



ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್  
भारत हेवी इलेक्ट्रिकल्स लिमिटेड

## **Bharat Heavy Electricals Limited**

(A Government of India Undertaking)

**ELECTRONICS DIVISION**

**P.B No. 2606, Mysore Road, Bangalore - 560 026**

Phone: 080 – 26998262, email id: shailesh.kumar@bhel.in

To,

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(Complete Address of the tenderer including email & Contact telephone / Mobile while sending offer)

**Sub: Tender enquiry for sub-contract work of R&M - Erection work & commissioning support for Two UNIT of DAVR panels at APGENCO- Dr. NTPPS, Stage –III (2X210 MW) , Unit– #5 & #6**

**Tender Enquiry Number : CE/ES/2018-19/02/Dr.NTPPS-U#5&6/R&M/SHA**  
**Tender date : 21.05.2018**  
**Tender due Date and Time : 01.06.2018 13:00 Hrs.**

Sealed tenders in **Single Part** are invited for taking up the subject contract work of Erection work, Commissioning support of DAVR panel. The following details may be carefully studied and considered in responding to the enquiry.

1. The work is to be executed at APGENCO –Dr. NTPPS, Stage – III (2X210MW) FOR BOTH THE UNIT – #5 & #6, Vijayawada, Andhra Pradesh.
2. No extension of time will be given for submission of offer under any circumstances.
3. Offer cover shall be super scribed with the “**Tender Enquiry number, due date and time**”.  
**Tender Enquiry Number : CE/ES/2018-19/02/Dr.NTPPS-U#5&6/R&M/SHA**  
**Tender due Date and Time : 01.06.2018 13:00 Hrs.**
4. Offer can be sent by post/courier addressed to **Shailesh Kumar/ (Manager) External Services Department, 5<sup>th</sup> Floor, New Engineering Building, BHEL-EDN, P.B.No.2606, Mysore Road, Bangalore - 560 026** so as to reach us before the due date and time.
5. The Single Part Bid shall be opened at Tender opening room situated near Reception, BHEL-EDN, Bangalore on **01.06.2018 at 13:30 hours** in the presence of bidder who wish to be present. Online bids/offer if submitted are not acceptable and will be summarily rejected and shall not be considered for further evaluation. Tender received after due date and time is treated as late Tender and shall not be considered for evaluation.

6. The tender is for Two Sets of DAVR (One set for each Unit), each set consist of Suite of two - 2 nos. (Refer page 9 of 13)
7. The validity of offer shall be for 90 days from the date of opening.
8. The prices quoted shall be FIRM. No escalation in price/s will be allowed.
9. GST registration number, SAC code and GST rate applicable shall be furnished as per the checklist (if GST registered).
10. The bidder shall submit **a copy of PAN Card, ESI registration (if applicable) & PF registration document** along with the offer.
11. The tender is likely to be finalized in a very short time.
12. The bidder is advised to visit the project site to familiarize themselves with the project site conditions.
13. The total estimated value of work for both the unit#5 and Unit#6 is Rs.3,50,000 (Rupees Three Lakhs Fifty Thousand) excluding GST.
14. The estimated time for completion of work is 10-12 days or in line with APGENCO-Dr.NTTTPS program for unit shut down and re-synchronising of the unit whichever is later.
15. Evaluation of L1 bidder will be on the basis of lump sum price offered (Basic value) for two Units.
16. Advance payment and interim payment will **not** be paid to the Contractor.
17. For any clarification on this tender , Manager / External Services may please be contacted on phone no. 080-26998262, email id: [shailesh.kumar@bhel.in](mailto:shailesh.kumar@bhel.in)

Enquiry comprising of following documents are issued herewith:

- a) Section 1: Special Instructions
- b) Section 2: Scope of Work
- c) Section 3: Schedule of price
- d) Section 4: List of Drawing.
- e) Section 5: Special conditions of contract.
- f) Section 6: No deviation certificate.

BHEL reserves the right to cancel or reject the offer either partly or in full without assigning any reasons thereof.

