOR CELL SCIENCE Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411007					
NOTICE INVITING TENDER					
The Director N.C.C.S. Pune invites sealed Item Rate / Percentage Rate tenders under two-bid system for following works from registered contractors with C.P.W.D., Railways, M.E.S., B.S.N.L., P.S.U's or interested, inline, experienced, reputed Individuals, firms, OEM, Companies etc.					
Sr. No.	NIT No.	Name of Work	Esti. Cost	EMD	Time of Completion
1	NCCS/MAINT/RMU/320/2016/1	Design, Supply, Installation, Testing and Commissioning of SF6 Gas insulated RMU	Rs.7.35 Lakh	Rs.0.15 Lakh	Three Month
2	NCCS/MAINT/SOLAR/322/2016/2	Design, Supply, Installation, Testing and Commissioning of Solar water heating Systems	Rs.5.60 Lakh	Rs.0.12 Lakh	Two Month
3	NCCS/MAINT./PROJSC/324/2016/3	Supply, Installation, Testing and Commissioning of Tensioned Projection Screen	Rs.5.70 Lakh	Rs.0.12 Lakh	Two Month
4	NCCS/MAINT/LANDSCAPE/307/2016/4	Landscape (Civil) development works	Rs.14.44 Lakh	Rs.0.29 Lakh	Three Month
5	NCCS/MAINT/HORTICULTURE/307/2016/5	Horticulture works	Rs.17.48 Lakh	Rs.0.35 Lakh	Three Month
Details of tender notice along with complete tender documents can be downloaded from our website www.nccs.res.in . All further information, instructions, corrigendum/addendum or notices will be published on our website only.					

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NATIONAL CENTRE FOR CELL SCIENCE

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Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411007.

3. NOTICE INVITING TENDER

NCCS/MAINT./RMU/320/2016/1

03/12/2016

National Centre for Cell Science is a Premier Research, an Autonomous Institute under Department of Biotechnology, Govt. of India having office at Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411007.

The Director N.C.C.S. Pune invites sealed Item Rate tender in Two Bid System from registered contractors with C.P.W.D., Railways, M.E.S., B.S.N.L., P.S.U's or interested, inline, experienced, reputed Individuals, firms, OEM, Companies etc for **“Design, Supply, Installation, Testing and Commissioning Of 11KV SF6 Gas Insulated Metal Enclosed RMU at N.C.C.S., Pune”**.

Name of the Work	Estimated Cost (Rs.)	EMD (Rs.)	Time for Completion
Design, Supply, Installation, Testing and Commissioning of 11KV SF6 Gas Insulated Metal enclosed RMU.	Rs.7.35 Lakh	Rs.0.15 Lakh	Three month

3.1 **Eligibility criteria:** (Please attached self- attested documents)

- 3.1.1 Legal Status of Bidder: Bidder should have legal status whether it will be a registered Proprietorship Firm/Partnership Firm/ Company under Companies Act having legal entity having all statutory licenses/registration for carrying out such activity. Bidder should have registration for Service Tax, VAT, PAN/TAN Number, Excise Duty and Sales Tax. Joint Ventures are not allowed for this work.
- 3.1.2 Bidder should have valid Electrical Contractor License. The core business of the bidder should be supply installation testing and commissioning of HT Electrical equipments.
- 3.1.3 Work Experience: The Bidder should have min three years of experience carrying out similar type of works.
- 3.1.4 Technical Capacity: The bidder must submit a self-attested copy of work order with completion certificate details filled with attached format FORM C of which the work has been completed within last three years upto previous day of last day of submission of tender, as a proof of similar work done. The value of each work order should be not less than
- 1) One similar completed works consisting not less than Rs.5.90 lakh
 - “OR”
 - 2) Two similar completed works consisting not less than Rs.4.41 lakh

“OR”

3) Three similar completed works consisting not less than Rs.2.94 lakh

“Similar nature of works means Design, Supply, Installation, Testing and Commissioning of Compact 11KV SF6/VCB Metal Enclosed Ring Main Unit (RMU).”

3.1.5 Bidder should submit Authorization letter of Principal Company.

3.1.7 Financial:

a. The Bidder should submit the Bank Solvency Certificate (as per attached format Form B) of Rs.15 lakh (Rupees Fifteen Lakh only) from any Nationalized/Scheduled Bank.

b. The Bidder should have average Annual Turnover not less than Rs.30 lakh (Rupees Thirty Lakh only) for last three immediate consecutive years ending on 31st March 2016.

c. The Bidder should not have loss for any consecutive two years during last three years ending 31st Mar 2016. Attach copy of Income Tax Return / certified balance sheet of the firm certified by CA for last three years.

3.1.8 The bidder should attach Tender fee in the form of DD of Rs.500/- (Rs. Five Hundred only).

3.1.9 The Bidder should accompany a DD / BG of Rs.15000/- (Rupee Fifteen Thousand only) drawn on any Nationalized Bank in the favour of the Director, National Centre for Cell Science, Pune payable at Pune towards Earnest Money Deposit (EMD). BG should be valid for minimum of six months.

3.2 **Bid issue and submission:**

The interested bidders can download the tender document from website www.nccs.res.in and shall submit the tender cost by DD for Rs.500/- (Rupees only non- refundable) drawn in favour of The Director, National Centre for Cell Science, Pune along with the technical bid of Tender.

The offer should be submitted in the downloaded bid document in two-envelope system i.e. Technical Bid and Commercial Bid in two separate sealed envelopes super-scribing “**Design, Supply, Installation, Testing and Commissioning Of 11KV SF6 Gas Insulated Metal Enclosed RMU at N.C.C.S., Pune**” in the respective envelopes and both the envelopes shall be submitted together in another sealed envelope duly addressed to

**The Director,
National Centre for Cell Science,
Savitribai Phule Pune University Campus,
Ganeshkhind, Pune 411007.**

The tender document should be submitted intact in a sealed cover either in person or by post without tampering with any of the pages and drawings thereof and duly filled in, signed and seal at the bottom of each pages and drawings, by the Bidder or his / their authorized representative and it shall reach at N.C.C.S., Pune on or before 26.12.2016 @ 13 Hrs. The tender received after the scheduled time on due date will not be considered.

The Director, N.C.C.S., Pune reserves the right to amend or withdraw any of the terms and conditions contained in the tender document before accepting the tender or to reject any or all the tenders without giving any notice or assigning any reason. The decision of the Director, N.C.C.S., in this regard shall be final and binding on all.

3.3 Schedule of tendering process:

1	Tender available on website for download	:	03/12/2016 to 26/12/2016
2	Pre-bid Meeting	:	13/12/2016 @ 15 Hrs
3	Tender Submission due date	:	26/12/2016 @ 13 Hrs
4	Opening of Technical Bid	:	26/12/2016 @ 15 Hrs
5	Opening of Commercial Bid	:	Will be communicated in due course of time

DIRECTOR

4. DEFINITIONS AND TERMS:

In this document the following words and expressions have the meaning hereby assigned to them

- 4.1 **Employer** shall mean National Centre for Cell Science, Pune and shall include his successors and assign, as well as his authorized officers or representatives. National Centre for Cell Science shall be known as “N.C.C.S.”
- 4.2 **Bidder** shall mean the Proprietor / Individual, Partnership firm, Company / Corporation, Society; they shall be, for the purpose of this contract.
- 4.3 **Contractor** shall mean the person or the persons, firm or company whose tender has been accepted by the NCCS and shall include his/their heirs, and legal representatives, the permitted assigns and successors.
- 4.4 **Contract** shall mean the Articles of Agreement, Terms & conditions, the Appendix, Schedule of Quantities and Specifications attached hereto and duly signed.
- 4.5 **Site** shall mean the site of the contracted works at National Centre for Cell Science, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411007.
- 4.6 **Work** shall mean the works to be executed and recorded in accordance with the Contract and shall include all extra or additional altered or substituted works as required and recorded for the performance of the Contract.
- 4.7 This Contract shall include the notice inviting Tenders, the Articles of Agreements, the General Conditions of Contract, the Special conditions of contract, the Appendix, the Schedule of Quantities, Specifications for Materials, Work-Sheet and mode of measurements and drawings pertaining to the work. All sections of this Contract Document are to be read together. Further such correspondence between the NCCS and Contractors as admitted by the NCCS before award of work and thereafter shall also form part of contract documents.

5. INSTRUCTIONS TO THE BIDDERS:

5.1. METHOD OF APPLICATION:

- 5.1.1. If the Bidder is an individual, the application shall be signed by him above his full typewritten name and current address.
- 5.1.2. If the Bidder is a proprietary firm, the application shall be signed by the proprietor above his full typewritten name and the full name of his firm with its current address.
- 5.1.3. If the Bidder is a firm in partnership, the application shall be signed by all the partners of the firm above their full typewritten names and current addresses or alternatively by a partner holding power of attorney for the firm. In the latter case a certified copy of the power of attorney should accompany the application. In both cases, a certified copy of the partnership deed and current addresses of all the partners of the firm should accompany the application.
- 5.1.4. If the Bidder is a limited company or a corporation, the application shall be signed by a duly authorized person holding power of attorney for signing the application accompanied by a copy of the power of attorney. The Bidder should also furnish a copy of the Memorandum of Articles of Association duly attested by a Public Notary.
- 5.1.5. The Bidder should submit Technical Bid & Commercial Bid in separate sealed Envelopes super scribing “Technical Bid” and “Commercial Bid” as the case may be as mentioned in the Tender Notice.
- 5.1.6. Bidders shall go through all documents before quoting the rates.
- 5.1.7. Bidder should ensure that the documents are attached with Technical Bid as per Check list and all pages of Tender and documents are signed and stamped. Failure to do so shall lead to the rejection of bids.
- 5.1.8. Bidder should submit their details as per attached format Letter of Transmittal and All Forms (A to G) with self-attested documents.
- 5.1.9. Overwriting should be avoided. Correction, if any, should be made by neatly crossing out, initialing, dating and rewriting, Pages of the qualification document are numbered. Additional sheets, if any added by the Bidder, should also be numbered by him. They should be submitted as a package with signed letter of transmittal.
- 5.1.10. References, information and certificates from the respective clients certifying suitability, technical knowhow or capability of the Bidder should be signed by an authorized person or officer.
- 5.1.11. Any information furnished by the Bidder found to be incorrect either immediately or at a later date, would render him liable to be debarred from tendering /taking up of work in NCCS.

5.2. BIDDER TO VISIT SITE:

The bidder may visit/examine the site and its surrounding on pre bid meeting dated 13/12/2016 at 14.00 pm for the proper assessment of prospective assignment (scope of works). No claims later on shall be entertained.

