

**E-TENDER  
FOR  
SUPPLY, INSTALLATION,  
TESTING AND COMMISSIONING  
OF 62.5 KVA SALIENT TYPE D.G. SET  
AT SUB-REGIONAL SCIENCE CENTRE, ALMORA  
(UTTARAKHAND)**



**Ministry of Culture**  
Government of India

**NATIONAL SCIENCE CENTRE  
(A UNIT OF NATIONAL COUNCIL OF SCIENCE MUSEUMS)  
BHAIRON ROAD, NEAR GATE NO – 4, PRAGATI MAIDAN  
NEW DELHI – 110 001**

**NATIONAL SCIENCE CENTRE**  
(A Unit of National Council of Science Museums)  
Bhairon Road, Near Gate No. 4, Pragati Maidan,  
**New Delhi - 110001**

**TENDER No. NSCD/18011/E-Tender - 27 /2023-24**

**NOTICE INVITING E-TENDER**

On-line Digitally signed E-Tenders are invited in two Bid System from Manufacturers / authorized dealers for “**Supply, Installation, Testing and Commissioning of 62.5 KVA Salient Type D.G. Set at Sub-Regional Science Centre, Almora ,Vill-Sunoli P.O: Shyldhar Almora- Ranikhet road Almora Uttarakhand-263601.(Near Kendriya Vidyalaya Almora)**”. The Interested experienced / eligible agencies may download the tender documents from the Central Public Procurement Portal (CPPP): <http://eprocure.gov.in/eprocure/app> or from Centre’s website or [www.nscd.gov.in](http://www.nscd.gov.in) as per the following schedule:-

Bid Document Published Date	04 <sup>th</sup> September, 2023 (12:00)
Bid Document Download Start Date	04 <sup>th</sup> September, 2023 (12:00)
Bid Clarification Start Date	04 <sup>th</sup> September, 2023 (12:00)
Bid Submission Start Date	04 <sup>th</sup> September, 2023 (12:00)
Bid Clarification End Date	21 <sup>st</sup> September, 2023 (14:00)
Bid Submission End Date	22 <sup>nd</sup> September, 2023 (15:00)
Technical Bid Opening Date	25 <sup>th</sup> September, 2023 (16:00)
Financial Bid Opening date	Shall be communicated later on
Estimated Cost	₹9.00 Lakhs
Earnest Money Deposit	₹22,500/-
Tenure of the Contract	12 Months

The online bid both Technical Bid and Financial Bid, should be uploaded by the due date and time as per the above schedule. The responsibility to ensure the same lies with the bidders. Off-line tenders shall not be accepted and no request in this regard will be entertained whatsoever. **Online Technical Bid will be opened at the first instance in National Science Centre, Delhi at 4:00 P.M. on 25<sup>th</sup> September, 2023 for technical evaluation as well as selection of technically acceptable offers.** In the second stage, the Financial Bids of only the selected and techno-commercially acceptable offers / system / equipment will be opened. Decision of the Centre, regarding selection of eligible and qualified vendors / firms for opening the Financial Bid shall be final and binding on the bidders. Bidders may be present during opening of tenders.

NSC, Delhi reserves the right to accept or reject any or all tenders in full or part without assigning any reason whatsoever. NSCD shall also not be bound to accept merely the lowest tender but the technical suitability, capability and superiority of the equipment / system as well as after sales service including infrastructure to render such service, etc. shall be of prime consideration for selection of the equipment /system.

## **ELIGIBILITY CRITERIA FOR APPLYING**

1. The agencies who fulfill the following requirements shall ONLY be eligible to apply (Joint Ventures are not accepted) having the following eligibility:-

A) The contractors approved by CPWD under Category-"A" are only eligible for the bid". The contractors should upload Valid Certificate of registration under General Specifications for Electrical Works – Part VII (DG SET)-2013 by CPWD Authority.

B) Experience of having successfully completed similar works during last seven (7) years ending last day of month previous to the one in which applications are invited should be either of the following:

a) Three (3) similar completed works each costing not less than the amount equal to 40% of estimated cost.

OR

b) Two (2) similar completed works each costing not less than the amount equal to 50% of the estimated cost.

OR

c) One (1) similar completed work costing not less than the amount equal to 80% of the estimated cost.

d) **“Similar work” means Supply, Installation, Testing and Commissioning of 62.5 KVA Salient type D.G. set.**

**and**

Agencies having valid G.S.T Registration Certificate, TIN & Income Tax Permanent Account Number (PAN)

2. The place of work would be **Sub-Regional Science Centre, Almora ,Vill-Sunoli P.O: Shylidhar Almora- Ranikhet road Almora Uttarakhand-263601.( Near Kendriya vidyalaya Almora).**

3. The intending tenderers/bidders must read the terms and conditions of **National Science Centre, New Delhi- 110001 carefully**. They should only submit their bid if they consider themselves eligible and if they are in possession of all the documents required.

4. Information and Instructions for tenderers/bidders posted on website shall form a part of the bid document.

5. The bid document consisting of plans, specifications, schedule of quantities of various types of items to be executed and the set of Terms and Conditions of the contract to be complied with and other necessary documents can be seen and downloaded from <https://eprocure.gov.in/eprocure/app> free of cost.

6. Out of the online bid documents submitted by intending tenderers/bidders, the technical bids of only of those tenderers/bidders shall be opened, who have deposited e-Tender Document Fee as specified & Earnest Money Deposit as specified duly scanned, uploaded and found in order and the financial bids of only those tenderers/bidders shall be opened when they uploaded documents are found to be in order.

7. Those contractors not registered on the website mentioned above, are required to get themselves registered before hand.
8. The intending tenderer/bidder must have valid Class II or Class III Certificates with signing key usage (**DSC**) to submit the bid.
9. The e-Tenders are invited under two envelopes system. The first electronic envelope will be named as Technical Envelope & will contain documents of tenderer's/bidder's satisfying the eligibility conditions, scanned copies of tender document fees and EMD, NIT, etc. and the second electronic envelope will be named as Financial Envelope containing Rate Quote Sheet. The bidder shall submit **TECHNICAL BID ENVELOPE** and **FINANCIAL BID ENVELOPE** simultaneously. The technical bids will be evaluated first and thereafter financial bids of only the eligible tenderers /bidders shall be opened. These envelopes shall contain one set of the following documents:-

**A) TECHNICAL BID ENVELOPE (cover-1) shall contain the following documents:**

- i) Scanned copy of Demand Draft/Pay order or Banker`s Cheque of any Nationalised/ Scheduled Bank towards Earnest Money Deposit (EMD) in pdf format in favour of **“National Science Centre”, payable at New Delhi” or scanned copy of MSME / NSIC Certificate for Exemption of EMD.**
- ii) Scanned copy of Enlistment Order/Registration certificate with appropriate Authority as applicable in pdf format, if any.
- iii) Scanned copies of proof of eligibility as per Clause No. 2 of specific **WORK EXPERIENCE CERTIFICATES / WORK COMPLETION CERTIFICATE** along with Work Order/ Letter of Intent issued by Govt./Semi-Govt. /Autonomous/PSUs and/or Reputed Institution of requisite magnitude with appropriate Authority as per the NIT in pdf format.
- iv) **The documents mentioned above in clause 9-a (iii) i.e. experience certificates/ work completion certificate etc, all complete, also to be submitted in hard copies physically at National Science Centre, New Delhi on or before 3.00 PM on 22.09.2023.**
- v) Scanned copy of declaration & **UNDERTAKING (as per Annexure – “C”)** duly signed with company seal in pdf format which also includes the undertaking that "The physical EMD shall be deposited by me/us with the office of **National Science Centre, New Delhi- 110001** before the bid opening date otherwise the department may reject the tender/bid and also take action to withdraw my/our enlistment/debar me/us from further tendering in NCSM or any of its constituent units." **However, exemption will be given to the MSME/NSIC registered agencies for submission of EMD.**

- vi) Scanned copy of VALID ELECTRICAL LICENCE in pdf format.
- vii) Details of Bidder participating in tender: in pdf format as per **Annexure-D**.
- viii) Technical specifications details.
- ix) Scanned copy of PAN card of the Agency in pdf format.
- x) Scanned copy of the GSTIN Certificate of the Agency in .pdf. format.
- xi) Scanned copy of Income Tax returns for last three (3) years in .pdf. format.
- xii) Tender Document comprising of Schedule of Quantities / specification in pdf. format (TENDERXXXXX.pdf file) digitally signed. (Physical copy of the NIT document duly signed and stamped must be submitted on or before 3.00 PM on 22.09.2023.)
- xiii) Scanned copy of UNDERTAKING (as **per Annexure-C**) **duly** signed in letter head with company seal with .pdf format.

