



राष्ट्रीय विज्ञान शिक्षा एवं अनुसंधान संस्थान, भुवनेश्वर  
(परमाणु उर्जा विभाग, भारत सरकार का एक स्वयं शासित संस्थान)  
**NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH, BHUBANESWAR**  
(AN AUTONOMOUS INSTITUTE UNDER DEPT. OF ATOMIC ENERGY, GOVT. OF INDIA)

Name of Work: -“Provision for additional Cable Laying from LCS-1 to SPS Building and Panel installation for Emergency power distribution in NISER, Jatni.”

NIT No. & Date:-NISER/IWD-ELECT/SPS/2018-19/023  
Dtd: 26.10.2018

Estimated cost of tender: -Rs. 10, 41,772.00  
Earnest Money : Rs. 20,835.00

Completion time: - 60 (Sixty) days

Last date of submission of E- tender : 14.11.2018 up to 11.30 AM  
Opening of Technical Bids : 14.11.2018 at 3.00 P.M

This tender documents contains 13 (Twelve) pages.

## NAME OF THE WORK

“Provision for additional Cable Laying from LCS-1 to SPS Building and Panel installation for Emergency power distribution in NISER, Jatni.”

### NOTE

The tenderer should attach following documents in online e-tender otherwise tender will be summarily rejected.

- 1) a) Self attested copy of completed works during the last five years from Govt./Semi Govt. organization not below the rank of E.E as per NIT.  
b) Self attested copy of valid GST Registration Certificate.  
c) Self attested copy of PAN card.  
d) Self attested copy of ELBO License  
f) The EMD amount in D.D's as per NIT.
- 2) Contractors shall enclose the above documents (self-attested) along with the bid. Any conditional/ changed or altered bids are liable for rejection.
- 3) Incomplete/Partial bid or bid not submitted in prescribed format will be rejected. Documents not submitted/received within stipulated date/time as per NIT will not be accepted.



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**TENDER DOCUMENTS**

File No. NISER/IWD-ELECT/SPS/2018-19/023

Date: 26.10.2018

Name of work: -“Provision for additional Cable Laying from LCS-1 to SPS Building and Panel installation for Emergency power distribution in NISER, Jatni.”

**I N D E X**

Sl. No.	Particulars	Page No.	Remarks
1.	Notice Inviting Tender	1- 04	
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5.	Technical specification	12-13	
6.	C.P.W.D. Specifications 2018 of Electrical work	Available in the office of the SO-D (Electrical) of NISER, Jatni. (If required, the same can be made available on written request addressed to the SO-D (Elect.) NISER	

## NOTICE INVITING TENDER

**NIT No. NISER/IWD-ELECT/SPS/2018-19/023    Date: 26.10.2018**

Director, NISER invites E- tender in two bid system (Technical Bid and Financial Bid) for the following work:-

Name of the work:    “Provision for additional Cable Laying from LCS-1 to SPS Building and Panel installation for Emergency power distribution in NISER, Jatni.”

Estimated Cost	:	Rs. 10, 41,772.00/-
Earnest Money	:	Rs. 20,835.00/-
Period of Completion	:	60 (Sixty Days).
Last date of submission of E- tender	:	14.11.2018 to 11.30 AM
<b>Opening of Technical bid</b>	:	<b>14.11.2018 at 3.00 P.M</b>

Tender can be downloaded and bided from website address: [www.tenderwizard.com/NISER](http://www.tenderwizard.com/NISER).

Tender documents for viewing only is also available in NISER web-site address: [www.niser.ac.in](http://www.niser.ac.in).