Thanking you,

Yours Faithfully,  
For & On behalf of BHEL-EDN

(Shailesh Kumar)  
MANAGER / EXTERNAL SERVICES

Signature & Seal of the Bidder

## **SECTION 1** **SPECIAL INSTRUCTIONS**

1. The offer shall be submitted in a single part in a sealed envelope prominently **super scribing** the “**Tender Enquiry Number and due date**” as mentioned in the covering letter.
2. The bidder is requested to carefully and thoroughly read the instructions/ documents sent to them. For any further clarifications BHEL may be contacted.
3. The bidder is advised to visit project site to familiarize themselves with the site conditions before preparing the offer.
4. Security deposit @ 5% of the contract value (including GST) shall be paid by the successful bidder. The successful bidder has option to pay a minimum of 50% of the SD amount by pay order or demand draft in favour of BHEL, payable at Bangalore before start of work and balance 50% can be recovered while releasing the payment for work carried out.
5. The security deposit shall not carry any interest.
6. The Contractor will have to submit a certificate to BHEL declaring that the Contractor has complied with all the statutory provisions including and pertaining to Provident fund during the execution period of the contract.
7. Security Deposit amount will be returned after 90 days from the date of successful completion of work as per the contract after duly certified by BHEL Site Engineer and on receipt of compliance certificate (as per SI. No. 6 above).
8. Workmanship guarantee is applicable for a period of 90 days from the date of successful completion of work. Any rectification work to be carried out during the guarantee period shall be carried out at free of cost.
9. The Contractor shall mobilize his men, materials, tools & tackles to site immediately from the date of intimation from BHEL or release of LOI / WO.
10. In addition to the local laws and regulations the bidder shall also comply with the Minimum Wages Act. The Payment of Wages Act and the rules made there under in respect of labour currently employed on or connected with the contract shall be followed.
11. A declaration indicating that there is no deviation from the conditions mentioned in tender documents should be given in the format as per section 6.
12. Bidder shall return one set of this tender document with each page duly signed & stamped by them to BHEL along with their offer.
13. The work is likely to be carried out in third week of June, 2018 and in August 2018 for Unit-5 and Unit-6 respectively. Work shall be completed as per the APGENCO-

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Dr.NTTPS requirement / Shutdown schedule. Exact dates of requirement will be intimated by BHEL. However the said work shall be completed within 10-12 days.

14. Payment term: 100% payment (less 50% of SD amount, as applicable if the total SD amount is not received) will be released within 30 days from the date of receipt of bill at BHEL-EDN, Bangalore on completion of work and certification by BHEL site Engineer or BHEL-Customer. Bill shall be forwarded to BHEL-EDN, Bangalore for process and release of payment will be from Bangalore. .
15. Mode of payment: Payment will be made by EFT and the charges shall be borne by the Contractor. The Contractor will be required to submit NEFT mandate form **duly certified by bank** for EFT mode of payment along with a crossed cancelled Cheque, PAN card.
16. No claim certificate to be submitted along with the invoice for payment
17. GST, if applicable, shall be paid extra. A copy of GST registration certificate shall be enclosed with the offer.
18. Income tax plus surcharge as applicable will be deducted from the gross amount of each bill. Please indicate the IT PAN and a copy of PAN Card to be submitted with the offer.
19. Goods and Services Tax (GST):
  - a) BHEL GSTIN number for this job is **29AAACB4146P1ZB**. All invoices to contain BHEL GSTIN No.
  - b) The Bidder shall mention Bidder's GSTIN number in all quotations and Invoices submitted (if applicable).
  - c) The Bidder shall also mention HSN (Harmonized System of Nomenclature) / SAC (Services Accounting Code) mandatorily in all quotations and invoices submitted (if applicable).
  - d) Invoice submitted should be in the format as specified under GST Laws viz. All details as mentioned in Invoice Rules like GSTN registration number, invoice number, quantity, rate, value, taxes with nomenclature – CGST, SGST, UGST, IGST mentioned separately, HSN Code / SAC Code etc. Invoice should be submitted in original for buyer plus duplicate for credit availment.
  - e) Payment of GST to Bidder will be made only if it is matching with data uploaded by the Bidder.
  - f) Bidders to give undertaking that GST as mentioned in the Invoice has been paid either through cash or admissible input credit and also filed the returns at the time of submission of invoice.
  - g) For invoices paid on Reverse charge basis – “Tax payable on reverse charge basis” to be mentioned on the invoice.
  - h) In case GST credit is delayed/denied to BHEL due to non/delayed receipt of goods and/or tax invoice or expiry of timeline prescribed in GST law for availing

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such ITC, or any other reasons not attributable to BHEL, GST amount will be recoverable from vendor along with interest levied/leviable on BHEL.