5.3. PRICE:

- 5.3.1. The rate(s) and amounts must be quoted in INR Rupees only. The total amount should be written both in figures and in words.
- 5.3.2. The rates for all tendered items shall be inclusive of all taxes, duties, levies, transportation, transit insurance, loading unloading etc., except service tax, payable for this work. The Service Tax is payable as per the prevailing rates and it will be revised as per Government of India orders from time to time in this regard.
- 5.3.3. In the event no rate has been quoted for any item(s), leaving space in figure(s) and amount blank, it will be presumed that the contractor has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.

5.4. CLARIFICATION OF BID:

- 5.4.1. To assist in the examination and comparison of Bids, the NCCS, Pune may, at its discretion, ask any Bidder for clarification of his Bids. The request for clarification and the response shall be in writing or by email / fax, but no change in the price or substance of the Bid shall be sought, offered, or permitted.
- 5.4.2. Any effort by the Bidder to influence the NCCS's Bid evaluation, bid comparison or contract award decisions, may result in the rejection of his bid.

5.5. BID OPENING:

On the due date as specified in tender, NCCS Pune will first open technical bid of all bids received in the presence of the bidders/ their representatives who wish to attend.

5.6. TECHNICAL EVALUATION OF BID:

Initially bidders will be shortlisted as per eligibility criteria led down in the tender. N.C.C.S. may at any time after opening of the technical bid, depute a team of its' officials to the site / work place / office of the Bidder to get the credentials of the information furnished by the Bidder and to verify the status, workmanship & quality of the work / services rendered by them. The tender of the bidder shall be liable for rejection in case of

- i. Any information furnished by the Bidder is found incorrect.
- ii. The quality of the work and workmanship is found unsatisfactory

The technically qualified responsive bidder only will be short listed for opening of the commercial bids.

5.7. AWARD OF CONTRACT:

The NCCS, Pune shall award the Contract to the Bidder whose evaluated offer/Bid has been found to be the technically suitable, financially lowest and is substantially responsive to the Bidding Document, provided further that the Bidder is found to be qualified to execute the contract satisfactorily.

The Director, NCCS reserves the right to accept or reject any bid or all the bids at any time, without thereby incurring any liability to the affected bidder or specifying the grounds for the same.

The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labour necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the E-I-C shall be communicated in writing to the E-I-C.

The Contractor shall prepare an BAR Chart for the execution of the work showing clearly all activities with sequence from the start of the work to the completion, with detailed of manpower, materials, equipments and machinery required for the fulfillment of the programme within the stipulated period or earlier and submit the same for approval of the E-I-C, NCCS within ten days of award of the contract /issue of LOI.

6. GENERAL CONDITIONS OF CONTRACT:

6.1 PRE BID CONFERENCE-

6.1.1. The objective of PBC is to provide a platform for clarifying issues and clearing doubts, if any, about the specification and other allied technical/commercial details of the bid document. Bids should be submitted only after the PBC so as to take care of the change made in the bidding document. Bidders are requested to send their written queries, doubts, clarifications if any well in advance on following email, minimum two days before meeting.

Email: maintenance@nccs.res.in
pendhariac@nccs.res.in

6.1.2. The bidder may request a clarification of the pre bid minutes of the meeting from the NCCS **within two days** from uploaded on the NCCS website. No any quires will be entertained after above deadline.

6.1.3. At any time prior to the deadline for submission of tenders, the NCCS may for any reason, whether on its own initiative or as a result of a request for clarification by the bidder, modify the tender documents by issuing addendum.

6.1.4. If the NCCS convenes a meeting of the bidder, it shall prepare minutes of the meeting containing the request submitted at the tender documents. Change in the technical specifications and terms & conditions if any, for the above items after pre-bid, will be provided by e-mail promptly to all bidders and also posted on the NCCS website. All Bidders are requested to quote accordingly.

6.2 PERFORMANCE BANK GUARANTEE (PBG)-

6.2.1. The Successful Bidder shall submit an irrevocable Performance Bank Guarantee of 5% (Five percent) of the contract amount for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period of seven days from the date of issue of letter of Intent as per attached format as ANNEXURE II of any nationalized /scheduled bank.

After receipt of Performance Bank Guarantee from the successful Bidder, formal work order will be issued and physical site will be handed over and EMD will be refunded to all bidders within one week without any interest.

If he / she / they decline/s or fail/s to submit the PBG within the stipulated time, the EMD shall stand forfeited, without prejudice to N.C.C.S.'s right to rescind the contract and other rights and remedies warranted by the law.

In the event of refusal to carry out work within fifteen days by the successful Bidder on any grounds, its Earnest Money Deposit / Performance Bank Guarantee shall be forfeited.

6.2.2. The Performance Bank Guarantee shall be initially valid up to the stipulated date of completion plus 60 days beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of PBG extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the Architect/Consultant, the PBG

shall be increased to cover “Defect Liability Period of one year plus sixty days” and after successful completion of defect liability period plus sixty days PBG will be returned to the contractor on written request by contractor, without any interest.

6.2.3. The Engineer-in-Charge shall not make a claim under the PBG except for amounts to which NCCS is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:

- i) Failure by the contractor to extend the validity of the PBG as described herein above, in which event the Engineer-in-Charge may claim the full amount of the PBG.
- ii) In the event of the contract being determined or rescinded under provision of any of the Condition of the agreement, the PBG shall stand forfeited in full and shall be absolutely at the disposal of the NCCS.

6.3 SECURITY DEPOSIT:

Security deposit of 10% shall be deducted from the bills payable to the contractor.

Security Deposit will be refunded after twelve months of defect liability period from the date of completion of work. In case of unsatisfactory performance by the Contractor Security Deposit (10%) will be forfeited.

6.4 VALIDITY OF OFFER:

Bidder/s shall keep his / their offer valid for a period of at least 3 months (90 days) from the date of opening of the Technical Bid. If any Bidder withdraws or amends impairs or derogates from the tender in any respect within the period of validity of his offer, the EMD is liable to be forfeited.

6.5 PAYMENT TO CONTRACTOR:

6.5.1. No advance payment will be paid against this work order.

6.5.2. 50%.Payment will be made within 30 days against delivery of full material at NCCS in good condition against Invoice with delivery challans.

40% Payment will be made within 30 days against satisfactory completion of installation, testing and commissioning of the RMU and as per actual measurements of work carried out at site.

Security deposit of 10% deducted from respective bills shall be paid after completion of Defect Liability Period of one year from the date of Commissioning and testing of the system.

6.5.3. Sales-tax/VAT (except service tax), purchase tax, turnover tax or any other tax applicable in respect of this contract shall be payable by the Contractor and NCCS will not entertain any claim whatsoever in respect of the same.

However, in respect of service tax, same shall be paid by the contractor to the concerned department on demand and it will be reimbursed to him by the NCCS after satisfying that it has been actually and genuinely paid by the contractor.

6.5.4. Payments will be made through RTGS / NEFT.

6.5.5. TDS will be deducted as per Prevailing Rules.

6.6 RIGHT TO ACCEPT OR REJECT TENDER:

The Director, N.C.C.S. reserves the right to amend or withdraw any of the terms and conditions contained in the tender document before accepting the tender or to reject any or all the tenders without giving any notice or assigning any reason. The decision of the Director, N.C.C.S. in this regard shall be final and binding on all.

The Director NCCS reserves the right to delete items, reduce or increase the scope of work without the contractor claiming any compensation for the reduction in the scope of work. Contractor has bound to carry out the reduced or increased quantity of work at the quoted rates.

6.7 ABNORMALLY HIGH RATE (AHR) & ABNORMALLY LOW RATE (ALR) ITEM:

If the bid of the successful bidder is seriously unbalanced in relation to the estimate of the cost of work to be performed under the contract, the NCCS may require the bidder to produce detailed price analysis for any or all items of the Bill of quantities of demonstrate the internal consistency of these prices with the working method and the schedule proposed.

6.8 ESCALATION:

Escalation is not applicable for this work.

6.9 SIGNING OF THE CONTRACT:

6.9.1. The successful Bidder shall be required to execute an agreement with NCCS as per the General Conditions / Special conditions enumerated in the tender documents and as per attached format as ANNEXURE III, on a Non-Judicial Stamp Paper of Rs.100/- (Rupees One Hundred only) within 15 days from the date of receipt of the notice of acceptance of tender. In the event of failure on the part of the successful Bidder to sign the agreement within the above stipulated period. The NCCS reserves the right to forfeit the EMD / PBG and cancel the contract.

6.9.2. Until the Agreement is formally signed, the Letter of Intent/ Work Order of Tender issued to the successful Bidder and accepted by him shall be operative and binding on the NCCS and the Contractor.

6.9.3. No payment for the work done will be made unless contract is signed by the Contractor.

6.9.4. N.C.C.S. may at any time after opening of the tender depute a team of its' officials to the site / work place / office of the Bidder to get the credentials of the information furnished by the Bidder verified by collecting the spot information as to the status, workmanship & quality of

the services rendered by them. If any information furnished by the Bidder is found to be incorrect, the tender of such Bidder shall be liable for rejection.

6.9.5. It shall be the responsibility of the Contractor to meet transportation, food, medical and any other requirements in respect of the workers engaged by him at N.C.C.S. Pune and N.C.C.S. shall have no liabilities in this regard.

6.9.6. The N.C.C.S. will not be responsible for any damages, losses, theft, claims, financial or other injury to any workers deployed by service providing Bidder in the course of their performing the functions / duties, or for payment towards any compensation.

6.10 DISCIPLINE:

Contractor shall carry out the works hereunder with due diligence and in a safe and workman like manner according to good Contractor's employees and shall abide by and conform to all rules and regulations promulgated by the NCCS governing the operations.

6.11 SAFETY CODE:

The Contractor shall take adequate precautions to ensure that the tendered works not at all affects the working of the NCCS. He shall take adequate measures to barricade the work sites so that unauthorized persons do not enter the work site. All the safety codes and the preventive measures for this type of work shall be strictly followed. All the personnel and staff shall be under the Contractor's authority and it shall be the responsibility of the Contractor for all insurance, accident claims etc. at the site. The Contractor shall strictly abide by the labour laws in force from time to time and comply with the same and will co-ordinate directly with the concerned authorities. Contractor should follow CPWD safety code norms and IE norms applicable for this work at his own risk and cost.

6.12 INDEMNITY BOND:

The Contractor shall at all times hold N.C.C.S. harmless and effectively indemnified (as per attached Annexure-IV) on a Non-Judicial Stamp Paper of Rs.100/- (Rupees One Hundred only) within 15 days from the date of receipt of the notice of acceptance of tender. This clause shall survive the termination of this contract.