  
**REGISTRAR**  
**NISER**  
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### Standard e-Tender Terms & Conditions

1. The details of tender notification can be downloaded from [www.tenderwizard.com/NISER](http://www.tenderwizard.com/NISER) under "**Tender Free View**" link.
2. Vendors should obtain the USER ID and PASSWORD from [www.tenderwizard.com/NISER](http://www.tenderwizard.com/NISER) by clicking on "**REGISTER ME**" link in the homepage.
3. The Vendor registration fees has to be paid to ITI Ltd for Rs. 1180/- including GST. Using the e-payment link provided at the time of registration, and the mode of payments are Credit Card, Debit Card and Internet Banking. Vendor Registration is Valid for 1year.
4. For further details on e-Tender participation, please contact ITI Help desk on
  - Telephone: 080-49352000/9686115318
  - Email: [harishkumar.kb@etenderwizard.com](mailto:harishkumar.kb@etenderwizard.com), [ambasa@etenderwizard.com](mailto:ambasa@etenderwizard.com).
5. Tenders should be submitted only through e-Tender portal and obtain the Tender Acknowledgement copy as a proof of successful submission.



राष्ट्रीय विज्ञान शिक्षा एवं अनुसंधान संस्थान, भुवनेश्वर  
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**Tender Notice**

Director of NISER hereby invites E- tender in two bid system (Technical Bid and Financial Bid) for the following work from **registered electrical contractors** of CPWD, MES, Railways and State PWDs and/or those who have worked for DAE or its Organizations or Govt. /Semi Government organizations and **having a valid ELBO License** and have successfully carried out a minimum of **one/two/three similar works** (Building or Lab. Wiring/ LAN Points) of 80%/60%/40% respectively of the estimated cost or above, as indicated in the prescribed format of the E-Tender portal in last five years. The eligible contractors may submit their bid along with supporting documents of fulfilling the above conditions otherwise the bid bear the risk of not being considered.

Name of Work	Estimated Cost ₹	Earnest Money ₹	Duration of work
<b>Name of the work:</b> -“Provision for additional Cable Laying from LCS-1 to SPS Building and Panel installation for Emergency power distribution in NISER, Jatni.” NISER/IWD-ELECT/SPS/2018-19/023 Dt. 26.10.2018	10,41,772 .00/-	20,835.00/ -	60 (Sixty Days).

The Bidders are requested to give detailed tender in E-Tender portal in the prescribed forms in two Bids i.e. Part – I Technical Bid and Part - II Financial Bid.

**Tender process & award of contract.**

The technical bids will be evaluated to shortlist the eligible bidders. The financial bids of only the short listed bidders shall be considered for further processing. Bidders whose technical offer is found acceptable and meeting the eligibility requirements as specified in this tender, will be informed about the date and time of the opening of the financial bid.

NISER will open financial bids of only the technically qualified bidders. The Date and Time of opening the financial Bid will be intimated only to technically acceptable Bidders for the work at a later date.

The earnest money deposit and the cost of tender (Non Refundable) as indicated against the work should be send **by post or by hand** to “SO(D)-ELECTRICAL,INSTITUTE WORKS DEPARTMENT, NISER,Jatni ampus, PO-Bhimpur-Padanpur, Via-Jatni,District- Khurda, PIN- 752050” so that it reaches on or before the opening of the technical bid for e-tender system, in the form of **Account Payee Bank Draft** payable on any branch of Nationalized/Schedule Bank at Bhubaneswar/ Jatni in favour of **Director, NISER payable at Bhubaneswar/Jatni** in a sealed envelope. All tenders submitted without requisite amount of earnest money shall be rejected and their technical and financial bid shall not be opened. No interest is payable on EMD. Director of NISER, reserves the right to accept/reject any/all tenders without assigning any reason whatsoever. Part or incomplete tenders will be summarily rejected. No further correspondences whatsoever shall be entertained in this regard. Canvassing in any manner shall result in rejection of the tender.

Any dispute arising out of this shall subject to Bhubaneswar jurisdiction only.

  
REGISTRAR  
NISER  


## General Terms and Conditions:

1. Director of NISER hereby invites e-Tender in two bid system (Technical Bid and Financial Bid) for the following work from **registered electrical contractors** of CPWD, MES, Railways and State PWDs and/or those who have worked for DAE or its Organizations or Govt. /Semi Government organizations and **having a valid ELBO License** and have successfully carried out a minimum of one/two/three similar works (Supply erection and commissioning of electrical equipment) of 80%/60%/40% respectively of the estimated cost or above, as indicated in the prescribed format of the the e-Tender portal in the last seven years. The eligible contractors may submit their bid along with supporting documents of fulfilling the above conditions otherwise the bids bear the risk of not being considered.

