

**PUNJAB STATE TRANSMISSION CORP.LTD.**

**OFFICE OF THE CHIEF ENGINEER /TRANSMISSION SYSTEM,  
TRANSMISSION DESIGN , T&S CELL – I,  
3<sup>rd</sup> FLOOR, SHAKTI SADAN, PSTCL, PATIALA**

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**SPECIFICATION NO: STQ-1022**

**SPECIFICATION FOR DESIGN, TESTING, MANUFACTURE, SUPPLY AND STRINGING OF HIGH TEMPERATURE LOW SAG CONDUCTOR (HTLS) ALONGWITH DE-STRINGING/REPLACEMENT OF EXISTING CONDUCTOR (420 SQ.MM EQUIVALENT ACSR CODE NAME ZEBRA) ON 220KV DOUBLE CIRCUIT TRANSMISSION LINES OF 26 KM APRX. LENGTH**

**DUE DATE & TIME**

- |      |                                  |                              |
|------|----------------------------------|------------------------------|
| I)   | FOR SALE OF TENDER SPECIFICATION | : 30.07.2014 UPTO 15.00 HRS. |
| II)  | FOR RECEIPT OF TENDERS           | : 05.08.2014 UPTO 11:30 HRS. |
| III) | OPENING OF TENDERS               | : 05.08.2014 AT 14:00 HRS.   |

TENDER DOCUMENTS PRICE : Rs. 2500/- (Rs. Two Thousand Five Hundred Only)

**NOTE:**

The cost of tender documents is to be submitted in form of requisite demand draft in favour of the AO/CPC, PSTCL, Patiala, in the office of the CE/TS, PSTCL, Patiala by the due date & time.

# PART - I

**PART -I**  
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## **INSTRUCTION TO BIDDERS**

### 1.0 **SCOPE OF BID:-**

1.1 Chief Engineer/Transmission System, Punjab State Transmission Corporation Ltd., Shakti Sadan, Patiala (Punjab) hereinafter called 'PSTCL'/'Owner'/ 'the Employer' wishes to receive Bids for design, testing, manufacture, supply and stringing of High Temperature Low Sag (HTLS) conductor (420 sq.mm ACSR code name zebra equivalent) after de-stringing/replacement of existing conductor on 220 KV double circuit transmission lines of 23 km aprx. Length (220KV Dhandari Kalan – 220KV Lalton Kalan – 400KV PGCIL), stringing of conductor on 220KV new D/Ckt. line of approx. length of 3 Km (LILO of 220KV Lalton Kalan – Dhandari Kalan at 220KV Grid Giaspura), hereinafter referred to as "Works" as per the scope of work mentioned hereinafter (Line diagram of route at Annexure-20).

1.2 The scope of work includes:

- (i) Design, manufacture, testing, inspection before despatch and supply of required type of High Temperature Low Sag conductor, including all types of hardware fittings for attaching the power conductor with the existing 220 KV towers, however, B&S type porcelain Disc Insulators shall be provided by PSTCL;
- (ii) In case of replacement of existing conductor, removal of ACSR Zebra, alongwith fittings, line accessories and Disc Insulators, as the case may be, from the existing 220 KV Double Circuit lines, one circuit at a time with the other circuit being live, with adequate / sufficient hot line working tools and trained manpower;
- (iii) Stringing & sagging of High Temperature Low Sag conductor alongwith all necessary line accessories / fittings & Disc Insulators, one circuit at a time with other circuit being live, with adequate / sufficient hot line working tools and trained manpower;
- (iv) Testing and commissioning of strung/re-strung transmission line;
- (v) Other items not specifically mentioned in this Specification but required for the successful commissioning of the transmission line, unless specifically stated otherwise.

### 1.3 **Design & Testing :**

1.3.1 Every bidder shall submit his own design / configuration conforming to the requirement of this specification.

- 1.3.2 Detailed calculations related to sag-tension of conductor and current carrying capacity of the conductor considered suitable as per the scope of the specification shall be furnished by the bidder with the bid in the first instance. Non-compliance will render the bid unresponsive. PSTCL may at its discretion get the detailed calculations cross-checked / verified from a government institution such as CPRI Bangalore, PGCIL etc. The decision of PSTCL regarding correctness of the calculations furnished by the bidder shall be final whether the same are got cross-checked / verified as stated above or not.
- 1.3.3 The bidder must have the requisite facility of design, manufacture, and testing at his works situated in India. In order to assess the capability of the firm, the data submitted by the firm along with tender on the Performa attached as Annexure-6 "SCHEDULE OF FINANCIAL AND TECHNICAL RESOURCES OF THE BIDDER" shall be referred to. So, the bidder must attach the same duly filled, otherwise tender shall be considered as incomplete.

## **2.0 QUALIFYING CRITERIA :**

- a) The bidder shall have required facility of design, manufacture, testing and supply of High Temperature Low Sag power conductors in India.
- b) The bidder as a contractor should have designed, tested, manufactured, supplied and strung any size High Temperature Low Sag conductor on turnkey basis in India on 66 KV or above rating transmission lines and documentary proof in form of at least one completion certificate from the user SEB / Utility (public as well as private) must be furnished by the bidder clearly indicating the name of the work, length of conductor, its satisfactory supply & stringing and satisfactory functioning.
- c) The bid can also be submitted as a Joint Venture where the partner having the facility as per para (a) above will be the lead partner and the Joint Venture must fulfill the qualifying criteria (a) and (b) above & the following conditions:
- i) In case of successful bid the Form of Agreement as per requirement of PSTCL shall have to be signed so as to be legally binding on all partners.
- ii) The Lead Partner shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the Joint Venture, and the entire execution of the Contract shall be done with the Lead Partner and payment under the contract shall be received by the Lead Partner on behalf of the Joint Venture as per power conferred to him in the Power of Attorney signed by legally authorized signatory of the J.V. Partners as per PSTCL Performa. The payment under the Contract can also be received by other partner based on authorization of Lead Partner.

- iii) Both the partners of the Joint Venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms and a statement to this effect shall be included in the authorization mentioned under (ii) above as well as in the Bid and in the Contract Form (in case of a successful bid).
- iv) Agreement entered into by the Joint Venture partners shall be submitted with the bid as per PSTCL performa.
- v) The bidder should have average financial turnover of minimum Rs. 10 Crores in best three years of last five years.
- vi) The bidder can be licensee of a Principal Manufacturer. In such a case, the bidder (Licensee) shall have to furnish an Authorization Certificate from Principal Manufacturer. Further, the Principal Manufacturer should be well established in the field of HTLS conductor with minimum experience of 5 years and should have supplied at least 100Km of HTLS conductor. Documentary evidence of the same shall be required to be attached with the bid.
- vii) **In case the bidder is a License of the principal manufacturer, the type tests of similar conductor being manufactured by the principal manufacturer will also be considered valid.**

In addition to the above, the contractor will have to fulfill the following conditions also :

- i) The contractor will have to submit a certified copy of "A" Class Electrical Contractor's license valid for working in Punjab with the bid or an undertaking for submitting the same within one month of LOA.
- ii) The contractor shall be having EPF code no. issued by EPF Commissioner and documentary proof for the same will be required to be furnished with the bid.

### **3.0 PERFORMANCE SECURITY:**

- a) The contractor shall furnish a performance security of amount equal to 10% value of the contract price in the form of bank guarantee in the prescribed form within 30 days after receipt of notification of award. The security shall be furnished valid initially till the expiry of defect liability period of 18 month from the date of commissioning and shall be extended appropriately as defect liability period is extended.
- b) The performance security shall cover additionally the following guarantee to the PSTCL.

- i) The successful Bidder guarantees the successful and satisfactory operation of the equipment furnished and erected under the Contract as per the specifications and documents.
- ii) The successful Bidder further guarantees that the material / equipment provided and installed by him shall be free from all defects in design, material and workmanship and shall upon written notice from the PSTCL fully remedy free of expenses to the PSTCL such defects as developed under the normal use of the said equipment within the period of guarantee specified in the relevant clause of the Conditions of contract.
- c) The contract performance security is intended to secure the performance of the entire contract.
- d) The performance security will be returned to the contractor without any interest at the end of guarantee period.

#### **4.0 COST OF BIDDING:**

The Bidder shall bear all costs and expenses associated with preparation and submission of its bid including post bid discussions, technical and other presentation etc. and the PSTCL will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

#### **5.0 ONE BID PER BIDDER**

Each bidder shall submit only one bid per Package either by himself, or as a partner in a Joint Venture. A bidder who submits or participates in more than one bid per Package will be disqualified.

#### **6.0 CONTENTS OF BIDDING DOCUMENTS**

The bidding documents are those as stated below and should be read in conjunction with any Addenda issued in accordance with clause 8. The bidding document includes following Sections:-

Part-1 Instructions to Bidders

Part-2 General & Commercial Terms & Conditions

Part-3 Technical Specification

Part-4 Design Data

Part-5 Annexures

#### **7.0 CLARIFICATIONS ON BID DOCUMENTS**

- 7.1 If the prospective Bidder finds discrepancies or omissions, in the specifications and document or is in doubt as to the true meaning of any part, he shall at once make a request, in writing, for interpretation/clarifications, to the PSTCL. It shall not be obligatory on part of PSTCL to issue clarifications/ reply to such queries. In

case of no clarification / reply from PSTCL, it shall be considered that the clause / term / any part of specification, for which clarification has been sought, is amply clear and does not require any further clarification / comment from PSTCL.

- 7.2 Verbal clarifications and information given by the PSTCL or its employee(s) or its representative(s) shall not in any way be binding on the PSTCL.

## **8.0 AMENDMENT TO BIDDING DOCUMENT:**

- 8.1 At any time prior to the deadline for submission of bids, the Owner may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Document by amendment(s).
- 8.2 The amendment will be notified on PSTCL website. PSTCL will bear no responsibility or liability arising out of the same .
- 8.3 In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the PSTCL may, at its discretion, extend the deadline for the submission of bids suitably as it may deem fit, on receiving request from Prospective bidder in writing in this regard.
- 8.4 Such amendments, clarifications, etc. shall form part of the specification / PSTCL's requirement & shall be binding on bidders.

## **9.0 LANGUAGE OF BID**

The Bid prepared by the Bidder and all correspondence and documents relating to the bid, exchanged by the Bidder and the PSTCL, shall be written in the English language.

## **10.0 DOCUMENTS COMPRISING THE BID**

- 10.1 The commercial & technical bid would be opened on the due date of opening and the price bid would be opened after scrutiny of the technical bids for those bidders whose technical bids are found in order.
- 10.2 The bidders would submit their technical & commercial bid and price bid in separate envelopes. In addition the bidders would submit requisite EMD in a separate envelope.

The Bidder shall complete Price Schedules on the proformas furnished in the Part-5 of this specification, indicating the goods to be supplied and services to be rendered alongwith their quantity and prices. The same shall be placed in a separate envelope. The envelope shall be sealed and it will be clearly indicated on the envelope that this envelope contains Price Schedules only. No other document particularly the EMD (bid security) will be placed inside this envelope.



10.3 All other documents including Technical Data Requirements will be placed in the envelope called "Technical & Commercial Bid".

The Bidder shall also submit documentary evidence to establish that the Bidder meets the Qualifying Requirements as detailed in clause 2.0 above.

10.4 The EMD (Bid Security) shall be furnished in a separate cover in accordance with clause 15.0.

10.5 As such, total 3 separate envelopes containing Main Technical & Commercial Bid, Price Schedules & EMD will be prepared and placed in a separate outer sealed envelope and handed over at the time of submission of bid. All the 3 inner envelopes and outer envelope should mention the tender enquiry No. and should mention clearly the section of bid it contains. (Ref. Cl. 18)

10.6 All the above documents should be in **triplicate** and duly typed. Hand written bid will not be accepted.

#### **11.0 CONTRACT QUALITY ASSURANCE**

The bidder shall include in his proposal the Quality Assurance Programme containing the overall quality management and procedures, which he proposes to follow in the performance of the contract during various phases as detailed in relevant clauses of the technical specification.

#### **12.0 BID PRICE**

12.1 Price quoted for each item in the schedule of prices shall be reasonable for each item in the judgment of the PSTCL. Under no circumstances, will a manifestly unbalanced bid be considered.

12.2 The bidder shall fill in the unit price for all items of goods to be supplied and services to be rendered described in the schedule of prices, whether quantities are stated or not. Items against which no unit price is entered by the bidder will not be paid for by the employer when executed and shall be deemed to be covered in the prices of other items in the schedule of prices.

12.3 The bidder shall complete the appropriate price and other schedules furnished in the bidding documents, indicating the supplies and the services to be provided.

12.4 Prices quoted by the bidder for the conductor, hardware / accessories, any other item as per the scope of work as well as works shall be **'FIRM'** during the performance of the contract and shall not be subject to variation on any account.

12.5 The rates should be quoted after taking into account the MODVAT benefit accruing to the bidder, which will be retained by him. However, the extent of MODVAT benefit available which has been taken into account while quoting the

prices must be indicated. Any increase or decrease in this benefits due to change in policy of Govt. shall be passed on the purchaser or borne by it.

- 12.6 The unit rates should be quoted on FOR destination basis at any Railway Station in Punjab/ PSTCL Railway siding wherever existing or delivery at PSTCL's Stores, through road transportation which will be treated at par with FOR destination. The bidder quoting FOR destination rates must give the split up as ex-works prices, freight & insurance charges.
- i) The break up of the FOR destination price should be given as under: -
    - a) The Ex-works rates inclusive of packing & forwarding part of production cost should be on per Km basis. The cost should indicate the complete cost of raw material, labour, packing & forwarding charges forming part of production cost. The ex-works cost should also include taxes and duties payable on raw material but should not included taxes and duties leviable on finished material (if leviable).
    - b) Packing cost not forming part of production cost, handling ,cartage etc., freight charges and transit risk insurance covered in FOR destination price must be shown separately.
  - ii) All taxes and duties leviable on the price of finished goods as per sub clause (i)(a) shall be paid extra and the same should be shown separately as prevalent on the date of opening of tenders, to be paid at the rate as may be actually prevalent at the time of supply otherwise these elements shall be deemed to be included in the quoted prices and will not be extra. No taxes and duties will be payable on the element of cost quoted under sub clause-(i)(b) above.