The Contractor shall indemnify, protect and save NCCS against all claims, losses, costs, damages, expenses, action suits and other proceedings, resulting from infringement of any patent, trademarks, copyrights etc. or such other statutory Infringements in respect of all the cold room equipments etc. supplied by him

6.13 QUALITY OF WORK:

The quality of work at all stages should be as per the standards laid down, as per NIT and explained to the Contractor by N.C.C.S., Pune. It is made clear that there cannot be any compromise in the material quality and workmanship of work. It shall be the responsibility of the Contractor to ensure that the standards laid down from time to time are strictly maintained.

Contractor should use approved brands of materials only and get approved sample of each material from Engineer in charge before use.

6.14 DATE OF COMPLETION:

6.14.1. Time is the essence of the Contract.

6.14.2. The entire work shall be completed in 90 days (Three month) in all respects including testing within the period.

6.14.3. In order to complete the work, within the time limit the contractor has permitted to work from 9 am to 5 pm on all working days.

6.14.4. The Bidder should submit **detailed tentative BAR Chart** showing delivery of materials, installation, testing, commissioning, training, documentation and handing over the systems with this tender document.

6.14.5. The work shall not be considered as complete until the Engineer in charge of NCCS have certified completion in writing. The defects liability period shall commence from the date of such certificate.

6.15 DEFECT LIABILITY PERIOD:

The Defect Liability Period (Period of Maintenance) for the work is twelve month from the date of the completion of work. During the period of maintenance, the contractor will be responsible for rectifying any defects in working caused due to bad workmanship and poor quality of materials etc. This will be rectified by the contractor at his own expenses otherwise SD (10%) will be forfeited.

6.16 COMPENSATION FOR DELAY:

If the contractor fails to maintain the required progress or to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the NCCS on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the Engineer in Charge of NCCS (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day/month (as applicable) that the progress remains below that specified in Clause- Time and Extension for Delay or that the work remains incomplete.

Compensation for delay of work @ 1.5 % per month of delay to be computed on per day basis provided always that the total amount of compensation for delay to be paid under this Condition shall not exceed 10% of the contract value of work.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this contract with the NCCS or the security deposit will be forfeited.

6.17 INCENTIVE FOR EARLY COMPLETION:

In case, the contractor completes the work ahead of scheduled completion time, a bonus @ 1% (one per cent) of the contract value per month computed on per day basis, shall be payable to the contractor, subject to a maximum limit of 5% (five per cent) of the contract value. The amount of bonus, if payable, shall be paid along with final bill after completion of work.

6.18 WHEN CONTRACT CAN BE DETERMINED:

6.18.1 Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases.

- i) If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or unworkmanlike manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- ii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.

If the contractor fails to complete the work within the stipulated date, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing by the Engineer-in-Charge.

- iii) If the contractor persistently neglects to carry out his obligations under the contract and/ or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him by the Engineer-in-Charge.
- iv) If the contractor shall offer or give or agree to give to any person in NCCS service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for NCCS.
- v) If the contractor shall obtain a contract with NCCS as a result of wrong tendering or other non-bonafide methods of competitive tendering.
- vi) If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or

arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors. If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.

- vii) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- viii) If the contractor assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer -in-Charge.

6.18.2 When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the Director, NCCS shall have powers.

- i) To determine the contract as aforesaid (of which termination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the NCCS.
- ii) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work.
- iii) In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.
- iv) In case, the work cannot be started due to reasons not within the control of the contractor within 1/8th of the stipulated time for completion of work, either party may close the contract. In such eventuality, the Earnest Money Deposit and the Performance Guarantee of the contractor shall be refunded, but no payment on account of interest, loss of profit or damages etc. shall be payable at all.

6.19 TIME AND EXTENSION FOR DELAY:

The time allowed for execution of the Works as specified in the NIT or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in NIT or from the date of handing over of the site whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, Director NCCS shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee absolutely.

6.19.1 As soon as possible after the Contract is concluded, the Contractor shall submit a Time and Progress Chart for each mile stone and get it approved by the Engineer-in Charge. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds the time period to complete the work as per mile stones given in NIT.

6.19.2 IF THE WORK(S) BE DELAYED BY:-

- i) force majeure, or
- ii) abnormally bad weather, or
- iii) serious loss or damage by fire, or
- iv) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
- v) delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract, or
- vi) Any other cause which, in the absolute discretion of the Engineer-in-Charge is beyond the Contractor's control.

Then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

6.19.3 Request for rescheduling of Mile stones and extension of time, to be eligible for consideration, shall be made by the Contractor in writing of the happening of the event causing delay on the prescribed form to the Engineer-in Charge. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.

6.19.4 Request for rescheduling of Mile stones and extension of time, to be eligible for consideration, shall be made by the Contractor in writing of the happening of the event causing delay on the prescribed form to the Engineer-in Charge. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.

6.19.5 In any such case the Engineer-in Charge may give a fair and reasonable extension of time and reschedule the mile stones for completion of work. Such extension shall be communicated to the Contractor by the Engineer-in Charge in writing after receipt of such written request. Non application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-in Charge and this shall be binding on the contractor.

6.20 MEASUREMENTS OF WORK DONE:

All measurements shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative after completion of the work and such measurements shall be signed and dated by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance.

6.21 CONTRACTOR TO KEEP SITE CLEAN:

On completion of the work, all rubbish materials related to contract works shall be removed by the contractor(s) at his/their own expenses and the site cleaned and handed over to the NCCS and shall intimate officially of having completed work as per contract.

If it is noticed that the Contractor does not clean the place of work, then N.C.C.S. PUNE reserves the right to get the area cleaned and unilaterally debit the cost of cleaning to the Contractor or deduct the cost incurred, from the Contract amount as deemed fit.

6.22 DISMANTLED MATERIAL NCCS PROPERTY:

The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as NCCS property and such materials shall be handed over to NCCS after completion of work.

6.23 INCONVENIENCE TO NCCS ACTIVITIES:

The Contractor shall not deposit materials on any site which will seriously inconvenience to any of the NCCS activities. The Engineer in charge may instruct the Contractor to remove such materials which are considered by him to him by the dangerous or inconvenient to the activities of the NCCS.

6.24 WORK TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS AND ORDERS ETC:

The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by

the Engineer-in-Charge and the contractor shall be furnished free of charge copy of the contract documents together with specifications, designs, drawings and instructions as are NIT.

The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods for execution of the works.

6.25 DEVIATION / VARIATION – EXTENT & PRICING:

The Engineer-in-Charge shall have power to make any alterations in, omissions from, additions to or substitutions for, the original specifications, drawings, designs and instructions that may appear to him to be necessary during the progress of the work and the contractor shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-Charge, and such alterations, omissions, additions or substitutions shall not invalidate the contract and any altered, additional or, substituted work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work. The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work, and the certificate of the Engineer-in-Charge shall be conclusive as to such proportion. Over and above this, a further period to the extension shall be allowed to the contractor. The rates for such additional, altered or substituted work under this clause shall be worked out in accordance to the prevailing market rate analysis.

6.26 CARRYING OUT PART WORK AT RISK & COST OF CONTRACTOR:

If contractor:

- 6.26.1. At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-Charge; or
- 6.26.2. Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-Charge; or
- 6.26.3. Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing by the Engineer-in-Charge.

The Engineer- in-Charge without invoking action may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to NCCS, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to:

- i. Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or
- ii. Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor.

The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/ part incomplete work of any item(s) taken out of his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by NCCS because of action under this clause shall not exceed 10% of the work order value.

In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.

Any excess expenditure incurred or to be incurred by NCCS in completing the part work/ part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by NCCS as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to NCCS in law or per as agreement be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.

In the event of above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

7. SPECIAL CONDITIONS OF CONTRACT:

- 7.1. For Technical data and specifications if in doubt / unclear / mismatch, the same are to be clarified with the Engineer in Charge.
- 7.2. The bills of quantities indicated in this tender are approximate and are liable to change at the discretion of the NCCS. Any variation in quantities will not be applicable for change/modification in quoted rates.
- 7.3. The Contractor will be responsible for the due and proper execution of all the works as per the terms and conditions. The contracting agency should study the design details and understand clearly, prior to quoting. The responsibility of performance will be with the Contractor.
- 7.4. The contractor may have to use additional supports, scaffoldings, materials, accessories, equipments, hardware, labor etc. for proper execution of the work and performance of the system. No additional cost will be paid for this.
- 7.5. The NCCS reserve the right to call explanations and rate analysis from any bidder, regarding the calculations / clarifications on any details. They may also visit the office of the bidder / various works carried out by him. The necessary co-operation in this regard is envisaged from the bidder.
- 7.6. The NCCS or their representatives shall have access to the workshop /Manufacturing facilities of the bidder and or successful contractor so as to assure themselves of the quality of the material and workmanship.
- 7.7. In order to complete the work, within the time limit the contractor has permitted to work from 9 am to 5 pm on all working days.
- 7.8. Min. one experienced, competent engineer of the contractor, capable of understanding all the technical points etc., related to this work and act accordingly, should be available on site all the times.
- 7.9. In case of conflict in specifications or terms, between tender, general engineering practice, National and International Codes, more stringent among all will be applicable.
- 7.10. The NCCS shall have a right to delete any item of work from the scope of contract and contractor shall not make any extra claim on this account.
- 7.11. Contractor should specify demand for power, required for drilling, soldering of wires etc., well in advance. Contractor shall be given electricity and water free of cost at one point. The contractor has to make his own arrangement for taking it up to using place at his own expense. Single phase electrical supply will be made available. The contractor shall make further arrangements at his own cost ensuring safety of instruments and persons at all time.
- 7.12. The Contractor should obtain the requisite license for running the establishment from authorities such as Municipality, Local Authority, State / Central Departments etc., at its' own cost. The N.C.C.S. shall not be responsible in any way for any breach of these rules and regulations by the Contractor.
- 7.13. The Contractor shall comply with all the statutory requirement in respect of engaging the personnel, their service condition, rules and regulation and all liabilities under the various

labour law and other statutory obligations like PF, ESIC, Bonus, workmen's compensation, gratuity and also comply with the provisions of Minimum Wages Act, Payment of Wages Act etc. shall be that of the Contractor, and N.C.C.S., Pune shall in no way be responsible or liable in case of any dispute, prosecution or awards made by court of law or other authorities.

7.14. RESOLUTION OF DISPUTES :

Any dispute arising out of this contract including any clarification as to the intent or interpretation of any of the provisions of these terms and conditions, the same shall be first referred to /sought from the Director, N.C.C.S., whose decision in the matters shall be final and binding on the Contractor. Any other matter relevant to but not covered in the contract shall also be decided by making reference to the Director, N.C.C.S. whose decision will be final and binding on the Contractor.

