

# BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

High Pressure Boiler Plant, Tiruchirappalli 620 014, India

**MAINTENANCE & SERVICES DEPARTMENT**

☎: (0431) 2575263,2575471 / [e-mail:gtraj@bheltry.co.in](mailto:gtraj@bheltry.co.in)



## **NOTICE INVITING TENDER**

Date: 25.11.2016

01.	Name of work	<b>Erection, Testing and commissioning of MV Switchgear panel in NPG sub station and Dry type Transformer in 10-A Sub stations in HPBP</b>
02.	Enquiry Number:	9451600027 / Dt: 25.11.2016
03.	Earnest Money:	<b>₹ 3,130/-</b>
04.	Tender document cost:	<b>₹ 750/-</b>
05.	Completion Time (Period of Contract)	<b>2 Months</b> (From the date of commencement of the work)
06.	Last date for submission of offer	10.00 Hrs on 16.12.2016
07.	Techno Commercial Offer opening date:	10.30 Hrs on 16.12.2016
08.	Price Bid Opening date:	Shall be intimated separately to Technically qualified bidders.
09.	Guarantee Period:	NIL
10.	Area of Work	HPBP & Unit-II BHEL,Trichy

The Tender documents can be down loaded from BHEL website/Govt.website.

[www.bhel.com](http://www.bhel.com) / [tenders.gov.in](http://tenders.gov.in)

Tender document consists of :

S.No.	PART	DOCUMENT DESCRIPTIONS	ANNEXURE	NO.OF PAGES
01	PART-1	QUALIFICATION CRITERIAN	ANNEXURE-1	2
02	1A	GENERAL INSTRUCTIONS TO TENDERERS	ANNEXURE-A	2
03	1B	GENERAL TERMS & CONDITIONS	ANNEXURE-B	2
04	1C	SPECIAL TERMS & CONDITIONS	ANNEXURE-C	3
05	1D	JOB DESCRIPTIONS	ANNEXURE-D	3
06	PART-2	PRICE BID	-	6
07	-	PREAMBLE	-	4
			<b>TOTAL PAGES</b>	<b>22</b>

ISSUING OFFICER

SM / Contracts  
Maintenance & Services

# BHARAT HEAVY ELECTRICALS LIMITED

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39-300  
ISO 9001

## **NOTICE INVITING TENDER**

Sub: Erection, Testing and commissioning of MV Switchgear panel in NPG sub station and Dry type Transformer in 10-A Sub stations in HPBP complex.

**Ref: Enquiry No. 9451600027 / Dated 25.11.2016.**

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Tender for above mentioned work should be submitted in a sealed cover consisting of **three** inner sealed covers. First cover shall contain EMD & Tender document cost, second cover shall contain Part-1: Technical cum commercial offer and third cover shall contain Part-2: Price bid. All superscripting the name of work, enquiry number and enquiry due date.

- 1) EMD cover shall contain requisite EMD & Tender document cost in the form of Demand Draft drawn in favour of 'BHEL, Tiruchirappalli. Vendor shall also submit EMD through BHEL SBI E- Collect. One time EMD paid will not be considered. Tender without EMD /will be summarily rejected and Tech. cum commercial offer & price bid shall not be considered
- 2) Tech. cum commercial offer cover shall contain all documents duly filled and signed by the tenderer in all the pages with documentary evidences for qualifying criteria such as experience, value of work executed in the similar nature of work etc. Any bid without proper documentary evidence for qualifying criteria shall not be considered for further evaluation.
- 3) The price bid cover shall contain price bid document duly filled in and signed by the tenderer in all the pages. The tenderer has to quote most competitive rates for all the items given in the Bill of Quantities in price bid

The completed qualification bid and price bid along with requisite **EMD of ₹ 3,130/-** for this work and tender document cost of ₹ 750/- shall reach the office of the undersigned on or before **16.12.2016 at 10.00 Hrs.**

The Technical cum commercial offer will be opened on the same day at 10.30 hrs. In case of opening day falls on holiday or happened to be declared as a holiday the receipt and opening of the tender shall automatically fall on the same timing of the next working day. Date and time of opening of the Price Bid shall be intimated only to those bidders whose Tech cum commercial offer is accepted. You / Your authorized representative may participate in the tender opening.

Clarification if any, can be obtained from the undersigned.

Thanking you,

Yours faithfully,  
For Bharat Heavy Electricals Limited,

SM / contracts  
Maintenance & Services

Encl :

- 1).Part-1:Technical cum commercial offer.
- 2).Part-2: Price bid.

Regd.Office: BHEL House, Siri Fort, New Delhi - 110 049

# BHARAT HEAVY ELECTRICALS LIMITED

(A Govt.of India Undertaking)

High Pressure Boiler Plant, Tiruchirappalli 620 014, India

MAINTENANCE & SERVICES DEPARTMENT

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## PREAMBLE

01. The scope of work includes **Erection, Testing and commissioning of MV Switchgear panel in NPG sub station and Dry type Transformer in 10-A Sub stations in HPBP complex.**
02. Time is the essence of the contract. Being a time bound work, the contractor should make all efforts to complete the work in the stipulated period of **2 months.**
03. Usually, working hours are limited to day time only. In emergency cases to carryout work during nights, it may be done so with the specific prior permission of BHEL. In such case, it is to be carried out in the presence of BHEL officials or their authorized persons.
04. The tenderers are advised to visit BHEL Factory at Tiruchirappalli and get themselves acquainted with the site conditions before submitting the offer.
05. The norm for qualification with prescribed score is attached in the qualification Bid document. Evaluation will be done accordingly.
06. The works executed in the own name of the tenderer only will be considered for eligibility criteria.
07. Dissimilar/ irrelevant works will not be considered for eligibility criteria.
08. Documentary evidences (Xerox copies – attested) for turnover, works experience, P.F,ESI,Service Tax & PAN registration etc., all as indicated & required in the tender document should be furnished without which it will not be taken into account.
09. Tender value is only approximate and liable for variation without entitling the tenderer to any compensation, till the total value of contract vary by **± 20% (± twenty percentage).**

CONTRACTOR

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10. Quoted rate shall be firm throughout the contract period of 12 months and extended contract period also and no cost escalation is allowed on any account.
11. The quantity indicated in the Bill of quantity is only tentative. The contractor has to execute any item of work irrespective of the quantity without any reservation till the total value of contract exceeds by 20%.
12. The work shall be carried out as per the scope of work and related drawings.
13. After award of work the contractor has to furnish the security deposit, as per Clause B of THE GENERAL TERMS AND CONDITIONS (REVISED WP-2016). Also it is to be noted that after award of work, the contractor has to furnish 50% of security deposit before the commencement of work.
14. The contractor has to carryout the work in production shops without affecting the production by planning such work on holidays/ obtaining proper shut down.
15. The decision of Engineer-in-charge shall be final and binding on the contractor regarding clarification of items in this tender schedule.
16. The contractor shall strictly adhere to various labour laws in force.
17. The contractor shall follow norms of BHEL security system for movement of men & materials within the complex.
18. Since the responsibility for the quality, workmanship and accuracy of any work being carried out under this contract lies with the contractor, the contractor should ensure that no work is done without the presence of contractor's representative at the work spot.
19. The contractor has to submit the organization chart of their set up for the works and any change thereafter in the organization set up shall have the prior approval of BHEL.
20. The contractor should establish his own site office, handling facility, storage facility to stock installation materials, tools, machines etc., for which sufficient place will be allotted on specific request for which the rent will not be collected.