In addition to the break up of total price i.e. ex-works cost, ED, CST, F&I and packing, the bidder should also give split up of Ex-works price. The break up to prices shall be indicated in respective Performa attached with the specification. The filling up of Performa shall be mandatory for bidders. The split up of Ex-works prices shall indicate cost of raw material, labour component and overhead expenses. Raw material can further be divided into 3-4 parts depending on part of material. The Performa for price schedule should be duly typed. **Hand written prices shall not be accepted and the tender shall be rejected out rightly in such cases.**

The bidder will not be allowed to indicate overall discount on quoted price for which split up has been given. However, quantity/payment discount can be given by bidder in the main tender (i.e. part relating to general terms & conditions). Any firm offering discount on the quoted price or after the opening of tender will be out rightly rejected.

- iii) In case of rates ex-works/ex-godown and for imported material, freight charges, transit risk insurance, handling and clearance charges, FOB and C.I.F Commission of clearing agents at ports should also be indicated separately.
- iv) The rates quoted F.O.R. destination or ex-works should be in both figures and words and should be duly typed. Any overwriting, erasion, cutting etc.should be legibly signed or avoided. Tenders written with pencil/hand written shall be ignored.
- v) All statutory variations and fresh levy of any tax/ duty will be to PSTCL's account within contractual delivery period/ schedule of work.

### **13.0 BID VALIDITY**

- 13.1 Bids shall remain valid for 120 days from the date of opening of main technical & commercial bid.
- 13.2 In exceptional circumstances, prior to expiry of the original bid validity period, the employer may request the bidders to extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing or by cable / FAX. A bidder agreeing to the request will not be required or permitted to modify its bid, but will be required to extend the validity of its bid security for the period of the extension.

### **14.0 TAXES AND DUTIES:**

- 14.1 All Custom Duties, Excise Duties, Sales Taxes, Work Contract Tax and other Taxes, Duties & Levies payable by the bidders in respect of the transaction between the bidders and their vendors/sub-suppliers while procuring any components, sub assemblies, raw-materials and equipment shall be included in the bid price and no claim on this behalf will be entertained by the owner. For bought out items, the Excise Duty and Sales Tax will be included in quoted Ex-Works price and no tax in any form shall be payable to the supplier in respect of the bought out items directly despatched from the works of sub-supplier and the sale to PSTCL shall be made on "Sale in Transit basis" where ever possible.
- 14.2 CST / VAT and Excise Duty, local taxes and other levies for self manufactured items in respect of the transactions between the PSTCL and the Contractor under the Contract should be indicated separately, wherever applicable, in the Price Schedule given in Part 5. All other local taxes / levies shall be considered inclusive in the quoted rates.

Wherever Excise duty is applicable, the due credit under the MODVAT (Modified Value Added Tax) scheme as per the relevant Government policies wherever applicable, shall be taken into account by the Bidder while quoting bid price.

- 14.3 As regards the Income Tax, surcharge on Income Tax and other taxes which are liable to deduction at source, the Bidder shall be responsible for such payment to the concerned authorities within the prescribed period.
- 14.4 Employer would not bear any liability on account of service tax. Employer shall, however, deduct such tax at source as per the rules, if any, and issue necessary certificate to the contractor.
- 14.5 Sales Tax / VAT or Works Contract Tax, Turnover Tax or any other similar taxes under the sales tax / VAT Act for services to be performed in India, as applicable is included in Contract Price and the Employer would not bear any liability on this account. The Employer shall, however, deduct such taxes at source as per the rules and issue TDS certificate to the contractor.

**15.0 Earnest Money Deposit (EMD) :**

- 15.1 The bidder shall furnish as a part of the bid an EMD (Bid Security) as mentioned below in shape of Demand Draft in favour of AO(CPC), PSTCL, Patiala as per specification.

S.No	Description	EMD required (Rs. Lacs)
1	Package for design, testing, manufacturing, supply of material & erection as per detailed scope of work	10.00

The following shall be exempted from depositing Earnest Money:

- a) Suppliers having permanent Earnest Money deposit of Rs. 10.0 Lac with the TS organization. A certificate to this effect issued by the concerned Accounts Officer of the PSTCL during three months immediately preceding the due date of tender opening and showing the Serial number/Account number allotted in the Permanent Earnest Money deposit register shall be submitted by the Bidders in the envelope for Earnest Money.
- 15.2 The PSTCL shall reject any bid not accompanied by an acceptable EMD.
- 15.3 The EMD of unsuccessful bidders will be returned as promptly as possible but not later than 30 days after the expiration of the period of bid validity.
- 15.4 The EMD of the successful bidder will be returned when the bidder has signed the agreement and furnished the required performance security.
- 15.5 The EMD may be forfeited
- a. If the bidder withdraws its bid, except as provided in sub-clause 21.1
  - b. In the case of successful bidder, if he fails within the specified time limit to:
    - i) Sign the Agreement, or

- ii) Furnish the required performance security.

**16.0 FORMAT OF BID:**

- 16.1 The Bidder shall prepare one original and two copies of the bid, clearly marking each "Original Bid" and "Copy of Bid", as appropriate. In the event of any discrepancy between them, the original shall govern.
- 16.2 The original and all copies of the bid shall be typed and shall be signed by the Bidder or a person or persons duly authorised to bind the Bidder to the Contract. The letter of authorisation shall be indicated by written power-of-attorney accompanying the bid. All pages of the bid, except for un-amended printed literature, shall be initialled by the person or persons signing the bid.
- 16.3 The bid shall contain no inter-lineation, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialled by the person or persons signing the bid.

**17.0 SIGNATURE OF BIDS:**

- 17.1 The bid must contain the name, residence and place of business of the person or persons making the bid and must be signed and sealed by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below the signature.
- 17.2 Bids by Corporation/Company must be signed with the legal name of the Corporation/Company by the President, Managing Director or by the Secretary, other person or persons authorised to bid on behalf of such Corporation/Company in the matter.
- 17.3 A Bid by a person who affixes to his signature the word `President`, `Managing Director` `Secretary`, `Agent` or other designation without disclosing his principal will be rejected.
- 17.4 Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the bid.
- 17.5 The Bidder's name stated on the proposal shall be the exact legal name of the firm.
- 17.6 Bids not conforming to the above requirements of signing may be disqualified.

**18.0 SEALING AND MARKING OF BIDS:**

- 18.1 The Bidders shall seal the original and each copy of the bid in three separate envelopes, duly marking the envelopes as "original" and "copy" as under:-
- i Envelope containing EMD

- ii Envelope containing Technical & Commercial Bid
- iii Envelope containing Price Schedules .

These three envelopes will be sealed and placed in an outer envelope. The outer envelope shall be addressed to the Owner at the following address:

Chief Engineer/ Transmission System,  
Punjab State Transmission Corporation Ltd,  
Shakti Sadan,  
Patiala-147001 (Punjab)  
Phone: 0175-2207774 Fax: 0175- 2207774

- 18.2 The outer envelope will bear (the name of package, the specification number, and the words "DO NOT OPEN BEFORE \_\_\_\_\_").
- 18.3 Each inner envelope shall indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared "late" or "rejected".
- 18.4 If the outer envelope is not sealed and marked as required by para 18.1, the Owner will assume no responsibility for the Bid's misplacement or premature opening.
- 18.5 The EMD and Price Schedules must be submitted in two separate sealed envelopes as detailed above and should be placed in the outer envelope alongwith envelope containing main technical and commercial bid.

#### **19.0 DEADLINE FOR SUBMISSION OF BIDS:**

- 19.1 The Bidders have the option of sending the bid by registered post or submitting the bid in person. Bids submitted by telex/telegram will not be accepted. No request from any Bidder to the Owner to collect the proposals from airlines, cargo agents etc. shall be entertained by the Owner.
- 19.2 Bids must be received by the Owner at the address specified under para 18.1, not later than the time & date mentioned in the Invitation to Bid.
- 19.3 The PSTCL may, at its discretion, extend this deadline for the submission of bids by amending the Bidding Document, in which case all rights and obligations of the PSTCL and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

#### **20.0 LATE BIDS:**

Any bid received by the PSTCL after the time & date fixed or extended for submission of bids prescribed by the PSTCL, will be rejected and/or returned unopened to the Bidder.

**21.0 MODIFICATION AND WITHDRAWAL OF BIDS:**

- 21.1 The Bidder may modify or withdraw its bid after the Bid's submission provided that written notice of the modification or withdrawal is received by the PSTCL prior to the deadline prescribed for submission of bids.
- 21.2 The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and despatched in accordance with the provisions of clause 18.0.
- 21.3 No bid may be modified subsequent to the deadline for submission of bids.
- 21.4 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder . Withdrawal/modification of a bid during this interval may result in the Bidder's forfeiture of its bid security.

**22.0 INFORMATION REQUIRED WITH THE PROPOSAL:**

All the necessary technical & commercial information, as per the requirements of this specification shall be furnished with the bid.

**23.0 OPENING OF BIDS BY PSTCL:**

- 23.1 The PSTCL will open bids in the presence of Bidders representatives (upto 2 persons) who choose to attend at the date and time for opening of bids.
- 23.2 The Bidder's names, terms and conditions, modifications, bid withdrawals and the presence or absence of the requisite bid security and such other details as the PSTCL, at its discretion, may consider appropriate will be announced at the opening.

Price Bids will be opened after scrutiny of technical and commercial bids for those bidders whose technical & commercial bids are found in order. The date & time of opening of the price bids will be intimated to the bidders whose technical & commercial bids are found in order in advance by PSTCL. The price bids shall also be opened in the presence of bidder's representatives who choose to attend at the date & time of opening of price bid.

- 23.3 No electronic recording devices will be permitted during the opening of bid as well as price bids.

**24.0 CLARIFICATION OF BIDS:**

To assist in the examination, evaluation and comparison of bids the PSTCL may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

**25.0 EXAMINATION OF BIDS:**

- 25.1 The PSTCL will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. The price bid of only those bidders will be opened whose bids are found technically & commercially in order.
- 25.2 The price furnished in various price schedules should be consistent with each other. In the case of any inconsistency in the price furnished in the specified price schedules, the PSTCL shall be entitled to consider the lowest prices for the purpose of evaluation and award of contract. All arithmetical errors will be rectified on the basis of the unit price or total price (in figures or in words) which ever is more beneficial to the PSTCL.

**26.0 COMPARISON OF BIDS:**

- 26.1 The bids shall be compared on the basis of total prices (i.e. for supply portion and price for services to be rendered as quoted by the Bidder) for the entire scope on Package basis as given in Price Schedules.
- 26.2 The evaluated bid prices of all the bidders shall be compared among themselves and as a result of this comparison, the lowest bid emerging thereon or after negotiations if any by Competent Authority will be selected for award of the contract.

**27.0 CONTACTING THE PSTCL:**

Bids shall be deemed to be under consideration immediately after they are opened and until such time official intimation of award/rejection is made by the PSTCL to the Bidders. While the bids are under consideration, Bidders and/or their representatives or the interested parties are advised to refrain from contacting by any means, the PSTCL and /or his employees / representative on matters related to the bids under consideration. The PSTCL, if necessary, will obtain clarifications on the bids by requesting for such information from any or all the Bidders, in writing. Bidders will not be permitted to change the substance of the bids after the bids have been opened. Any effort by a bidder to influence the purchaser in any way may result in rejection of the bidder's bid. Bidders shall give undertaking that they will not pay commission etc. or engage any commission agent or liaison agent for dealing with the PSTCL in any matter including purchase of specification etc. **This undertaking is required to be supplied along with the offer (Annexure-18).**



**28.0 AWARD CRITERIA:**

- 28.1 The PSTCL will award the Contract to the successful bidder, whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid, provided further that the bidder is determined to be qualified to perform the Contract satisfactorily. The PSTCL shall be the sole judge in this regard.
- 28.2 Both supply and erection contracts will constitute a divisible supply contract and erection contract. The breach in one contract by the successful bidder will automatically be classified as breach of the other contract for all intents and purposes.

**29.0 PSTCL'S RIGHT TO ACCEPT AND TO REJECT ANY OR ALL BIDS:**

The PSTCL reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds / reasons for the PSTCL's action.

**30.0 NOTIFICATION OF AWARD:**

- 30.1 Prior to the expiration of the period of bid validity and extended validity period, if any, the PSTCL will notify the successful Bidder in writing by registered letter or FAX, to be confirmed in writing by registered letter, that its bid has been accepted.
- 30.2 The notification of award will constitute the formation of the Contract.
- 30.3 Upon the successful Bidder's furnishing of performance security as per requirements of the specifications, the PSTCL will promptly notify each unsuccessful Bidder and will discharge its EMD, pursuant to clause 15.0.

**31.0 SIGNING OF CONTRACT:**

Within thirty (30) days of the Notification of award the successful bidder shall, sign the contract agreement and submit required performance security.

**32.0 CONTRACT AGREEMENT AND PERFORMANCE SECURITY**

The contractor shall execute contract agreement regarding all the terms of the contract to be prepared by and completed at the cost of the contractor as per the format given in part 5 of this specification.

**33.0 QUANTITY VARIATION:**

- 33.1 The provisional quantities required are mentioned in the respective schedule of prices. The final quantities shall be confirmed by the employer based on the requirement of quantities of various items furnished by the contractor after completion of site checking /survey. Hence, it will be the responsibility of the

contractor to intimate the exact requirements of conductor & requisite hardware / fittings required for the line. The Empowered Officer of the PSTCL will order the final quantities at the unit rates quoted in the bid.