- i) In case vendor delays declaring such invoice in his return and GST credit availed by BHEL is denied or reversed subsequently as per GST law, GST amount paid by BHEL towards such ITC reversal as per GST law will be recoverable from vendor/contractor along with interest levied/leviable on BHEL.
- j) Penalty if any, charged to successful bidder during execution of the job, GST as applicable will be recovered along with penalty amount.

## 20. LIQUIDATED DAMAGES (LD)

For delay in completion of shutdown work beyond 12 days, for reasons attributable to the Contractor, the LD shall be applicable at the rate of ½% of the Contract value per week of delay or part thereof limited to a ceiling of 10 % of the Contract value

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**SECTION 2**  
**SCOPE OF WORK**

**ERECTION WORK & COMMISSIONING SUPPORT FOR TWO SETS OF DAVR, SUITE OF TWO – 2 no's AT APGENCO- DR. NTTPS, STAGE –III (2X210 MW), UNIT– 5 & 6**

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**A) SCOPE OF WORK FOR EACH UNIT.**

1. Charges towards Dismantling of existing regulating cubicle panel (including Disconnection of Existing Power & Control Cables) and shifting of Existing Regulation panels to customer store.
2. Shifting of new DAVR system panels (suite of two – containing of 2 panel each (Field suppression & Thyristor cubicle Weight) - 1800 KG (App) & (REG-2, REG-1 Weight 1200KG (App)) from storage place to the place of erection. Installation of cubicles. Assembly of new base frame for all the panels. Grouting of foundation bolts of main equipment / Welding to base frame.
3. Interconnection of all cables (power, triaxial, pre-fabricated and control cables), laying of new cables (if any). Termination work & cable gladding in new panel, supply of consumables like ferrules (printed/hard), lugs, glands (double compression) for terminations. AVR panels earthing including laying of cables. 0 Volt earth & screen earth points of AVR shall preferably be earthed to the separate electronics low voltage earth point in the plant, Isolated from the Plant earth.
4. Mounting of push buttons, control switches, annunciator, lamps, meters etc. on control room / desk. Removal of old console.
5. Contingency for job not specified (earth pit, breaking of walls, crane hire charges etc.) but relevant to work in order to complete the job
6. Providing man power During pre-commissioning and Commissioning checks/ till the completion of work.

**B) OTHER WORKS:**

- Assistance for verification of materials at site.
- Minor civil works for erection of panels including base frame fabrication/ modification as required. Fixing of foundation bolts and welding of base frame as required.
- Cable dressing / tagging etc.,
- Panel earthing.
- Removal of related debris and cleaning of area
- Any other minor work for satisfactory completion of contract

**C) MAN POWER:**

Supervisor, Electricians/Technicians and Helpers are to be provided to assist BHEL site engineer during testing, modifications and commissioning of DAVR System.

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#### D) SUPPLY OF MATERIALS:

Consumables for cable laying & termination such as ferrules (Printed), lugs (Snap – on type 1.5 & 2.5 Sq.mm size, Ring type (M4 size) small ring – Size 1.5 & 2.5 Sq.mm size, tubular, Pin type etc.) cable ties, tags, clamps, Cable glands (2 to 5 Nos.) – Size as required etc. as per the requirement to be procured and used by the Contractor at no extra cost to BHEL.