If the dispute is not resolved through the reference made to the Director, N.C.C.S., a reference of the same shall be made to an Arbitrator to be appointed by the Director N.C.C.S. Pune for adjudication of the same in accordance with the provisions of Arbitration & Conciliation Act-1996 and any statutory modification there under from time to time. There shall be no objection if the Arbitrator to be appointed is a Competent Officer of N.C.C.S. in the discretion of the Director N.C.C.S. Pune.

LEGAL JURISDICTION:

If any dispute is not resolved by Arbitration will be referred to the Court of Pune Jurisdiction only.

7.15. CERTIFICATE OF COMPLETION OF WORKS:

7.15.1. The Contractor shall report in writing to the Engineer in charge, as and when the works are completed in all respects. The Engineer in charge shall after the joint verification and measurement of the works with the Contractor.

7.15.2. The defect liability period shall commence only from the date of final measurement.

8.0 SCOPE OF WORK:

The scope of work includes removing existing old functioning RMU and supply of new RMU with following scope of work.

This specification covers Design, Engineering, Manufacture, supply, transport, delivery, unload, Inspection, Testing and Commissioning at NCCS, Pune of 11 KV Ring Main Units, Compact (non-extensible type), SF6 Gas insulated Indoor comprising one Load Break Isolator and two SF6 Gas Insulated Circuit breakers for Distribution Transformer protection. The RMU to be supplied against this specification are required for vital installations where continuity of service is very important. The design, materials and manufacture of the equipment shall, therefore, be of the highest order to ensure continuous and trouble-free service over the years.

The SF6 Gas insulated RMU should be compact maintenance free, easy to install reliable, safe and easy to operate and complete with all parts necessary for their effective and trouble-free operation. All necessary statutory approvals and Liasioning work is in the scope of the contractor required for this work. All necessary statutory charges, fee etc if paid by the contractor on behalf of Director, NCCS to the concern authorities, will be reimbursed after submission of original receipts of paid Challan etc.

It is not the intent to specify herein complete details of design and construction. The offered equipment shall conform to the relevant standards and be of high quality, sturdy, robust and of good design and workmanship complete in all respects and capable to perform continuous and satisfactory operations in the actual service conditions at site and shall have sufficiently long life in service as per statutory requirements. In actual practice, notwithstanding any anomalies, discrepancies, omissions, in-completeness, etc. in these specifications, the design and constructional aspects, including materials and dimensions, will be subject to good engineering practice in conformity with the required quality of the product, and to such tolerances, allowances and requirements for clearances etc. as are necessary by virtue of various stipulations in that respect in the relevant Indian Standards, IEC standards, I.E. Rules, I.E. Act and other statutory provisions.

The Bidder/Contractor shall bind himself to abide by these considerations to the entire satisfaction of NCCS, Pune and will be required to adjust such details at no extra cost to the NCCS, Pune over and above the tendered rates and prices.

Tolerances:

Tolerances on all the dimensions shall be in accordance with provisions made in the relevant Indian/IEC standards amended upto date and in these specifications. Otherwise the same will be governed by good engineering practice in conformity with required quality of the product.

Recommended spares:

The Bidder shall furnish in his offer a list of recommended spares with unit rates for each set of equipment that may be necessary for satisfactory operation and maintenance of circuit breaker and Isolators. The NCCS, Pune reserves right of selection of items and quantities of these spares to be ordered. The cost of such spares shall not be considered for tender evaluation.

For the period of minimum 10 years spare parts and service support from Principal Company should be available and declaration for the same from Principal Company should be submitted with technical bid.

8.1 SERVICE CONDITIONS:

System particulars

Nominal system voltage	:	11 kV
Corresponding highest system voltage	:	12 kV
Frequency	:	50 Hz
Number of phases	:	3
Fault level (minimum)	:	25 KA for 1 sec for 11kV

Equipment supplied against the specification shall be suitable for satisfactory operation under the following tropical conditions

Max. Ambient air temperature	50 Deg. C
Max. Relative humidity	100 %

Note: The climatic conditions are prone to wide variations in ambient conditions and hence the equipment shall be of suitable design to work satisfactorily under these conditions.

8.2. TECHNICAL SPECIFICATIONS/DATA:

Following technical particulars to be guaranteed for SF6 Gas Insulated RMU.

Description for 11KV, metal clad, Indoor, Compact, Manual operated, SF6 Gas insulated RMU:		
1.	No. of Poles	3
2.	Class	Indoor
3.	No. of Phases	3
4.	Rated Voltage	12 KV
5.	Nominal System Voltage	11 KV

6.	Insulation level	
	Power frequency withstand voltage	28 KV
	Impulse withstand voltage	75 KV
7.	Rated frequency	50 Hz
8.	Rated Current	630 A
9.	Breaking Capacity	25 KA for 1 Sec.
10.	Making Capacity	62.5 KA for 1 Sec.
11.	Rated current bus bars	630 A
12.	Rated current (cable switch)	630 A
13.	Configuration	Three way, One Incoming and Two Outgoing
14.	Service	Contionus
15.	Rated operating sequence of Circuit Breaker	O –3min-CO-3min-CO
16.	Protection	SCADA Compatible, Microprocessor based Numerical type relay with O/C+1E/F and Short Circuit Relay having inbuilt features, Relay etc.
17.	Capacitive LED display for voltage indication	Yes
18.	Annunciation	Min.8 Window Annunciator
19.	Standard to which Switchgear complies	IEC
20.	Whether RMU is type tested	Yes
21.	Whether facility is provided with pressure relief	Yes
22.	Insulating Gas	SF6
23.	Expected operating lifetime	30 years
24.	Gas monitoring facility (Manometer)	Yes
25.	Means of switch operation	Separate handle
26.	Means circuit breaker operation	Separate handle and push buttons
27.	Total opening time of Circuit Breaker	Approx. 45ms
28.	Closing time of Circuit Breaker	Approx. 40ms
29.	Front cover	RAL 7012
30.	Side and cable cover	RAL 7035
31.	Set of 12KV Cable Termination Boots	Yes

8.3. APPLICABLE STANDARDS

The RMU Switchgear shall comply with the requirements stated in the following Standards and specifications amended upto date:

- | | | |
|---------------------------------------|---|--|
| IEC 60694 | : | Indoor conditions and relative air humidity. |
| IEC 60298 | : | Construction, design, tests for HV Switchgear |
| IEC 60129/IEC 62271 – 102/
IS 9921 | : | Alternating Current disconnectors (Load Break Isolators) and earthing switch |

IEC 60044 –1/IEC 60185/ IS 2705:1992	:	Current Transformers
IEC 60265/IS 9920 : 1981	:	High voltage switches
IEC 376	:	Filling of SF6 gas in RMU
IEC 60273/IS : 2099	:	Dimension of Indoor & Outdoor post insulators with voltage > 1000 V
IEC 60273/IS 13947 (Part 1)	:	Degree of protection provided by enclosures for low voltage Switchgear and control gear.
IEC 60694	:	Common specifications for high-voltage switchgear and control gear standards
IEC 60529	:	Classification of degrees of protection provided by enclosures
IEC 60255	:	Electrical relays
IEC 61958	:	Voltage Presence Indicators
IEC 6243-5	:	Voltage Detection Systems
IEC 62271-103	:	General Use Switch

All Indian Electricity Rules amended upto date applicable for clearances, safety and operation of the equipment.

The switchgear should have the minimum degree of protection (in accordance with IEC 60529)

- IP 67 for the tank with high voltage components (The tank should be SS Construction)
- IP 2X for the front covers of the mechanism
- IP 3X for the cable connection covers

The design of the switchgear should be based on safety to personnel and equipment during operation and maintenance, reliability of service, ease of maintenance, mechanical protection of equipment, interchangeability of equipment and ready addition of future loads.

The RMU requirements of any other authorities standards, which ensures equal or better quality than the standard mentioned above shall also be acceptable. If the equipments, offered by the bidder conform to other standards, salient points of difference between the standards adopted and the specific standards shall be clearly brought out in relevant schedule. In case of any difference between provisions of these standards and provisions of this specification, the provisions contained in this specification shall prevail. One copy of such standards with authentic English Translations in Hard Copy shall be furnished along with the offer.

8.4. GENERAL REQUIREMENT:

The RMU shall be non-extensible. One Load break isolator for incoming and two Circuit breaker for transformers protection shall be enclosed in the main tank using SF₆ gas as insulating and arc quenching medium. The main tank shall be stainless steel sheet of minimum 3mm thickness and robotically welded with a pressure relief arrangement.

The load break switch and circuit breakers shall have manual mechanism. The total breaking time for transient fault should not exceed 40-60 mS (CB + Relay+ trip coil). The main tank (Inner enclosure of Circuit Breaker & Load break Isolators assembly) and all Switchboard assembly shall be housed in a single compact metal clad suitable for indoor applications.

The design of enclosure for Switchgear, RMU & Switchboard housing shall be in accordance with IEC 62271- 200. The design of RMU shall be in accordance with the Specific Technical requirement as given in the Technical Data enclosed with the Specification. The switchgear and switchboard shall be designed such that the position of the different devices shall be visible to the operator on the front of switchboard and easy to operate and prevent access to all live parts during operation without the use of tools. There shall be no access to exposed conductors.

There shall be sealed tank. A temperature compensating gas pressure indicator offering a simple indication shall constantly monitor the SF₆ insulating medium.

Sulphur Hexa Fluoride Gas (SF₆ GAS):

The SF₆ gas shall comply with IEC 376,376A and 376B and shall be suitable in all respects for use in RMUs under the stipulated service conditions. The SF₆ shall be tested for purity, dew point air hydrolysable fluorides and water content as per IEC 376,376A and 376B and test certificate shall be furnished to the bidder indicating all the tests as per IEC 376 for each lot of SF₆ Gas.

8.5. ENCLOSURE:

8.5.1. OUTER ENCLOSURE:

The RMU enclosure (Outer) shall be made up of CRCA of 3 mm thickness or galvanized of 1.6 mm thickness. The rating of enclosure shall be suitable for operation on three phase, three wire, 11KV, 50 Cycles, A.C. System with short-time current rating of 25KA for 1 second for 11KV supply with Panels. The complete RMU enclosure shall be of degree of protection IP67 for Gas tank, IP2X for front cover and IP 3X for cable cover.

The active parts of the Switchgear shall be maintenance-free and the unit shall be minimum - maintenance. The complete RMU unit shall be powder coating of Dark Grey Code 632 as per BS 381C.

Each switchboard shall be identified by an appropriately sized label which clearly indicates the functional units and their electrical characteristics. The RMU metal parts shall be made of

high thickness high tensile steel which must be grit/short blasted, thermally sprayed with Zinc alloy (not for galvanised), phosphate and subsequently painted with Polyurethane based powder paint, the overall (including outer and inner paint layer), the thickness of paint layer shall be not less than 150 microns.