- 33.2 The Empowered Officer of the PSTCL reserves the right to increase or decrease upto 20% (twenty percent only) of contract value the quantity of bid and services specified without any change in the unit price or other terms and conditions during the execution of the contract. The quantities of individual items may vary upto any extent.

**34.0 SITE VISIT:**

- 34.1 The bidder is advised to visit and examine the site of works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the works. The costs of visiting the site shall be at the bidder's own expense.
- 34.2 The bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit(s).

**35. DELIVERY SCHEDULE:**

- 35.1 The successful bidder shall have to adhere to the delivery schedule as per the specification.
- 35.2 In case supplier fails to complete the order as per stipulated delivery schedule for recognized reasons of Force Majeure he shall be responsible to furnish well in time sufficient evidence and date to the satisfaction of purchaser to prove the existence of said Force Majeure condition so as to justify grant of extension in delivery period. Such extension shall only be granted for the period for which completion of supply is proved to have been delayed on account of reasons of Force Majeure.
- 35.3 As per the requirement of PSTCL, the proposed delivery schedule is as under:-

Sr. No.	Activity	Period
1	Supply of material & erection as per scope of work mentioned in the specification	Mobilization & Supply of material : Within 3 months of placement of Order. Completion including Testing & commissioning of lines: within 7 months of placement of order.

**36. ORDER PREFERENCE:**

PSTCL would allow an order preference to such Bidder whose works are situated within the State of Punjab as per the procedure laid down as under:

- a. The rate of Punjab firms would be de-escalated by 15% for all the Units. Their position in the comparative statement shall be shown accordingly for the purpose of comparative statement.
- b. The zone of consideration for placing of purchase order/contract would there after be demarcated taking into account the quantity of material required as per NIT and the quantities offered by the different bidders subject to the condition that for Punjab based firms upto 20% of the total quantity will be reserved provided they fall in the consideration zone after application of price differential. However, where the Punjab firms qualify amongst the lowest bidder on the quoted rate, they shall for part of the original quoted list for purpose of placing orders.
- c. The purchase on the Punjab firm claiming order preference and falling within this zone would be placed on lowest rate of the firm not claiming order preference within the zone of consideration or on the concerned Punjab firms own quoted rate whichever may be lower.
- d. In the event of zone of consideration ending at the de-escalated rate tendered by a firm claiming order preference, the rate to be allowed to such firms shall be the next quoted rate by the firm not claiming order preference or the concerned firm's own quoted rates, whichever may be lower.
- e. The Punjab based firms claiming order preference shall be required to furnish an undertaking in prescribed form (Annexure- 8) on a non-judicial stamp paper of appropriate value to the effect that they shall execute the order if placed on them under 'Order preference' as per tender specification. Such undertaking should be submitted by the Punjab based tendering firms latest by the close of the day of opening of the tenders. In case no such undertaking is furnished by the Punjab based firms who are otherwise eligible for claiming 'Order Preference' as per the tender specification, their tender shall not be considered for placement of any order under order preference. In the event of refusal by the Punjab based firms to execute the purchase order/contract at their quoted rates or offers made under order preference as per 'c' and 'd' above as the case may be, after having furnished the above undertaking their Earnest Money shall be forfeited apart from initiating further administrative action, such as suspending business dealings, blacklisting etc.

# PART 2

**PART – 2**  
**CONDITIONS OF CONTRACT**

**1. Definitions and Interpretations**

**1.1 Definitions**

In the contract (as herein after defined) the following words and expressions shall have the meanings hereby assigned to them:

- 1.1.1 “Conditions” means conditions of contract.
- 1.1.2 “Contract” means agreement between the PSTCL and the Contractor for the execution of the works incorporating the conditions, specification, PSTCL’s Drawings and Contractor’s Drawings, price & other completed schedule, Bid, Letter of Award and such further documents as may be expressly incorporated in the letter of award.
- 1.1.3 “Contract Agreement” means the document recording the terms of the contract between the PSTCL and the Contractor.
- 1.1.4 “Contract Price” means the sum stated in the letter of Award as to the contractor for execution and commissioning of the works and adjusted, after optimisation, on the basis provided in the contract. It shall be the sum total of all the amount entered by the contractor in the schedule of prices.
- 1.1.5 “Contractor” means the person whose Bid has been accepted by the Employer and the legal successors in title to the contractor but not (except with the consent of the Employer) any assignee of the contractor.
- 1.1.6 “Contractor’s Drawings” means all drawings, samples, patterns, models and operation and maintenance manuals to be submitted by the contractor under the contract.
- 1.1.7 “Contractor’s Equipment” means all appliances or things of whatsoever nature required for the purposes of the works but does not include plant.
- 1.1.8 “Employer” means the PUNJAB STATE TRANSMISSION CORP. LTD. and the legal successors in title to the Employer but not (except with the consent of the contractor) any assignee of the Employer.
- 1.1.9 “Employer Drawings” means all the drawings and information provided by the Employer to the contractor under the contract.
- 1.1.10 “Gross Misconduct” means any act or omission of the contractor in violation of the most elementary rules of diligence, which a conscientious contractor in the same position and under the same circumstances would have followed.
- 1.1.11 “Notification of award/Letter of award” means the formal award by the Employer of the bid incorporating any adjustments or variations to the bid agreed between the Employer and the contractor.

- 1.1.12 “Performance security” means the security to be provided by the contractor for the due performance of the contract.
- 1.1.13 “Plant” means monopole, monopole parts, line materials, and all things to be provided under the contract for incorporation in the works.
- 1.1.14 “Schedule of Prices” means the completed price Schedule or any part or individual schedule thereof, submitted by the contractor with his bid and forming a part of the contract documents.
- 1.1.15 “Site” means the place or places, where work is to be done by the contractor or to which Plant is to be delivered, together with so much of the area surrounding the same as the contractor shall with the consent of the Employer use in connection with the works otherwise than merely for the purposes of access.
- 1.1.16 “Specification” means the specification of the works included in bidding documents and includes the contract and any modification.
- 1.1.17 “Subcontractor” means any person (other than the contractor) named in the contract for any part of the works or any person to whom any part of the contract has been subcontracted with the consent of the Employer and the Subcontractor’s legal successors in title but not any assignee of the subcontractor.
- 1.1.18 “Bid” means the contractor’s priced offer to the Employer for the execution of the works.
- 1.1.19 “Tests on Completion” means the tests specified in the Contract or otherwise agreed by the Employer and the contractor to be performed before the works are taken over by the Employer.
- 1.1.20 “Time for completion” means the time stated in the conditions of contract for completing the works or any part thereof and passing the tests on completion calculated from the commencement date unless extended in accordance with the specification.
- 1.1.21 “Works” means all Plant to be provided and work to be done by the contractor under the contract.
- 1.1.22 “Government” means the Government of Punjab / India.
- 1.1.23 “Other Contractor” means any party or parties having a direct contract with the Employer for the work outside the scope of this contract and shall include any subcontractor of this “other Contractor.”
- 1.1.24 “Engineer” shall mean the Chief Engineer/TS, PSTCL, Patiala to act as “Empowered Officer”, from time to time for the purpose of the contract.

**1.2 Written Communication**

Wherever in the contract provision is made for communication to be “Written” or “in writing” this means any hand-written, type written or printed communication including telex, cable and facsimile transmission.

**1.3 Notice, consents and approvals**

Wherever in the contract provision is made for the giving of notice, consent or approval by any person, such consent or approval shall not be un-reasonably withheld. Unless otherwise specified, such notice, consent or approval shall be in writing and the word “notify” shall be construed accordingly.

**1.4 Periods.**

In these conditions “day” means calendar day, however, “working day” as used therein means all calendar days excluding Sunday and all legal holidays within India “Month and Year” and all dates shall be reckoned according to the Gregorian calendar.

**2 Employer’s Decisions and Instructions.**

2.1 The Contractor shall proceed with the decisions and instructions given by the Employer or its representative in accordance with these conditions.

2.2 The Contractor may require the Employer to confirm in writing any decision or instruction of the Employer, which is not in writing. The contractor shall notify the Employer of such requirement without undue delay. Such a decision or instruction shall not be effective until written confirmation thereof has been received by the contractor.

**3. Obligations of the Contractor****3.1 General Obligations**

The contractor shall, in accordance with the contract, with due care and diligence, carry out the works as per the scope of work defined in the Specifications within the time for completion. The Contractor shall also provide all necessary contractor’s equipment, superintendence, labour and all necessary facilities thereof.

The Contractor shall be deemed to have carefully examined the bidding documents, the site and the existing installations, as applicable, and to have satisfied himself as to the nature and character of the work to be executed, the prevailing meteorological conditions as well as the local uses and conditions and any other relevant matters and details. Any information received from the Employer shall not in any way relieve the contractor from his responsibility for

supplying the equipment and material and executing his work in terms of the contract, including all details and incidental work and supply of all accessories or apparatus which may not have been specifically mentioned in the contract but are necessary for ensuring the complete installation and a safe and efficient operation of the plant.

The Contractor will have to submit a certified copy of "A" Class Electrical Contractor's license valid for working in Punjab with the bid.

The contractor shall be having EPF code no. issued by EPF Commissioner and documentary proof for the same will be required to be furnished with the bid.

### **3.2 Setting Out**

The Contractor shall set out the works in relation to original points, lines and levels of reference given by the Employer in writing and provide all necessary instruments, appliances and labour for such purposes.

If, at any time during the execution of the works, any error appears in the positions, levels, dimensions or alignment of the works, the contractor shall rectify the error.

The Contractor shall bear the cost of rectifying the error, unless the error results from incorrect information supplied in writing by the Employer, or from default by another contractor of the Employer, in which case the cost together with profit shall be borne by the Employer.

The checking of any setting -out by the Employer shall not relieve the Contractor of his responsibility for the accuracy thereof.

## **4. Contract Agreement**

The contractor shall execute a contract agreement recording all the terms of the contract, to be prepared by and completed at the cost of the contractor in the form provided in Part – 5 of this specification.

## **5. Performance Security**

5.1 The performance security shall be provided in the form of Bank Guarantee. The cost of complying with the requirements of this clause shall be borne by the contractor.

5.2 The form of the performance security shall be as provided in the specification or in some other format that is acceptable to the Employer. In the event of any change in the contract price, the performance security shall be adjusted provided that such adjustment shall be subject to the approval of the Employer. The performance security shall be paid to the Employer on first demand without conditions or proof.



### 5.3 **Period of Validity**

The performance security shall be valid until the contractor has executed, completed and remedied defects in the works in accordance with the contract. No claim shall be made against the performance security after the issue of the Defects Liability Certificate and the performance security shall be returned to the contractor within 14 days of the issue of the Defects Liability Certificate.

## 6. **Contract Price**

### 6.1 **Sufficiency of Contract Price**

The contractor shall be deemed to have satisfied himself of and taken account of in his bid:

- a. All the condition and circumstances affecting the contract price.
- b. The possibility of carrying out the works as described in the contract.
- c. The general circumstances at the site.
- d. The general labour position at the site and
- e. with respect to the above provision, the contractor shall be deemed to have also satisfied himself, before bidding, with
  - existing conditions, nature of existing roads and bridges and other means of access to the site.
  - Presence of artificial obstructions on ground or underground or in air, boulders, or released water from and structures constructed for the existing sub-station, or the like
  - Stability of existing slopes in the site
  - Nature of the surface and subsurface on or in which the works are to be executed or in the immediate vicinity of the works, and the nature and extent of surface water or water contained in the subsoil by which the works may be affected under all possible climatic conditions.

6.2 If the specification does not contain particulars of materials and works which are obviously necessary for the proper completion of the works, and the intention to include, which is nevertheless to be inferred, all such materials and works shall be supplied and executed by the contractor without extra charge. If the contractor requires additional information, he shall so request in writing to the Employer who will provide such detailed information as necessary within a reasonable time.

6.3 The contractor shall be responsible for checking the information given in writing by the Employer for obvious omissions or inconsistencies, and for his interpretation of information received from whatever source.

**7. Physical Obstructions and Conditions**

If during the execution of the works on site the contractor encounters physical obstructions or conditions, which could not reasonably have been foreseen by the contractor, the Employer shall certify, and these shall be added to the contract price, the additional cost of complying with any instruction which the Employer, after due consultation with the contractor issues to the contractor in connection therewith.

**8. Contractor's Representative**

8.1 The contractor shall appoint a project co-ordinator and employ one or more competent representatives to supervise the carrying out of the works on site. They shall be fluent in the language for day-to-day communications. Their names shall be communicated in writing to the Employer before work on site begins.

8.2 Any instruction or notice which the Employer gives to the Contractor's representatives shall be deemed to have been given to the contractor. At least one of the contractor's competent representatives shall be fluent in speaking, writing, reading and understanding English.

8.3 The contractor shall, upon the Employer's written instruction, remove from the works any person employed by him in the execution of the works, who misconduct's himself or is incompetent or negligent.

**9. Contractor's Construction Management****9.1 Contractor's Equipment**

The contractor shall provide all contractor's equipment ,haulage & power necessary to complete the works, including transport at his own cost.

All contractor's Equipment's shall, when brought on to the site, be deemed to be exclusively intended for the execution of the works. The Employer shall have lien on all such equipment brought to Site for the purpose of erection, testing and commissioning of the transmission line. The contractor shall not remove from the site any such equipment, except:

- a) when it is no longer required for the completion of the works, or
- b) when the Employer has given his consent.

**9.2 Safety Precautions**

The contractor shall observe all applicable regulations regarding safety on the site.

Unless otherwise agreed, the contractor shall, from the commencement of work on site, until taking over, provide:

- a) fencing, lighting, guarding and watching of the works and

b) Temporary roadways, footways, guards and fences which may be necessary for the accommodation and protection of owners and occupiers of adjacent property, the public and others.