CONTRACTOR

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21. The tenderer has to deploy adequate labour of required categories such as Unskilled, labours, Electricians, Cable jointers, wiremen for field work. The technical persons with experience shall have to produce valid certificate for verification.
22. Separate non-technical persons should be engaged for arranging daily gate passes for labours entry in the gates of Factory complex.
23. The tenderer shall carryout health performance test at his cost for all the workmen engaged in the work through a registered medical practitioner and produce certificate on demand.
24. It shall be the responsibility of the contractor to see the workmen do not utilize the departmental canteen facilities. Contractor has to make his own arrangement to provide refreshment for the workmen.
25. All the works shall be executed as per the standard specifications as provided in Bill of quantities.
26. The works contract to be entered into with the successful tenderer will be governed by the BHEL General Conditions of contract in force.
27. The contractor should maintain proper accounts for all electrical accessories, other materials if any supplied by this organization and supply by the contractor and these should be available at the site of work for verification and check by the officials of this organization at any time.
28. All materials brought by the Contractor (If anywhere in this contract is applicable) for incorporation in the work shall be got inspected and approved by the Engineer-in –charge before they are incorporated in the work.
29. The contractor should use only the materials of brand and quality as approved by BHEL. (If anywhere in this contract is applicable)
30. The contractor should submit the programme for the completion of work and the list of equipments and labourers to be deployed for the work along with tender.
31. All materials and consumables brought by the contractor should have manufacturer's certificate. (If anywhere in this contract is applicable)
32. Contractor's materials and tools & equipments shall have to be brought inside factory with proper invoice/voucher and make necessary entry in the security gate. They should maintain proper record for tools equipments, materials etc. brought inside the factory complex.

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33. The contractor should extend fullest co-operation with the third party agencies engaged, if any by BHEL to adhere the Quality Control Procedures ensuring quality.
34. The contractor should extend fullest co-operation to the other contractors who may be doing other works in the same areas to enable them to execute their portions of work without any delay or difficulty.
35. Water, Electricity and compressed air will be provided by this organization at one point at the site of work at free of cost.
- 36. No advance / mobilization advance will be given.**
37. LD/Penalty clause is applicable as per General conditions of contract. All the terms and conditions in the documents are binding on the tenderers and BHEL reserves its right to accept/ reject any or all the tenders and to award the work in full or parts to more than one agency without assigning any reasons.

CONTRACTOR

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## PART-I / TECHNO COMMERCIAL OFFER / ANNEXURE-1

ENQUIRY NO: 9451600027/ Dt: 25.11.2016 / Due Dt: 16.12.2016 /

NAME OF WORK : Erection,Testing and commissioning of MV Switch gear panel in NPG sub station and Dry type Transformer in 10-A Sub stations in HPBP complex.

S no:	QUALIFYING PARAMETERS FOR TECHNICAL CUM COMMERCIAL OFFER	DISCRIPTIONS	VENDOR: M/s		
1	VALID <b>ES A / EA</b> GRADE CONTRACTOR LICENCE ISSUED BY TAMILNADU ELECTRICAL LICENCING BOARD	LICENCE GRADE			
		LICENCE NO.			
		VALIDITY			
2	INCOME TAX RETURN STATEMENT FOR LAST THREE ASSESSMENT YEARS (AY) <b>(2013-14,2014-15, 2015-16)</b>	<b>2013-14</b>	YES / NO		
		<b>2014-15</b>	YES / NO		
		<b>2015-16</b>	YES / NO		
3	AVERAGE ANNUAL TURNOVER DURING THE LAST THREE FINANCIAL YEARS <b>(2012-13,2013-14,2014-15)</b> (QUALIFYING VALUE ₹ 0.47 Lacs)	<b>year 2012-13</b>	₹		
		<b>Year 2013-14</b>	₹		
		<b>Year 2014-15</b>	₹		
		<b>Average</b>	₹		
4	EXPERIENCE OF HAVING SUCCESSFULLY COMPLETED SIMILAR WORKS ( ELECTRICAL WORKS LIKE <b>HT-INSTALLATIONS, ERECTION, WIRING, UG CABLE LAYING , END TERMINATION etc.,</b> ) DURING LAST SEVEN YEARS (ie. <b>OCT 2009 TO OCT 2016</b> )	QUALIFYING VALUE OF EACH WORK	WORK ORDER DETAILS		
4a.	THREE SIMILAR WORKS COSTING NOT LESS THAN THE AMOUNT EQUAL TO ₹ <b>0.63</b> Lacs	₹ <b>0.63</b> Lacs	1		
			2		
			3		
4b.	TWO SIMILAR WORKS COSTING NOT LESS THAN THE AMOUNT EQUAL TO ₹ <b>0.78</b> Lacs	₹ <b>0.78</b> Lacs	1		
			2		
4c.	ONE SIMILAR WORKS COSTING NOT LESS THAN THE AMOUNT EQUAL TO ₹ <b>1.25</b> Lacs	₹ <b>1.25</b> Lacs	1		
5	ACCEPTANCE FOR GENERAL TERMS & CONDITIONS OF CONTRACT (Annexure-B)	ACCEPTED / NOT ACCEPTED			
6	ACCEPTANCE FOR SPECIAL TERMS & CONDITIONS OF CONTRACT (Annexure-C)	ACCEPTED / NOT ACCEPTED			
7	ACCEPTANCE FOR SCOPE OF WORK (Annexure-D)	ACCEPTED / NOT ACCEPTED			

Accepting Officer/BHEL

Contractor's Signature/Seal

NOTE:

1.SUPPORTING DOCUMENTS FOR DETAILS FURNISHED ABOVE AND BELOW SHOULD BE ATTACHED.

**ADDITIONAL INFORMATION REGARDING BIDDERS FIRM**

1	SEPARATE REGISTRATION FOR EPF,ESI,SERVICE TAX & PAN	a). EPF REG. No.	
		b). ESI REG. No.	
		c). SER.TAX REG. No.	
		d). PAN	



**TECHNICAL CUM COMMERCIAL OFFER**

**BHARAT HEAVY ELECTRICALS LIMITED**  
**HIGH PRESSURE BOILER PLANT**  
**TIRUCHIRAPALLI – 620 014**  
**M & S CONTRACTS (ELECTRICAL)**