**B) FINANCIAL ENVELOPE: The Financial Bid ( as per Annexure-G) i.e. Schedule of Price Bid in the form of attached BOQ Proforma shall be duly filled in, digitally signed and uploaded online by the bidder.**

- (i) Rate Quote Sheet (Item Rate Template) **in .xls format.**  
Bidder shall quote item rate in this Envelope.
  - (ii) **COST BREAK UP SHEET (ANNEXURE – E-1) (Page-1 & Page-2)** Item –A (D. G. Set), Item-B (AMCs) and Net Cost as per Abstract of cost.
10. E-tenders which do not fulfill any of the above conditions or are incomplete in any respect are liable for summarily rejection.
  11. The Museum/Centre does not bind itself to accept the lowest e-tender/bid and the right to reject or accept any or all the e-tenders / bids, e-tendered items or schedules received without assigning any reason whatsoever.
  12. Canvassing in connection with e-tenders/bids is strictly prohibited and the e-tenders/bids submitted by the tenderers/ bidders who resort to canvassing will be liable for rejection on that ground alone.
  13. E-tenders incorporating additional conditions are liable to be rejected.
  14. The tenderer(s) must declare in writing that neither he nor any of them is in anyway related to any officer in the National Council of Science Museums, Kolkata or any of its constituent units as per the format given **in Annexure –“C”**.
  15. G.S.T or any other tax, Labour Cess etc. or duties on materials, freight & transit Insurance F.O.R. site in respect of this contract will be payable by the successful tenderer. Nothing extra will be payable for increase in such taxes or duties even if imposed or levied either before or after the e-tenders are opened or during currency of contract.
  16. Before submitting the e-tender, the tenderer shall examine all specifications, drawings, conditions of contract and inspect the site if necessary. The e-tender must be balanced in respect of individual items so that the rates quoted shall remain in force even if the Quantities deviate (increase or decrease) to any extent before or during the execution of the work. The successful tenderer/bidder shall be paid at their net rate quoted.

17. For the purpose of opening of the e-tenders / bids as described in Clause 10 of the Notice Inviting e-tender it is clarified that only on *receiving* the EMD physically at National Science Centre, New Delhi before the bid opening date, the Technical Bid Envelope will be opened. **However, exemption will be given to the MSME/NSIC registered agencies for submission of EMD.** *After the authority is satisfied that the documents in the Technical Bid Envelope are in order, the FINANCIAL BID ENVELOPE will be opened, subsequently.*
18. **The documents mentioned above in clause 9-a (iii) i.e. experience certificates/ work completion certificate etc, all complete, also to be submitted in hard copies physically at National Science Centre, New Delhi before due date of opening of tender.**
19. It may be noted that the Technical Bid Envelope which are not found in order as per requirements may be summarily rejected.
20. Earnest Money Deposit is liable to be forfeited if the successful e-tenderer/bidder selected for the work fails to sign the formal agreement within 07 days from the date of issue of Letter of Intent to them by the Museum/Centre.
21. The selected tenderer will be issued a Letter of Intent by the Museum/Centre and given 07 days mobilization time which shall be counted from the date of issue of the Letter of Intent. Within the mobilization time the tenderer must scrutinize all the working drawings, CPM/PERT/BAR CHART, specifications, etc. and obtain clarifications from the Competent Authority wherever necessary and submit a revised BAR CHART if required by the Museum/Centre. During the mobilization time, the tenderer shall also mobilize all their resources including men and materials, obtain the supply of necessary required items for installation / construction, erect temporary storage facility at site if necessary and sign an Agreement with Museum/Centre in approved format at site on a non-judicial stamp paper of proper denomination. The date of commencement of work shall be the date of issue of Letter of Intent.
22. The validity period of the e-tender shall be at least **(06) Six Months** from the date of opening of E-tenders. This period may be extended with mutual consent if the decision regarding issue of Letter of Intent is delayed for any reason.

## CHECK LIST

Check list of Tender No. NSCD/18011/E-Tender-27 /2023-24 for “**Supply, Installation, Testing and Commissioning of 62.5 KVA Salient type D.G. set at Sub-Regional Science Centre, Almora (Uttarakhand)**”.

Sl. No.	Description	Yes	No
01	Whether E-Tender uploaded on Central Public Procurement Portal of Govt. of India (i.e. Technical & Commercial) separately.		
02	Whether Tender documents carefully studied & understood.		
03	Whether Tender documents duly signed and stamped on all pages is scanned and uploaded as Part – I of the Tender in central public procurement portal.		
04	Whether Declaration regarding Non-relation, duly signed and stamped, and scanned copy of the same uploaded as Part – I of the Tender in Central Public Procurement Portal. <b>Annexure-C</b>		
05	Whether Declaration certifying that there is no extra conditions quoted in the Offer Form duly signed and stamped, and scanned copy of the same uploaded as Part – I of the Tender in Central Public Procurement Portal. <b>Annexure-C</b>		
06	Whether Earnest Money of <b>₹22,500/-</b> submitted by online / vide Demand Draft No. .... dated..... and Scanned copy of DD uploaded as Part – I of the Tender. Please note that the original DD should be couriered /hand delivered to NSC Delhi / online payment details shall be sent to NSCD before the time of opening Technical Bid.		
07	Did you visit the actual site for execution of the work/ supply before submitting the Tender		
08	Authorization Letter issued from OEM enclosed with the Technical Bid.		

Date:

Signature of the Tenderer

Place:

Official Seal

## **Conditions of Contract**

1. Clauses of the conditions of contract will be part of agreement between National Science Centre and the successful tenderer.
2. The contractor must visit the site before quoting his rates in the tender and acquaint himself with site conditions thoroughly. No claims for additional payments would be entertained arising out of contractor's ignorance of site conditions.
3. The rate quoted by the contractor shall include all labour, materials, etc. for executing and completing the item. He should also include in his rate all taxes including taxes on works contract, octroi duties, excise, freight etc., and also should allow for fluctuations of market prices.
4. The contractor shall arrange at their own cost for water and electricity required for construction.
5. The contractor should quote balanced rate. Quantities given in the schedule are tentative and may vary upto any extent. The National Science Centre reserves the right to execute or to delete any item or increase or decrease any quantity or quantities of the bill of quantities. Rates quoted in the tender shall be binding for all such variation in quantities.
6. The contractor shall be responsible for the true and perfect setting out of works and also correctness of positions, levels, dimensions and alignment of all parts thereof. If any time any error arises the contractor shall rectify it at his own cost.
7. All soil, filth or other matters of offensive nature or which are of no use shall have to be removed from the premises by the contractor at his own cost.
8. Materials to be used in the work shall conform to I.S. specification if otherwise not stated specifically.
9. The contractor shall be entitled to be paid 75% of the value of materials, non-perishable in nature brought to site, required for construction as secured advance.
10. The contractor is entitled to get payment for interim bills before final bill is paid. The final bill shall be paid only after the system is fully operational. The measurement of the work done shall be made jointly.



11. All payments to be made the contractor shall be entered into Measurement Book. Based on the measurement of the work done, the contractor shall prepare a bill in approved format and submit the same for payment. All bills shall be pre-receipted.
12. 75% advance bill against work done but not measured may also be certified for payment at the discretion of the Museum/Centre in the interest of work. This advance payment shall be adjusted in the next running bill.
13. In case of large amount blocked in final bill, pending technical / audit check, an advance to the extent of 75% of the net final bill shall be released for payment to the contractor and balance amount after full checking of the bill.
14. From the Running Account or final bill, the recovery on account of material supplied by the Museum/Centre with due allowance for wastage, shall be made. The contractor shall submit statement of materials used in the construction work along with the bill.
15. Retention money/security deposit shall be 10% of the gross value of the work awarded and to be paid by the contractor to the Museum/Centre. Security money is deducted at the rate of 10% of the gross value of each running bill. This retention money shall remain with the Museum/Centre till the end of construction plus defect liability period. This retention money shall be refunded to the contractor after the virtual completion of work plus defect liability period and also rectification of all defects pointed out to him. In case of termination of contract this retention money is forfeited.
16. Contractor may carry out work on Govt. holidays only with the permission of Centre.
17. Contractor shall keep a qualified and experienced Engineer / supervisor for supervision of work to ensure best quality works.
18. Any deviation from the tender specification, coming as extra or substituted item which are not covered in the tender items need approval of the competent authority of the Centre. The rates for extra/new/substituted items of work shall be derived from the contract items as far as practicable and rates which cannot be derived from the contract will be fixed on the basis of actual cost of materials and labour plus 10% as contractor's overhead and profit.