**E) All tools & tackles** required for carrying out the erection and commissioning work to be arranged by the Contractor including the following instruments / tools:

- i) Megger 0-1KV – 1no.
- ii) Digital Multimeter – 2 nos.
- iii) Tong tester 0-5A – 1no.
- iv) Ferrule Printing machine with printing tube (10 mtrs) – 1 set
- v) Angle grinder/cutter/hole saw.
- vi) Spanners and screw driver set.
- vii) Crimping Tool (size -0.75/0.5/1.5/2.5/4/6 and unto 50sqmm)

Security of all the materials during erection of the equipment till the commissioning is in the scope of Contractor. Any damage due to improper handling / misplacement / loss of material during the job execution will be recovered from the Contractor in full.

Any other associated minor works required for the satisfactory completion of erection and commissioning of the system is in the scope of the Contractor even if it is not exclusively mentioned in the scope of work.

Being shutdown job, the work at each Unit has to be completed within 10-12 days as said in point 13 (page 2 of 13) and shall be carried out as per Customer's Shut down schedule during Third week of June 2018 and August 2018 for Unit 5 and Unit 6 respectively. Work shall be completed as per the APGENCO-Dr. NTTTPS requirement/ shutdown schedule. Exact dates of requirement will be intimated by BHEL.

The Contractor should be able to depute required manpower as desired by BHEL Site Engineer intimation.

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**SECTION – 3**  
**SCHEDULE OF PRICE**

LUMPSUM AMOUNT FOR THE WORK OF DISMANTLING OF EXISTING EXCITATION SYSTEM (DAVR) AND ERECTION & COMMISSIONING OF NEW DAVR SYSTEM AT APGENCO – Dr. NTTPS, Stage – III (2X210MW) FOR **TWO** UNITS.

❖ **SCOPE OF WORK AT ONE UNIT:**

1.	CHARGES TOWARDS DISMANTLING OF EXISTING REGULATING CUBICLE PANEL (INCLUDING DISCONNECTION OF EXISTING POWER & CONTROL CABLES) AND SHIFTING OF EXISTING REGULATION PANELS TO CUSTOMER STORE.
2.	SHIFTING OF NEW DAVR SYSTEM PANELS (SUITE OF TWO – CONTAINING OF 2 PANEL EACH (FIELD SUPPRESSION & THYRISTOR CUBICLE WEIGHT) - 1800 KG (APP) & (REG-2, REG-1 WEIGHT 1200KG (APP)) FROM STORAGE PLACE TO THE PLACE OF ERECTION. INSTALLATION OF CUBICLES. ASSEMBLY OF NEW BASE FRAME FOR ALL THE PANELS. GROUTING OF FOUNDATION BOLTS OF MAIN EQUIPMENT / WELDING TO BASE FRAME.
3.	INTERCONNECTION OF ALL CABLES (POWER, TRIAXIAL, PRE-FABRICATED AND CONTROL CABLES), LAYING OF NEW CABLES (IF ANY). TERMINATION WORK & CABLE GLADDING IN NEW PANEL, SUPPLY OF CONSUMABLES LIKE FERRULES (PRINTED/HARD), LUGS, GLANDS (DOUBLE COMPRESSION) FOR TERMINATIONS. AVR PANELS EARTHING INCLUDING LAYING OF CABLES. 0 VOLT EARTH & SCREEN EARTH POINTS OF AVR SHALL PREFERABLY BE EARTHED TO THE SEPARATE ELECTRONICS LOW VOLTAGE EARTH POINT IN THE PLANT, ISOLATED FROM THE PLANT EARTH.
4.	MOUNTING OF PUSH BUTTONS, CONTROL SWITCHES, ANNUNCIATOR, LAMPS, METERS ETC. ON CONTROL ROOM / DESK. REMOVAL OF OLD CONSOLE.
5.	CONTINGENCY FOR JOB NOT SPECIFIED (EARTH PIT, BREAKING OF WALLS, CRANE HIRE CHARGES ETC.) BUT RELEVANT TO WORK IN ORDER TO COMPLETE THE JOB
6.	PROVIDING MAN POWER DURING PRE-COMMISSIONING AND COMMISSIONING CHECKS/ TILL THE COMPLETION OF WORK.