**GENERAL INSTRUCTIONS TO TENDERER:**

01.	Sealed Tender enclosed for the work is hereby invited from contractor holding a valid Electrical contractor's license, issued by Tamilnadu Electrical Licensing Board and experienced in works of similar kind.
02.	Before tendering, the tenderers are advised to inspect the site of work and its environment and be well acquainted with the actual working and other relevant conditions, position of materials and labour. Tenderers are also requested to go through General -Terms and conditions and Special -Terms and conditions of Contract, drawings and specifications and all other documents which form part of the agreement to be entered into.
03.	Tender should be addressed to the Sr.DGM/M&S,2&4-Building,BHARAT HEAVY ELECTRICALS LIMITED, Tiruchirapalli- 620 014 . Full name , address of the Tenderer and the name of the work should be noted on the covers of EMD,Technical bid & Price bid with tender No & due date of opening.
04.	The validity of the offer submitted by the tenderer shall be for a period of "Six months" from the date of opening of the tender.
05.	All entries in the tender documents shall be made in one ink.Erasure and over-writing are not permitted. All cancellations and insertions should be duly signed by the Tenderer concerned.
06.	Tenderer should fill in all the required particulars in the blank spaces provided for this purpose in the tender documents along with signature on each and every page of the tender document including corrigendum & the drawing attached there to while submitting their tender.
07.	Unit rates should be quoted in figures as well as in words with reference to each item and for all the items shown in the attached schedule. These rates shall be for the furnished work at site. Amount for each item and the totals page by page and also the grand total amount for the contract should also be filled in by the Tenderer.
08.	Rates for each item of the tender schedule should be quoted in Rupees and paise only, Incase any difference in rates quoted to figures and in words, the lower of the rates will be taken as the tendered rate.
09.	Quantities shown in the attached schedule are only approximate and are subject to variation. The rate shall remain firm throughout the contract period. However executed work value shall remain within + 20% (plus Twenty percent) of work order value .
10.	In quoting the rates, the tenderer is advised to take into account all factors including any fluctuations in market rates. No claim will be entertained on this account after acceptance of the tender or during the currency of the contract.
11.	Rates quoted shall be inclusive of all royalties, taxes, duties & other taxes except Service tax. Service Taxes as applicable shall be shown extra in the offer. The Bharat Heavy Electricals Limited, Tiruchirapalli will not entertain any claim what so ever in this respect. The applicable Service Tax can be claimed from BHEL, along with monthly bill . While claiming for Service tax, the contractor should produce copies of challans of previous Month/Quarter as proof of deposit of Service Tax, if applicable, along with a declaration that "The Service tax collected from BHEL has been remitted to Service Tax authorities.
12.	If a tenderer find discrepancies or omissions in the drawings or any of the tender documents and should there be doubts as to their meaning, he should at once address the authority inviting the tender for clarifications.Every endeavor is made to avoid any error which can materially affect the basis of the tender but the successful tenderer shall taken upon himself to provide for the risk or any error which may be subsequently discovered and shall make no subsequent claim on account thereof.
13.	In the event of tender being submitted by the firm, all pages of the tender must be signed legibly by each partner or member of the firm or in their absence, by the person holding the power of attorney on behalf of the firm concerned. In the latter case, a copy of the power of attorney duly attested by a Gazetted Officer must accompany the tender.
14.	Unless the Contractor, whose tender is accepted, signs the contract agreement within seven days (7 days) of the date of the order directing him to do so, the amount of Earnest Money Deposit already deposited by him will be forfeited and acceptance of the tender withdrawn.
15.	If after opening of tenders, a tenderer revokes his tender or increases his earlier quoted rates or after acceptance of his tender does not commence the work in accordance with the instructions of the Engineering-In-Charge, the Earnest Money Deposited by him will be forfeited and acceptance of his tender withdrawn. If only, a part of the work included in the tender has been awarded to the tenderer and the tenderer refuses to take up the work the amount of Earnest Money to be forfeited will be

**TECHNICAL CUM COMMERCIAL OFFER**


**BHARAT HEAVY ELECTRICALS LIMITED**  
**HIGH PRESSURE BOILER PLANT**  
**TIRUCHIRAPALLI – 620 014**  
**M & S CONTRACTS (ELECTRICAL)**

**GENERAL INSTRUCTIONS TO TENDERER:**


	based on the value of the contract so awarded.
16.	The BHARAT HEAVY ELECTRICALS LIMITED, reserves the right to reject any or all the tenders received or accept any tender or part thereof without assigning any reason therefore. In the case of acceptance of the part of tender, time for completion may also be reduced to the extent considered appropriate by the accepting officer.
17.	Tenders not submitted in the prescribed forms are liable to be rejected.
18.	Tender may be sent by post or dropped in <b>ElectricalTender box</b> available at M&S,2&4-Building,BHARAT HEAVY ELECTRICALS LIMITED, Tiruchirapalli- 620 014. Tender submitted by Post should be sent by " Registered Post/Speed post.These should be posted well in advance with due allowance for any delay in postal delivery. Tender received after the due date of opening of
19.	The Contractor's responsibility under this contract shall commence from the date of work order.
20.	If a tenderer expires after the submission of his tender or after the acceptance of his tender, the BHEL may at their discretion cancel such tender.
21.	The BHARAT HEAVY ELECTRICALS LIMITED, will not be bound by any power of attorney granted by the tenderer or by changes in the composition of the firm, made subsequent to the execution of the contract. They may, however, recognize such power of attorney and change after obtaining proper legal advice, the cost of which will be charged above to the contractor concerned.
22.	If the tenderer deliberately gives wrong information in his tender BHEL, reserves the right to reject tender at any stage.
23.	Words imparting the singular number shall also be deemed to include the plural number and vice the context so required.
24.	The 'General Instructions to Tenderers' and 'Special Terms and Conditions of Contract' are complementary to each other and where they are in conflict, the ' Special terms and conditions of Contract 'shall prevail.
25.	The expenses for completing and stamping the agreement shall be paid by the contractor.
26.	Tenderer shall not increase their quoted rates, in case BHEL, calls for negotiation for reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of the original offer and the rates originally quoted shall be binding on the tenderers for the period of three months from the date of opening of tenders. (If price negotiation held on any tender, the revised offer should be submitted within a week.)
27.	All contractors will have to produce PAN/income tax clearance certificate from the Income Tax concerned along with their tender. The contractor whose Income is not taxable will be required to give affidavit for their income on the prescribed form. If the successful tenderer fails to produce the PAN/income tax clearance certificate within the stated period, the Earnest money deposit and the Security Deposit of the tenderer may be forfeited and the contract terminated.
28.	<b>TENDERERS ARE REQUESTED TO COVER THEIR EMPLOYEE (SUPERVISORS AND LABOURERS) UNDER PF/ESI/GROUP INSURANCE/CONTRACT LABOUR REGULATIONS ACT.</b>
29.	THE GENERAL INSTRUCTIONS TO TENDERER shall be deemed to form an integral part of the work to be entered into.