In support of fulfilling all the essential conditions mentioned in the previous Para the contractor shall submit the details through e-Tender in the prescribed format the past details, mentioning the name of work, estimated cost,, date of commencement as per agreement & actual date of completion as per agreement along with schedule of quantities executed and any penalty levied due to delay in executing the work from an officer not below the rank of Executive Engineer (Electrical).

2. The estimated cost of the work is **₹10, 41,772.00/- (Rupees Ten Lakhs Forty one thousand seven hundred and Seventy two only.)** (As per DSR- 2018).
3. Period for completion of the work will be **60 (Sixty Days)** and the date of commencement shall be reckoned from the tenth day of issue of award letter.
4. The earnest money deposit and the cost of tender (Non Refundable) as indicated against the work should be send by **post or by hand** to **“SO(D)-ELECTRICAL,INSTITUTE WORKS DEPARTMENT, NISER,Jatni Campus, PO-Bhimpur-Padanpur, Via-Jatni, District- Khurda, PIN- 752050”** so that it reaches on or before the opening of the technical bid for e-tender system in the form of Account Payee **Bank Draft** payable on any branch of Nationalized/Schedule Bank at Bhubaneswar/ Jatni in f avour of **“Director, NISER payable at Bhubaneswar/Jatni”** in a sealed envelope. All tenders submitted without requisite amount of earnest money shall be rejected and their technical and financial bid shall not be opened. No interest is payable on EMD. The EMD will be returned to the bidders(s)/Agents whose offer is not accepted by NISER within one month from the date of the placing of the final order(s) on the selected bidder(s). In case of the bidder(s) whose offer is accepted the EMD will be returned on submission of Performance Bank Guarantee (if applicable). However, if the return of EMD is delayed for any reason, no interest /penalty shall be payable to the bidders.
5. The details of tender notification can be download from [www.tenderwizard.com/NISER](http://www.tenderwizard.com/NISER) under "**Tender Free View**" link. Vendors should obtain the USER ID and PASSWORD from [www.tenderwizard.com/NISER](http://www.tenderwizard.com/NISER) by clicking on **“REGISTER ME”** link in the homepage. The Vendor registration fees has to be paid to ITI Ltd for Rs. 1180/-. Using the e-payment link provided at the time of registration, and the mode of payments are Credit Card, Debit Card and Internet Banking. Vendor Registration is Valid for 1year.Tenders should be submitted only through e-Tender portal and obtain the Tender Acknowledgement copy as a proof of successful submission.
6. The Bidders are requested to give detailed tender in E-Tender portal in the prescribed forms in two Bids i.e. Part - I Technical Bid & Part – II Financial Bid
7. Last date of submission of E- tender : **14.11.2018 to 11.30 AM.**  
Opening of Technical Bid : **14.11.2018 at 3.00 P.M**

**8. Tender process & award of contract.**

The technical bid will be evaluated to shortlist the eligible bidders. The financial bid of only the short listed bidders shall be considered for further processing. Bidders whose technical offer is found acceptable and meeting the eligibility requirements as specified in this tender will be eligible for the financial bid evaluation.

9. Director of NISER does not bind himself to accept the lowest or any tender and reserves the right to accept the tender either in whole or in part. Director of NISER, reserves the right to accept/reject any/all tenders without assigning any reason whatsoever. The decision of the Director shall be final in this regard.
10. Canvassing in any manner or form will lead to rejection of the Bid.
11. The tenderer shall not be permitted to bid for works in any unit of DAE where any of his/her relatives are employed. He shall also intimate the names of any such persons who are working with him in any capacity or subsequently employed by him and whose relatives are working in DAE or its units.
12. **Contact for Technical information:** (Only E-mail enquiries will be entertained)