19. If during execution of work, sub-soil water is met with or water enters the working place due to rain or any other cause the contractor shall do dewatering by using pumps or manual labour at his own cost.
20. If the work is suspended by the contractor or unduly delayed without obtaining extension of time, the Centre will serve a notice giving 30 days of time and thereafter the incomplete work will be carried out by engaging other agency and in such cases the difference in cost has to be borne by the contractor.
21. The contract can be terminated by both parties after giving one month written notice to the other. In case of contractor serving the notice, his entire retention money including earnest money will be forfeited and his payment will be determined on actual measurement basis on the date of termination of contractor.
22. In case of any dispute arising between the contractor and the Centre, the matter shall be referred to the sole arbitration of a person nominated by the Director General, National Council of Science Museums, whose decision in this regard shall be final and binding on both the contractor and the Centre.
23. The contractor shall set up facility for holding his office at site and also provide for hutments, drinking water, sanitation etc. for his labour at his cost.
24. Contractor shall include in his rates provision of shoring, shuttering, centering etc. that might be required for proper execution of work.
25. Without prejudice to anything contained herein the contractor shall indemnify the Centre against all claims for compensation under the provision of the Workmen's Compensation Act, 1923 (VIII of 1923) by or in respect of any workmen employed by the contractor in carrying out his contract and against all cost and expenses incurred by the Centre in connection with any such claims and without prejudice to any other means of recovery, the centre shall be entitled to deduct from any money due or to become due to the contractor (whether under this contract or under any other contract) all money paid or payable by the Centre by way of compensation aforesaid or incurred for costs or expenses in connection with any claim as aforesaid and the contractor agrees that the decision of the Centre as to the amount payable by the contractor under the provisions of the clause shall be final and conclusive.

## FORMAT FOR ARTICLES OF AGREEMENT

### INSTRUCTIONS (Not to be typed in Agreement)

(Articles of Agreement have to be typed on Non-judicial stamp paper. The value of the stamp paper varies from state to state and is to be known from the particular place. The stamp paper will be purchased by the contractor(s) and the agreement may be typed by the Museum/Centre according to the format)

ARTICLES OF AGREEMENT made at .....(place).....this  
.....(date)..... day of .....(month).....19

between National Science Centre (under the National Council of Science Museums, a Society registered under the Societies Registration Act of West Bengal, 1961), hereinafter referred to as the Museum/Centre which expression shall include its successors and assigns on the one part and  
.....  
.....(name of the contractor with full address).....hereinafter referred to as the Contractor(s) which expression shall include his/their respective heirs, executors and administrators on the other part.

WHEREAS the Centre is desirous of getting the work of  
.....

Done and has prepared NOTICE INVITING TENDER (including Appendix), drawings, schedule of quantities and specifications describing the work and conditions of contract.

AND WHEREAS the said Notice Inviting Tender, drawings, specifications, the priced schedule of quantities and conditions of contract have all been signed by or on behalf of the parties hereto. AND whereas the Contractor has deposited in cash or Bank Draft/Banker's Cheque a sum of Rupees ..... (the amount being 2.5% of the total value of the estimate rounded off to the nearest thousands), with the Museum/Centre as Initial Security or Earnest Money for the due performance of this Agreement as provided in the said conditions.

#### **NOW IT IS HEREBY AGREED AND DECLARED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS**

1. In consideration of the payments to be made to him as hereinafter provided the contractor shall upon and subject to the conditions herein contained execute and complete.  
The work within ..... Weeks/months from the date of commencement of work (see NIT clause 5) and as per the said drawings and such further detailed drawings as may be furnished to him from time to time and described in the said specifications and the said priced schedule of quantities along with the progress of the work.
2. The Museum/Centre shall pay to the Contractor such sum as shall become payable hereunder at the time in the manner specified in the said conditions.

3. Time is the essence of this Agreement and the Contractor shall pay or allow the Museum/Centre the sum equivalent to one percent of the total cost of work awarded per week subject to a limit of 10% of the total cost of work as liquidated damages for the period during which the said works shall remain incomplete beyond the time allowed in clause 1 above or beyond the time duly extended in writing as per said conditions .The Museum/Centre may deduct such damages from any money due to the contractor.
4. The Notice Inviting Tender (including Appendix), Conditions of Contract, Priced Schedule of Quantities, drawings and specifications shall form the basis of this agreement and the decision of the Museum/Centre in reference to all matters or dispute as to material and workmanship shall be final and binding on the contractor.
5. The Museum/Centre reserves to itself the right of altering the drawings and of adding to or omitting any item of work or of having portions of the same carried out departmentally or otherwise and such alternations or variations shall not vitiate this agreement.
6. This agreement comprises the work above and all subsidiary works connected therewith, even though such works may not be shown on the drawing or described in the said specifications or the Priced Schedule of Quantities.
7. All disputes and differences of any kind, except quality of workmanship and materials used in work, whatever arising out of or in connection with the contract on the carrying out of works (whether during the progress of the work or after their completion and whether before or after the determination, abandonment or breach or the contract) shall be referred to arbitration as per Clause 22 of the said conditions of contract.

The provisions of the Arbitration Act 1940 or any statutory modification or re-enactment thereof and of the rules made there under for the time being in force shall apply to arbitration proceedings under this clause.

In witness whereof the parties have set their respective hands the day and the year hereinabove written.

Signed by for and on behalf of the Centre .....

In presence of (1)  
(2)

Signed by the said Contractor.....

In presence of (1)  
(2)

## General Information and Instructions

1. The instructions given herein will be strictly binding on the bidders and deviation, if any will make the tender or tenders liable to be considered invalid. Tenders incorporating additional conditions by the bidder are liable for rejection.
2. Bids shall be submitted online only at CPPP website: <https://eprocure.gov.in/eprocure/app> Manual bids shall not be accepted.
3. The instructions given in “**Annexure-A**” for “**Instruction for Online Bid Submission**” should be strictly followed during submission of the Bid.
4. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
5. An agent of foreign OEM, for submitting the offer on behalf of OEM, would be required to produce a copy of their legal bid agreement with their principal as an Indian agent failing which their bid would be disqualified.
6. Bid should be submitted along with the Earnest Money of **₹22,500/-** (Rupees Twenty Two Thousand Five Hundred only) by way of crossed Demand Draft / Banker’s Cheque /Pay Order on any of the commercial banks or through online payment by NEFT / RTGS / payable in favour of “**NATIONAL SCIENCE CENTRE**”, payable at Delhi. Any mistake in calculation of the amount of Earnest Money will be the responsibility of the Bidder and the tender will be rejected if the amount is found to be less for which the tender has been submitted. Earnest Money deposit in the form of Bank Guarantee /Bond or any other instrument shall not be accepted and shall be rejected straightway. Earnest Money deposits in respect of such offers which are not accepted will be returned to the bidders within 30 working days from the date on which the final decision is taken about the source from which the items under tender are to be procured or within 2 (two) months from the date of the opening of the tenders, whichever is earlier. No interest will be paid on the Earnest Money deposited with the Council. Earnest Money deposit in respect of the successful bidders will be retained with the NSCD until entire execution of the order as per terms of the tender. If the successful bidder fails to execute the order strictly as per the NSCD’s specification in full or part within the stipulated delivery period of the purchase order, the Earnest Money deposit retained with the NSCD shall be forfeited forthwith after cancellation of the concerned order. **Exemption will be given to the MSME/NSIC registered agencies for submission of EMD.**
7. **Validity of Bids: The Bids should remain valid for 90 days from the date of opening of Financial Bid.**
8. **Rejection of Bids:** Canvassing by the Bidder(s) in any form, unsolicited letter and post-tender correction may invoke summary rejection. Conditional tenders will be rejected. Non-compliance of applicable General Information and Instructions will disqualify the Bid.
9. The Bidders should have Digital Signature Certificate (DSC) for filling up the Bids. The person signing the tender documents should be authorized for submitting the on line e-tender.