## TECHNICAL CUM COMMERCIAL OFFER

 <b>244 84</b>	<b>BHARAT HEAVY ELECTRICALS LIMITED</b>
	<b>HIGH PRESSURE BOILER PLANT</b>
	TIRUCHIRAPALLI – 620 014
	M & S CONTRACTS (ELECTRICAL)
<b><u>GENERAL TERMS AND CONDITIONS</u></b>	
<b>A</b>	<b>EARNEST MONEY DEPOSIT:</b>
	Tender must be accompanied by Earnest Money for the amount mentioned in tender notice, pledged to BHEL, Trichy in any of the forms mentioned below. The Earnest Money Deposit will be refunded to the unsuccessful tenderers within 15 days of acceptance of the award of work by successful tenderer. In the case of successful tenderer, the Earnest Money Deposit will be retained as part of the Security Deposits for satisfactory completion of the work in accordance with clause 2.0 of the General Terms and Conditions of contract.
<b>A.1</b>	The Earnest Money Deposit may be furnished as below (i) Cash deposit as permissible under the extant Income Tax Act (before tender opening) (ii) Electronic Fund Transfer credited in BHEL account (before tender opening) (iii) Banker's cheque/ Pay order/ Demand draft, in favour of BHEL (along with offer) <b>Note: EMD shall not carry any interest.</b>
<b>A.2</b>	Unless the Contractor, whose tender is accepted, signs the contract agreement, within seven days (7 days) of the date of the order directing him to do so, the amount of Earnest Money Deposit already deposited by him will be forfeited and acceptance of the tender withdrawn.
<b>A.3</b>	If after opening of tenders, a tenderer revokes his tender or increases his earlier quoted rates or after acceptance of his tender does not commence the work in accordance with the instructions of the Engineer-In-Charge, the Earnest Money Deposited by him will be forfeited and acceptance of his tender withdrawn. If only, a part of the work included in the tender has been awarded to the tenderer and the tenderer refuses to take up the work the amount of Earnest Money to be forfeited will be based on the value of the contract so awarded.
<b>B</b>	<b>SECURITY DEPOSIT:</b>
	1).The total amount of security deposit will be 5% of the contract value.
	2). The contractor whose tender may be accepted shall, within seven days of receipt by him of the notification of acceptance of his tender, deposit with BHEL, Trichy.
	a). Cash (as permissible under the extant Income Tax Act)
	b). Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL
	c) Bank Guarantee from Scheduled Banks/ Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL
	d). Fixed Deposit Receipt issued by Scheduled Banks/ Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL)
	e). Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL)
	f). Security deposit can also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of the Security Deposit will be collected before start of the work and the balance 50% may be recovered from the running bills.
	g). EMD of the successful tenderer shall be converted and adjusted against the security deposit. <b>NO INTEREST SHALL BE ALLOWED ON SECURITY DEPOSITS.</b> BHEL, shall not be responsible for any loss of securities due to liquidation or any other reason whatsoever or any depreciation in the value of the Securities while in their charge or for any loss of interest thereon.
	<b>NOTE:</b> Acceptance of Security Deposit against Sl. No. (c) and (d) above will be subject to hypothecation or endorsement on the documents (Signature of the Branch Manager must be present ) in favour of BHEL. However, BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.
<b>B.2</b>	All compensation or other sums of money payable by the contractor to BHEL under the terms of this contract or under any other contract with BHEL, may be deducted from the Security Deposit or realized by the sale of the securities of from the interest arising there from or from any sums which may be due or may become due to the contractor payable by BHEL, on any account whatsoever against this contract of any other contract with BHEL and in the event of his Security Deposit being reduced by reason of such deductions or sale as aforesaid, the Contractor shall within seven days thereafter make good in cash or in securities endorsed as aforesaid, any sum or sums by which the security Deposit has been so reduced.
<b>B.3</b>	Security Deposit will be refunded on completion of the work and after the expiry of the warranty period. In case no warranty period is applicable, then 100% of security Deposit will be refunded after confirming the final bill payment.
<b>C</b>	<b>INCOME TAX :</b>
<b>C.1</b>	a). Income tax shall be deducted at the applicable rate in respect of the service contract including supply of labour for any work.
	b). Xerox copy of PAN card shall be submitted to Account Dept along with original for verification.
	c). TDS Certificate will be issued to vendors for each quarter ending as on 30th June, 30th Sept, 31st Dec. and 31st March during the following quarter.

## TECHNICAL CUM COMMERCIAL OFFER

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	<b>HIGH PRESSURE BOILER PLANT</b>
	TIRUCHIRAPALLI – 620 014
	M & S CONTRACTS (ELECTRICAL)
<b><u>GENERAL TERMS AND CONDITIONS</u></b>	
<b>D</b>	<b>SERVICE TAX :</b>
<b>D.1</b>	<p><b>a)</b> The contractor shall issue an invoice, a bill or as the case may be, a challan duly signed by contractor or a person authorized by contractor in respect of contract agreed to be provided, within thirty days of the date when each event specified in the contract, which requires BHEL to make payment to contractor, is completed.</p> <p><b>b).</b> The invoice/bill in original duly signed by the contractor claiming the payment for Service Tax shall clearly indicate the following:</p> <ol style="list-style-type: none"> <li>1) Continuous Serial no &amp; date of the bill.</li> <li>2) Period of executed work .</li> <li>3) Cost of the service.</li> <li>4) Separately showing the Service Tax amount calculated at the applicable rate</li> <li>5) Separately showing the Cess on Service Tax amount</li> <li>6) PAN based Service Tax Registration No.</li> </ol> <p><b>c).</b> The service tax claimed in the bill will be paid to the contractor based on the proof of payment of service tax to the Central Government for the previous month/quarter as the case may be.</p>
<b>E</b>	<b>TDS UNDER TN VALUE ADDED TAX (VAT) :</b>
<b>E.1</b>	<p><b>a).</b> TDS under TNVAT shall be done for the service contracts which includes supply of materials, at the time of payment for execution of works contract, at the following rate, namely:-</p> <p>(i) civil works contract -two per cent of the total amount payable.</p> <p>(ii) civil maintenance works contract -two per cent of the total amount payable.</p> <p>(iii) All other works contracts - [five] per cent of the total amount payable.</p>
<b>F</b>	<b>LIQUIDATED DAMAGE/PENALTY :</b>
<b>F.1</b>	<p>If the contractor fails to complete the service/work as per terms &amp; conditions of the order within the delivery schedule,</p> <p><b>a)</b> LD shall be levied @ 0.5 % of the order value per week of delay or part thereof subject to a maximum of 10% of the full order value.</p> <p><b>b)</b> In case of any change to the order value, the LD shall be @ 0.5 % of the revised order value per week of delay or part thereof subject to a maximum of 10% of the revised order value.</p>
<b>G</b>	<p><b>BHEL FRAUD PREVENTION POLICY :</b></p> <p>The bidder along with its Associate / Collaborators / Sub contractors / Sub Vendors / Consultants / Service Providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website :<a href="http://www.bhel.com">http://www.bhel.com</a> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it come to their notice.</p>

## TECHNICAL CUM COMMERCIAL OFFER

ANNEXURE-C



**BHARAT HEAVY ELECTRICALS LIMITED**  
**HIGH PRESSURE BOILER PLANT**  
**TIRUCHIRAPALLI – 620 014**  
**MAINTENANCE & SERVICES**