**Mr. Bhagaban Dhal**  
SA\_D (Electrical),  
Institute Works Department, NISER.  
E-Mail – bhagaban87@niser.ac.in

**NOTE :**

A person shall be deemed to be a relative of another if, (a) they are members of a Hindu undivided family; or (b) they are husband and wife; or (c) the one is related to the other in the following manner : Father, Mother (including step mother), Son (including step son), Son's wife, Daughter (including step daughter), Father's father, Son's son, Son's wife, Son's daughter, Son's daughter's husband, Daughter's husband, Daughter's son, Daughter's son's wife, Daughter's daughter, Daughter's husband, Brother (including step brother), Brother's wife, Sister (including step sister), Sister's husband.

13. The Bid shall remain valid for a minimum period of 90 days from the date of opening of the tender for the purpose of acceptance and award of work. Validity beyond 90 days from the date of opening shall be by mutual consent.
14. The tenderer should see and obtain the drawings. In case of any queries, necessary clarifications may please be sought from the office of the Scientific Officer-D (Electrical). No claim whatsoever will be entertained in this regard for any alleged ignorance, thereof.
15. Before tendering, the tenderer shall inspect the site to fully acquaint himself about the condition in regard to accessibility to site, nature and extent of ground, working condition of site and locality including stacking of materials, conditions affecting accommodations and movement of labour, etc., which are required for satisfactory execution of the work. No ignorance of the same, whatsoever shall be entertained under any circumstances.
16. EMD is liable to be forfeited if the contractor fails to commence the work as per awarded letter.



17. Some of the provisions of the contract are given below.
- a). DEFECT LIABILITY PERIOD - Twelve months from the date of completion as certified by the authorized engineer.
  - b). MINIMUM VALUE OF WORK FOR THE INTERMEDIATE CERTIFICATE Intermediate certificate for a lesser amount can be admitted for payment at the discretion of the Institute.
  - c). SECURITY DEPOSIT - A sum @ 5% of the gross amount of the bill shall be deducted from each running bill of the contractor, till the sum along with the sum already deposited as earnest money, will amount to security deposit of 5% of the tendered value of the work. In addition, the contractor shall be required to deposit an amount equal to 5% of the tendered value of the contract as **Performance Security** within the period prescribed for commencement of work in the letter of award issued to him.
  - d). COMPENSATION – In the event of any delay in completion of the work beyond the scheduled period, the contractor shall pay an amount equal to one per cent of the total cost of work or such smaller amount as decided by Director of NISER (whose decision shall be final) as compensation to the institute, for every week that the work remains un-commenced or unfinished. Compensation to be paid shall not exceed ten per cent of the estimated cost of the total work as per award letter.
18. Stores to be issued: - No material shall be issued by the Institute. The responsibility for arranging all materials from approved manufacturer as per award letter lies with the contractor.
19. The rate quoted by the tenderer shall be **inclusive of Taxes** as per the Govt. rule. There will be deduction of TAX from every RA bill and also from the final bill of the contractor at the rate prescribed by govt. of India from time to time.
20. The successful bidder will be required to submit the names, qualifications and experiences of the supervising staff to be deployed for execution of the work. In case of any changes occurring during the course of execution of the said work, the same shall also be intimated by the bidder to the institute.
21. The tenderer should also submit the detail list of tools and plants/ machineries/ equipment, etc. that he proposes to place at the site of work.
22. The Contractor shall have to make his own arrangements for storage of materials required for execution of the work and NISER in any manner shall be held responsible for the storage and safe custody of the said materials at work site.
23. Electricity will be supplied to the site of work at one point only if required and Contractor can do onward distribution with metering arrangement as per the requirement. Electricity charges; if any will be recovered from the Contractor's bill based on meter readings towards its consumption.
24. Before commencement of the work, the contractor has to submit the list of tools and plants brought to the site of work. No items other than the list submitted will be allowed to be taken out from the work site.
25. All the mandatory testing charges will be borne by the contractor.
26. Cost escalation in any manner whatsoever, will not be accepted for the said work, where in the stipulated period of completion of work is 18 (eighteen) months or less.
27. The work will be executed as per CPWD guidelines and DAE works procedure under the supervision of Engineer-In-charge of NISER.