**9.3 Electricity and Water**

The contractor shall make his own arrangement for provision of any supplies he may require.

**9.4 Employer's equipment**

The contractor shall pay hire charges as may reasonably be levied for the Employer's equipment, if any, and also provide the transport, haulage, power etc. at his own cost.

**9.5 Clearance of Site.**

The contractor shall from time to time during the progress of the works clear away and remove all surplus materials and rubbish. On completion of the works the contractor shall remove all contractor's equipment and leave the whole of the site and the works clean and in a workmanlike condition, to the satisfaction of the Employer. The contractor shall obtain prior approval of the Employer to remove surplus materials.

**9.6 Opportunities for other Contractors**

The contractor shall in accordance with the Employer's instructions, cooperate with and afford to other contractors engaged by the Employer to work on the site and persons lawfully so engaged upon the site all reasonable opportunities for carrying out their work provided that the same shall not obstruct or disturb the progress of the works. The contractor shall also afford such opportunities to the employees of the Employer.

**9.7 Authority for Access**

No persons other than the employees of the contractor and his subcontractors shall be allowed on the site except with the written consent of the Employer.

Facilities to inspect the works shall at all times be afforded by the contractor to the Employer and his representatives, authorities and officials.

**10. Compliance with Statutes, Regulations and Laws**

**10.1 Compliance with Statutes, Regulations.**

The contractor shall in all matters arising in the performances of the contract, comply in all respects with, give all notices and pay all fees required by the provisions of any national or state statute, ordinance or other law or any regulations or by law of any duly constituted authority.

The contract shall in all respects be construed and interpreted in accordance with the laws in force in India, including any such laws passed or made or coming into force during the period of the contract.

## **10.2 Compliance with Laws.**

The contractor shall comply with the laws of India for manufacturing of equipment and erection of the lines.

## **11. Patents**

### **11.1 Patent Rights**

The contractor shall indemnify the Employer against all claims of infringement of any patent, registered design, copyright, trade mark or trade name or other intellectual property right provided that all of following conditions are satisfied:

- a) The claim or proceedings arise out of the design, construction, manufacture or use of the works or any plant supplied by the contractor.
- b) The right was protected at the date of the contract in the contractor's country or the country in which the plant is to be manufactured or erected.
- (c) The infringement or allegation of infringement was not caused by any use of the works otherwise than for the purpose indicated by or reasonably to be inferred from the specification.
- (d) The infringement or allegation of infringement was not caused by the use of any plant in association or combination with any plant not supplied by the contractor, unless such association or combination was disclosed to the contractor prior to the date of the bid.
- (e) The infringement or allegation of infringement was not caused by the contractor following the design or instructions of the Employer.

### **11.2 Claims in respect of Patent Rights**

The contractor shall be promptly notified of any claim under this clause made against the Employer. The Contractor may at his own cost conduct negotiations for the settlement of such claim and any litigation that may arise there from.

The Employer shall not make any admission which might be prejudicial to the contractor unless the contractor has failed to take over the conduct of the negotiations or litigation within a reasonable time after having been so requested.

The Contractor may not, however, conduct such negotiations or litigation before he has given the Employer such reasonable security as the Employer may require. The security shall be for an amount which is an assessment of

the compensation, damages, expenses and costs for which the Employer may become liable.

The Employer shall, at the request of the contractor, provide all available assistance for the purpose of contesting any such claim or action and shall be repaid all reasonable costs incurred in so doing by the contractor.

**11.3 Payment for Equipment in Patent Dispute**

The Employer will not make payment for equipment against which there is an unresolved claim for patent infringement.

**12. Obligations of the Employer**

**12.1 Access to and Possession of the Site**

The Employer shall in reasonable time grant the Contractor access to and possession of the site, which may, however, not be exclusive to the contractor.

The contractor shall provide at his own cost any access foot pass structures, bridges and approach to the work sites from public roads in accordance with the requirement stipulated in the Technical Specification.

**12.2 Assistance with local Regulations.**

The Employer shall assist to the extent possible the contractor in ascertaining the nature and extent of any laws regulations, orders or by-laws and customs where the plant is to be erected, which may affect the contractor in the performance of his obligations under the contract. The Employer shall if so requested procure for the contractor copies thereof where available and information relating thereto at the contractor's cost.

**13. Labour**

**13.1 Engagement of Labour**

The contractor shall, unless otherwise provided in the contract, make his own arrangements for the engagement of all labour and for their payment, housing, feeding and transport.

The contractor shall pay rates of wages and allowances according to the nature of the works and observe hours and working conditions of his employees as per the Labour Laws in vogue / coming in vogue during Contract execution. The contractor shall observe all regulations prescribed by the law of the Government and shall strictly comply with any agreement, custom, practice or award relating to the wages.

The contractor is encouraged, to the extent practicable and reasonable, to employ staff and labour with the required qualifications and experience from sources within the region of work.

**Returns of Labour**

The Contractor shall submit detailed returns showing the supervisory staff and the numbers of the several classes of labour from time to time employed by the contractor and subcontractors on the site. The returns shall be submitted in such form and at such intervals as the Employers may prescribe. The contractor shall within twenty four (24) hours of the occurrence of any accident at or about the site or in connection with the execution of the works report such accident to the Employer. The contractor shall also report such accident to the competent authority whenever such report is required by the law.

The contractor shall keep proper wages books and time sheets showing the wages paid to and the time worked by all workmen employed by him in and for the performance of the contract and shall produce such wages' books and time sheets on demand for inspection by any persons duly authorised by the Employer and shall furnish to the Employer such information relating to the wages and conditions of employment of such workmen as the Employer or his duly authorised representative may from time to time require.

**Restriction on Working Hours.**

No work shall be carried out on the Site outside normal working hours or on the locally recognised days of rest, unless:

- a) the contract so provides, or
- b) the work is unavoidable or necessary for the saving of life or property or for the safety of the works, in which case the contractor shall immediately advise the Employer, or
- c) the Employer gives the consent.

The contractor will be expected to employ on the work only his regular skilled employees with experience of the particular type or work. No female labour shall be employed after darkness. No person below the age of eighteen years shall be employed.

In case the Employer becomes liable to pay any wage or dues to the labour or any Government agency under any of provisions of the Minimum Wages Act, Workmen Compensation Act, Contract Labour Regulation Abolition Act or any other law due to act of omission of the contractor, the Employer may make such Payments and shall recover the same from the contractor's bills.

**14. Workmanship and Materials**

All plant to be supplied shall be manufactured and all work to be done shall be executed in the manner set out in the contract.

Where the manner of manufacture and execution is not set out in the contract, the work shall be executed in a proper and workmanlike manner in accordance with recognised good practice & maintain full safety measures.

## **15. Inspection & Testing**

### **15.1 Independent Inspection**

The Employer may, if so provided in the Contract or with the Contractor's consent, delegate inspection and testing of plant to an independent inspector.

### **15.2 Inspection and Testing During Manufacture**

The Employer shall be entitled during manufacture to inspect, examine and test the materials and workmanship and check the progress of manufacture of all plant to be supplied under the contract. This shall take place on the contractor's premises. If plant is being manufactured on other premises, the contractor shall obtain permission for the Employer to carry out such inspection, examination and testing on those premises.

No such inspection, examination or testing shall release the contractor from any obligation under the contract.

### **15.3 Dates for Inspection and Testing**

The contractor shall give the Employer reasonable notice in writing of the date on and the place at which any plant will be ready for testing as provided in the contract and the Employer shall attend at the place so named within fifteen(15) days of the date which the contractor has stated in his notice. The Employer shall give the Contractor twenty-four (24) hours notice in writing of his intention to attend the tests. The above notices shall be given at first by the quickest possible means and confirmed later in writing.

If the Employer does not attend on the date agreed, the contractor may, unless the Employer instructs the contractor not to do so, proceed with the tests, which shall be deemed to have been made in the Employer's presence.

The Contractor shall forthwith forward to the Employer duly certified copies of the test results. If the Employer has not attended the test, he shall accept the validity of the test readings.

If the contractor does not get the material inspected when the inspecting officer visits their works after receipt of inspection call on one pretext or the other or the material fails during inspection, he will have to bear TA/DA for the journey performed by such an inspecting officer which shall be Rs.15,000/- (outside Punjab) & Rs.5000/- (within Punjab) per visit of each officer. Besides the recovery against each fake call, a letter of warning shall be issued and it shall be counted towards firm's performance for all intents and purposes.

**15.4 Facilities for Testing**

Where the Contract provides for tests on the premises of the contractor or of any Sub-Contractor, the Contractor shall provide such assistance, labour, materials, electricity, fuel, stores, apparatus and instrument as may be necessary to carry out the tests efficiently. In case the goods have not been inspected/tested at the manufactures works by a representative of the PSTCL, the supplier/contractor shall furnish the following certificates alongwith consignment for facility of the consignee.

- a) Type test certificate
- b) Routine test certificate (if applicable)

**16. Rejection**

If, as a result of the inspection, examination or testing, the Employer decides that any plant is defective or otherwise not in accordance within the Contract, he may reject such plant. The contractor shall then with all speed make good the defect or ensure that any rejected plant complies with the contract.

If the Employer requires such Plant to be retested, the tests shall be repeated under the same terms and conditions. All cost incurred by the Employer in the repetition of the tests shall be to the contractors account.

**17. Suspension of Works, Delivery or Erection****Order to Suspend**

The Employer may at any time instruct the Contractor to:

- a) Suspend progress of the works, or
- b) Suspend delivery of plant or Contractor's Equipment which is ready for delivery to the site at the time for delivery specified in the Programme, or if no time is specified, at the time appropriate for it to be delivered, or
- c) Suspend the erection of plant which has been delivered to the site.

When the Contractor is prevented from delivering or erecting plant in accordance with the Programme by reason of any delay or failure on the part of the Employer, or of failure by the Employer to give permission to deliver or by any cause for which the Employer is responsible, the Employer shall be deemed to have instructed a suspension provided the contractor has given the notice of the same within fifteen (15) days of such occurrence and the Employer does not respond to such a notice by the Contractor.

The Contractor shall during suspension protect and secure the works or plant affected at the contractor's works or elsewhere or at the site, as the case may be, against any deterioration, loss or damage.



**18. Effects of Suspension****18.1 Cost of Suspension**

The additional cost incurred by the Contractor in protecting, securing and insuring the works or Plant and in following the Employer's instructions and in resumption of the work, shall be added to the contract Price except that no such addition to the contract price shall be made if the suspension or deemed suspension is for a period less than 10 days.

The Contractor shall not be entitled to be paid any additional costs if such suspension is necessary by reason of a default on the part of the contractor or for the proper execution, or for the safety of the works or plant, unless such necessity results from any act or default of the Employer or in consequence or any of the Employer's risks.

The Contractor shall not be entitled to additional costs unless he notifies the Employer of his intention to make such claim, within 10 days after receipt of the order to suspend progress or delivery or of the date of deemed suspension & the order to suspend.

**18.2 Payment in Event of Suspension**

The Contractor shall be entitled to payment as at the date of suspension for Plant which has not been delivered to Site if the work on Plant or delivery of Plant has been suspended for more than 3 months.

A certificate of payment shall be issued on condition that :

- a) the contractor has marked the plant as the Employer's property in accordance with the Employer's instructions, and
- b) the suspension is not due to the contractor's default.

**18.3 Prolonged Suspension**

If suspension as per order to suspend has continued for more than 180 days and the suspension is not due to the Contractor's default, the Contractor may give notice to the Employer requiring permission to proceed with the works within 30 days.

If permission is not granted within that time, the Contractor may treat the suspension as an omission under relevant clause (of this part) of the portion it affects, or if the suspension affects the whole of the works, terminate the contract.

**18.4 Resumption of work**

If the Contractor chooses not to treat prolonged suspension as an omission or termination, the Employer shall upon the request of the contractor, take over the responsibility for protection, storage, security and insurance of the suspended works and of the plant which has been delivered to the Site and which is affected

by suspension and the risk of loss or damage thereto shall thereupon pass to the Employer.

After receipt of permission or an order to proceed, the Contractor shall, after due notice to the Employer, examine the works and the plant affected by the suspension. The contractor shall make good any deterioration or defect in or loss of the works or plant that may have occurred during the suspension. Cost properly incurred by the contractor which would not have been incurred but for the suspension shall be added to the contract price.

The Contractor shall not be entitled to payment for costs incurred in making good any deterioration, defect or loss caused by faulty workmanship or materials or by the Contractor's failure to take the measures specified in order to suspend.

If the Employer has taken over risk and responsibility for the suspended works under the sub clause, risk and responsibility shall revert to the Contractor 15 days after receipt of the permission or order to proceed.

## **19 Time for completion**

19.1 The Contractor immediately after signing of contract is required to start the work as per the activity schedule given by PSTCL. All approvals required from the owner for this purpose will be sought immediately after signing of contract. The vendors for equipment will be finalised, equipment drawings will be submitted for approval, wherever required, without delay.

19.2 The receipt of material should be matched with the erection schedule. The contractor shall provide for proper checks and balances to ensure timely completion of the turn-key contract.

19.3 The payment against the contract may be proposed to be made against some loan scheme. The commitment charges levied, if any, due to slow progress of work by the contractor will also be payable by the contractor.

19.4 The project execution shall be carried out by the contractor in a logical 'Stage-by-Stage' sequence, so as to complete the work in accordance with provisions of this specification. However, changes can be made in the otherwise logical sequence of the construction activities, if necessary and required by the circumstances e.g. non-availability of clear site etc.