**10.** The Financial Bid (BOQ) shall be filled in and signed by the authorized signatory online as per proforma “**Annexure- G**” available at Central Public Procurement Portal e-tender system website <http://eprocure.gov.in/eprocure/app>. off line Financial Bid shall not be accepted.

**11. Tender must be uploaded on-line in two separate sets – namely Set – 1 (Technical) on Central Public Procurement Portal. The contents of Cover shall be as follows:-**

**Set – 1**

- i) Tender Document uploaded with digital signature as token of acceptance of all terms and conditions and duly filled wherever applicable (‘Declaration’ forms duly signed with official stamp).
- ii) The Bidder must furnish details of GST Number and PAN Number (mandatory) and also upload the scanned copy of these documents in e-procure portal.
- iii) Scanned Copy of the current and valid Trade License and Dealership Certificate as applicable.
- iv) Scanned Copy of the current and valid Tax Clearance Certificate.
- v) Technical Brochures of each equipment with technical explanation for every feature of the product offered by the bidder.
- vi) Scanned copy of Demand Draft for ₹22,500/- as Earnest Money Deposit. Please note that the original DD should be couriered /hand delivered to NSC Delhi / online payment details and Exemption Certificate regarding MSME / NSIC details shall be sent to NSCD before the time of opening Technical Bid.

**Set – 2**

- i) **The Financial Bid ( as per Annexure-G) i.e. Schedule of Price Bid in the form of attached BOQ Proforma shall be duly filled in, digitally signed and uploaded online by the bidder.**

N.B. : The bidders shall consider the prevailing tax rates while quoting the rates. However, in the event of any changes in the statutory taxes and duties, the rates applicable at the time of payment shall be made by the competent authority of the NSC, Delhi against submission of supporting documentary evidence.

1. Order shall be placed in favour of the bidder whose technical bid is acceptable and offered lowest rate in **INDIVIDUAL** item(s) as per BOQ in Annexure – G.
2. The authority of National Science Centre, Delhi who does not bind themselves to accept the lowest tender and reserves the right to reject or accept any or all tenders wholly or partially without assigning and reason whatsoever.

NATIONAL SCIENCE CENTRE  
(A Unit of National Council of Science Museums)  
Bhairon Road, Near Gate No. 4, Pragati Maidan,  
**New Delhi-110001**

**TENDER No. : NSCD/18011/E-Tender – 27 / 2023 – 24**

**Instructions for Online Bid Submission**

1. The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.
2. More information useful for submitting online bids on the CPP Portal may be obtained at <https://eprocure.gov.in/eprocure/app>

**REGISTRATION**

1. Bidders are required to enrol on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “**Online Bidders Enrolment**” on the CPP Portal which is free of charge.
2. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.) with their profile.
5. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.
6. Bidders may then log-in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

**SEARCHING FOR TENDER DOCUMENTS**

1. There are various search options built in the CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords, etc. to search for a tender published on the CPP Portal.

2. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective “My Tenders” folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
3. The bidders should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

### **PREPARATION OF BIDS**

1. Bidders should take into account any corrigendum published on CPPP in connection with the tender document before submitting their bids.
2. **Please go through the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of sets in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.**
3. Bidders, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF / JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates, etc.) has been provided to the bidders. Bidders can use “My Space” or “Other Important Documents” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

### **SUBMISSION OF BIDS**

1. Bidders should log-in to the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidders will be responsible for any delay due to other issues.
2. The bidders have to digitally sign and upload the required bid documents one by one as indicated in the tender document.
3. **Bidders should submit the EMD as per the instructions specified in the tender document. The original instrument should be posted/couriered/given in person to the Tender Processing Section at the above address, latest by the last date of bid submission. The detail of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected. Exemption will be given to the MSME/NSIC registered agencies for submission of EMD**



4. A standard Price Schedule format (BOQ) has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidders). No other cells should be changed. **In case no rate value is required to be quoted in any particular cell, that cell may be kept blank, figure “0” (zero) shall not be entered in such cell(s). Once** the details have been completed, the bidders should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidders, the bid will be rejected.
5. The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referring the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
6. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener’s public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
7. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
8. Upon the successful and timely submission of bids (i.e. after Clicking “Freeze Bid Submission” in the portal), the portal will give a successful bid submission message and a bid summary will be displayed with the bid number and the date & time of submission of the bid with all other relevant details.
9. The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

#### **ASSISTANCE TO BIDDERS**

1. Any enquiries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority or the relevant contact person indicated in the tender.
2. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal helpdesk. The contact number for the helpdesk is 1800 233 7315.
3. Any queries relating to the Tender may be addressed to [nscdelhi10@gmail.com](mailto:nscdelhi10@gmail.com), [anit.bharti@gmail.com](mailto:anit.bharti@gmail.com), with proper credentials of the bidders before the bid Clarification date thereafter no queries will be entertained.

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NATIONAL SCIENCE CENTRE  
(National Council of Science Museums)  
Bhairon Road, Near Gate No. 4, Pragati Maidan,  
**New Delhi-110001**

**TENDER No. : NSCD/18011/E-Tender –27 / 2023 – 24**

**GENERAL TERMS AND CONDITIONS FOR SUBMISSION OF TENDER**

For **Supply, Installation, Testing and Commissioning of 62.5 KVA Salient Type D.G. Set at Sub-Regional Science Centre, Almora , Uttarakhand-263601** the tenderers are required to submit the tender in two parts i.e. Part-I and Part – II as per the details given in the point 11 of **General Information and Instructions**.

1. **PRICE:** The rates quoted/indicated shall include cost as per the details specified in **Annexure-E** “Technical specification and Scope of Work”, in the tender document. **The rates of GST and other taxes/levies to be imposed on the quoted rates shall have to be clearly and separately mentioned.** Price and rate quoted shall be firm and fixed for the entire period of execution of the work and no escalation of rate on any ground whatsoever shall be allowed. The overall lowest bidder shall be awarded the tender.
2. The bidders shall consider the prevailing tax rates while quoting the rates. However, in the event of any changes in the statutory taxes and duties, the rates applicable at the time of payment shall be made by the competent authority of the NSC Delhi against submission of supporting documentary evidence.
3. The successful tenderer shall submit the following documents within 07 (Seven) days from the date of placement of Letter of Intent.
  - a. Duplicate copy of Letter of Intent duly signed and stamped as a token of acceptance of the work order.
  - b. Non-judicial stamp paper of appropriate value for preparing the Agreement governing the terms and conditions of the Contract.
  - c. Security Deposit as detailed in Clause No. 06 of General Terms & Conditions.
4. **TIME OF COMPLETION:** Time is the essence of the tender. The entire work of final film supply shall be completed in time bound manner. The entire work shall be completed within **(45) Forty Five days** from the date of placement of Letter of Intent. The tenderer may please note that all the films ordered shall have to be completed in the same time frame.
5. For non-compliance of any of the above terms and non-delivery of the tendered item complete in all respects within the above stipulated period, the Centre shall either cancel the order or impose penalty as detailed in Clause 6 below. The Centre reserves the right to cancel the order and no payment will be made under such condition. Decision of the Centre in this regard shall be final and binding on the successful tenderers.