SCHEDULE OF QUANTITY

SI NO.	Description	Unit	Qty
	<b>MCCB Panel Board</b>		
1	<p>Supply, installation, testing &amp; commissioning of wall mounting front operated front access extensible type cubicle MCCB panel board totally enclosed, dust and vermin proof with IP-42 protection with hinged and lockable doors. Switchboards fabricated from 2 mm thick CRCA sheets including interconnections, tinned copper crimping lugs, bonding to earth and painting suitable for use at 415 V, 3 phase 4 wire 50 Hz system, and to withstand a fault level of 35KA symmetrical for 1 sec at 415 V complete as per specifications, as required and as below: All switchboards shall have provision for entry of cables from the bottom as required. All live accessible parts shall be shrouded and all equipment shall be finger touch proof. The bus bars shall be insulated with heat shrinkable sleeves. SMC/DMC shrouds and bus bar supports shall be used.</p> <p><b>6 Way MCCB Panel Board Make: Hager/L&amp;T/Legrad/ABB/Schneider</b></p> <p><b>Feeder Details: -</b>  <b>INCOMER: -</b> 1 nos. 250 A, 35 kA, 415 volt 4P MCCB with Microprocessor based overcurrent, short circuit &amp; earthfault release &amp; comprising of following.  <b>BUS BAR: -</b> 250A TPN tinned copper bus bar having maximum current density of 800 to 1000A/sq.inch to withstand symmetrical fault level of 35 KA for 1 sec at 415 V. The neutral bus bar shall have 100% capacity  <b>OUTGOING:-</b>                  2 Nos. 100 A 3P MCCB complete with thermal magnetic release having over current, short circuit &amp; <b>earth fault protection of L&amp;T make</b>                  1 Nos. 125 A 3P MCCB complete with thermal magnetic release having over current, short circuit &amp; <b>earth fault protection of L&amp;T make</b>                  3 Nos. 63 A 3P MCCB complete with thermal magnetic release having over current, short circuit &amp; <b>earth fault protection of L&amp;T make</b></p>	Set	2
2	<p><b>L.T.Cable:</b></p> <p>Supply, installation, testing &amp; commissioning of following sizes of 1.1 KV grade aluminium/ copper stranded circular/ sector shape core conductor with PVC/ XLPE insulation, extruded PVC inner sheathed, G.I wire/flat strip armoured, extruded FRLS grade PVC outer sheathed cable conforming to IS : 1554 Part I / IS 7098 Part-I with latest amendments, fixed on wall/column/slab/false ceiling or in existing hume pipe /trench (on cable trays)/ shaft/pit/ on 5mm thick coach screws/grouted in wall/anchor fasteners 2mm. thick G.I. fabricated saddle, all fixing accessories, etc complete including painting of M.S spacers/angles and saddles or in ground at a depth of 900 mm below ground level (cost of excavation shall be measured seperately and included), sand bedding, laying of baked bricks on side &amp; top-, temporary reinstatement, back filling, dewatering, consolidation, disposal of excess earth within the radius of 500 m and making good to the original finish etc providing brass cable number tag as per enclosed specifications, drawings &amp; as per instructions of the EIC. Cable Jointing is not acceptable.</p> <p>Supply, Laying of two number (2 run) PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade direct in ground (below 0.5M Ground) including excavation and refilling the trench and in existing Hume pipe or on the surface as required, <b>Cable Size: 3.5Cx185 Sq MM AL flat Armoured XLPE Cable</b> Make: Polycab/Universal/RR Kabel</p>	Mtr	650

3	Supplying and making end termination (both end) with <b>double compression brass cable gland and tinned copper sockets</b> , gland earthing, insulation tape as required for following size of PVC insulated and PVC sheathed / XLPE aluminum conductor cable of 1.1 KV grade as required. 3.5C X 185 sq. mm Cable Make: Gland(Gripwell/ Comet) and Lugs (Dowells/ Ismal)	Set	4
4	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 meter below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50 mm)	Mtr	100
5	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Mtr	40

  
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## Technical Specifications

Installation shall include all supports and clamps as required. The complete work shall be in accordance to CPWD General Specifications for Electrical Works - Part II (External) 1994 amended upto date. As far as possible cables shall not be fixed on walls directly but laid on cable trays.