INNER ENCLOSURE (MAIN TANK)

The tank shall be robotically welded stainless steel sheet of minimum 3mm thickness. The tank shall be sealed and no handling of gas is required throughout the 30 years of service life. However, the SF₆ gas pressure inside the tank shall be constantly monitored by a temperature compensating gas pressure indicator offering a simple go, no-go indication. The gas pressure indicator shall be provided with green pressure and red pressure zones. There shall be one Non – return valve to fill up the gas. The manufacturer shall give guarantee for maximum leakage rate of SF₆ gas will be lower than 0.1 % per year. An absorption material such as activated alumina in the tank shall be provided to absorb the moisture from the SF₆ gas to regenerate the SF₆ gas following arc interruption. The degree of protection of the inner enclosure shall be IP 67. Oil or Air filled Switchgear will not be considered. The temperature rise test shall be carried out on complete RMU unit and test reports shall be submitted with the offer. The compact RMU Unit shall be provided with a pedestal made up of M.S. Angle to mount the unit on plain surface. The height of the bottom of cable box shall be 310 mm to provide the turning radius for the HT cable termination.

8.5.2. BUSBARS:

The three nos of continuous Busbars made up of Electrical conductivity (EC) grade tinned copper of rating current 630A shall be provided. The Short time rating current shall be 25 kA for 1 second for 11 KV. The Busbar connections shall Anti- oxide greased.

8.5.3. LOAD BREAK SWITCHES (ISOLATORS)

The Load Break Isolators for Incoming supply must be provided and the load break isolators are fully insulated by SF₆ gas. The operating mechanism shall be spring assisted mechanism with operating handle for ON /OFF. Earth positions with arrangement for padlocking in each position. Also independent manual operations with mechanically operated indicator. The earth switch shall be naturally interlocked to prevent the main and earth switch being switched ‘ON’ at the same time. The selection of the main and earth switch is made by a lever on the facia, which is allowed to move only if the main or earth switch is in the off position. The load break isolators should have the facility for future remote operation. Each load break switch shall be of the triple pole, simultaneously operated, non-automatic type with quick break contacts and with integral earthing arrangement. The rated current of Isolator shall be 630 Amps continuous at maximum ambient temperatures. No Derating shall be allowed. For the isolator at an ambient temperature of 50 °C, which means that Isolator rating should be 630 A maximum ambient temperature of 50 °C. The relevant type test report to prove the temperature rise below 55 °C shall be submitted by the bidder with the offer.

8.5.4. EARTHING OF ISOLATORS AND DISTRIBUTION TRANSFORMER BREAKERS (EARTH SWITCH):

The unit shall consist of a 630 Amp Tee Off spring assisted three position rotating arc type SF6 circuit breaker unit, with integral fault making/dead breaking earth switch, the function shall be naturally interlocked to prevent the main and earth switch from being switched `ON` at the same time and the CB not allowed to close in `Earth On` position. The selection of the main/earth switch lever on the fascia, which is allowed to move only if the main or earth switches in the off position. The lever may be padlocked in either the main or earth position. The cables shall be earthed by an integral earthing switch with short-circuit making capacity, in compliance with IEC standard. The earthing switch shall be operable through the main circuit mechanism and manual closing shall be driven by a fast-acting mechanism, independent of operator action.

8.5.5. CIRCUIT BREAKER (VCB):

The 3 pole circuit breaker for the protection of Distribution transformers shall be enclosed in the main tank. The rated breaking and making current at rated voltage shall be as follows:

Rated breaking capacity shall be 25 kA for 1 second.

Rated making current shall be 62.5 kA for 1 second

The manual operation of the circuit breaker shall not have an effect on the spring charging mechanism.

The circuit breaker shall be fitted with a mechanical flag, which shall operate in the event of fault occurrences. The breaker indications ON and OFF positions shall be indicated by suitable flag. For ON position indication by Red flag and OFF position indication by Green flag shall be provided. The circuit breaker shall be operated by the same unidirectional handle or switch. The rated operating sequence shall be O-3min-CO-3 min- CO.

The protection on the circuit breaker: The circuit breaker unit fitted with 3 nos protection CT's (tape wound) of ratio based on transformer capacity 100/1 A, 5P10 class, having low burden and trip coil and auxiliary switch assembly allowing the use of a self-powered non-directional Microprocessor based IDMT (Inverse Definite Minimum Time) Over Current and Earth Fault Relays. One Three Element Numeric Relay having three O/C elements and one E/F element shall be provided for this purpose. All these relays shall be of 3 seconds IDMT characteristics, the O/C elements current setting variable from 10% to 200% of CT secondary ratings, and the E/F elements having current setting variable from 10% to 40%. The protection curves and all other settings shall be adjustable from touch panel.

8.5.6. BUSHINGS:

All the bushings shall be of same height, parallel, on equal distances from the ground and protected by a cable cover. It is preferable to have bushings accessible from the rear side of the RMU.

8.5.7. CABLE BOXES

All cable boxes shall be air insulated suitable for dry type cable terminations. The cable boxes at each of the switch and circuit breakers suitable HV cables of size 3C x 185 sq.mm. Necessary touch proof termination kit should be supplied to the cable terminations. Compound filled cable boxes are not acceptable. The cable box shall be arc resistant as per IEC amended up-to-date. The internal arc fault test on cable box shall be carried out for 11 KV systems for 25 kA for 1 second. The clearance between phase to phase and phase to earth shall be as per IEC. The cable termination and gland arrangements shall be appropriate for the type and style of cables used at the time.

8.5.8. VOLTAGE INDICATOR LAMPS AND PHASE COMPARATORS:

The RMU shall be equipped with a voltage indication. There should be a facility to check the synchronization of phases with the use of external device. It shall be possible for the each of the function of the RMU to be equipped with a permanent voltage indication as per IEC to indicate whether or not there is voltage on the cables.

The capacitive dividers will supply low voltage power to sockets at the front of the unit, an external lamp must be used to indicate live cables. Three outlets can be used to check the synchronization of phases with the use of an external device.

8.5.9. WIRING & TERMINALS:

The wiring should be of high standard and should be able to withstand the tropical weather conditions. All the wiring and terminals (including take off terminals wiring for future automation, DC, Control wiring), Spare terminals shall be provided by the contractor. The wiring cable must be standard single-core multi stranded, non-sheathed, Core marking (ferrules), stripped with non-notching tools and fitted with end sleeves, marked in accordance with the circuit diagram with printed adhesive marking strips. All wiring shall be provided with single core multi-strand copper conductor wires with P.V.C insulation and shall be flame retardant low smoke type.

The wiring shall be carried out using multi-strand copper conductor super flexible PVC insulated wires of 1.1 KV Grade for AC Power, DC Control and CT circuits. Suitable coloured wires shall be used for phase identification and interlocking type ferrules shall be provided at both ends of the wires for wire identification. Terminal should be suitably protected to eliminate sulphating. Connections and terminal should be able to withstand vibrations. The

terminal blocks should be stud type for controls and disconnecting link type terminals for CT leads with suitable spring washer and lock nuts.

Flexible wires shall be used for wiring of devices on moving parts such as swinging Panels (Switch Gear) or panel doors. Panel wiring shall be securely supported, neatly arranged readily accessible and connected to equipment terminals, terminal blocks and wiring gutters. The cables shall be uniformly bunched and tied by means of PVC belts and carried in a PVC carrying trough.

The position of PVC carrying trough and wires should not give any hindrance for fixing or removing relay casing, switches etc., Wire termination shall be made with solder less crimping type of tinned copper lugs. Core identification plastic ferrules marked to correspond with panel wiring diagram shall be fitted with both ends of each wire. Ferrules shall fit tightly on the wire when disconnected. The wire number shown on the wiring shall be in accordance with the IS 11353 (IS.375).

All wires directly connected to trip circuits of breaker or devices shall be distinguished by addition of a red colour unlettered ferrule.

Inter-connections to adjacent Panels (Switch Gear) shall be brought out to a separate set of Terminal blocks located near the slots or holes to be provided at the top portion of the panel. Arrangements shall be made for easy connections to adjacent Panels (Switch Gear) at site and wires for this purpose shall be provided and bunched inside the panel. The bus wire shall run at the top of the panel. Terminal block with isolating links should be provided for bus wire. At least 10% of total terminals shall be provided as spare for further connections. Wiring shall be done for all the contacts available in the relay and other equipment and brought out to the terminal blocks for spare contacts. Colour code for wiring is preferable in the following colours.

Voltage supply: Red, Yellow, Blue for phases,
Neutral CT circuits similar to the above 250V AC circuits: Black
Black for both phases and neutral Earthing Green

The wiring shall be in accordance to the wiring diagram for proper functioning of the connected equipment. Terminal blocks shall not be less than 650V grade and shall be piece-moulded type with insulation barriers.

The terminal shall hold the wires in the tight position by bolts and nuts with lock washers. The terminal blocks shall be arranged in vertical formation at an inclined angle with sufficient space between terminal blocks for easy wiring.

The terminals are to be marked with the terminal number in accordance with the circuit diagram and terminal diagram. The terminals should not have any function designation and are of the tension spring and plug-in type.

8.5.10. EARTHING:

The RMU indoor, metal clad, Switch Gear, Load break isolators, Distribution Transformer, R.S.Joists, M.S. Channels / M.S. Angles etc, shall be equipped with an earth bus securely fixed along the base of the RMU.

When several units of the RMU (Isolators / Breakers) are mounted adjoining to each other, the earth bus shall be made continuous and necessary connectors and clamps for this purpose shall be included in the scope of supply. The size of earth busbar of tinned copper flat shall be as per IEC/IS standards and shall be fixed inside the RMU.

Provision shall be made on end of RMU for connecting the earth bus to the existing earth grid by erecting suitable earth pipes of appropriate diameter and length. Necessary terminal clamps, connectors, pipes, hardwares etc. shall be included in the scope of supply.

8.5.11. TAKE OFF TERMINAL UNITS FOR FUTURE AUTOMATION:

The RMU should be provided with necessary take off terminal units for future automations. Remote operation of the RMU's line switches should be possible.

Complete Ring Main Unit shall be capable of withstanding 630A current without any damage being caused, in accordance with the recommendations IEC 62271-1 and IEC 62271-200.

8.5.12. TROPICALISATION:

Due regard should be given to the climatic conditions under which the equipment is to work. Ambient temperature normally varies between 20°C and 32°C, although direct sun temperature may reach 45°C. The climate is very humid and rapid variations occur, relative humidity between 90% and 100% being frequently recorded, but these values generally correspond to the lower ambient temperatures. The equipment should also be designed to prevent ingress of vermin, accidental contact with live parts and to minimize the ingress of dust and dirt. The use of materials, which may be liable to attack by termites and other insects, should be avoided.