- 6. PENALTY CLAUSE:** The successful Tenderer shall strictly observe the time allowed for carrying out the job as detailed in Clause No. 4 under General Terms & Conditions. The job shall, throughout the stipulated period of the order be proceeded with all the diligence (time being deemed to be the essence of the order) and the successful Tenderer shall pay to the Centre, an amount equal to 1% of the amount of the order value for every week that the delivery may remain incomplete as per delivery schedule as stipulated in Clause no. 4 under General Terms & Conditions, subject to a maximum compensation of 10% of the order value and after that period appropriate action will be taken by the Centre, as it will deem fit.
7. The Centre may extend the time of delivery of the tendered job at its discretion on the application of the successful tenderer for such purpose provided that it considers the reasons for such extension as good, sufficient, acceptable and unavoidable.
- 8. SCOPE OF WORK:** As per Annexure “E”
- 9. PAYMENT TERMS:**
  - i. No advance payment shall be made by the Centre under any circumstances. Payment shall be released after satisfactory completion of the entire job within 30 days from the date of receipt of Tax Invoice duly supported by receipted challan and satisfactory inspection/work completion certificate issued by the competent authority of the Centre.
  - ii. Payment shall be released through NEFT/RTGS for which details of bank account shall be mentioned in their bill.
- 10.** In case, the successful Tenderer refuses to accept the offer after finalization or does not comply with the **Clause No. 3** as per the finalized and accepted terms and conditions, the order shall be cancelled forthwith without any further reference and the EMD will be forfeited.
- 11.** Technically lowest successful tenderer shall deposit 10% of the total amount of work awarded at National Science Centre as refundable Security Deposit in the form of DD after adjusting the EMD already deposited with this NIT, after getting the confirmed order and before the commencement of work. The Security Deposit shall be refunded to the successful tenderer 3 months after completion of the work.
- 12.** Every effort should be made to complete the work by the successful Tenderer within the specified time schedule. In case the successful tenderer fails to comply with **Clause No.4** under General Terms & Conditions i.e., the specified time schedule as per the finalized and accepted terms and conditions the Centre shall have the rights to either impose Penalty Clause or cancel the order forfeiting the EMD. The decision of the Centre in this regard shall be final and binding on the successful Tenderer.

- 13.** Any ambiguity in the specification / scope of work is detected; it shall be promptly brought to the notice of the Centre for clarifications. The successful tenderer without written approval/permission of the Centre shall make no deviation from the approved specifications.
- 14.** The successful Tenderer shall submit necessary trade and other licenses as may be required to carry on the tendered job and shall also be responsible for compliance at his/her own cost of all rules and regulations, enforced from time to time by the appropriate authorities.
- 15.** The successful Tenderer shall not under any circumstances whatsoever transfer wholly or partly the contract/agreement/Purchase Order to any other person(s)/firm/company or assign the agreement or benefits of this agreement to any other party for any reason whatsoever. Otherwise the order/ agreement will automatically stand cancelled.
- 16.** The authorities of the Centre, reserve the right to amend, alter or modify the terms and conditions mentioned above, if necessary, from time to time and also cancel the tender without assigning any reason.
- 17.** Income Tax and Work Contract Tax shall be deducted at source, if applicable, from each bill/claim of firm as per prevailing Government rules.
- 18.** Incomplete offers, i.e. offers received without prescribed “Offer Form” (BOQ), “General Terms of Conditions”, Technical Specifications” duly signed on all pages with official seal may be rejected straightway without reference to the tenderer.
- 19.** Party must have valid TIN/PAN/GST Registration number and attach a documentary proof with the Tender.
- 20.** The agency shall take care of all statutory obligations as are required under the Contract Labour Regulation Act, etc.
- 21.** The offer shall be valid for a minimum period of 3 months from the date of opening of the tender.
- 22.** The agencies participating in the tender and bidding, may obtain on specific request, details about the outcome of the tender and other related details, if any.

**23.** All disputes and differences between the successful tenderer and the Centre of any kind, except quality of workmanship and materials, whatever arising out of or in connection with the order on carrying out of the work (whether during the progress of the work or after their completion and whether before or after the determination, abandonment or breach of the terms and conditions of the order) shall be referred to the sole arbitration of a person nominated by the Director General, National Council of Science Museums, whose decision in this regard will be final and binding on both the parties – the successful Tenderer and the Centre. The provisions of the Arbitration and Conciliation Act 1996 or any statutory modification or re-enactment thereof and of the rules made there under for the time being in force shall apply to arbitration's proceedings under this Clause.

**24. FORCE MAJEURE:-**

In the event of either party being rendered unable by Force Majeure to perform any obligation required to be performed by them under the contract, the relative obligation of the party affected by such Force Majeure shall be suspended for the period during which such cause lasts. The term "Force Majeure" as employed herein shall mean acts of God, War, Civil Riots, Fire directly affecting the performance of the MOU, Flood and Acts and Regulations of the government. Upon the occurrence of such cause and upon its termination, the party alleging that it has been rendered unable as aforesaid thereby, shall notify the other party in writing, the beginning of the cause amounting to Force Majeure as also the ending of the said cause by giving notice to the other party within 72 (seventy-two) hours of the alleged beginning and ending of the cause respectively. If performance under the MOU is suspended by Force Majeure conditions lasting for more than 2 (two) months, either party shall have the option of cancelling the MOU, in whole or its part, at its discretion without any liability on its part.

Time for performance of the relative obligation suspended by Force Majeure shall stand extended by period for which such cause lasts.

**25. Make in India (MII)**

The tenderer shall abide with GOI order dated 15<sup>th</sup> June 2017 to give purchase preference to Make In India (MII) product mentioned in order. Document link as follows:

[https://dpiit.gov.in/sites/default/files/publicProcurement\\_MakeinIndia\\_15June2017.pdf](https://dpiit.gov.in/sites/default/files/publicProcurement_MakeinIndia_15June2017.pdf)

**NATIONAL SCIENCE CENTRE**  
(A Unit of National Council of Science Museums)  
Bhairon Road, Near Gate No.4, Pragati Maidan,  
New Delhi - 110 001

**TENDER No. : NSCD/18011/E-Tender- 27 /2023-24**

**DECLARATION-I**

This is to certify that I/We have no close relative as an employee of the National Council of Science Museums (close relatives means: Father, Mother, Brother, Sister, Son, Daughter and Spouse) nor any such close relatives are associated with us as proprietor/partner/share holder/ director and like.

Signature of the tenderer

Address:

Official seal with date

**DECLARATION-II**

We, do hereby accept the General Terms and Conditions as provided by the National Science Centre, Delhi along with tender documents for **Supply, Installation, Testing and Commissioning of 62.5 KVA Salient type D.G. set at Sub-Regional Science Centre, Almora (Uttarakhand)** and also undertake to execute the job strictly as per the specifications of NSC, Delhi as provided along with the tender documents. National Science Centre, Delhi shall be at liberty to cancel the order in full or in part and forfeit the Earnest Money Deposit or Security Deposit retained with them in the event of failure of any of the declaration made by us.

Signature of the tenderer / Constituted Attorney

(With date and Official Seal)

## Declaration on Registration as MSME

**DECLARATION ON REGISTRATION AS MSME**

(Following declaration to be provided by the Bidder on the Company letterhead)

This is to certify that our Company (Name of the Company)  
located at (Address of the Company) has  
registered as MSME. The details of registration are provided below:

Sl. No.	Particulars	Details
	Vendor Code (allotted by BEL)	
	Name of the Vendor / Company	
	Date of incorporation	
	Udyog Aadhaar Number	
	GST Number	
	PAN Number	
	Type of Enterprise	Micro / Small / Medium
	Major Activity	
	Type of Organization	Proprietary / Hindu Undivided Family / Partnership / Co-operative / Private Limited Company / Public Limited Company / Self Help Group / Limited Liability Partnership / Society / Trust / Non-MSME (not a MSME)
	Have your investment in plant and machinery crossed the prescribed limits of MSME Act	Yes / No Value (for MSME only):
	Copy of Udyog Aadhaar	Yes / No (for MSME only):
	Annual ceiling amount upto which they can take contract under MSME	
	Value of orders already at hand as on date of application	

I / we undertake to keep the National Science Centre, Delhi informed if at any point in future, we cease to become MSME vendor or change in category as per the extant rules and such disclosures is entirely our responsibility. Until then, the company does not hold NSCD as responsible for any issues related to MSME

Date:

Signature of Authorized  
Person with Company Seal

**NATIONAL SCIENCE CENTRE**  
(A Unit of National Council of Science Museums)  
Bhairon Road, Near Gate No. 4, Pragati Maidan,  
**New Delhi-110001**