<b>A</b>	BASIC LUMP SUM CHARGES FOR <b>ONE</b> UNIT WORK	₹
<b>B</b>	BASIC LUMP SUM AMOUNT FOR <b>TWO</b> UNITS WORK ( <b>2 x A</b> ):	₹

GST Registration No (If Applicable) \_\_\_\_\_

\*SAC Code:- \_\_\_\_\_

\*GST Rate @ \_\_\_\_\_ (%) PERCENTAGE. GST AMOUNT ON (B): ₹ \_\_\_\_\_

TOTAL AMOUNT (INCLUDING / EXCLUDING GST) IS: ₹ \_\_\_\_\_

IN FIGURES: \_\_\_\_\_

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**SECTION 4**  
**LIST OF DRAWING / DOCUMENT**

1. CONSOLE OGA FOR DAVR  
- DRAWING NO : 3-657-00-00208 REV. 00 No's of Sheet 03
2. OGA OF DAVR EQUIPMENT  
- DRAWING NO. 3-657-00-00207 REV. 00 No's of Sheet 06
3. OGA OF OLD DAVR EQUIPMENT  
- DRAWING NO. 3-657-00-00022 No's of Sheet 07

REF	Description	Panel Qty.	Total Weight In Kg	Dimension in mm (LxBxH)
OLD SYSTEM (1 SET)	Regulation + TY (Single Suite)	4	1150	3403x750x2295
NEW DAVR (1 SET)	Regulation -1 & Regulation-2 Cubicles	2	1800	1900x750x2295
	Thyristor & Field Suppression Cubicles	2	1200	1800x750x2295

**Note:** The OGA can be availed on email request to [extservices-edn@bhel.in](mailto:extservices-edn@bhel.in) / [shailesh.kumar@bhel.in](mailto:shailesh.kumar@bhel.in)

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**SECTION 5**  
**SPECIAL CONDITIONS OF CONTRACT**

The work is to be executed at APGENCO –Dr. NTTPS, Stage – III (2X210MW) FOR BOTH THE UNIT – 5 & 6, VIJAYAWADA, ANDHRA PRADESH.

1. The Contractors shall get themselves familiar with the site and nature of job in advance where the works is to be executed before quoting their rates.
2. Contractors with erection experience in erection of panels, cable laying & termination work can quote for this job.
3. Apart from GST tax any other govt. taxes as applicable from time to time shall be borne by the Contractor.
4. The Contractor shall arrange to obtain valid gate passes for his men and equipment's from the concerned authorities.
5. No man / material / equipment not covered by valid gate pass shall be permitted within the power station area and no material / equipment shall be permitted to be taken out of the Thermal power station unless authorized by concerned authority. The Contractor shall be held fully responsible for any delays / losses / damages that may result consequent on any lapses that may occur on the part of his employees in this regard.
6. Carrying / striking of matches, lighters or smoking or other acts which may cause fire hazards in the restricted area of power station such as Hydrogen plants, Hydrogen storage area, fuel oil plant / storage areas etc. is strictly prohibited.
7. In the prescribed areas of Thermal power station no hot work such as welding, gas cutting etc., which may cause fire hazards shall be carried out unless valid gas safety / fire permit is obtained from the BHEL site Engineer and necessary precautions are taken to avoid any risk of fire hazards.
8. The Contractor shall compulsorily provide Personal Protective Equipment's (PPE's) to his employees as per the safety standards/ guidelines & in the event of not providing the same by date specified by Customer or as mentioned in contract, it will be provided by BHEL/APGENCO Dr. NTTPS at Contractor's risk and cost of the same will be recovered from the bill/s.
9. All necessary personal safety equipment as considered adequate by the BHEL site Engineer or the safety officer of APGENCO Dr. NTTPS should be made available at Contractor's cost for use by the persons employed at the site and be maintained in a condition suitable for immediate use. The Contractor should also give sufficient safety training and instructions to his workmen and ensure proper use of safety equipment by those concerned.
10. The Contractor shall obtain permission from appropriate authority / license if required under any applicable law regulations for engaging labours for execution of the work and observe all terms and conditions of the said authorization / license.