8.5.13. SAFETY OF PEOPLE:

Any accidental overpressure inside the sealed chamber will be limited by the opening of a pressure limiting device in the enclosure. Gas will be released to the rear of the unit away from the operator. Manufacturer shall provide type test report to prove compliance with IEC 62271-200.

8.5.14. OPERATING LEVER:

An anti-reflex mechanism on the operating lever shall prevent any attempts to re-open immediately after closing of the switch or earthing switch. All manual operations will be carried out on the front of the switchboard. The effort exerted on the lever by the operator should not be more than 250 N for the switch and circuit breaker.

The overall dimensions of the RMU shall not be increased due to the use of the operating handle. The operating handle should have two workable positions 180° apart.

8.5.15. FRONT PLATE

The front shall include a clear mimic diagram which indicates different functions. The position indicators shall give a true reflection of the position of the main contacts. They shall be clearly visible to the operator. The lever operating direction shall be clearly indicated in the mimic diagram. The manufacturer's plate shall include the switchboard's main electrical characteristics.

8.5.16. DANGER BOARD:

The danger Board plate as per relevant IS shall be riveted on the front plate of the RMU.

8.6. TESTING AND CERTIFICATIONS:

8.6.1. TYPE TESTS:

Units should be type tested in accordance with IEC standards 62271-100, 62271-102, 60265, 62271-200, 60420, 60529 and 60694. Type test reports for above type shall be submitted with the offer. The following type tests have been performed and available if required

- Short time and peak withstand current test
- Temperature rise tests.
- Dielectric tests.
- Test of apparatus i.e. circuit breaker and earthing switch
- Arc fault test - Measurement of resistance of main circuit.
- Mechanical endurance test.
- Duty cycle test.
- Internal arc test for HT chamber.
- Degree of protection for IP2X for INDOOR RMU.

8.6.2. ROUTINE TESTS.

Routine tests should be carried out in accordance with IEC 62271-200 standards. These tests should be ensure the reliability of the unit. Below listed test should be performed as routine tests before the delivery of units;

- Withstand voltage at power frequency
- Measurement of the resistance of the main circuit
- Withstand voltage on the auxiliary circuits
- Operation of functional locks, interlocks, signalling devices and auxiliary devices
- Suitability and correct operation of protections, control instruments and electrical connections of the circuit breaker operating mechanism
- Verification of wiring
- Visual inspection

The Contractor in the presence of NCCS's representative shall carry out all above routine tests. The successful Bidder/Contractor shall give at least 15 days advance intimation to the NCCS to enable them to depute their representative for witnessing the tests. The cost for testing of RMU shall be borne by the successful Contractor.

The NCCS reserves the right for carrying out any other tests of a reasonable nature at the works of the Contractor/laboratory or at any other recognized laboratory/research institute in addition to the above mentioned type and routine tests at the cost of the NCCS to satisfy that the material complies with the intent of this specification.

8.7. INSPECTION:

The inspection may be carried out by the NCCS at any stage of manufacture. The successful Bidder/Contractor shall grant free access to the NCCS's representative/s at a reasonable notice when the work is in progress. Inspection and acceptance of any equipment under this specification by the NCCS, shall not relieve the Contractor of his obligation of furnishing equipment in accordance with the specification and shall not prevent subsequent rejection if the equipment is found to be defective.

The successful Bidder/Contractor shall keep the NCCS informed, in advance, about the manufacturing programme so that arrangement can be made for stage inspection.

The NCCS reserves the right to insist for witnessing the acceptance/routine testing of the bought out items. The Contractor shall keep the NCCS informed, in advance, about such testing programme.

8.8. DRAWINGS:

All drawings shall conform to relevant IEC Standards Specification. The Bidder shall submit along with his tender dimensional general arrangement drawings of the equipments, illustrative and descriptive literature in triplicate for various items in the RMUs, which are all essentially required for future automation.

The Bidder shall submit following documents along with the tender:

- G. A. diagram of the RMU panel
- Instruction manuals
- Catalogues of spares recommended with drawing to indicate each items of spares
- List of spares and special tools recommended by the Contractor.
- Copies of Type Test Certificates as per latest IS/IEC.
- Drawings of equipments, relays, control wiring circuit, etc.
- Foundation drawings of RMU and dimensional drawings of each material used.
- Actual single line diagram of RMUs with or without extra combinations shall be made displayed on the front portion of the RMU so as to carry out the operations easily.

- Operation, Maintenance and erection instruction manual in English language shall be also supplied along with RMU to the NCCS.

8.9. DOCUMENTATION:

The Contractor should submit equipment wise documentation which should include descriptions, installation and commissioning procedure, operating procedure, step by step fault diagnosis and fault rectification, circuit diagram etc. The Contractor should submit MFG Warranty/Guarantee Certificates, original manuals, drawings etc.

Routine test certificate and standard schematic drawings should be delivered for Ring Main Units. Compact Switchgear should have drawings that consist of system single line drawings, general arrangement and schematic drawings for order specific units. All dimensions and data shall be in S.I. Units. Contractor shall furnish the following documents to the NCCS, free of cost, in two numbers of copies.

- Instruction/Testing/Operation/Service manual etc.
- Elaborated list of spare parts.
- Copies of all final drawings – electrical, mechanical & diagram.
- Relevant Test Certificates, Guarantee Certificates.
- Catalogue and literature on bought outs.
- Any other related documents.

8.10. NAME PLATE:

Each RMU and its associated equipments shall be provided with a nameplate legible and indelibly marked with at least the following information.

- Name of manufacturer,
- Type,
- Serial number,
- Voltage,
- Current,
- Frequency,
- Symmetrical breaking capacity,
- Making capacity
- Short time current and its duration,
- Purchase Order number and date
- Month and Year of supply,
- Rated lightning impulse withstand voltage

8.11. PACKING & FORWARDING:

The equipment shall be packed in crates suitable for vertical/horizontal transport as the case may be and the packing shall be suitable to withstand handling during the transport and outdoor storage during transit. The Contractor shall be responsible for any damage to the equipment during transit, due to improper and inadequate packing. The easily damageable materials shall be carefully packed and marked with the appropriate caution symbols. Wherever necessary, proper arrangement for lifting, such as lifting hooks etc. shall be provided. Any material found short inside the packing cases shall be supplied by the Contractor without any extra cost.

8.12. TRAINING

All successful Bidders for switchgear shall provide training facilities at site for the NCCS's Engineers and Staff. Charges for training shall be included in the offer.

Contractor shall provide onsite training to a team of NCCS personnel for operation, setting of parameters and maintenance of Machine at NCCS, Pune. The Contractor shall explain the basics, first level maintenance, troubleshooting and handling such equipments etc.

8.13. MAKE AND MODELS OF THE EQUIPMENT:

It is mandatory to provide make and model no. of all equipment in their BOQ (Bill of Quantity) and their subcomponents as asked in the technical specification. The offer may not be evaluated and/or will be liable for rejection in case of non-submission or partial submission of make and model of the items offered. Please note that substituting this information by just brand name is not enough. All products quoted should be associated with specific model numbers and names and with printed literature describing configuration and functionality.

NCCS reserve the right to choose any of the above mentioned approved brands. Equivalent material of any other specialized firms may be used, in case it is established that the brands specified above are not available in the market but only after approval of the alternate brand by the NCCS.

8.14. RESPONSIBILITY OF CONTRACTOR:

If required the Contractor will have to obtain necessary approvals/ permissions by submitting necessary drawings to MSEDCL and Electrical Inspector. And permissions from the Central / State Electricity Authority and also have to meet the entire requirement as per IE Rules, and submit necessary necessary GA drawings /SLD, test reports during the final inspection of the installation by the Electrical Inspector before charging the installation. For this liasioning work charges if any are in the scope of contractor only statutory payment if any will be reimbursed after submitting original payment receipts.

8.15. COMPLETENESS OF INSTALLATION:

The installation will be deemed as incomplete if any component of the RMU or any documentation is not delivered or is delivered but not installed and/or not operational or not acceptable to NCCS after acceptance testing. In such an event, the supply & installation will be termed as incomplete and it will not be accepted and warranty period will not commence. The entire site will be accepted after complete commissioning of equipment and satisfactory working of the entire equipment for a minimum period of 10 days.

Contractor should also supplied min. 2 sets of special tools required for maintenance and service of breakers free of cost to NCCS e.g. manual spring charging handle, breaker pull in / out handle, specified spanners etc.

8.16. GUARANTEE:

The Contractor should guarantee that the systems delivered to NCCS are brand new, including all components. All hardware and software must be supplied with their original and complete printed documentation.

8.17. WARRANTY:

The Contractor must furnish a warranty for providing free post installation on-site Comprehensive support during a warranty period of min one year from the date of completion of the work.

The entire works shall be guaranteed to be free from manufacturing defects, defective workmanship or materials and any defects that may appear within 12 months from the date of issue of completion certificate which in the opinion of the Engineer in Charge of NCCS have arisen from bad manufacturing, workmanship or materials, shall upon intimation be made good by the Contractor at his own cost within the time specified. During the said period of 12 months the Contractor shall without any extra cost, carry out all routine and special maintenance of the tendered works and attend to difficulties and defects that may arise. The Contractor shall associate with him during the execution and free service period, the operation and maintenance staff of the NCCS.

8.18. TIMELY AVAILABILITY OF SUPPORT SERVICES:

The Contractor should have proper and adequate support mechanism from any place within India to provide necessary support under this project. The Contractor should be able to provide support services at NCCS also either through their own support offices or through its service centers.

The response time for the support / breakdown call should not be more than 2 hours and attend all breakdowns during warranty. All minor repairs should be attended to and completed within 8 hours of the intimation. Any major break down must be attended to and put back into functional condition within 24 hrs following first intimation.

8.19. LIST OF APPROVED MAKES

SF6 INSULATED RMU	:	SCHNEIDER / SIEMENS / ABB/ C&S
PROTECTION RELAY	:	SCHNEIDER / SIEMENS / ABB /ALSTHOM/ C&S
DIGITAL METER	:	SCHNEIDER / AE/ ABB / C&S
MCB/ELCB	:	SCHNEIDER / SIEMENS / ABB / LEGRAND
CONTACTOR AND FUSES	:	SCHNEIDER / SIEMENS / L&T
INDICATION LAMPS (LED)	:	TEKNIK/ ALTOS// L&T /AS PER MFG
ANNUNCIATOR	:	MINILEC/ AS PER MFG
TERMINALS	:	ELMEX / CONNECTWELL/ WAGO
LUGS	:	DOWELLS/ ATLAS/ JAISON
WIRE AND CABLE	:	POLYCAB / FINOLEX /AS PER MFG
PUSH BUTTON	:	TECKNIK / AS PER MFG
SELECTOR SWITCH	:	KAYCEE / TECKNIK / SULZER
CABLE GLAND	:	COMET/ELECTROMECH
MS / PVC CONDUIT	:	ISI MARK
TOUCH PROOF TERMINATION KIT	:	RAYCHEM /3M
HT CABLE JOINTING KIT	:	RAYCHEM /3M

9. FORMS AND ANNEXURES:

9.1. INFORMATION REGARDING ELIGIBILITY LETTER OF TRANSMITTAL

ANNEXURE -I

From:

To,
The Director
National Centre for Cell Science
Savitribai Phule Pune University Campus,
Ganeshkhind
Pune 411007.