### **MV Cable Laying and Dressing:**

1. Supplying, laying and jointing as required and testing and energizing all cable work are in the scope of contractor. Site inspection should be carried out in presence of NISER, Supplier and Contractor before cable dispatch.
2. 1.1 KV grade XLPE insulated PVC sheathed armored Aluminum / Copper cable shall be 3 ½ /4 core of sizes as specified. The cable shall conform to IS 1554 Part-1.
3. Cable shall be laid in ground, trenches, and cable trays and on walls as specified. After laying the cable to be tested by the Contractor and to be approved by NISER Authority of Electrical section.
4. The installation work shall cover assembly of various sections of the panels lining up, grouting the units etc. In the case of multiple panel switch boards after connecting up the bus bars etc., all joints shall be insulated with necessary insulation tape or approved insulation compound.
5. A common earth bar shall be run inside at the back of switch panel connecting all the sections for connection to frame earth system. All protection and other small wirings for indication etc. shall be completed before calibration and commissioning checks are commenced. All relays, meters etc. shall be mounted and connected with appropriate wiring.

### **Testing and Commissioning:-**

Commissioning checks and tests shall include all wiring checks and checking up of connections. Relay adjustment/setting shall be done before commissioning in addition to routine Megger tests. Checks and tests shall include the following: -

- (a) Operation checks and lubrication of all moving parts.
- (b) Interlock function checks.
- (c) Continuity checks of wiring, fuses etc. as required.
- (d) Insulation test: When measured with 500 V Megger the insulation resistance shall not be less than 100 mega ohms.

6. **Work should be carried out as per CPWD electrical specification.**
7. **Circuit wiring:** - Phase, Neutral & Earth wire shall be connected up to Switch Box.
8. In wiring, no joints in wiring will be permitted anywhere, except in switch box or point outlets, where jointing of wires will be allowed with use of suitable connector.
9. **2.5 sq mm for points & circuit wiring, 4 sq. mm for power plug point wiring, 6 sq mm & above size for Sub-main wiring, i.e. Panel to DB etc. as per site plan/project requirement as directed by Engineer-in-charge.**

10. Drawing of PVC insulated copper conductor cable should not be excess from maximum capacity of conduit, as per clause [4.2.1 (ii)]
11. MCB DBs pre-wired type & brand name/make as specified in the tender only.
12. Only quality materials of reputed make as specified in the tender will be used in work.
13. The contractor shall engage suitably skilled/licensed workmen of various categories for execution of work & **supervised by supervisors / Engineer of appropriate qualification** & experience to ensure proper execution of work. They will carry out instructions of Engineer-in-charge & other senior officers of the Institute during progress of work.

#### **MEASUREMENT AND RA/ FINAL BILL**

1. The contractor shall submit his running and final bills with detail measurement for the purpose of payment & bills shall be processed by the various offices for payment, as per existing procedure. He has to sign the Computerized MB Book as an acceptance to the measurements carried out by the engineer in charge of NISER, based on which the RA/Final Bill shall be generated for payment.
2. The contractor shall extend all possible co-operations for checking the measurement. Decision of the engineer in charge (electrical) of NISER shall prevail. In case of any dispute, the final decision lies with the Director of NISER, which shall be binding on both the parties.

#### **OTHERS**

If, the contractor has to remove/dismantle any old, damaged wiring & fixtures etc. for the purpose of execution of the said work, the same shall be deposited with NISER Stock Yard along with the list of materials under intimate to the concerned Engineer in- Charge. No extra payment will be made by the institute for this purpose.

  
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