## SPECIAL TERMS AND CONDITIONS

<b>A</b>	<b>AWARD OF CONTRACT:</b>
	Contract shall be awarded on Cumulative <b>Service item</b> L1 basis of each work.
<b>B</b>	<b>DEPLOYMENT OF WORKMEN &amp; SUPERVISORS:</b>
	<b>a).</b> A list containing the name of persons who are working, their age, designations, pay, nature of work is to be furnished immediately on receipt of work order, in triplicate.
	<b>b).</b> The work should be carried out in the presence of contract supervisor and prior permission should be obtained from the concerned supervisor and the section before starting the work.
	<b>c).</b> The Contractor is required to cover their employee/labourers by suitable insurance scheme (like Janatha Insurance) against any risk. The policy taken by them should be produced to BHEL authorities concerned before commencing the work.
<b>C</b>	<b>BIOMETRIC ENTRY/EXIT SYSTEM FOR CONTRACT WORKMEN:</b>
	<b>a).</b> The Entry/Exit of the contract workmen is to be regulated only through Biometric system.
	<b>b).</b> The Contractor initially will be issued with a temporary gang pass for his/her contract workmen for a period of ten days.
	<b>c).</b> The contractor should arrange photo coverage for all his/her workmen within the above stipulated time.
	<b>d).</b> The contractor has to submit Form I for all his/her contract workmen. All the particulars required in Form I are to be provided by the contractor without fail.
	<b>e).</b> The contractor should educate the contract workmen in registering the attendance through the system.
	<b>f).</b> Whenever a contract workman migrates or leaves service, the contractor has to surrender the biometric card of the particular contract workman to Contract Cell with immediate effect.
	<b>g).</b> If a contract workman having biometric card joins another contractor, the contractor who engages them, has to intimate contract cell along with the biometric card for switching over the contract workmen from the earlier contractor to the present contractor.
	<b>h).</b> On completion of the work, the contractor has to surrender all the biometric cards immediately to the contract cell. Otherwise, an amount of Rs.100/- per card will be deducted from the final bill/security deposit of the contractor.
	<b>i).</b> If any contract workmen lose his/her card, the contractor shall arrange a duplicate card for the workmen by paying an amount of Rs.100/-.
	<b>j).</b> The Contractor is totally responsible for the biometric cards issued to his/her contract workmen.
<b>D</b>	<b>SAFETY :</b>
	<b>a).</b> In case of cable laying ,work should be carried out after getting the prior permission from the concerned electrical supervisor and civil department for digging the road when it is required to ensure that proper precautions are taken.
	<b>b).</b> While digging the road, a good barricade and proper sign boards should be provided in the area.
	<b>c).</b> While erecting the poles, proper safety precautions such as supporting the poles, tying with ropes suitable lifting tackles etc. are to be adhered.
	<b>d).</b> While working at heights, proper platform ladder, safety belts, etc. should be used.
	<b>e).</b> The necessary safety equipments such as gloves, lineman's belts etc. should be used.
	<b>f).</b> Any other safety measure as necessitated by the nature of work should be strictly followed.
	<b>g).</b> If Contractor's workmen are found to violate the safety regulations punitive action will be taken by with-holding a sum of Rs. 100/- to Rs. 500/- for each such violation.
	<b>h).</b> These safety measures shall be deemed to form an integral part of the work order/agreement.

## TECHNICAL CUM COMMERCIAL OFFER

ANNEXURE-C



**BHARAT HEAVY ELECTRICALS LIMITED**  
**HIGH PRESSURE BOILER PLANT**  
**TIRUCHIRAPALLI – 620 014**  
**MAINTENANCE & SERVICES**

<b>E</b>	<b>COMPLIANCE WITH VARIOUS LABOUR LAWS :</b>
	The Contractor shall in respect of labour employed by him either directly or through sub contractors, comply with or cause to be complied with the following statutory provisions, rules & in regard to all matters provided therein.
	<b>a).</b> The Contract labour (Regulation & Abolition) Act 1970 and the related Tamilnadu Rules.
	<b>b).</b> The Minimum Wage Act 1948 and the related Tamilnadu Rules.
	<b>c).</b> The Payment of Wages Act 1936 and the related Tamilnadu Rules.
	<b>d).</b> The Factories Act 1948 and the related Tamilnadu Rules.
	<b>e).</b> Employee's Provident Fund & Miscellaneous Provision Act 1952.
	<b>f).</b> The Workmen Compensation Act 1923.
	<b>g).</b> The Industrial Dispute Act 1947.
	<b>h).</b> Additional Amount of Rs 2500/-,Rs 3500/-,Rs 4100/- Rs 4100/- to all Unskilled, Semiskilled, Skilled labourers and Supervisors respectively over and above the minimum wage as per BHEL Corporate guidelines.
	<b>i).</b> Bonus payment to be made for the Contract employees as per Bonus Act.
	<b>TENDERERS ARE REQUESTED TO COVER THEIR EMPLOYEE (SUPERVISORS AND LABOURERS) UNDER PF/ESI/GROUP INSURANCE/CONTRACT LABOUR REGULATIONS ACT.</b>
<b>F</b>	<b>STANDARDS FOR MATERIALS &amp; SERVICES/WORKS</b>
<b>F.1</b>	<b>01).</b> Small consumables like Screws, clamps, ceiling rose, PVC-L, T, Coupling, Bend, Elbow , Bolt, Nuts are the scope of the contractor.
	<b>02).</b> If any other materials required other than BHEL supply specified in the schedule is meant to contractor's scope of supply.
	<b>03).</b> Issue of materials from Stores is subject to the availability. The contractor shall not be entitled for any claim or compensation for non-supply or delay in supply from Stores under any circumstances.
	<b>04).</b> Entire work should be completed within the stipulated period.
	<b>05).</b> Cable glands, Electrical Power Boards, Switch Boxes are to be properly earthed.
	<b>06).</b> Safety precautions have to be ensured by the Contractor depending on the work nature. Necessary work permit system and personal protective equipments (PPE) such as electrical resistance rubber gloves, helmet, spectacle goggles, safety shoes, safety belt etc. as applicable to electrical works should be adhered while carrying out the work.
<b>F.2</b>	All the materials supplied by the contractor should conform to the relevant IS/BS/ISO/EN Specifications and agreeable to the engineer-in-charge.
<b>F.3</b>	The wiring shall conform IS: 732:1989/2005 or any other relevant Indian Standard Specifications and Indian Electricity Rules.
<b>F.4</b>	Incase of PVC / Steel conduit wiring, the switches, plug sockets, regulators and other controls should be mounted on metal boxes. These boxes as well as all metal boxes used for street light controls should be fabricated as per IS 5133: Part-1: 1969 / 1996.
<b>F.5</b>	Erection of equipments includes testing and commissioning of equipments.
<b>F.6</b>	Completion reports should be submitted in the pro forma as per appendix 'E' of IS 732: 1989/2005.
<b>F.7</b>	The contractor should be present at the time of inspection of the installation by the Electrical inspector. Any defects pointed out by the Electrical inspector should be rectified by the contractor free of cost.
<b>F.8</b>	Final lay-out as well as foundation drawings should be submitted in advance for executing the civil works.
<b>F.9</b>	Any covering letter and comments of the contractor should be submitted in duplicate along with the offer.

## TECHNICAL CUM COMMERCIAL OFFER

ANNEXURE-C



**BHARAT HEAVY ELECTRICALS LIMITED**  
**HIGH PRESSURE BOILER PLANT**  
**TIRUCHIRAPALLI – 620 014**  
**MAINTENANCE & SERVICES**