## **20. Extension of Time for completion**

### **20.1 Causes for Extension of time for Completion**

The contractor may claim an extension of time for completion if he delays in completing the works by any of the following causes:

- a) Physical obstructions or conditions which could not reasonably have been foreseen by the contractor.
- b) The failure of the Employer to fulfill any of his obligations under the contract.
- c) Delay by any other contractor engaged by the Employer, affecting this contract.
- d) Any suspension of the work ,except when due to the contractor's default.
- e) The Employer's Risks, if & when they constitute the sole reason for the delay in completion of works.
- f) Force Majeure.

**20.2** The contractor shall give to the Employer notice of his intention to make a claim for an extension of time within 15 days of the occurrence of any of the above cause(s) for such a claim becoming known to the contractor. The notice shall be followed as soon as possible by the claim with full supporting details.

**20.3** The Employer shall, after due consultation with the Contractor grant the contractor from time to time, either prospectively or retrospectively, such extension of time for completion as may be justified and notify the contractor accordingly.

**20.4** The contractor shall be entitled to such extension whether the delay occurs before or after the Time for completion.

## **21 Penalty**

21.1 If the Contractor fails to comply with the time for completion in accordance with the specification for the whole of works or, for any transmission line works within the relevant time prescribed then the Contractor shall pay to the PSTCL a sum equivalent to half percent (0.5%) of the contractor price as penalty for such default , without prejudice to the PSTCL's other remedies under the contract, for each week or part there of which shall elapse between the relevant time for completion and the date stated in Taking-over Certificate of the whole of the works or the relevant Section. However, the amount of Penalty for the contract shall be limited to a maximum of Five percent (5%) of the total Contract price. The PSTCL may, without prejudice to any other method for recovery, deduct the amount of such damages from any monies due or to become due to the contractor. The payment or deduction of such damages shall not relieve the contractor from his obligation to complete the works, or from other of his obligation and liability under the contract.

21.2 There will be a slack of one month on overall time for completion that will not entail any penalty and will not involve any additional financial implication. Delay

beyond slack period will attract penalty for the period of delay including slack period.

## **22. Tests on Completion**

### **22.1 Notice for Tests**

The Contractor shall give to the PSTCL a 15 days notice of the date after which he will be ready to make the tests on completion (the test) unless otherwise agreed, the tests shall take place within 15 days after the said date on such day or days as the PSTCL shall notify the contractor.

### **22.2 Time of Tests**

If the PSTCL fails to appoint a time after having been asked to do so, or does not attend at the time and place appointed, the contractor shall be entitled to proceed with the tests in his absence. The tests shall then be deemed to have been made in the presence of the PSTCL and the results of the Tests shall be accepted as accurate.

### **22.3 Delayed Tests**

If the Tests are being unduly delayed by the Contractor, the PSTCL may by notice require the contractor to make the tests within 21 days after the receipt of such notice. The Contractor shall make the Tests on such days within that period as the contractor may fix and of which he shall give notice to the PSTCL.

If the Contractor fails to make the Tests within 21 days, the PSTCL may itself proceed with the tests. All tests so made by the PSTCL shall be at the risk and cost of the Contractor and the cost thereof shall be deducted from the contract price. The tests shall then be deemed to have been made in the presence of the Contractor and the results of the tests shall be accepted as accurate.

### **22.4 Facilities for Tests on Completion**

The Contractor, except where otherwise specified, shall arrange such labour, materials, fuel, water, stores and apparatus as may be reasonably required to carry out such Tests efficiently.

### **22.5 Retesting**

If the works or any portion thereof fails to pass the Tests, the PSTCL or the contractor may require such tests to be repeated on the same terms and conditions. All costs to which the PSTCL may be put by the repetition of the Tests under this Sub-Clause or under any other clause of this specification, shall be to the Contractor's account.

**22.6 Consequences of Failure to Pass Tests on completion**

If the works or any portion thereof fails to pass the tests or the repetition thereof , the PSTCL after due consultation within the contractor, shall be entitled to:

- a) order one further repetition of the tests under the conditions already specified, or
- b) reject the works or portion thereof in which event the PSTCL shall have the same remedies against the contractor as are provided under this specification, or
- c) issue a taking over certificate, if the PSTCL so wishes, notwithstanding that the works are not complete. The contract price shall then be reduced by such amount as may be agreed by the PSTCL and the contractor or, failing agreement, as may be determined by arbitration.

**22.7 Use by the PSTCL**

In considering the results of tests carried out under sub-clauses mentioned above, the PSTCL shall make allowances for the effect of any use of the works by the PSTCL on the performance or other characteristics of the works.

**22.8 Test Certificate**

As soon as the works or any portion thereof has passed the Tests, the PSTCL shall issue a Certificate to the Contractor to that effect.

**23 Taking over**

**23.1** The works shall be taken over by the PSTCL when they have been completed in accordance with the contract, except in minor respects that do not affect the use of the works for their intended purpose, have passed the Tests on completion and taking over certificate has been issued or deemed to have been issued .

**23.2 Taking-Over Certificate**

The Contractor may apply by notice to the PSTCL for a Taking-over certificate not earlier than 15 days before the works will in the Contractor's opinion be complete and ready for taking over

The PSTCL shall within 30 days after the receipt of the contractor's application either:

- a) issue the Taking-over certificate to the Contractor stating the date on which the works were complete and ready for taking over, or
- b) reject the application giving his reasons and specifying the work required to be done by the contractor to enable the taking over certificate to be issued.

If the PSTCL fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 30 days he shall be deemed to have issued the taking over certificate on the last day of that period.

**24. Defects after taking over**

**24.1 Defects Liability Period**

The defects liability period will be 18 months from the date of commissioning of transmission lines on load.

**24.2 Making good defects**

The contractor shall be responsible for making good any defect in or damage to any part of the works which may appear or occur during the effects liability period and which arises from either:

(a) Any defective materials, workmanship or design, or

(b) Any act of omission of the contractor during the Defects liability period.

The Contractor shall make good the defects or damage as soon as practicable and at his own cost to match the original specification to the satisfaction of the PSTCL.

**24.3 Notice of Defects**

If any such defect shall appear or damage occur, the PSTCL shall forthwith inform the contractor thereof stating in writing the nature of the defect or damage. The provisions of clause 30 shall apply to all replacements or renewals carried out by the contractor to remedy defects and damage as if the said replacements and renewals had been taken over on the date they were completed to the satisfaction of the PSTCL but not so as to extend the defects liability period in respect thereof beyond three (3) years from the date of taking over.

**24.4 Extension of Defects Liability period**

The Defects Liability period shall be extended by a period equal to the period during which the works (or that portion thereof in which the defect or damage to which the clause applies has appeared or occurred) cannot be used by reason of the defect or damage but not so as (in the case of any further defect or damage to such portion occurring during any such extension), to extend the Defects Liability period for the works or that portion beyond three (3) years from the date of taking over.

When erection or delivery of Plant has been suspended under clause 20, the contractor's obligations under this clause shall not apply to any defects occurring more than three years after it would have been delivered but for the suspension period.

**24.5 Failure to Remedy Defects**

If the Contractor fails to remedy a defects or damage within a reasonable time, the PSTCL may fix a final time for remedying the defect or damage.

If the Contractor fails to do so, the PSTCL may:

- a) carry out the work itself or by others at the contractor's risk and cost, provided that he does so in a reasonable manner.
- b) The contractor shall pay to the PSTCL the cost of the work carried out in accordance with the subpara (a) above, within 15 days of receipt of the notice therefor from the PSTCL, or
- c) If the defect or damage is such that the PSTCL has been deprived of substantially the whole of the benefit of the works or a part thereof, he may terminate the contract in respect of such parts of the works as cannot be put to the intended use. The PSTCL shall be entitled to recover from the contractor all sums paid in respect of such parts of the works together with the cost of dismantling the same, cleaning the site and returning plant to the Contractor or otherwise disposing of it in accordance with the Contractor's instructions.

**24.6 Removal of Defective work**

If the defect or damage is such that repairs cannot be expeditiously carried out on the site, the contractor may with the consent of the PSTCL remove from the site for purposes of repair any part of the works which is defective or damaged after furnishing adequate security to the satisfaction of the PSTCL.

**24.7 Further Tests on Completion**

If the replacements or renewals are such that they may affect the performance of the works, the PSTCL may request that Tests on completion be repeated to the extent necessary. The request shall be made by notice within 30 days after the replacement or renewal. The Tests shall be carried out in accordance with relevant Clause of the specification.

**24.8 Right of Access**

Until the Defects Liability Certificate has been issued, the contractor shall have the right of access to all parts of the works and to records of the working and performance of the works.

Such right of access shall be during the PSTCL's normal working hours at the Contractor's risk and cost. Access shall also be granted any duly authorised representative of the contractor whose name has been communicated in writing to the PSTCL.

Subject to the PSTCL's approval, the Contractor may also at his own risk and cost make any tests which he considers desirable.

The aforesaid right of access shall also be subject to the Contractor not interfering with or affecting adversely the intended use of the works.

**24.9 Defects in PSTCL's Designs.**

The Contractor shall not be liable for any defects resulting from designs furnished or specified by the PSTCL.

**24.10 Contractor to Search**

The Contractor shall, if required by the PSTCL in writing, search for the cause of any defect, under the direction of the PSTCL. Unless the defect is one for which the contractor is liable under this clause, the cost of the work carried out by the contractor in searching for the cause of the defect shall be added to the contract price.

**24.11 Defects Liability Certificate**

When the Defects Liability period for the works or any part thereof has expired and the contractor has fulfilled all his obligations under the Contract for defects in the works or that part, the PSTCL shall issue within 28 days to the Contractor a defects Liability Certificate to that effect.

**24.12 Exclusive Remedies**

Except in the case of Gross Misconduct, and/or latent defect (s) arising within a period of five year from taking over, the PSTCL's remedies under this clause shall be in place of and to the exclusion of any other remedy in relation to defects whatsoever.

**25. Ownership of plant**

Plant to be supplied pursuant to the contract shall become the property of the PSTCL at whichever is the earlier of the following times.

- a) When Plant is delivered to Site/ Store or.
- b) When by virtue of preceding relevant clauses the contractor becomes entitled to payment of the value of the Plant.

**26.0 Certificates and payment**

**26.1 Terms of payment**

The following terms of payment shall be followed :

50% payment of the material including 100% Excise Duty & Sales Tax and the erection charges on prorata basis shall be paid within 30 days of the submission of the erection bill to the concerned SDO/TLSC. The payment shall be made by the AO/CPC, PSTCL, Patiala after certification by the concerned Sr. Xen/TLSC. The balance 50% payment shall be made within 30



days after the successful operation of the line for a period of 12 months from the date of commissioning and satisfactory performance of the equipment duly verified by the concerned Sr.Xen/ P&M.

**“If the constructions work lags the activity schedule of the line, the payment for the material dispatched/ received will be held up till the required progress in construction is achieved.”**

**26.2** Delivery and documents

- i) Copies of the contractors invoice (4 copies).
- ii) Packing list identifying contents of each package (4 copies)
- iii) Receipted LR dully verified by concerned SDO/TSSC.
- iv) Manufacturer’s/Contractor’s guarantee certificate of quality
- v) Copy of Inspection Note / Despatch Instructions.

The above documents should reach the PSTCL within seven days from the date of shipment to enable the PSTCL to make timely payment to the contractor.

**26.3 Packing**

The Contractor shall provide such packing of the material as is required to prevent their damage or deterioration during transit to their destination as indicated in the contract.

The packing, marking and documentation within and outside the packages shall comply strictly with special requirements as shall be exclusively provide for in the contract and in any subsequent instructions given by the PSTCL.

**26.4 No claim for Idle Labour and/or over stay charges**

In case the time allowed for carrying out the work (completion period) extends beyond the specified period for reasons whatsoever, the quoted rates should remain valid till completion of the entire work. No claim for compensation for idle labour or over stay charges shall be entertained.

**26.5 Issue of Payment Release Order :**

Within 15 days after receiving an application for payment, PSTCL shall issue a payment release order for payment to the contractor showing the amount due.

A payment release order, other than Final payment release order, shall not be withheld on account of

- a) Defects of a minor character which are not such as to affect the use of the works, or

b) Any part of the payment applied for being disputed. In such case a payment release order for the undisputed amount shall be issued.

**26.6 Corrections to Payment Release Order.**

The PSTCL may in any payment release order make any correction or modification that should properly be made in respect of any previous order.

**26.7 Application for Final Payment Release Order.**

The Contractor shall make application to the PSTCL for the final payment release order within 30 days after the issue of satisfactory performance certificate by the PSTCL as per clause 26 of this part for material & for erection services.

The application for the final payment release order shall be accompanied by a final account prepared by the contractor & reconciled with the PSTCL. The final account shall give full details of the value of all plants supplied and work done under the contract together with:

- a) Such additions to or deductions from the contract price as have been agreed, and
- b) All claims for additional payment to which the contractor may consider himself entitled

**26.8 Issue of Final Payment Release Order:-**

The PSTCL shall issue to the contractor, the final Payment Release Order within 30 days after receiving an application from the contractor.

**26.9 Final Payment Release Order Conclusive :**

The final Payment Release Order shall be conclusive evidence of the value of the works, that the works are in accordance with the contract and that the contractor has performed all his obligations under the contract except the obligations arising during the defects liability period.

Payment of the amount certified in the final payment release order shall be conclusive evidence that the PSTCL has performed all his obligations under the contract.

Final payment release order or payment shall not be conclusive:-

- a) to the extent that fraud or dishonesty relates to or affects any matter dealt with in the order, or
- b) if any, arbitration or court proceedings under the contract have been commenced by either party before the expiry of 90 days after the issue of the final payment release order.
- c) In the event of any defects being noticed during the defects liability period.

**26.10 Failure to provide drawings:-**

Should the contractor fail to provide drawings, diagrams, microfilms or other information forming part of the works, at the times specified in the contract, the payment which becomes due to the contractor in accordance with the contract will be delayed by a period of time equal to the delay in providing the information.