Subject: Submission of bids for the work Design, Supply, Installation, Testing and Commissioning Of 11KV SF6 Gas Insulated Metal Enclosed RMU at N.C.C.S., Pune.

Ref.: NIT No. NCCS/MAINT./RMU/320/2016/1; Dt.3/12/2016

Dear Sir,

Having examined the details given in press notice and bid document for the above work, I/we hereby submit the relevant information.

1. I/we hereby certify that all the statement made and information supplied in the enclosed forms A to H and accompanying statement are true and correct.
2. I/we have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/we submit the requisite certified solvency certificate and authorize the Officer of NCCS to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/we also authorize Officer of NCCS to approach individuals, employers, firms and corporation to verify our competence and general reputation.
4. I/we submit the following certificates in support of our suitability, technical knowledge and capability for having successfully completed the following works:

Name of work :
Certificate from :
Enclosures :
Seal of bidder
Date of submission :

Signature of Bidder.

9.2. FINANCIAL INFORMATION

FORM A

Financial Analysis – Details to be furnished duly supported by figures in balance sheet/ profit & loss account for the last three years duly certified by the Chartered Accountant, as submitted by the Bidder to the Income Tax Department (Copies to be attached).

Sr. No.	Details	Year		
		FY 2013-14	FY 2014-15	FY 2015-16
i.	Annual Turnover			
ii.	Net Profit			
iii.	Loss if any			

Signature of Chartered Accountant with Seal

9.3. SOLVENCY CERTIFICATE FROM BANKERS OF THE BIDDER IN THE PRESCRIBED FORM B”.

FORM B

This is to certify that to the best of our knowledge and information M/s./Sri._____ having marginally noted address_____, a customer of our Bank are / is respectable and can be treated as good for any engagement upto a limit of Rs.15 lakh (Rupees Fifteen Lakh only).

This certificate is without any guarantee or responsibility on the Bank or any of the officers and valid for one year from date of issue.

(Authorized Signature)

For the Bank

- NOTE (1) Banker's certificates should be on letter head of the Bank, sealed in cover addressed to tendering authority.
- (2) In case of partnership firm, certificate should include names of all partners as recorded with the Bank.

9.5. BIDDER DETAILS / STRUCTURE & ORGANISATION

FORM D

No.	Required Information		
1	Name and registered address of the Individual/firm/company		
2	Legal status (Individual / proprietor, partnership firm, limited company, corporation, cooperative society, etc.		
3	Name of the contact person, Designation, Telephone No., Fax No., E-mail id		
4	Name of alternative contact person, Designation, Telephone No., Fax No., E-mail id		
4	Month and Year of commencement of service business.		
5	Statutory details (Photocopies to be attached)		
	5.1	Copy of Registration of firm (Shop act / Company registration)	
	5.2	Electrical Contractor License	
	5.3	PAN No.	
	5.4	Registration for Service Tax	
	5.5	Registration for VAT	
	5.6	CST/TIN	
	5.7	Central Excise Registration No.	
6	ISO Certificate Reg. No.		

Signature of Bidder

9.8. DECLARATION FOR NOT BLACK LISTED

FORM G

Date

**To,
The Director
National Centre for Cell Science,
Savitribai Phule Pune University Campus,
Pune 411007.**

Dear Sir,
Ref.: Tender No. NCCS/MAINT/RMU/320/2016/1 Dated 3/12/2016.

I / We hereby confirm that our firm has not been banned or blacklisted by any government organization/Financial institution/Court /Public sector Unit /Central Government.

In case the above statement made by us are found to be false or incorrect, you have right to reject our bid at any stage including forfeiture of our EMD and / or PBG and / or cancel the award of contract.

Signature of Bidder:
Name :
Designation :
Seal

Place :
Date :

9.9. FORM OF BANK GUARANTEE

ANNEXTURE II

In consideration of the Director (herein after called “National Centre for Cell Science, Pune”) having offered to accept the terms and conditions of the proposed agreement between_____ and _____ (Hereinafter called “the said Contractor(s)”) for the work_____ (Hereafter called “the said agreement”) having agreed to production of an irrevocable Bank Guarantee for Rs.____. (Rupees_____ only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

1. We__(Hereinafter referred to as “the Bank”) hereby (Indicate the name of the Bank) undertake to pay to the National Centre for Cell Science, Pune an amount not exceeding Rs.____. (Rupees_____ only) on demand by the National Centre for Cell Science, Pune.
2. We__ do hereby undertake to pay the amounts due (indicate the name of the Bank) and payable under this Guarantee without any demure, merely on a demand from the National Centre for Cell Science, Pune stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.____. (Rupees_____ only).
3. We, the said bank further undertake to pay to the National Centre for Cell Science, Pune any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.
4. We __further agree that the guarantee herein (indicate the name of the bank) contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the National Centre for Cell Science, Pune under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-Charge on behalf of the National Centre for Cell Science, Pune certified that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee.
5. We__ further agree with the National Centre for Cell Science, Pune that (indicate the name of the bank) the National Centre for Cell Science, Pune shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the National Centre for Cell Science, Pune against the said contractor(s) and to for bear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or

extension being granted to the said contractor(s) or for any forbearance, act of omission on the part of the National Centre for Cell Science, Pune or any indulgence by the National Centre for Cell Science, Pune to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).
7. We__ lastly undertake not to revoke this (indicate the name of the bank) guarantee except with the previous consent of the National Centre for Cell Science, Pune in writing.
8. This guarantee shall be valid upto__ unless extended on demand by National Centre for Cell Science, Pune. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs.__. (Rupees_____ only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the__ day of__ for__.

(Name of Bank)

9.10. ARTICLES OF AGREEMENT

(ON NON-JUDICIAL STAMP PAPER OF RS. 100/-)

ANNEXURE III

This Contract Agreement made on this ___ day of ___ 20__ w.e.f. ___ day of ___ 20__ for the work of _____ dated _____ Between

M/s. _____ (refer note) in the town of _____ hereinafter called "THE CONTRACTOR" (which term shall unless excluded by or repugnant to be subject or context include its successors and permitted assigns) of the ONE PART

AND

National Centre for Cell Science, a society registered under the Societies Registration Act and having its office at Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411007 hereinafter called the "NCCS" (which term shall unless excluded by or repugnant to the subject or context include its successes and assigns) of the OTHER PART.

WHEREAS

- a. The NCCS is desirous that the Works of _____ NCCS, Pune (Tender Ref. No. _____ dt. _____) should be executed as mentioned, enumerated or referred to in the tender including Press Notice Inviting Tender, Detailed NIT, General Conditions of the Contract, Special Conditions of the Contract, Specifications, Drawings, Plans, Time Schedule of completion of jobs, Schedule of Quantities and Rates, Agreed Variations, other documents, Pre bid minutes, has called for Tender.
- b. The contractor has inspected the site and surroundings of the work specified in the tender documents and has satisfied himself by carefully examination before submitting his tender as to the nature of the surface, strata, soil, sub-soil and grounds, the form and nature of the site and local conditions the quantities, nature and magnitude of the work the availability of labour and materials necessary for the execution of work, the means of access to site, the supply of power and water thereto and the accommodation he may require and has made local and independent enquiries and obtained complete information as to the matters and things referred to or implied in the tender documents or having any connection therewith, and has considered the nature and extent of all the probable and possible situations, delays, hindrances or interferences to or with the execution and completion of the work to be carried out under the contract, and has examined and considered all other matters, conditions and things and probable and possible contingencies, and generally all matters incidental thereto and ancillary thereof affecting the execution and completion of the work and which might have influenced him in making his tender.
- c. The tender documents including the NCCS's Press Notice Inviting Tender, Detailed NIT, General conditions of contract, Special Conditions of Contract, Schedule of Quantities and rates, General obligations, Specifications, Drawings, plan, time schedule for completion of work, Pre bid minutes, TCD Negotiation if any. Letter of Acceptance of tender, Work order, all correspondence related this work and any statement of agreed variations with its

enclosures copies of which are hereto annexed form part of this contract though separately set out herein and are included in the expression Contract wherever herein used.

- d. Contractor shall not claim any escalation in contract rate for rise in prices of materials/labour etc. during the completion of work and shall complete the work at contracted rate which shall be valid for period ___ month from the date of issue of Work Order. In case of extension in the time period for execution of the contract beyond period ___ month, for any reasons of delay, he shall not be eligible for escalation and the NCCS decision in this respect shall be final and binding on the contractor.

AND WHEREAS

The NCCS accepted the tender of M/s.____ (refer note__) (CONTRACTOR) for the Works of_____ at NCCS, Pune and issued work order letter Ref.No.____ dated ___at the total cost of Rs.____ (Rupees _____) as rates stated in the Schedule of quantities for the work and accepted by the NCCS (hereinafter called the Schedule of Rates) upon the terms and subject to the conditions of the contract.

NOW THIS AGREEMENT WITNESSTH & IT IS HEREBY AGREED AND DECLARED AS FOLLOWS.

1. In consideration of the payment to be made to the contract for the work to be executed by him, the contractor hereby convenient with the NCCS that the contractor shall and will duly provide, execute, complete and maintain the said work and shall do and perform all other acts and things in the contract mentioned or described or which are to be implied and there from or may be reasonably necessary for the completion of the said works and at the said times and in the manner and subject to the terms and conditions or stipulations mentioned in the contract, AND
2. In consideration of the due provisions execution, completion and maintenance of the said work, the NCCS does hereby agree with the contractor that the NCCS will pay to contractor the respective amounts for the work actually done by him and approved by the NCCS at the Schedule or Rates and such other sum payable to the contractor under provision of the contract, such payment to be made at such time in such manner as prescribed for in the contract.
3. It is specifically and distinctly understood and agreed between the NCCS and the contractor that the contractor shall have no right, title or interest in the site made available by the NCCS for execution of the works or in the building, structures or works executed on the said site by the contractor or in the goods, articles, materials, etc. brought on the said site (unless the same specifically belongs to the contractor) and the contractor shall not have or deemed to have any lien whatsoever charge for unpaid bills will not be entitled to assume or retain possession or control of the site or structures and the NCCS shall have an absolute and unfettered right to take full possession of site and to remove the contractor, their servants, agents and materials belonging to the contractor and lying on the site.
4. The dispute or difference if any, relating to this agreement or any document appended hereto shall be settled by arbitration under the provisions of Indian Arbitration &

Conciliation Act, 1996 or any rules and regulations framed there under within the Jurisdiction of Pune and the Jurisdiction of Arbitration shall be the city of Pune only.