<b>F.10</b>	If cables have to be laid in the ground, the following specification should be followed:
	<p><b>FOR LT CABLE :</b>  For laying of single run of cable, trenches should be excavated up to a depth of 0.8 meter,width 0.3 metre (add 0.1 M width for additional run for excavation) and 0.075 meter deep layer of sand should be spread below as well as above the cable (0.15 M) and covered with one layer of brick with longitudinal direction.  If two or more cables are run, the brick should be laid in a longitudinal direction for each cable separately and 0.075 meter deep layer of sand should be spread below as well as the above the cable for each run (0.15M).</p>
	<p><b>FOR HT CABLE :</b>  For laying of single run of cable, trenches should be excavated upto a depth of 1 meter,width 0.35 metre (add 0.35 M width for additional run for excavation) and 0.075 meter deep layer of sand should be spread below as well as above the cable (0.15M).The cable covered with bricks by box type formation. If two or more cables are run, the bricks should be laid in a box type formation for each cable and 0.75 meter deep layer of sand should be spread below as well as the above the cable (0.15M) for each run.</p>
<b>F.11</b>	In case of open trench/wall/column,cables have to be taken with proper clamping either in cable racks/wall/column.The clamps have to be supplied by the contractor.
<b>F.12</b>	End Termination for the cable include supply and using solerless crimping type tinned copper lugs, glands and if necessary cable adaptor boxes etc. and earthing the glands and adaptor boxes with 8 SWG/7/20 GI wire.
<b>F.13</b>	The Cement will not be supplied by BHEL.
<b>F.14</b>	Cubicle/Industrial Type switch boards should be manufactured by any of the reputed manufacturer, (if the make of the switch board is not specifically mentioned in the detailed specification of the board ),who have sufficient experience in manufacture of electrical switch boards. The switch board has to be approved by BHEL before dispatch to work spot.
<b>F.15</b>	For all sheet metal fabrication, pre-treatment of all metals with acid and rust preventing chemical has to be carried out and two coats of red oxide and one coat of stove enamelling paint has to be applied by spray painting.

<b>PART-1D / JOB DESCRIPTIONS</b>				
<b>NAME OF THE COMPANY/FIRM :</b>				
<b>NAME OF WORK: Erection and commissioning of MV Switchgear panel in NPG sub station and Dry type Transformer in 10-A Sub stations in HPBP complex.</b>				
<b>ITEM No.</b>	<b>ITEM TEXT</b>	<b>UOM</b>	<b>APP. QTY</b>	<b>RATE QUOTED/ NOT QUOTED</b>
<b>10/10</b>	<p>Disconnecting of all the end terminations in the existing MV/LT Panel type switch boards of size 5000 mm length x 1100 mm width x 2000 mm height which consists of following:</p> <p>Incomer:2 nos 1250 ACB with one No.1250 A ACB as bus coupler</p> <p>Outgoings:8 Nos. of 1000 A ACB.</p> <p>The MV panel has to be removed in segments from its place and transported to the designated place at 1A1 SS/disposal stores yard.</p> <p>Note:Required crane facility/lorry for movement will be arranged by BHEL.</p>	<b>NO</b>	<b>1</b>	<b>QUOTED</b>
<b>10/20</b>	<p>Transporting, erection, testing and commissioning of new LT Panel Cubicle type switch gear panel in segments which consists of the following incoming Bus coupler and out going ACB'S</p> <p>1).Incomer : 3200 A ACB - 2 NO</p> <p>2).Bus coupler : 3200 A ACB - 1 NO</p> <p>3).Outgoings : 1000 A ACB's - 16 NO</p> <p>The panel board size would be 7800 mm length X 1350 mm width X 2225 mm height and the approx weight will be 4000 Kgs.The panel has to be erected on the floor with foundation bolts,required concrete breaking,coping around the panel board and earthing the panel should be done by the contractor. The switch gear panel has to be checked for its busbars tightness and other wirings like CT connections, ACB Trip circuit,voltmeter,ammeters,energy meter connections and indication lamps has to be checked / corrected as per panel supplier drawings for its proper functions.</p> <p>Interconnections between VCB and ACB for trip circuit shall be carried out as per the instruction of SS Incharge.</p> <p>Note:</p> <p>1)The Panel board will be issued by BHEL.</p> <p>2)Required crane facility/lorry for movement will be arranged by BHEL.</p> <p>3)Paint touch ups,other positioning and alignments etc during erection are to be carried out by contractor.</p> <p>4)Additional laying of earth flat to match the new panel shall be layed and joined with the existing flat.</p>	<b>NO</b>	<b>1</b>	<b>QUOTED</b>
<b>10/30</b>	<p>Removing of busduct containing 100 mm X 12 mm - two runs of aluminium bus bars for 3- phases and 100 mm X 12 mm one run of bus bars for neutral on old MV panel and the bus Duct also to be removed. removed busduct shall be transported to disposal stores as per the instruction of SS Incharge.</p> <p>Note:All materials required for carrying out the work are under contractor's scope.</p>	<b>M</b>	<b>10</b>	<b>QUOTED</b>
<b>10/40</b>	<p>Removing &amp; reconnecting of multi core (2/4/6/12/24) 2.5 Sq. mm. Copper/Alu conductor armored cable by disconnecting of lugs, glands and clamping arrangement from Ac/ Dc Supply source, HT, LT, panel interlocking and tripping circuits.</p> <p>Note: All materials required including glands/lugs etc for carrying out the work are under contractor's scope.</p>	<b>M</b>	<b>150</b>	<b>QUOTED</b>
<b>10/50</b>	<p>Making end terminations of the following sizes PVC insulated Armored cable with supply of cable glands,lugs &amp; earthing etc.,</p> <p>for 3/3.5 core 185 sq.mm PVCAA cable.</p> <p>Note: All materials required for carrying out the work are under contractor's scope.</p>	<b>NO</b>	<b>29</b>	<b>QUOTED</b>

10/60	Making end terminations of the following sizes PVC insulated Armored cable with supply of cable glands,lugs & earthing etc for 3/3.5 core 95 sq.mm PVCAA cable Note:All materials required for carrying out the work are under contractor's scope.	NO	2	QUOTED
10/70	Excavation of earth in the ORDINARY SOIL to form a trench upto depth of 1 mtr and refilling the trench with already excavated earth material, to facilitate laying or removal of cable. After closing the trench the cable route marker to be erected on the cable route with regular intervals according to the instruction of the area Supervisor. Note: The cable route marker will be issued by BHEL at site. The Excavation area inside the factory. Excavation of Earth : 6 mtr L x 1 mtr D x 0.5 mtr W =3 M <sup>3</sup>	M3	3	QUOTED
10/80	Laying of 185 sq.mm. 3.5 core Alu.armoured cables between transformer and MV Switchgear panel in the already excavated and formed trench.Total 12 Runs and 20Mtr for each runs Total Length -240 Mtrs Note: Cables laying inside the factory and it will be supplied by BHEL at stores.	M	240	QUOTED
10/90	Supply and spreading of river sand under and over the cables laid in the trench inside factory. Filling of sand:6 mtr L x 0.15 mtr D x 0.5 mtr W = 0.45 M <sup>3</sup>	M3	0.450	QUOTED
10/100	Supply and Fixing of suitable adaptor box appx.size 500MM X 500MM X 500MM and provide a Al.Bus bars with support insulator to make a provision/Suitable Holes for 6 No/Runs of 185 Sq.MM cable End Termination. After fixing of box and termination, the boxes should be painted one coat of red oxide and two coat of grey paint. Note:Aluminum basbars only supplied by BHEL other materials supporting insulators,fasteners etc required for carrying out the work are under contractor's scope.	NO	2	QUOTED
10/110	Supply and laying of standard size construction bricks over the cables laid in the trench for protection purpose inside/outside the factory. Note: 1 SET (HN)= 100 Bricks. Requirement: (Req.bricks/mtr : 5 bricks app. (length wise);10 bricks app. (width wise)} Laying by : Width wise ; Qty: 2 SET.	SET	2	QUOTED
20/10	Removing of existing oil cooled 1000 KVA, 11 KV / 415V Transformer and OLTC along with removal of neutral, body earth flats, control cable etc.,(approx Wt of 4 tones) from the 10A substations in HPBP complex Transformer yard/shed and transporting the same to the storage yard near 110 KV substation.  (The Crane facility for lifting and transporting the transformer to the storage yard will be arranged by BHEL.)	NO	1	QUOTED
20/20	Transporting,Erection, Testing and Commissioning Of 11KV/415 Volts 1000 KVA Dry type transformer at 10A substation transformer yard/shed. Work including Fixing of the transformer firmly on the existing plinth.The disconnected old transformer neutral and body earth flats, control cables shall be reconnected. Required civil works according to the instruction of substation in-charge is at contractor scope. Approximate weight of the transformer is 4Ton. Existing earth flat connection shall be reconnected.  (Transformers will be issued by BHEL from storage yard. The crane facility for handling the transformer for transporting to Sub station room and for erection of transformer will be arranged by BHEL.)	NO	1	QUOTED
20/30	Removing of HT XLPE cable end termination of single run 3 core 95 Sq.mm XLPE cable provided in the primary side of the 1000 KVA, 11 KV / 415 V Transformer and HT switchGear at respective sub station.	NO	1	QUOTED