**TECHNICAL (Techno-Commercial) BID**

**Notes: ALL PARTICULARS / INFORMATIONS SHOULD BE GIVEN IN THE FOLLOWING FORMAT WITH COMPLETE DETAILS.**

- 01.Name & Address of the Firm/Bidder :
- 02.Telephone Number :
- Office :
- Office at Delhi/NCR :
03. i) Background details of the firm :  
(State whether original manufacturer/direct Dealer of the manufacturer).
- ii) In case of direct dealers, submit copy of valid dealership license issued by the manufacturer.
04. State the Name of the Banker including IFSC Code and Account Number of the Tenderer for releasing digital mode of payment. :
05. Past experience in such business for last 3 years giving details of established clients especially Government Offices. Submit satisfactory certificate issued by such clients and Government Offices. :
06. Whether capable to execute the tendered item strictly as per enclosed technical specification. (Please mention 'YES' or 'NO')
- i) If it is mentioned 'NO' above, submit detailed deviation to be made from the enclosed technical specification. (Extra sheet may be attached, if required) :
- ii) If it is mentioned 'YES' above submit copies of product brochure (for product categories) as a proof of their statement. :



07. State the Name & Address of the Manufacturer :  
whose product has been offered /quoted by the tenderer.
08. Proof of financial status of the company/audited Balance :  
Sheet for last 3 years indicating total turnover as well  
(Submit documentary evidence.)
09. Whether agreed to accept 30 days credit Payment Terms. :  
(Please mention 'Yes' or 'NO')
10. Minimum time required to complete the tendered item at :  
NSC, Delhi.
11. Mention GST Registration Number and attach :  
Current valid Tax Clearance Certificate.
12. Whether agreed to supply tendered items as per enclosed :  
Specification (Annexure-E-1) positively by 45days and failing  
which ready to absorb heavy penalty, if any order is placed on  
the bidder after observing tender procedure.  
(Please mention 'YES' or 'NO')

I/We hereby declare that the above statements are true. I/We also declare that the decision of National Science Centre, Delhi regarding selection of eligible firms for opening of Financial Bid (Part-II) shall be final and binding on me/us.

**Dated                      Official Seal                      Signature of the Tenderer/Constituted Attorney**

SCOPE OF WORK UNDER THE CONTRACT**Supply, Installation, Testing and Commissioning of 62.5 KVA Salient type D.G. set at Sub-Regional Science Centre, Almora (Uttarakhand)**

Design, Manufacture, Supply, Installation, Testing and Commissioning of 1 no. of 62.5 KV A, 4 wires, 415V,3 phase, 50 Hz silent type (having acoustic enclosure) Diesel Engine Driven Generating Set at Sub-Regional Science Centre, Almora (Uttarakhand ) in conformity with specifications, terms and conditions of contract & local regulations.

The scope shall cover the following: DG set will comprise of the following :-

1	Diesel Engine as per specifications	1 No.
2	62.5 KV A Alternator as per specifications	1 No.
3	Common base frame for engine and alternator as per specifications	1 No.
4	Lead acid batteries.	1 Set
5	fuel tank as per specifications	1 No
6	Fuel oil piping, etc	As required
7	All power and control wiring between DG set, control panel, batteries, safety controls, Distribution panel etc.	As required
8	Acoustic enclosure as per specifications	1 No.
9	Power distribution panel as per specifications	1 No.
10	Earthing pits for body earth as per specifications	2 Nos
11	Earthing pits for neutral as per specifications	2 Nos
12	Earthing tape for body earthing of DG set & Distribution panel etc	As required
13	Earthing tape for neutral from pits to Alternator	As required
14	Vibration pads etc	As per requirement
15	Connections and jointing of cabling from power distribution panel to existing panels where cables of building are connected. To provide supply to user point	As per requirement
16	Civil work (foundation etc) for DG set.	As required
17	Acoustic Enclosure - Suitably made to reduce the sound level to the requisite level of pollution control board, Govt of Uttarakhand, with suitable exhaust system, thermal insulation, air circulation & ventilation safety devices inside the canopy.	
18	Operation and Maintenance Manuals, Spare Parts, Tools, Schematic Drawings etc. The contractor shall furnish operation & maintenance manuals in triplicate along with the schematic drawings of all the panels and controls protections etc. etc. after installation of the DG sets. One set of special tools required for each DG set shall be supplied at the time of handing over of the set to the Sub Regional Science Centre, Almora (Uttarakhand).	
19	Operation of the Set After Installation. The contractor shall arrange to depute a senior operator to the site of works to operate the DG set for a minimum period of 3 working days at location of installation after successful installation & approval of the installation by the local authorities. The operator shall impart training to the Sub Regional Science Centre, Almora, Uttarakhand operator/technicians in proper operation & up-keep of the DG set	

<p>20</p> <p>20.1</p> <p>20.2</p> <p>20.3</p> <p>20.4</p> <p>20.5</p>	<p>Completion Drawings</p> <p>On successful completion of the installation &amp; before issuance of certificate of virtual completion, the contractor shall prepare &amp; submit to the Sub Regional Science Centre, Almora, Uttarakhand as "built completion" drawings of the entire installation. The completion drawing shall include:</p> <p>Layout of DG set and accessories.</p> <p>Exhaust arrangements.</p> <p>Fuel oil tank and piping.</p> <p>Electrical Schematic, control Schematic, cable layout, panel GA drawings etc. Location of earth pits and details of earthings including neutral earthing</p>
<p>21</p>	<p>Painting of all the materials/equipment etc., shall be painted with two coats of approved quality paint over a coat of primer after the installation is completed</p>
<p>22</p> <p>22.1</p> <p>a.</p> <p>b.</p> <p>c.</p> <p>d.</p> <p>e.</p>	<p>Testing</p> <p><b>DIESEL GENERATOR SET:</b></p> <p>The following test shall be conducted on alternator and DG set:</p> <p>Factory test:</p> <p>The factory test shall incorporate the following:</p> <p>Routine tests.</p> <p>High voltage tests.</p> <p>Short circuit current tests.</p> <p>Instantaneous short circuit withstand test.</p> <p>Insulation resistance test.</p> <p>These tests shall be conducted as per the requirement of BS: 2613 or IS: 4722 and the original test certificates shall be furnished.</p> <p>Site tests:</p> <p>After the erection, wiring and earthing of DG set, the following Tests shall be conducted:</p> <p>a) Insulation resistance of the generator.</p> <p>b) Speed, no load voltage &amp; full load voltage regulation.</p> <p>c) Frequency at no load, half load &amp; full load.</p> <p>The readings shall be observed with calibrated meters in presence of authorized representative of Sub Regional Science Centre, Almora, Uttarakhand. Only one meter shall be used for the test. The readings should be properly tabulated submitted in triplicate.</p> <p><b>TESTING OF CONTROLS</b></p> <p>All the safety controls and protective devices of the DG set shall be tested for correct calibration and operation. The results of the tests shall be tabulated &amp; submitted in triplicate.</p> <p><b>LOAD TESTS</b></p> <p>Complete DG set is to be tested for no load, 1/4 load, 1/2 load, full load and for over loading, load is to be provided by contractor and test report of oil consumption, fuel consumption etc. along with per unit consumption of fuel at different loads is to be submitted in triplicate. First fill of fuel, oil, lubricating oil etc. including cleaning and flushing out the system is to be carried out by the contractor. Fuel and oil for testing and trial run for at least 10 hours is to be arranged by the contractor till the final commissioning.</p>
<p>23</p>	<p>Any other item of work necessary to achieve the desired functionality of equipment and system.</p>

## **TECHNICAL SPECIFICATIONS**

### **DIESEL GENERATING SET COMPRISES OF:**

#### **A. DIESEL ENGINE: (noiseless with silent feature)**

Developing 80-90 BHP at 1500 RPM, Liquid cooled, totally enclosed, electric start, compression ignition, 4 stroke, multi-cylinder designed to run continuously at 1500 RPM complete with:

- i) Radiator cooling with fan and fan guard.
- ii) Flywheel with starter, ring etc.
- iii) Dry type Air cleaner
- iv) Vacuum indicator
- v) Electronic governor
- vi) In line fuel pump
- vii) Water pump
- viii) Lube oil pump
- ix) Exhaust gas driven turbo charger
- x) Fuel filter
- xi) Centrifugal oil filter
- xii) Lube oil cooler
- xiii) Lube oil filter
- xiv) 12 V electric start system complete with battery charging alternator. An electronic engine control panel consisting of ON/OFF key with start, stop switch and other safety parameters such as:
  - a) High water temperature
  - b) Low lube oil pressure
  - c) High lube oil pressure
  - d) Low speed
  - e) High speed
  - f) High Cylinder head temperature.