**27. Care of the Works****27.1 Contractor's Responsibility for the care of the works**

The contractor shall be responsible for the care of the works from the commencement date until the Risk Transfer Date applicable thereto .

The Contractor shall also be responsible for the care of any part of the works upon which any outstanding work is being performed by the Contractor during the Defects Liability period until completion of such outstanding work.

**27.2 Risk Transfer Date**

The Risk Transfer Date in relation to the works is the date of occurrence of any of the following:

- a) the date of issue of the Taking-over certificate, or
- b) the date when the PSTCL is deemed to have issued the Taking-Over Certificate or the works are deemed to have been taken over in accordance with relevant clauses of this section, or
- c) the date of expiry of the notice of termination when the contract is terminated by the PSTCL or the contractor in accordance with these conditions.

**28. Passing of Risk****28.1 Passing of Risk of loss of or Damage to the works**

The risk of loss of or damage to the works shall pass from the contractor to the PSTCL on the Risk transfer Date applicable thereto.

**28.2 Loss of or Damage Before Risk Transfer Date**

Loss of or damage to the works occurring before the Risk Transfer Date shall:

- a) to the extent caused by any of the contractor's risks, be made good forthwith by the contractor at his own cost, and
- b) to the extent caused by any of the PSTCL's risks, be made good by the contractor at the PSTCL's expense if so required by the PSTCL within 30 days after the occurrence of the loss or damage. The price for making good such loss and damage shall be in all circumstances reasonable and shall be agreed by the PSTCL and the contractor, or in the absence of agreement, shall be resolved under the Arbitration Clause.

**28.3 Loss or Damage After Risk Transfer Date**

After the Risk Transfer Date , the Contractor's liability in respect of loss of or damage to any part of the works shall, except in the case of gross misconduct, be limited :

- a) to the fulfilment of the contractor's obligations under relevant clause(s) in respect of defects therein, and
- b) to making good forth with loss or damage caused by the contractor during the Defects Liability Period.

**29. Damage to Property and injury to Persons****29.1 Contractor's Liability**

The contractor shall be liable for and shall indemnify the PSTCL against all losses, expenses and claims in respect of any loss of or damage to physical property (other than the works), death or personal injury to the extent caused by :

- a) defective design, material or workmanship of the contractor, or
- b) negligence or breach of statutory duty of the contractor, his subcontractors or their respective employees and agents.

**29.2 Accidents**

The Contractor shall be liable for and shall indemnify the PSTCL against all losses, expenses or claims arising in connection with the death of or injury to any person employed by the contractor or his sub-contractors for the purposes of the works, unless caused by any acts or defaults of the PSTCL. In the later cases the PSTCL shall be liable for and shall indemnify the contractor against all losses, expenses and claims arising in connection therewith.

**30 Limitations of Liability****30.1 Liability after Expiry of Defects Liability Period**

Except in cases of criminal negligence or willful misconduct.

- a) The contractor shall not be liable to the PSTCL, whether in contract, or otherwise for any indirect or consequential loss or damage, provided that this exclusion shall not apply to any obligation of the contractor to pay liquidated damages to the PSTCL.
- b) The aggregate liability of the Contractor to the PSTCL under the contract shall not exceed the contract price, provided that this limitation shall not apply to any obligation of the contractor to indemnify the PSTCL with respect to patent infringement.

**30.1 Exclusive Remedies**

The PSTCL and the contractor intend that their respective rights, obligations and liabilities as provided for in these conditions shall alone govern their rights under the contract and in relation to the works.

Accordingly, the remedies provided under the contract in respect of or in consequence of :

- a) any breach of contract, or
- b) any negligence act or omission, or
- c) death or personal injury, or
- d) loss or damage to any property.

are , save in the case of gross Misconduct, to be to the exclusion of any other remedy that either may have against the other under the law governing the contract or otherwise.

**30.2 Mitigation of loss or Damage**

In all cases the party claiming a breach of Contract or a right to be indemnified in accordance with the contract shall be obliged to take all reasonable measures to mitigate the loss or damage which has occurred or may occur.

**31 Insurance****31.1 The Works**

31.1.1 All the plant including ,Monopole Foundations, being supplied / erected by the Contractor shall be kept completely insured by the contractor at his cost from the time of despatch from the contractor's works, upto the completion of erection and final checking, testing and commissioning at site and taking over of the transmission line by the PSTCL.

31.1.2 It will be the responsibility of the contractor to lodge, pursue and settle all claims (for all the plant including monopole foundations) with the insurance company in case of any damage, loss, theft, pilferage, fire etc. and the PSTCL shall be kept informed about it. The Contractor shall replace the lost/damaged plant including monopole foundations promptly irrespective of the settlement of the claims by the underwriters and ensure that the work progress s as per agreed schedules.

**31.1.3 Contractor's Equipment**

The Contractor shall insure the Contractor's equipment for its full replacement value while in transit to the Site, from commencement of loading until completion of unloading at the site, while on the site and until unloading at its return destination against all loss or damage caused by any of the Contractor's risks.

**31.1.4 Third Party Liability**

The Contractor shall insure against liability to third parties for any death or personal injury and loss of or damage to any physical property including the property of the PSTCL other than the works arising out of the performance of the contract and occurring before the issue of the last Defects Liability Certificate. Such insurance shall be effected before the contractor begins any work on the Site.

**31.1.5 Employees**

The Contractor shall insure and maintain insurance against his liability.

**31.1.6 General**

The insurance cover shall be taken by the Contractor in the name of the PSTCL who shall authorise the contractor to pursue the claims with the insurance company.

**31.2 General Requirements of Insurance Policies**

The Contractor shall :-

- a. whenever required by the PSTCL produce the policies or certificates of any insurance which he is required to effect under the contract together with receipts for the premiums.
- b. Effect all insurance's for which he is responsible with an insurer and
- c. In all respects comply with any conditions stipulated in the insurance policies, which he is required to place under the contract.

**31.3 Permitted exclusions from Insurance Policies**

The insurance cover effected by the contractor in the name of the PSTCL shall exclude the following:

- a. the cost of making good any part of the works which is defective or otherwise does not comply with the contract.
- b. Indirect or consequential loss or damage including any reductions in the contract price for delay.

**31.4 Remedies on the Contractor's Failure to Insure**

If the contractor fails to produce evidence of insurance cover as stated in sub clauses above then the PSTCL may effect and keep in force such insurance. Premiums paid by the PSTCL for this purpose shall be deducted from the contract price.

**32. Force Majeure.**

If at any time During the pendency of the contract/purchase order, if the performance in whole/part by either party or any obligation there under, is prevented/delayed by causes arising out of any war, hostility, civil commotion,

acts of the public enemy, sabotage, fire, floods, explosions, epidemics or non-availability of Government controlled raw-material under order/Instructions of Central/State Government regulations, strikes, lockouts, embargo, acts of Civil /Military authorities or any other cases beyond their reasonable control , neither of the two parties shall be made liable for loss or damages due to delay or failure to perform the contract during the currency of Force Majeure conditions, provided that the happening is notified in writing (with documentary proof) within 30 days from the date of the occurrence.

The supplies / work shall be resumed under the contract as soon as practicable after the happening (event) ceases to exist.

### **33. Contractor's Negligence & Default**

#### **33.1 Notice of Default**

In case of negligence on the part of supplier/contractor to execute the order/contract with due diligence and expedition and to comply with any reasonable orders given in writing by the Purchaser in connection with the Purchase Order/Contract or any contravention in the provisions of the Purchase order/contract, the Purchaser may give 21 days notice in writing to the supplier/contractor to make good the failure or neglect or contravention and if the supplier/contractor fails to comply with the notice within time considered to be reasonable by the purchaser, he will suspend/terminate business dealings with the supplier/contractor for a specific period apart from claiming reasonable compensation/damage, forfeiture of security etc. The action taken under this clause will be notified to all the purchasing agencies & other boards/utilities.

#### **33.2 Nature of Contractor's Default**

If the contractor :

- a) has failed to comply within a reasonable time with the 21 day notice, or
- b) assigns the contract or subcontracts the whole of the works without the PSTCL's written consent, or
- c) becomes bankrupt or insolvent, has a receiving order made against him or compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors or goes into liquidation.

The PSTCL may, after giving 21 days notice to the contractor, terminate the contract and expel the contractor from the site.

Any such expulsion and termination shall be without prejudice to any other rights or powers of the PSTCL, or the contractor under the contract.

**34. Customs and Import duties.**

The contractor shall pay any customs, import duties and taxes, on the contractors equipment, if any, to be imported.

**35. Arbitration:**

1. If at any time, any question, dispute or difference, whatsoever, shall arise between the purchaser and the contractor/supplier, upon or in relation to or in connection with the P.O. /contract, either party may forthwith give to other, notice in writing of the existence of such question dispute or difference and the same shall be referred for sole arbitration of a nominee of the purchaser who shall give a reasoned/speaking award. The award of the sole arbitrator shall be final and binding on the parties under the provision of the Indian Arbitration Act, 1940 and of the rules there-under. Any statutory amendment, modification or re-enactment thereof for the time-being in force, shall be deemed to apply to and be incorporated in contract/P.O. It will not be objectionable if the sole arbitrator is an officer of the PSTCL and he has expressed his views on all or any of the matters in question of dispute or difference.
2. Upon every or any such reference, the cost of and incidental to the reference and award respectively, shall be the discretion of the Sole Arbitrator so appointed who may determine the amount thereof or direct the same to be taxed as between solicitor and client or as between party and party and shall direct by whom and to whom and in what manner the same is to be borne and paid.
3. The work under the contract shall, if reasonably possible, continue during the arbitration proceeding and no payments due or payable by the purchaser shall be withheld on account of such proceedings.

**36. Advertising**

Any advertising stating the subject of this contract by the contractor in India or in other foreign countries shall be subject to approval of the PSTCL prior to the publication. Publication of approved articles, photographs and other similar materials shall carry acknowledge to the PSTCL.

**37. Works Appraisal :**

If some new firm submits tender which has never supplied the tendered item to PSTCL earlier, its works appraisal shall be carried out before opening of Part-III (Price Bid) to ascertain whether the offer of the firm is technically/commercially acceptable or not. The cost of the works appraisal shall be born by the firm and the same shall be deposited by the firm within seven days from the issue of notice in this regard failing which the offer of the firm shall not be processed



further. The charges of Rs. 50,000/- (for firms located outside Punjab) and Rs. 25,000/- (for firms located inside Punjab) shall be levied for the purpose. In case the report is negative, these charges will be repeated.

**38. Civil suit/Jurisdiction:**

All legal proceedings in connection with this purchase order/contract shall be subject to the territorial Jurisdiction of the local civil courts at Patiala only.

# PART - 3

**PART- 3**  
**TECHNICAL SPECIFICATIONS**

**3.1 High Temperature Low Sag Conductor requirements:**

The primary requirement of the High Temperature Low Sag (HTLS) conductor shall be to provide current carrying capacity of **minimum 1100 amps** while adhering to the requirements of sag & tension and thermal / environmental parameters as specified in this specification

The raw material used, such as aluminium alloy, zinc, steel etc. shall be of highest quality conforming to their respective national / international standards for tolerances, mechanical / electrical/ thermal properties, surface conditions and stranding etc.

**3.1.1 Joints in Wires :** No joints in wires in any layer of the conductor shall be allowed.

**3.1.2 Standard Length :**

- a) The standard drum length shall be 1300 m +/- 5%. 90% of the total ordered quantities of the conductor can be supplied in standard lengths with +/- 5% tolerances. Further supply of 10% ordered quantities can be supplied in shorter lengths but none of which shall be less than 650 meters or 50% of the standard length.
- b) 5% of the drums offered during each inspection (subject to min. of 2 drums ) shall be opened and again wound on other drum for visual inspection of the conductor along their entire lengths. In this process conductor length will also be measured to compare the same with the declared length on the drum. In case any length is found shorter than the declared length on the drum, the lot would be accepted by deducting the maximum difference between the declared length of each drum (This would not apply if the measured length is found more than the declared length.)
- c) If some other visual defects are observed, 10% of the drums offered for inspection shall be rewound and inspected. In case of any rejection from these drums, the entire material would not be accepted.
- d) Both end of conductor on a drum shall be sealed in an approved manner to avoid loosening of strands. Supplier shall also securely affix their seal at both ends of the conductor.

**3.1.3 Packing :**

Supplier will be required to pack and protect the material securely so as to avoid damage in transit under normal conditions. The conductor in the drum shall be properly lagged due to abrasion during transport.

Supplier shall also be responsible for all losses or damages caused or occasioned to by defect in the packing drum. The conductor shall be wound in non-returnable wooden reels or drums.

The wooden drum and reels shall be manufactured according to relevant national / international standards, the same shall be indicated on the Drum drawing to be attached with the bid.

### 3.1.4 Marking on Drum

The drums shall be marked with the following:

- i) Trade Name, if any
- ii) Name of the manufacture
- iii) Contract/Specification No.
- iv) Size and type of conductor
- v) Length of conductor
- vi) Net weight
- vii) Gross weight
- viii) Certification mark/ISI/PQM as per Approved Monogram.
- ix) Name and address of the consignee.
- x) Drum Number and lot No.

To check the sturdiness (or otherwise) of the packing reels a few drums selected at random would be subjected to rolling for distance of 50 Mtrs. on the floor out of which 20 Mtrs. would be bricked floor. The protective lagging should not break and drum should not get distorted from the original shape during this process.

The direction of rolling of drum shall be marked on the drum .

The conductor shall be tightly and uniformly spooled in the drum. Each wrap shall be laid snugly against the side of the proceeding wrap.

The outside surface of the conductor drum flanges shall be painted with double coat of enamel paint, the inner surface of the flanges including the Barrel the inner surface of the flanges including the Barrel shall be painted with double coat of Aluminium paint and thereafter bituminised paper shall be provided.