20/40	Making end termination for the 3 core 95 Sq, mm. XLPE H.T cable on the primary side of the transformer with supply of suitable copper crimping lugs,H.T compound, H.T. tape,alloy bolts, nuts, washers,spring-washers and other required insulating material etc.,  (End termination Kit will be issued by BHEL at site.)	NO	1	QUOTED
20/50	Removing of 8 Runs of 3 1/2 core 400 sqmm PVCAA cable end termination on the secondary side of the transformer with cable adaptor boxes, the neutral and body earth flats etc. for the required length as directed by sub station incharge.	NO	1	QUOTED
20/60	Making end termination of 3 1/2 core 400 sqmm PVC AA cable using copper lugs and brass cable glands as per sub station incharge instructions. Copper cable crimping lugs, bolts, nuts, washer and single compression cable glands are contractor scope.	NO	8	QUOTED
20/70	Laying of 4/6/12 core 2.5 sq.mm or 1.5 sq.mm control cable in the cellar/trench with required clamping and connecting to Tripping / Indicating circuits/ Lamp of the transformer with H.T breaker suitably. Required gland,lugs for connecting transformers and HT Oil circuit breaker are contractor scope.The terminations are to be carried out as per the instruction of the sub station incharge.(The cable will be issued by BHEL at stores.)	M	100	QUOTED
20/80	Supply and fixing of suitable cable adoptor box (for transformer secondary side ) of size 400 mm height X 700 mm width X 300 mm depth approximately. After fixing of box and termination, the boxes should painted one coat of red oxide and two coat of grey paint.	NO	1	QUOTED
	General conditions: 01).Necessary MS material such as angle, channel, flat, welding electrode will be supplied by BHEL. 02).The contractor should supply necessary civil tools and materials for floor opening, grouting and floor concreting. 03).Cable tags should be provided for all power and control cables. 04).Lettering/ painting work in all breakers, mentioning the cable size, bus bar arrangement identification of the breaker etc should be done by the contractor as per the instruction of substation in charge. 05).Electric power for welding and other erection purpose will be given by BHEL free of cost. 06).Welding machine, gas cutting set and regulator should be brought by the contractor. 07).Any clarification & modification of the work should be directly discussed with Area In charge.			
	08).Minor paint touching shall be done on the transformer for damages caused during transportation of transformer is under contractors scope. Paints will be supplied by BHEL. 09).Any modification/correction are to be done by the contractor with the approval of SS-Incharge. 10).Re using old adaptor boxes should be painted as per instruction of SS In-charge. 11).Contractor should engage only Electrical "C" License holder for all Electrical work. 12).Erected transformers should be handed over in good working condition after testing and commissioning. 13).After erection of the transformers make the substation area to be good and clean.			

PART-2 / PRICE BID						
NAME OF THE COMPANY/FIRM :						
NAME OF WORK: Erection, Testing and commissioning of MV Switchgear panel in NPG sub station and Dry type Transformer in 10-A Sub stations in HPBP complex.						
ITEM No.	ITEM TEXT	UOM	APP. QTY	RATE IN ₹	VALUE	VALUE IN WORDS
10/10	<p>Disconnecting of all the end terminations in the existing MV/LT Panel type switch boards of size 5000 mm length x 1100 mm width x 2000 mm height which consists of following:</p> <p>Incomer: 2 nos 1250 ACB with one No.1250 A ACB as bus coupler</p> <p>Outgoings: 8 Nos. of 1000 A ACB.</p> <p>The MV panel has to be removed in segments from its place and transported to the designated place at 1A1 SS/disposal stores yard.</p> <p>Note: Required crane facility/lorry for movement will be arranged by BHEL.</p>	NO	1			

Accepting Officer/BHEL

Contractor's Signature/Seal

ITEM No.	ITEM TEXT	UOM	APP. QTY	RATE IN ₹	VALUE	VALUE IN WORDS
10/20	<p>Transporting, erection, testing and commissioning of new LT Panel Cubicle type switch gear panel in segments which consists of the following incoming Bus coupler and out going ACB'S</p> <p>1).Incomer : 3200 A ACB - 2 NO  2).Bus coupler : 3200 A ACB - 1 NO  3).Outgoings : 1000 A ACB's - 16 NO</p> <p>The panel board size would be 7800 mm length X 1350 mm width X 2225 mm height and the approx weight will be 4000 Kgs.The panel has to be erected on the floor with foundation bolts,required concrete breaking,coping around the panel board and earthing the panel should be done by the contractor. The switch gear panel has to be checked for its busbars tightness and other wirings like CT connections, ACB Trip circuit,voltmeter,ammeters,energy meter connections and indicaion lamps has to be checked / corrected as per panel supplier drawings for its proper functions. Interconnections between VCB and ACB for trip circuit shall be carried out as per the instruction of SS Incharge.</p> <p>Note:  1)The Panel board will be issued by BHEL.  2)Required crane facility/lorry for movement will be arranged by BHEL.  3)Paint touch ups,other positioning and alignments etc during erection are to be carried out by contractor.  4)Additional laying of earth flat to match the new panel shall be layed and joined with the existing flat.</p>	NO	1			
10/30	<p>Removing of busduct containing 100 mm X 12 mm - two runs of aluminium bus bars for 3- phases and 100 mm X 12 mm one run of bus bars for neutral on old MV panel and the bus Duct also to be removed. removed busduct shall be transported to disposal stores as per the instruction of SS Incharge.</p> <p>Note:All materials required for carrying out the work are under contractor's scope.</p>	M	10			