#### **B. INSTRUMENT PANEL FOR ENGINE:**

Integral mounted complete with wiring & connections & comprising of:

- i) Starting switch with key.
- ii) Lube oil temperature gauge.
- iii) Lube oil pressure gauge.
- iv) Water temperature gauge. .
- v) Battery charging ammeter.
- vi) Over speed stop.
- vii) Electronic hour counter.
- viii) RPM indicator.
- ix) Visual Alarm to pin point the fault on tripping.

#### **C. ALTERNATOR:**

62.5 KVA Alternator brush less type, 3 phase 4-wire system delivering full load at 1500 RPM 0.8 lagging power factor at 415V, 50 hz. The Alternator shall be in SPDP enclosure. The Alternator shall be of synchronous type self-excited self-regulated foot mounted with self-lubricated high-grade ball and roller bearings at end shields. Alternator and Engine shall be rated for 110% over load for one hour for every 10 hours and 200% overload for 10 sec and shall be capable taking unbalanced load. The alternator shall conform to IS: 4722/BS-5000 and will be suitable for tropical conditions.

#### D. BASE FRAME:

Skid mounting type base frame fabricated from suitable size M.S. channel providing common bed for engine and alternator directly coupled together as per manufacturer design. The base frame shall have provision for grouting on foundation bolts as well as fixing on Anti- vibration mounts. Provision is made in base frame for lifting arrangement of DG set including suitable nos. of A VM pads.

#### E. FUEL TANK:

Fuel tank of 400 Litres capacity (approx.) fabricated from M.S sheet of 14 g with stand for free standing on floor consisting of :

- i) 1 no. Adaptor for supply hosepipe.
- ii) 2 nos. Adaptor for return hose pipes
- iii) 1 no. Drain cock.
- iv) 1 no. Breather
- v) 1 no. Opening for filling with cap
- vi) 1 no. Level indicator tube
- vii) 1 no. Fuel consumption recording meter

#### F. BATTERIES:

As per OEM

#### G. COUPLING WITH COUPLING GUARDS:

Flexible coupling as per manufacturer's recommendations to directly couple alternator to engine. The coupling is designed to transmit power with minimum losses and absorb jerks. Coupling guard is also to be provided for protection.

#### H. CIVIL WORKS

PCC foundation suitable for DG set will be as per manufacturer specification. PCC foundation, trenching work for cables shall be in the scope of the tender.

#### I. ACOUSTIC ENCLOSURE:

The enclosure should be fabricated using high-grade cold rolled annealed (CRCA) sheet having 2mm thickness & steel members. High-density sound absorption material is used to reduce the sound level to 70- 72 DBA at a distance of 3 meters away from the set. The enclosure is surface treated and painted with high quality polyurethane epoxy paints with prior Zink Oxide primer base, which makes it weather proof and suitable for out door application. The enclosure is provided with durable industrial locking system with doors duly gasketed. The acoustic enclosure consists of following.

##### a) Acoustic Insulation:

High-density resin bonded 96kg/m<sup>3</sup> density Rock Lioyed fibre glass should be provided on all five sides including door, roof and base to absorb noise. The insulation is covered with fibreglass cloth and is supported by perforated sheet. Sound attenuates/down stream silencers are provided at all openings for air inlet/outlet to facilitate free air flow but to absorb sound resulting in extremely low noise level. Detachable partitions are provided inside the enclosure to attain further noise attenuation of engine.

- b) **Noise Suppressor:**  
A suitably designed residential type noise suppressor should be provided which minimizes the exhaust noise of the engine.
- c) **Exhaust System:**  
The exhaust gas should be out through a specially designed flexible pipe, which prevents any back pressure on the engine and shall be covered with glass wool and cladded with aluminum sheets to avoid heating of DG set chamber.
- d) **Thermal Insulation:**  
The exhaust system and noise suppressor should be provided with thermal insulation by using glass wool & cladding it with aluminium sheet. Residential type of silencer is to be provided which is to be isolated from main DG chamber to avoid excess heat in generator set operational area.
- e) **Air Circulation and Ventilation System:**  
A suitable forced air circulation and ventilation system should be designed to maintain safe operating temperatures inside the enclosure. Requisite air circulation should be provided by means of exhaust fans and or tube axial flow blower(s) as per requirements.
- f) There should be a high temperature safety device to be installed inside the canopy to prevent any damages to the DG set due to rise in temperature.
- g) **Internal Lighting:**  
The DG set chamber shall be fitted with internal lighting system for easy maintenance, for which cabling etc. is to be provided by the contractor.
- h) **EARTHING PITS FOR NEUTRAL EARTHING:**  
Cost of providing earth station with copper plates 600 x 600X 3.14 mm, embedded atleast at a depth of 12 feet and filling of alternate layers of charcoal and salt and making a 300 x 300 mm chamber (brick masonry) with chequered MS sheet cover, funnel, water pipe including supply and laying of 25 x 3 mm copper earth strip upto the test point as directed etc. as per detailed IS specification No.3043/1966 amended till date and as directed.
- i) **EARTHING PITS FOR BODY EARTHING:**  
Cost of providing earth station with copper plates 600 x 600X 3.14 mm, embedded atleast at a depth of 12 feet and filling of alternate layers of charcoal and salt and making a 300 x 300 mm chamber (brick masonry) with chequered MS sheet cover, funnel, water pipe including supply and laying of 25 x 3 mm copper earth strip upto the test point as directed etc. as per detailed IS specification No.3043/1966 amended till date and as directed.
- j) **POWER CABLING END BOX AND TERMINATIONS:-**  
Distance from building to DG set is approximately 100 mtrs. Accordingly rates may therefore be quoted for supplying and laying of 1 nos. of 3-1/2 core 185 mm<sup>2</sup> aluminum conductor PVC insulated, PVC sheathed steel armored cable up to 25 mtrs. in suitable trench, including providing end box, terminations and making terminations at both side. However tenderer may also quote per mtr. rate for extra cable. Extra cable supplied by tenderer may be billed.  
Supplying installation and connection of suitable changeover switch (minimum 400 Amp) in appropriate enclosure for further feeding to existing main panel ACB is in the scope of work.

k) CONTROL PANEL:-

The control panel is manufactured with 14/16 gauge CRCA sheet and is powder coated for a weather proof and long lasting finish. The control panel consists of the following common parts.

- Aluminium bus bar for suitable capacity with incoming and outgoing termination.
- Current transformer
- Indicating lamps for “load on” and “ set running”.
- Instrument fuses duly wired and ferruled.
- MCCB of suitable rating with overload and short circuit protection.
- Power command gen set controller: for true power system reliability, flexibility, and ease of use.

l) PERFORMANCE OF DG SET:

Voltage regulation:

**Plus or Minus 2%. Rheostat shall provide for plus or minus 5% voltage adjustment.**

m) LIST OF ACCEPTABLE EQUIPMENTS & MATERIALS:

APPROVED MAKES FOR E/A SET

- 1 **ENGINE** Cummins/ KEOL
- 2 **ALTERNATOR** Kirloskar / Stamford/ Crompton Greaves /Cummins
- 3 **MCCB** L&T / Siemens / Control & Switchgear / Crompton / GE Power Controls/Schneider
- 4 **Contactors, Auxillary** Siemens / L&T / GE Power Controls / Crompton / MEI /Schneider
- 5 **C.T.AE \_ IMP** / Marshall Pactill Kappa / L&T / Ashmor Iindcoill Waco I Meco I Max power
- 6 **P.F.METER** IMP/AE/Rishabh I Meco I Universal / Digitron
- 7 **AMMETER / VOLTMETER** AE / IMP I Universal I Rishabh I Kaycee I Meco I Enercom
- 8 **SELECTOR SWITCH** L&T I KAYCEE I AE I IMP I Thakoor I Reco / Vaishno / Salzer I Rass Control
- 9 **INDICATING LAMP** Vaishno I Siemens / L&T / AE / IMP I Rass Control / Teknic I Crompton / Kaycee
- 10 **FREQUENCY METER** Digitron / Rishabh I Meco I Keltron / IMP I AE
- 11 **KWH METER** Simco I Jaipur / Rishabh I AE / IMP I Universal
- 12 **TRIVECTOR METER** Sunco/ Jaipur / IMP
- 13 **LEAD ACID BATTERY** Exide I Stanford I Furukawa I AMCO I Pacesetter I NICCO / Prestolite I Standard/Crompton/ Greaves/Hitachi
- 14 **G.I / M.S PIPE** BST I TATA I ATL I ITC I ATC I IIA I JST I ITS / JINDAL I ZENITH / GS I I TATA
- 15 **G.M.VALVE** Kirloskar I Fountain I Trishul I Leader
- 16 **A.V.M.PADS** Dunlop I Poly Bond
- 17 **RUBBER MATTING** ISI Marked
- 18 **Cables** Havells/Polycab

## SPECIAL TERMS AND CONDITIONS (STC)

### 1.0 **During Manufacture**

The contractor shall arrange for inspection of his equipment/machinery by the Sub Regional Science Centre, Almora, Uttarakhand at his work, if such inspection is desired by the National Science Centre, Delhi specifically called for in writing before or after the work is awarded.