No extra charges will be paid for these reels or drums.

The reels shall be sufficiently strong to ensure delivery of conductor in field free from displacement and damage shall be able to with stand all stresses due to handling and stringing operations so that conductor surface is not dented scratched or damaged in any way during manufacture, transport and erection. It shall be notched to suite the conductor and to be held in place by steel strapping. The drum shall be suitable for wheel mounting. Before reeling , card board or other suitable material shall be secured to the drum along the inside flange. The outside flange surface shall be painted with two coats of paint. The conductor wound on the drum shall be covered with polythene paper. The drum shall be

properly lagged with at least 50mm thick wood so as to avoid damage due to abrasion during transport. Any loose space between top conductor layer and cross-wooden battens shall be securely filled with straw or other waste packing material. The protective lagging shall be closely fitted. There shall be hoop iron or galvanized steel wire outside the protective lagging. A gap of min. 100mm shall be kept between last conductor layer and wooden battens to avoid any damage to conductor.

### **3.1.5 Tests :**

The following tests are required to be conducted, as the case may be:

- a) Type Tests : Type tests carried out on the proposed / similar conductor within last five years are to be submitted with the bid, in line with the relevant National/ International standards (copy of the standards to be submitted with the bid) . In case the bidder is a Licencee of the Principal Manufacturer, the Type Tests of the similar conductor being manufactured by the Principal Manufacturer will also be considered valid. However, in such a case the bidder (being Licencee) shall have to furnish an Authorisation certificate from the Principal Manufacturer for this purpose on proforma given at Annexure –24 to this specification. Further the Principal Manufacturer should be well established in the field of High Temperature Low Sag conductors with minimum experience of 5 years and should have supplied at least 100 KM of High Temperature Low Sag (similar) Conductors. Documentary Evidence for the same shall be attached with the bid.
- b) Acceptance Tests :To be carried out by PSTCL at the firm's works at the time of pre-despatch inspection . The bidder shall list out the same in the bid, in line with the relevant National / International standards.
- c) Routine Tests :To be carried out at the time of manufacturing by the firm & record of the same to be maintained for scrutiny at the time of inspection of finished material by PSTCL (same as acceptance tests).

The tendered prices shall cover the cost of material utilized/destroyed while carrying out various tests as specified in this specification or in the relevant standards to which the material offered shall conform and no extra payment shall be due for the material so destroyed during testing .

### **3.1.6 Standards**

The conductor shall comply in all respects with the relevant National and / or International standards and also the technical specification detailed therein. Offers shall be accompanied by the English version of the relevant standard in support of the guaranteed technical particulars and requisite tests attached with the bid.

**3.1.7 Guaranteed Technical Particulars:**

The bidder shall fill the guaranteed technical particulars in the proforma at Annexure- 23 and submit the same with the bid. Failure to provide complete details may render the bid unresponsive.

**3.2 Hardware Fittings & Accessories :**

**3.2.1 General:** Matching insulator fittings and conductor accessories as per relevant IS / international standards shall be supplied & used by the contractor at the time of replacing the existing conductor/stringing of conductor. The B&S type Disc Insulators currently being used conform to IS:731/1971 with latest amendment and the existing insulator fittings conform to IS:2486 (Part-II)-1974 with latest amendments. The details of experience of manufacturer from whom the fittings / accessories would be sourced, alongwith an undertaking from him to supply the material in the event of award, must be submitted with the bid.

**3.2.2 Material & Quality :**

The raw material used, such as aluminium alloy, zinc, steel etc. shall be of highest quality conforming to their respective national / international standards for tolerances, mechanical / electrical/ thermal properties, surface conditions etc.

**3.2.3 Tests**

The following tests are required to be conducted, as the case may be:

- a) Type Tests : Type tests carried out on the fittings/ accessories within last five years to be submitted with the bid, in line with the relevant National / International standards (copy of the standards to be submitted with the bid)
- b) Acceptance Tests :To be carried out by PSTCL at the bidder's works at the time of pre-despatch inspection . The bidder shall list out the same in the bid, in line with the relevant National / International standards.
- c) Routine Tests: To be carried out at the time of manufacturing by the firm & record of the same to be maintained for scrutiny at the time of inspection of finished material by PSTCL (same as acceptance tests).

The tendered prices shall cover the cost of material utilized/destroyed while carrying out various tests as specified in this specification or in the relevant standard to which the material offered shall conform and no extra payment shall be due for the material so destroyed during testing.

**3.2.4 Standards**

The hardware fittings / accessories shall comply in all respects with the relevant National and / or International standards and also the technical specification detailed therein. Offers shall be accompanied by the English version of the

relevant standard in support of the guaranteed technical particulars and test attached with the bid.

### **3.2.5 Guaranteed Technical Particulars:**

The bidder shall fill the guaranteed technical particulars in the proforma at Annexure-23 and submit the same with the bid. Failure to provide complete details may render the bid unresponsive.

### **3.2.6 Packing & Marking**

The fittings & accessories shall be properly packed so as to ensure their safe transportation in wooden boxes or double gunny bags and marked with the month & year of manufacture, type of conductor and manufacturer's insignia or identification mark.

## **3.4 STRINGING REQUIREMENTS**

### **a) Insulator Hoisting**

Suspension insulator strings shall be used on suspension towers and tension insulator strings on angle and dead end towers. These shall be fixed on all the towers just prior to the stringing. Damaged insulators and fittings, if any, shall not be employed in the assemblies. Before hoisting, all insulators shall be cleaned in a manner that will not spoil, injure or scratch the surface of the insulator, but in no case shall any oil be used for the purpose. Torque wrench shall be used for fixing different line materials and their components.

### **b) Handling of Conductor**

The Contractor shall be entirely responsible for any damage to the towers or conductors during stringing. While running out the conductors, care shall be taken that the conductors do not touch or rub against the ground or objects, which could cause scratches or damages to the strands.

The conductor shall be continuously observed for loose or broken strands or any other damage. Repairs to conductors, if necessary, shall be carried out during the running out operations, with repair sleeves. Repairing of conductor surface shall be done only in case of minor damage, scuff marks etc. keeping in view both electrical and mechanical safe requirements. The final conductor surface shall be clean smooth and without any projections, sharp points, cuts, abrasions etc.

Conductor splices shall be so made that they do not crack or get damaged in the stringing operation. The Contractor shall use only such equipment/methods during conductor stringing which ensures complete compliance in this regard.

Derricks shall be used where roads, rivers, channels, telecommunication or overhead power lines, railway lines, fences or walls have to be crossed during

stringing operations. It shall be seen that normal services are not interrupted or damage caused to property. Shut down shall be obtained when working at crossing of overhead power lines. The Contractor shall be entirely responsible for the proper handling of the conductor and accessories in the field.

The sequence of running out shall be from top to downwards i.e. the top conductor shall be run out first, followed by the conductors in succession. Unbalance of loads on towers shall be avoided as far as possible.

The proposed transmission line may run parallel for certain distance with the existing Transmission lines, which may remain energised during the de-stringing/stringing period. As a result there is a possibility of dangerous voltage build up due to electromagnetic and electrostatic coupling in the pulling wire, conductors and earthwires which although comparatively small during normal operations can be severe during switching. It shall be the Contractor's responsibility to take adequate safety precautions to protect his employees and others from this potential danger.

All the expenditure on account of the above work is deemed to be included in the bid price and no extra payment shall be made for the same.

**c) De-Stringing/Stringing of Conductor**

The de-stringing/stringing of the conductor shall be done by standard methods. After being pulled, the conductor shall not be allowed to hang in the stringing blocks for more than 96 hours before being pulled to the specified sag.

**d) Jointing**

All the joints on the conductor shall be compression type, in accordance with the recommendations of the manufacturer for which all necessary tools and equipment like compressors, dies, processes etc. shall have to be arranged by the Contractor. Each part of the joint shall be cleaned by wire brush to make it free from rust or dirt etc. and properly greased with anti corrosive compound, if required, and as recommended by the Contractor before the final compression is done with the compressors.

All joints or splices shall be made at least 30 metres away from the structures. No joints or splices shall be made in spans crossing over main roads, Railways, small rivers with tension spans. During compression or splicing operation the conductor shall be handled in such a manner as to prevent lateral or vertical bearing against the dies.

During stringing of conductor to avoid any damage to the joint, the Contractor shall use a suitable protector with mid span compression joints in case joints are to be passed over pulley blocks/aerial rollers. The size of the groove of



the pulley shall be such that the joint alongwith protection can be passed over it smoothly.

**e) Sagging-in-Operation**

The conductor shall be pulled upto the desired sag and left in running blocks for atleast one hour after which the sag shall be re-checked and adjusted, if necessary before transferring the conductors from the running blocks to the suspension clamps. The conductors shall be clamped within 36 hours of sagging in.

The sag will be checked in the first and the last span of the section in case of sections upto eight spans and in one intermediate span also for sections with more than eight spans. The sag shall also be checked when the conductors have been drawn up and transferred from running blocks to the insulator clamps.

The running blocks, when suspended from the transmission structure for sagging shall be so adjusted that the conductors on running blocks will be at the same height as the suspension clamp to which it is to be secured.

At sharp vertical angles, the sags and tensions shall be checked on both sides of the angle, the conductor shall be checked on the running blocks for equality of tension on both sides. The suspension insulator assemblies will normally assume vertical positions when the conductor is clamped.

Tensioning and sagging operations shall be carried out in calm weather when rapid changes in temperatures are not likely to occur.

**f) Tensioning and Sagging of Conductor**

The tensioning and sagging shall be done in accordance with the approved stringing charts before the conductors are finally attached to the towers through the insulator strings for the conductor. Dynamometers shall be employed for measuring tension in the conductor. The dynamometers employed shall be periodically checked and calibrated with the standard dynamometer.

**g) Clipping In**

Clipping of the conductors in position shall be done in accordance with the recommendations of the manufacturer. Conductor shall be fitted with Preformed Armor Rods where it is made to pass through suspension clamps.

The jumpers at the section and angle towers shall be formed to parabolic shape to ensure maximum clearance requirements.

Fasteners in all fittings and accessories shall be secured in position. The security clip shall be properly opened and sprung into position.

**h) Fixing of Conductor Accessories**

Conductor accessories which are in bidder's scope of supply, shall be installed by the Contractor as per the design requirement and respective manufacturer's instructions within 24 hours of the conductor clamping. While installing the conductor proper care shall be taken to ensure that the surfaces are clean and smooth and no damage shall occur to any part of the accessories.

**i) Determination of Qty Of Conductor**

The quantity of conductor shall be worked out and provided as per following norms.

$$\text{Quantity of Conductor} = \text{Line length as per actual route length} \times \text{No. of phases (3)} \times \text{No. of circuits.}$$

For other line materials, i.e. Hardware and Accessories for Conductor, the actual quantity incorporated on transmission line shall be considered. The Disc Insulators (B&S type porcelain) shall be provided by PSTCL.

The Contractor shall be required to return to the Employer empty Conductor drums and other such material to PSTCL. Wastage of 1% will be allowed on Conductor for stringing & sagging as per actual route length. All material removed from the line during de-stringing operation shall be returned to PSTCL.

**j) Final Checking, Testing and Commissioning**

After completion of the works, final checking of the line shall be done by the Contractor to ensure that all the work has been done strictly according to the specifications and as approved by the Employer. All the works shall be thoroughly inspected keeping in view of the following main points:

- i) The stringing of the conductor has been done as per the approved sag and tension charts and desired clearances are clearly available.
- ii) All conductor accessories are properly installed
- iii) The insulation of line as a whole is tested by the Contractor by providing his own equipment, labour etc. to the satisfaction of the Employer.
- iv) The line is tested satisfactorily for commissioning purpose.

**3.5 General Technical Conditions**

The following provisions shall supplement all the detailed technical specifications and requirements brought out herein. The Contractor's proposal shall be based on the use of materials complying fully with the requirements, specified herein.

**a) Engineering Data**

The furnishing of engineering data by the Contractor shall be in accordance with the Schedule as specified in the Technical Specifications. The review of these

data by the Employer will cover only general conformance of the data to the specifications and not a thorough review of all dimensions, quantities and details of the materials, or items indicated or the accuracy of the information submitted. This review by the Employer shall not be considered by the Contractor, as limiting any of his responsibilities and liabilities for mistakes and deviations from the requirements, specified under these specifications.

All engineering data submitted by the Contractor after review by the Employer shall form part of the Contract document.

**b) Drawings**

In addition to those stipulated in clause regarding in general conditions, the following also shall apply in respect of Contractors drawings.

All drawings submitted by the Contractor including those submitted at the time of Bid shall be with sufficient detail to indicate the type, size, arrangement, dimensions, material description, bill of materials, weight of each component, break-up for packing and shipment, fixing arrangement required, the dimensions required for installation and any other information specifically requested in these specifications.

Each drawing submitted by the Contractor shall be clearly marked with the name of the Employer, the specification title, the specification number and the name of the Project. All titles, noting, markings and writings on the drawings shall be in English. All the dimensions should be to the scale and in metric units.

The drawings submitted by the Contractor shall be reviewed by the Employer as far as practicable within 21 days and shall be modified by the Contractor if any modifications and/or corrections are required by the Employer. The Contractor shall incorporate such modifications and/or corrections and submit the final drawings for approval within ten days. Any delays arising out of failure by the Contractor to rectify the drawings in good time shall not alter the contract completion date.

The drawings submitted for approval to the Employer shall be in quadruplicate. One print of such drawings shall be returned to the Contractor by the Employer marked "approved/approved with corrections". The Contractor shall thereupon furnish the Employer additional prints as may be required alongwith one reproducible in original of the drawings after incorporating all corrections.

The work shall be performed by the Contractor strictly in accordance with these drawings and no deviation shall be permitted without the written approval of the Employer, if so required.