In Witness whereof the parties hereto have here-into set their respective hands and seals in the day and the year first above written.

Signed and delivered for and on behalf of
NCCS

Signature and delivered for and on behalf of the
contractor

NCCS, Pune

CONTRACTOR

Address :
Date :
Place :

Address :
Date :
Place :

In presence of following witnesses

1 Signature :
Name :

1. Signature :
Name :

2 Signature :
Name :

2. Signature :
Name :

{NOTE:

FOR PROPRIETARY CONCERN

Shri.....s/o.....r/o.....carrying on business under the name and style of.....at.....
(Hereinafter called the said Contractor which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representatives).

FOR PARTNERSHIP CONCERN

M/sa partnership firm having its registered office at (Hereinafter called the said Contractor which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representatives). The partners of the firms are:

i) Shris/o....., And

ii) Shris/o.....etc.

FOR COMPANIES

M/sa company duly incorporated under the Indian Companies Act, 1956 and having its registered office atin the state of (Hereinafter called the said Contractor which expression shall unless the context requires otherwise include its successors and assign).

}

9.11. INDEMNITY BOND

(ON NON-JUDICIAL STAMP PAPER OF Rs.100/-)

ANNEXTURE IV

This deed of Indemnity is made this _____ day of ___20__ between

M/s._____, (hereinafter called "The Contractor" which expression shall unless repugnant to the context or meaning Thereof include its successors and assigns) of the FIRST PARTY and

Director, National Centre For Cell Science, Pune, an Institute having its Registered Office at Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411007 (hereinafter called the "NCCS" which expression shall unless repugnant to the context or meaning thereof include its successors and assigns) of the SECOND PARTY.

WHEREAS the Contractor has, interalia, agreed with the Institute to execute the work _____ on the Terms & Conditions contained in the Notice Inviting Tender No: _____ between the Institute and the Contractor.

Whereas the Contractor has to furnish an Indemnity of the said Agreement. It is now agreed by and between the Parties hereto as follows:

1. In accordance with the said Agreement, on the Contractor furnishing this Indemnity, the Contractor hereby undertakes to indemnify the Institute and keep the Institute indemnified from time to time against any loss caused due to mishandling, mis- operating or improper maintenance etc. or damage caused to or suffered by the Institute by reason of any breach or breaches on the Contractor's part of any of the Terms & Conditions contained in the said Agreement and in the event the contractor shall make any default or defaults in carrying out any of the works under the said Agreement or otherwise in observance or performance of any of the Terms & Conditions relating thereto in accordance with the true intent and meaning thereof, the Contractor shall forthwith on demand and without demur pay to the Institute such sum or sums as may be claimed by the Institute as losses, damages, costs, charges or expenses by reason of such default or defaults on the Contractor's part.
2. Notwithstanding anything to the contrary in these presents or in the said Agreement The Institute's decision as to whether the Contractor has made any default or defaults or the amount or amounts to which the Institute is entitled by reason thereof will be binding on the Contractor for the purpose of this Indemnity and the Contractor shall not be entitled to ask the Institute to establish its claim or claims under this Indemnity but will pay the same on demand without any objection provided always the mutual rights under the said Agreement shall not in any way be prejudiced by reason of such demand by the Institute and payment by the Contractor under this Indemnity and the claims under the said Agreement (which Shall be settled in accordance with the said Agreement) without prejudice to the Institute's rights to demand immediately under this Indemnity and the Contractor's liability to pay the same.
3. This Indemnity shall continue and hold good until it is released by the Institute in writing on the Contractor's application after expiry of relative Guarantee period of the said

Agreement and after the contractor has discharged all his obligations under the said Agreement and submitted a "NO DEMAND CERTIFICATE" from the Institute under the said Agreement. The Indemnity Bond shall be valid for a minimum period of CONTRACT PERIOD and renewable thereof (Claim Period).

4. The Institute will have the fullest liberty from time to time to enforce or forbear to enforce any of the Terms & Conditions of the said Agreement and the Contractor shall not be released from his / their liability under this Indemnity by the exercise of the Institute 's liberty with reference to the matters aforesaid or by reason of any time being given to the Contractor or any forbearance, act or omission on the Institute's part or any indulgence by the Institute to the Contractor or by any variations or modifications of the said Agreement or any other act, matter or thing whatsoever on the Institute's part.
5. This Indemnity and the powers and provisions herein contained are in addition to and not by way of limitation or substitution for any other guarantee, indemnities hereto before given to the Institute by the Contractor and this indemnity does not revoke or limit such indemnities or guarantee.

IN WITNESS WHEREOF the Parties hereto have executed these presents the day the year First hereinabove written.

Name and sign of the Contractor

Engineer in Charge
N.C.C.S., Pune

In the presence of following Witness

1. _____

2. _____

9.12. TECHNICAL SPECIFICATION CHART FOR PRODUCT TO BE OFFERED:

Make and Type	
Model	
Rated Voltage	
Nominal System Voltage	
Rated Insulation level	
Power frequency withstand voltage (KV)	
Impulse withstand voltage (KV)	
Rated Current (A)	
Breaking Capacity (KA) for 1 Sec.	
Making Capacity (KA) for 1 Sec	
Protection	
Dimensions	
Other if any	
Total Wight	

(Attached OEM/ MFG Catalogues, Brochures etc.)

10. CHECK LIST OF DOCUMENTS SUBMITTED:

Sr No.	Particulars	Submitted (Yes No)	Remark
1	Two separate bids i.e. Technical and Commercial submitted in single envelope dully sealed.		
2	Tender cost (DD)		
3	Earnest Money Deposit (EMD)		
4	Copy of Registration certificate of firm (Shop Act/ Company Registration)		
5	Copy of Electrical Contractor License		
6	Copy of PAN card		
7	Copies of IT return for last three years		
8	Copy of Service Tax Registration.		
9	Copy of VAT Registration.		
10	Copy of CST/TIN Registration		
11	Copy of Central Excise Registration No.		
12	Copy of ISO Certification, if available		
13	Copies of similar supporting work orders with completion certificate		
14	List and clients indicating quantum of work executed with them		
15	Bank Solvency Certificate		
16	Annexure I- Letter of Transmittal		
17	Form- A to G		
18	Authorization from OEM/Principal Manufacturer		
19	Technical Specification of chart of equipment to be offered with OEM catalogues, brochures, Drawings etc.		
20	Seal signed copy of Pre-bid meeting minutes		
21	Detailed tentative BAR Chart		

राष्ट्रीय कोशिका विज्ञान केंद्र

NATIONAL CENTRE FOR CELL SCIENCE

(An Autonomous Institution of the Department of Biotechnology, Govt. of India)
N.C.C.S. Complex, Ganeshkhind, Pune University Campus, Pune 411007.

PART-II (COMMERCIAL / PRICE BID)

**DESIGN, SUPPLY, INSTALLATION, TESTING AND
COMMISSIONING OF 11KV SF6 GAS INSULATED
METAL ENCLOSED RMU AT N.C.C.S., PUNE**

DUE DATE FOR SUBMISSION: 26/12/2016 @ 13 HRS

TO BE SUBMITTED TO:

The Director
National Centre for Cell Science
Pune University Campus,
Pune 411007 (Maharashtra, India)

NAME AND ADDRESS OF BIDDER: _____

BILL OF QUANTITY

NCCS/MAINT./RMU/320/2016/1

03/12/2016

Sr. No.	Item Description	Unit	Qty	Supply		Installation	
				Unit Rate	Amount	Unit Rate	Amount
				(Rs.)	(Rs.)	(Rs.)	(Rs.)
1	Supply, transport, delivery, loading unloading, Inspection, Testing and Commissioning of 11 KV, 3 Phase, 25KA for 1 Sec, 50Hz, manual operated SF6 Gas Insulated, Metal enclosed, Indoor type RMU at NCCS, Pune having Compact (non-extensible) and comprising one Load Break Isolator (630A) as Incomer and two SF6 Gas Insulated Vacuum Circuit breakers (630A) as Outgoing for outgoing cables to Distribution Transformer (2Nos X 1500KVA), protection with earth switch rating 11KV, suitable for mounting on existing cable of size 3C X 185 Sq.mm with necessary touch proof termination kits for HT Cables, hardwares like lugs/ ferules etc., with necessary CT units, LED Indications and protection system consisting of Earth Fault (EF) & OC Self-powered Relays required for protection functions, window annunciation etc., as per specifications and approved brands, confirming IEC/IS latest amendments, required necessary foundation for installation of new RMU and to cover cable trench opening with necessary checker plates / trenches as per site condition etc. Complete Job.	No.	1				

Sr. No.	Item Description	Unit	Qty	Supply		Installation	
				Unit Rate	Amount	Unit Rate	Amount
				(Rs.)	(Rs.)	(Rs.)	(Rs.)
2	Dismantling and removing of existing floor mounted, 12 KV,3 Phase, 50 Hz, 40KA for 3 Sec, 100KA Making Capacity, 1600A, Indoor type, metal enclosed, Compact, Minimum Oil Circuit Breakers (MOCB) having one incomer and two outgoing for distribution transformer (1500KVA), protection having EF / OC relays, Three Vector meter, Auxillary and tripping relays, faults annunciator, analog meters such as Ammeters, Voltmeter, Frequency meter, Energy meters, PF meter and indicating lamps, selector switches on Panel, Make: Eswaran & Sons Engg Ltd, Chennai, Type: 12MG, Mfg. year: 1994, As per IEC 56 /IS-52516, Dimensions: 2590mm(L)X 2865mm(W)X 2072mm(H) having total weight-1250Kgs(Approx)	No.	1				
3	Buyback value for existing MOCB HT panel (description as per Sr. No.2)	Lump sum	Rate only				
4	Charges for Liasioning, coordinating and follow up with MSEDCL and Electrical Inspector If any.	Job	1				
Total Amount (Rs.)							
Service Tax @ 15 % (Rs.)							
Gross Amount (Rs.)							

(Gross Amount in words:)

Note: Gross Amount including removing old functioning of MOCB HT Panel and supply, installation, testing and commissioning of SF6 Gas Insulated, Metal enclosed, Indoor type RMU with interconnection of all cables, termination, hardware etc and successful working of the panel, documentation and training in all complete respect with credit of old HT Panel.

Signature and seal of the Bidder