### 2.0 **Transportation/Insurance:-**

The prices shall include all packing, forwarding, transportation & insurance charges from the contractor's works to the site at Sub Regional Science Centre, Almora, Uttarakhand. The charges for loading unloading handling etc. shall also be included in the prices.

### 3.0 **Site Engineer/Supervisor**

The contractor shall depute a site engineer & supervisor to site of erection to direct & supervise the work as per drawings & specifications. The site engineer shall be available at all times for receiving instructions from the Sub Regional Science Centre, Almora, Uttarakhand. The site engineer shall also attend all site meetings & co-ordination meetings & arrange to carry out work smoothly as per the agreed time schedule. Any instruction given to the site engineer/supervisor shall be construed as if the same is given to the contractor.

### 4.0 **GUARANTEE/DEFECTS LIABILITY/WARRANTY**

The contractor shall guarantee that all equipment shall be brand new & shall be free of any defects due to defective materials and bad workmanship and that the performance and efficiencies of the equipment shall not be less than the guaranteed values. The guarantee shall be valid for a period of 12 months after handing over and any parts found defective shall be replaced free of all costs by the contractor. If the performance during guarantee period is not satisfactory, the guarantee will be extended, till satisfactory performance is established for a period of 12 months during which the performance should be found absolutely satisfactory.



National Science Centre  
(A Unit of National Council of Science Museums)  
Bhairon Road, Near Gate No.4,  
Pragati Maidan, New Delhi - 110001

OFFER FORM

Tender No. 27 / 2023-24

**Tender for SITC of 62.5 KVA Salient type D.G. set at Sub-Regional Science Centre, Almora (Uttarakhand).**

I/We have read, understood and accepted all the General Terms and Conditions for **SITC of 62.5 KVA Salient type D.G. set at Sub-Regional Science Centre, Almora (Uttarakhand)** as per specifications mentioned in the tender document.

I/We hereby offer my/our rates for the said tender:

1. Name of the Tenderer  
(if the offer is made by a Firm/  
Company, address of the registered  
Office including jurisdiction of the  
police station should be given)
2. Permanent address (in case of Firm/  
Company, address of the registered  
office including jurisdiction of the  
police station should be given)
3. Telephone Nos.
  - a) Office
  - b) Work shop/Factory
4. Name of the Bankers and their address:

## ABSTRACT OF COST

Name of work : Supply, Installation, Testing and Commissioning of 62.5 KVA Salient Type D.G. Set at Sub-Regional Science Centre, Almora , Uttarakhand-263601					
S.No	Description	Unit	Qty	Rate	Amount
1	Design ,manufacture, supply, installation, testing, commissioning of 62.5KVA 4wires,3 phase, 50 Hz silent type(having acousitc enclosure) Diesel Engine Driven generating set including fuel tanks, control panel including gen set controller and suitable MCCB switch as per specifications/ scope of work given in tender at Sub Regional Science Centre, Almora (Uttarakhand)	1 set	1		
2	Supplying and laying LT PVC insulated armoured/XLPE cable 1100 V.grade Stranded Aluminium conductor with I.S.I. Mark of following sizes in underground trenches or pipe provided in an approved manner incl. required glands & lugs as per specifications given in tender (cost of gland and lugs will be paid separately).				
a	3&1/2 core 120 Sq.mm.	RMT.	60		
b	Making trenches in ordinary soil with required width and 0.9 mtr depth for laying already provided L.T cable & embedding the same with screened sand bed of 20 cms. Thick, Bricks placed length wise on top of the cable all lover the run and back filling the excavated earth in layers of 20 cm depth without stones or hard material and making the surface proper with 15 cms. crown on the top as per IS 1255.	RMT.	30		
3	<b>Termination of above cables</b> by supplying & erecting heavy duty Siemens type brass cable glands with brass washers rubber rings complete erected with cable ends & leads connected and Supplying and erecting crimping type aluminium lugs of required capacity conforming to I.S. specification as given below:-				
a	3&1/2 core 120 Sq. mm. PVC'A'/XLPE armoured cable	No	2		
4	<b>EARTHING</b>				
a	Supplying, erecting, testing & commissioning copper plate earthing station with copper plate of size 60 x 60 x 0.6 cms. buried in specifically prepared earth pit so as to keep top of earth plate 1.5 mtr. below ground with 30 kg. each of charcoal and salt with alternate layers of charcoal and salt with 25 mm.dia. G.I. pipe & funnel with a wire mesh for watering and brick masonry chamber and C.I. cover complete with necessary length of copper strip of 25mm x 5mm size brazed/bolted with lugs to the plate and covered in suitable dia. G.I. pipe 2.5 mtr. long complete connected to the nearest switchgear with end socket as per directions and duly tested by earth tester and recording the results. <b>For alternator Neutral</b>	Each	1		

b	Supplying, erecting, testing & commissioning GI plate earthing station with galvanised iron earth plate of size 60 x 60 x 0.6 cms. buried in specifically prepared earth pit so as to keep top of earth plate 1.5 mtr. Below ground with 30 kg. each charcoal and salt with alternate layers of charcoal and salt with 25 mm.dia. G.I. pipe & funnel with a wire mesh for watering and brick masonry chamber and C.I. cover complete with necessary length of G.I. earthing strip of 25X5 mm bolted with lug to the plate and covered in suitable dia. G.I. pipe 2.5 mtr. long complete connected to the nearest switchgear with end socket as per directions and duly tested by earth tester and recording the results. <b>for D.G . set body earthing.</b>	Each	1		
c	Supplying at site <b>copper strip of 25x5mm</b> size used for earthing	RMT	10		
d	Supplying at site <b>G.I.strip of 25x5mm</b> size used for earthing	RMT	10		
5	Supplying of rotary type manual pump with suitable G.I pipe on suction side and 5metre nylon braided hose pipe on discharge side	Each	1		
6	Supplying at site 200 litre capacity of HSD filled barrels (including cost of barrels)	Each	2		
7	D.G. set foundation				
a	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in charge.				
	All kinds of soil	Cum	3.8		
b	Providing and laying PCC 1:4:8 (1cement, 5 coarse sand, and 10 stone chips 40 mm size) for base concrete of foundation	Cum	0.5		
c	Providing and laying RCC 1:2:4 ( one cement, two coarse sand, and four stone chips 20mm size) with cost of necessary shuttering, excluding cost of re-inforcement for foundation of D.G. set	Cum	3.8		
d	Providing reinforcement including cutting, bending, binding and placing in position for RCC foundation with tore steel / TMT bars	Kg	110		

### Total cost

- 6 Excise duty (if any)
- 7 Sales Tax /VAT (if any)
- 8 Works Contract Tax (if any)
- 9 Any Other Charges/ Duties/ Taxes etc.

The above rates quoted by us for Design, Manufacture, Supply, Installation, Testing and Commissioning of 62.5 KVA Salient Type D.G. Set **at Sub-Regional Science Centre, Almora ,Vill-Sunoli P.O: Shylidhar Almora- Ranikhet road Almora Uttarakhand-263601.(Near Kendriya Vidyalaya Almora)** are as per specifications mentioned in the tender document.

Date: .....

Signature of the tenderer  
Official seal with date.

**ANNEXURE-F****BANK DETAILS OF NATIONAL SCIENCE CENTRE, DELHI**

Name of the Account Holder	NATIONAL SCIENCE CENTRE, DELHI
Account No.	2417101004100
Bank Name	CANARA BANK
Bank Address	6, Bhagwan Das Road, New Delhi
IFSC Code	CNRB0002417
MICR Code	110015045
Type of Account	Saving Account
Branch Code	2417
GST No.	07AAAAN2541C1Z5