**Signature & Seal of the Bidder**

11. The Contractor shall comply with the provision of all applicable labour legislation / Acts pertaining to payment of wages and shall pay his workers wages not less than minimum as applicable in APGENCO Dr NTTPS premises.
12. The Contractor has to make his own arrangement for T&P safety appliances and consumables required for the above job.
13. The work shall be executed as per the direction and to the satisfaction of BHEL site Engineer. Decision of BHEL site Engineer will be firm and binding on all matters.
14. Any person below the age of 18 years shall not be deployed for the work.
15. The Contractor shall be required to pay full wages to the workers as per prevailing rules.
16. If the Contractor fails to deploy required numbers of labors as per the terms of contract, then recovery @ double the minimum wages of unskilled labour shall be effected for number of labours less than the specified requirement, if not specially mentioned otherwise.
17. The Contractor has to comply fully with the safety requirement of the APGENCO Dr NTTPS premises.
18. The Contractor shall possess “**Independent PF code**”. Contractor has to observe all formalities as per PF act or Workmen Compensation Insurance, as applicable.
19. The Contractor shall furnish a copy of Labour license from the Dy. Commissioner of Labour, if applicable.
20. The Contractor shall be liable to comply with provisions under the various labour legislations. Besides other obligations under the labour legislations he is required to ensure payment of minimum wages as per Minimum Wages Act, grant of leaves, as per the notification of Chief labour commissioner, Provident fund under the Provident Fund Act, compensation under the workmen compensation Act, Retrenchment compensation etc. The Contractor shall indemnify APGENCO Dr. NTTPS against all claims, damages and compensations on account of his failure to comply with statutory provisions.
21. The Contractor shall not subcontract, transfer or assign any part or full work of this award without prior written permission from BHEL.
22. In case of any conflict amongst the various drawings and other tender documents, the decision of the BHEL site Engineer shall be final and binding.
23. If any dispute or difference of any kind whatsoever shall arise between BHEL-EDN and the Contractor arising out of the contract or with respect to its interpretation, whether during or after its completion or whether before or after its termination, abandonment or breach of the contract, it shall be referred to the sole arbitration of the Unit head of BHEL-EDN or any Officer duly authorized by him in this behalf and the decision of the Arbitrator shall be final and binding on the parties.
24. It would be the responsibility of the Contractor to give weekly off and other holidays to their employees as applicable at the place of working (APGENCO Dr. NTTPS).

**Signature & Seal of the Bidder**



25. As per APGENCO DR NTTPS statutory requirement, the Contractor and their workers shall follow all safety rules while working so that there should not be any accident, which may cause loss of life and damage to Customer's property. Contractor shall also take insurance cover for workmen compensation for the workers employed by him at his own cost.
26. No complaints from Contractor's workmen with regard to nature of work entrusted or place of work will be entertained.
27. The Contractor or his authorized representative shall be available at plant site daily for receiving necessary instructions from Engineer-In-Charge, BHEL and to carry out the work accordingly.
28. The Contractor should note that the labour under their contract will be working in the vicinity of running equipment's and they should give proper instructions to all the workers under their control to be careful so as to avoid any accidents.
29. The Contractor is required to carry out the work in controlled conditions so as to contain air pollution, water/land contamination within relevant legislative and statutory requirements.

Note: The term 'Company' means BHEL and Customer means APGENCO DR. NTTPS Generating station.

**Signature & Seal of the Bidder**



**Sub-contract work of R&M – Erection Work & Commissioning support for DAVR (Regulation) panel,  
APGENCO –Dr. NTTPS, Stage – III (2X210MW). Unit – 5 & 6.**

*(PREFERABLY TO BE GIVEN ON SUB CONTRACTORS LETTER HEAD)*

**Section 6**

**CERTIFICATE FOR NO DEVIATION**

I/We .....

of M/s.....

Hereby certify that there is no deviation from the tender specifications and conditions either technical or commercial and I/We agree to all the terms and conditions mentioned in the tender specification.

Signature of the Contractor  
With seal

Place:

Date:

**Signature & Seal of the Bidder**