Accepting Officer/BHEL

Contractor's Signature/Seal

ITEM No.	ITEM TEXT	UOM	APP. QTY	RATE IN ₹	VALUE	VALUE IN WORDS
10/40	Removing & reconnecting of multi core (2/4/6/12/24) 2.5 Sq. mm. Copper/Alu conductor armored cable by disconnecting of lugs, glands and clamping arrangement from Ac/ Dc Supply source, HT, LT, panel interlocking and tripping circuits. Note: All materials required including glands/lugs etc for carrying out the work are under contractor's scope.	M	150			
10/50	Making end terminations of the following sizes PVC insulated Armored cable with supply of cable glands,lugs & earthing etc., for 3/3.5 core 185 sq.mm PVCAA cable. Note: All materials required for carrying out the work are under contractor's scope.	NO	29			
10/60	Making end terminations of the following sizes PVC insulated Armored cable with supply of cable glands,lugs & earthing etc for 3/3.5 core 95 sq.mm PVCAA cable Note:All materials required for carrying out the work are under contractor's scope.	NO	2			
10/70	Excavation of earth in the ORDINARY SOIL to form a trench upto depth of 1 mtr and refilling the trench with already excavated earth material, to facilitate laying or removal of cable. After closing the trench the cable route marker to be erected on the cable route with regular intervals according to the instruction of the area Supervisor. Note: The cable route marker will be issued by BHEL at site. The Excavation area inside the factory. Excavation of Earth : 6 mtr L x 1 mtr D x 0.5 mtr W =3 M <sup>3</sup>	M3	3			
10/80	Laying of 185 sq.mm. 3.5 core Alu.armoured cables between transformer and MV Switchgear panel in the already excavated and formed trench.Total 12 Runs and 20Mtr for each runs Total Length -240 Mtrs Note: Cables laying inside the factory and it will be supplied by BHEL at stores.	M	240			
10/90	Supply and spreading of river sand under and over the cables laid in the trench inside factory. Filling of sand:6 mtr L x 0.15 mtr D x 0.5 mtr W = 0.45 M <sup>3</sup>	M3	0.450			

Accepting Officer/BHEL

Contractor's Signature/Seal

ITEM No.	ITEM TEXT	UOM	APP. QTY	RATE IN ₹	VALUE	VALUE IN WORDS
10/100	Supply and Fixing of suitable adaptor box appx.size 500MM X 500MM X 500MM and provide a Al.Bus bars with support insulator to make a provision/Suitable Holes for 6 No/Runs of 185 Sq.MM cable End Termination. After fixing of box and termination, the boxes should be painted one coat of red oxide and two coat of grey paint. Note:Aluminum basbars only supplied by BHEL other materials supporting insulators,fasteners etc required for carrying out the work are under contractor's scope.	NO	2			
10/110	Supply and laying of standard size construction bricks over the cables laid in the trench for protection purpose inside/outside the factory. Note: 1 SET (HN)= 100 Bricks. Requirement: (Req.bricks/mtr : 5 bricks app. (length wise);10 bricks app. (width wise))} Laying by : Width wise ; Qty: 2 SET.	SET	2			
20/10	Removing of existing oil cooled 1000 KVA, 11 KV / 415V Transformer and OLTC along with removal of neutral, body earth flats, control cable etc.,(approx Wt of 4 tones) from the 10A substations in HPBP complex Tansformer yard/shed and transporting the same to the storage yard near 110 KV substation. (The Crane facility for lifting and transporting the transformer to the storage yard will be arranged by BHEL.)	NO	1			
20/20	Transporting,Erection, Testing and Commissioning Of 11KV/415 Volts 1000 KVA Dry type transformer at 10A substation transformer yard/shed. Work includung Fixing of the transformer firmly on the existing plinth.The disconnected old transformer neutral and body earth flats, control cables shall be reconnected. Required civil works according to the instruction of substation in-charge is at contractor scope.Approximate weight of the transformer is 4 Ton.Existing earth flat connection shall be reconnected. (Transformers will be issued by BHEL from storage yard. The crane facilty for handling the transformer for transporting to Sub station room and for erection of transformer will be arranged by BHEL.)	NO	1			
20/30	Removing of HT XLPE cable end termination of single run 3 core 95 Sq.mm XLPE cable provided in the primary side of the 1000 KVA, 11 KV / 415 V Transformer and HT switchGear at respective sub station.	NO	1			

Accepting Officer/BHEL

ITEM No.	ITEM TEXT	UOM	APP. QTY	RATE IN ₹	VALUE	VALUE IN WORDS
20/40	Making end termination for the 3 core 95 Sq, mm. XLPE H.T cable on the primary side of the transformer with supply of suitable copper crimping lugs,H.T compound, H.T. tape,alloy bolts, nuts, washers,spring-washers and other required insulating material etc., (End termination Kit will be issued by BHEL at site.)	NO	1			
20/50	Removing of 8 Runs of 3 1/2 core 400 sqmm PVCAA cable end termination on the secondary side of the transformer with cable adaptor boxes, the neutral and body earth flats etc. for the required length as directed by sub station incharge.	NO	1			
20/60	Making end termination of 3 1/2 core 400 sqmm PVC AA cable using copper lugs and brass cable glands as per sub station incharge instructions. Copper cable crimping lugs, bolts, nuts, washer and single compression cable glands are contractor scope.	NO	8			
20/70	Laying of 4/6/12 core 2.5 sq.mm or 1.5 sq.mm control cable in the cellar/trench with required clamping and connecting to Tripping / Indicating circuits/ Lamp of the transformer with H.T breaker suitably. Required gland,lugs for connecting transformers and HT Oil circuit breaker are contractor scope.The terminations are to be carried out as per the instruction of the sub station incharge.(The cable will be issued by BHEL at stores.)	M	100			
20/80	Supply and fixing of suitable cable adoptor box (for transformer secondary side ) of size 400 mm height X 700 mm width X 300 mm depth approximately. After fixing of box and termination, the boxes should painted one coat of red oxide and two coat of grey paint.	NO	1			

Accepting Officer/BHEL

Contractor's Signature/Seal

ITEM No.	ITEM TEXT	UOM	APP. QTY	RATE IN ₹	VALUE	VALUE IN WORDS
	<p>General conditions:</p> <p>01).Necessary MS material such as angle, channel, flat, welding electrode will be supplied by BHEL.</p> <p>02).The contractor should supply necessary civil tools and materials for floor opening, grouting and floor concreting.</p> <p>03).Cable tags should be provided for all power and control cables.</p> <p>04).Lettering/ painting work in all breakers, mentioning the cable size, bus bar arrangement identification of the breaker etc should be done by the contractor as per the instruction of substation in charge.</p> <p>05).Electric power for welding and other erection purpose will be given by BHEL free of cost.</p> <p>06).Welding machine, gas cutting set and regulator should be brought by the contractor.</p> <p>07).Any clarification &amp; modification of the work should be directly discussed with Area In charge.</p>					
	<p>08).Minor paint touching shall be done on the transformer for damages caused during transportation of transformer is under contractors scope. Paints will be supplied by BHEL.</p> <p>09).Any modification/correction are to be done by the contractor with the approval of SS-Incharge.</p> <p>10).Re using old adaptor boxes should be painted as per instruction of SS In-charge.</p> <p>11).Contractor should engage only Electrical "C" License holder for all Electrical work.</p> <p>12).Erected transformers should be handed over in good working condition after testing and commissioning.</p> <p>13).After erection of the transformers make the substation area to be good and clean.</p>					
				<b>TOTAL :</b>		
				<b>SERVICE TAX @ --.--- % :</b>		
				<b>SWACHH BHARAT CESS @ --.--- % :</b>		
				<b>KRISHI KALYAN CESS @ --.--- % :</b>		
				<b>GRAND TOTAL :</b>		

Accepting Officer/BHEL

Contractor's Signature/Seal