All manufacturing, fabrication and erection work under the scope of Contractor, prior to the approval of the drawings shall be at the Contractor's risk. The Contractor may make any changes in the design which are necessary to conform to the provisions and intent of the Contract and such changes will again be subject to approval by the Employer.

In no case the approval by the Employer of any document does imply compliance with all technical requirements nor the absence of errors in such documents.

If errors are discovered any time during the validity of the Contract, then the Contractor shall be responsible of their consequences.

Copies of drawings returned to the Contractor will be in the form of a print with the Employer's marking.

**c) Design Co-ordination**

The Contractor shall be responsible for the selection and design of appropriate material/item to provide the best co-ordinated performance of the entire system. The basic design requirements are detailed out in this Specification. The design of various components, sub-assemblies and assemblies shall be so done that facilitates easy field assembly and maintenance.

**d) Design Review Meeting**

The Contractor will be called upon to attend review meetings with the Employer during the period of Contract. The Contractor shall attend such meetings at his own cost at Patiala or at mutually agreed venue as and when called for.

**e) Packing & Marking**

All the materials shall be suitable protected, coated, covered or boxed and crated to prevent damage or deterioration during transit, handling and storage at Site till the time of erection. The Contractor shall be responsible for any loss or damage during transportation, handling and storage due to improper packing.

Each package shall be legibly marked by the Contractor at his expenses showing the details such as description and quantity of contents, the name of the consignee and address, the gross and net weights of the packages, the name of the Contractor etc.

**3.6 Erection Conditions**

The following shall supplement the conditions already contained in the other parts of these specifications and documents and shall govern that portion of the work on this Contract to be performed at Site.

**a) Regulation of Local Authorities and Statutes**

The Contractor shall comply with all the rules and regulations of local authorities during the performance of his field activities. He shall also comply with the Minimum Wages Act, 1948, the payment of Wages Act and of EPF act (all of the Government of India) and the rules made there under in respect of any employee or workman employed or engaged by him or his Sub-Contractor.

All registration and statutory inspection fees, if any, in respect of his work pursuant to this Contract shall be to the account of the Contractor. However, any registration, statutory inspection fees lawfully payable under the provisions of the statutory laws and its amendments from time to time during erection in respect of the transmission line, ultimately to be owned by the Employer, shall be to the account of the Employer. Should any such inspection or registration need to be re-arranged due to the fault of the Contractor or his Sub-Contractor, the additional fees to such inspection and/or registration shall be borne by the Contractor.

**b) Contractor's Field Operation**

The Contractor shall keep the Employer informed in advance regarding his field activity plans and schedules for carrying-out each part of the works. Any review of such plan or schedule or method of work by the Employer shall not relieve the Contractor or any of his responsibilities towards the field activities. Such reviews shall also not be considered as an assumption of any risk or liability by the Employer or any of his representatives and no claim of the Contractor will be entertained because of the failure or inefficiency of any such plan or schedule or method of work reviewed. The Contractor shall be solely responsible for the safety, adequacy and efficiency of tools and plants and his erection methods.

**c) Progress Report**

Appropriate visual charts shall accompany the monthly progress report detailing-out the progress achieved on all erection activities as compared to the schedules. The report shall also indicate the reasons for the variance between the scheduled and actual progress and the action proposed for corrective measures, wherever necessary.

**d) Facilities to be Provided by the Contractor**

The Contractor shall provide all the construction equipment, tools, tackle and scaffoldings required for construction, erection, testing and commissioning of the transmission line covered under the Contract.

The Contractor shall provide necessary first-aid facilities for all his employees, representatives and workmen working at the site.

**e) Fire Protection**

The work procedures that are to be used during the erection shall be those, which minimise fire hazards to the extent practicable in line with applicable laws, rules & regulations.

**3.7 Security, Materials Handling and Storage**

- a) The Contractor shall have total responsibility for all equipment and materials in his custody, stored, loose, semi-assembled and/or erected by him at Site.
- b) For all the supplies the Contractor shall be solely responsible for any shortages or damages in transit, handling and/or in storage and erection at Site. Any demurrage, wharfage and other such charges claimed by the transporters, railways etc. shall be to the account of the Contractor.

**3.8 Construction Management**

Time is the essence of the Contract and the Contractor shall be responsible for performance of his Works in accordance with the specified construction schedule. If at any time, the Contractor is falling behind the schedule for reasons attributable to him he shall take necessary action to make good for such delays by increasing his work force or by working overtime or otherwise to accelerate the progress of the work and to comply with schedule and shall communicate such actions in writing to the Employer, satisfying that his action will compensate for the delay. The Contractor shall not be allowed any extra compensation for such action.

**3.9 Work and Safety Regulations**

- 1 The Contractor shall ensure safety and well being of all the workmen, materials plant and equipment belonging to him or to the others, working at the Site and of Public at large. The Contractor shall comply with all safety norms, rules & regulations as per Law / relevant legislations and as deemed necessary by the Employer.
2. If the Contractor does not take all safety precautions and/or fails to comply with the Safety Rules as prescribed under the applicable law for the safety of the equipment, plant and personnel and the Contractor does not prevent hazardous conditions which may cause injury to his own employees or employees of other Contractors, or Employer or any other person at Site or adjacent thereto, the Contractor shall be responsible for payment of compensation to the Employer as per the following schedule:-

Fatal injury or Accident causing Death	Rs. 1,00,000/-
Major injuries or accident causing 25%	Rs. 20,000/- per person

or more permanent disability.

The above compensation will be applicable for death/ Injury to any person whosoever.

Permanent disability shall have the same meaning as indicated in Workmen's Compensation Act. The compensation mentioned above shall be in addition to the compensation payable to the workmen/employees under the relevant provisions of the Workmen's Compensation Act and rules framed there under or any other applicable law as applicable from time to time. In case the Employer is made to pay such compensation, the Contractor will be liable to reimburse the Employer such amount (s) in addition to the compensation indicated above.

### **3.10 MANDATORY CONDITION**

The bidder or the authorised representative must visit the site of works and its surroundings and obtain himself at his own responsibility and expense, all information regarding terrain of the lines, line route, general site characteristics, crossings, accessibility, infrastructure details etc. for coordination purpose. The bidder is essentially required to furnish a certificate in support of his having visited the site and acquainted himself fully with the related conditions as per above.

The employer will assist the interested bidder to see and inspect the site of works. For this purpose bidders are requested to contact the following office:

CHIEF ENGINEER/TS,  
Shakti Sadan, PSTCL,  
Patiala.

### **3.11 PLACE OF MANUFACTURE**

The bidder shall state the place of manufacture and will give complete address and location of his factory, workshop, drawing/design office and commercial premises.

### **3.12 STANDARDS**

1. The design, manufacturing, fabrication, galvanising, testing, erection procedure and materials used for manufacture and erection of towers, design and construction of foundations shall conform to the following Indian Standards (IS)/International Standards which shall mean latest revisions, with amendments/changes adopted and published, unless specifically stated otherwise in the specification. In the event of supply of material to Standards other than specified, the Bidder shall confirm in his bid that these Standards are equivalent to those specified. In case of award, salient features of comparison

between the Standards proposed by the Contractor and those specified in this document will be provided by the Contractor to establish their equivalence.

2. The material and services covered under these specifications shall be performed as per requirements of the relevant standards/codes (with latest revision) referred hereinafter against each set of equipment and services. Other Internationally acceptable standards which ensure equal or higher performance than those specified shall also be accepted.

Sr. No.	Indian Standards	Title	International & Internationally recognized Standards.
1.	IS:209-Rev	Specification for Zinc.	ISO/R/752-1968 ASTM B6
2.	IS:2629-1966	Recommended practice for hot dip galvanising of iron & Steel.	ASTM A 123 CAN/CSA G 164
3.	IS:2633-1972	Method of testing uniformity of coating of zinc coated articles.	ASTM A 123 CAN/CSA G 164.
4.	IS:3043-1972	Code of Practice for earthing (with amendment No. 1 &2).	
5.	IS:5613(Part-II/Sec-1)1976	Code of practice for Design, installation & maintenance of overhead power lines(Section-1: Designs).	ASCE 52.
6.	IS:5613 (Part-II/Sec-2)-1976	Code of practice for Design, installation & maintenance of over head power lines(Section 2: installation & Maintenance).	
7.	IS: 6610-1972	Specification for heavy washers for steel structures.	
8.	IS:6745-1972	Methods for determination of weight of zinc coating of zinc coated iron and steel articles.	ASTM A90
9.		Indian Electricity Rules-1956/ Electricity Act-2003.	
10.	Publication No.19(N)/700 -1963	Regulation for Electrical Crossing of Railway Tracks.	
11	IS:2486 (all parts)	Specification for Insulator Fittings for Overhead Power Lines with a nominal voltage greater than 1000 V	
12.	IS:2121 -1981 (I &II)	Specification for conductor & Earth wire accessories for overhead power lines	



13.	IS:9708-1980	Specification for SB vibration dampers for overhead power lines.	
14.	IS:1778-1980	Reels & drums for bare conductors	BS-1559

- s/d-

Dy.CE/Trans.(D),  
For CE/TS, PSTCL, Patiala.

# **PART 4**

**PART- 4**  
**DESIGN DATA**

The existing 420 sq.mm ACSR (code name Zebra) is to be removed from 220KV double circuit line with vertical formation towers having one no. 7/3.15 mm GSS earth wire at the top. The ruling span is of 350m .The other details are mentioned in following paras & as per the general arrangement provided in the sketch enclosed (Annexure-20).

**1. Wind Span & Weight Span :**

The following wind spans and weight spans are to be considered:

- i) Normal span : 350m
- ii) Wind span : 1.1x350 (Normal condition)  
: 0.6x1.1 x 350(Broken wire condition)
- iii) Weight span : Normal condition                      Broken wire condition  
Max.:                      1.5 x 350                                              315 m

**2. Tension Limits :**

Conductor tension at everyday temperature & without external load, should not exceed the following percentage of the ultimate tensile strength of the conductor :

Initial unloaded tension              35 percent  
Final unloaded tension              25 percent.

provided that the ultimate tension under everyday temperature & 100 percent design wind pressure or minimum temperature & 2/3rd wind pressure does not exceed 70 percent of the ultimate tensile strength of the conductor.

**3. Electrical Clearances :**

i) Ground Clearances: The minimum ground clearance from the bottom of the conductor shall not be less than 7.01 m at the maximum sag condition at maximum temperature and still air.

ii) Live Metal Clearance :

The minimum clearances between the live parts, towers & cross arm members shall be maintained as per I.E. Rules/ISS:5613, latest amendment. Clearance shall be checked both for single suspension & double suspension string

iii) Angle of Protection :

The angle of shield by the line joining the center line of the earth wire & top power conductor in still air at tower supports to the vertical line shall be 30°.

iv) Mid Span Clearance between Earth wire & Power Conductor is to be kept more than the clearance at tower. The earth wire sag shall be not more than 90 percent of the corresponding sag of power conductor under minimum

temperature condition for normal span for the entire specified. The mid span clearance shall be reckoned as direct distance between earth wire & top power conductor.

**4. Design Temperature :**

The following temperature range for the conductors shall be adopted :

Min. temperature = (-) 2.5°C

Max. temperature for conductor = to be specified by the bidders.

Every day temperature = 32°C

**5. Sag & Tension:**

Sag & Tension for conductor shall be determined in accordance with the relevant provision of IS 5613 (Part 2/Sec-I) 1985 for following combinations:

- i. At- 2.5<sup>0</sup> C with 2/3rd Full Wind pressure .
- ii. At 32<sup>0</sup>C with Full Wind pressure .

**6. Technical Particulars of ACSR Zebra Conductor (As per IS:398 Part-2:1996, with latest amendments)**

Code Name of Conductor	:	ACSR Zebra
No. of conductor/Phase	:	One
Stranding/Wire diameter	:	54/3.18mm Al+7/3.18mm St.
Total sectional area	:	484.5 mm <sup>2</sup>
Overall diameter	:	28.62mm
Approx. Weight	:	1621 kg/km
Calculated d.c. resistance at 20 deg. C :		0.06868 Ohm/km
Min. UTS	:	130.32 kN
Modulus of elasticity	:	70 GN
Co-efficient of linear expansion	:	19.3x10 <sup>-6</sup> /deg. C
Max. allowable temperature	:	75 deg. C

**7. 220 KV tower design data with ACSR Zebra:**

Sr. No.	Description	Old Design Towers IS:802/1977	New Design Towers IS:802/1995
1.	Max. working tension	4430 kg	4979 kg
2.	Max. sag at 75 deg C & nil wind	9.226 m	9.24 m
3.	Wind load on conductor	45 kg/sq.m	71.46 kg/sq.m
4.	Starting condition for sag-tension Calculations	32 deg C at nil wind	32 deg C at nil wind

**8. Parameters for max. current carrying capacity for ACSR Zebra (for June between 10-14 hrs):**

Ambient temperature	:	45 deg C
Max. design temperature	:	75 deg C
Solar Intensity	:	1164 W/sqm
Absorption Coefficient	:	0.80

Emissivity Coefficient : 0.45  
 Wind Velocity : 2200 m/hr  
 Altitude : Mean sea level  
 Max. Current : aprx. 560 A ( based on above parameters)

9.0 Technical Particulars of existing B&S type porcelain insulators :

Sr. No.	Sting type	Size of insulator(mm)	Creepage mm	EM strength KN	Nos. / Unit
1	Suspension	255 x 145	320( 432 for A/Fog type)	70	1X14
2	Tension	280 x 145	330	160	1X15

**ANNEXURE-A****Drawings & Data****a) Drawings & Data to be submitted by the bidder :**

- i. Detailed sag tension calculation.
- ii. Detailed current carrying capacity calculation.
- iii. Knee point diagrams of proposed conductor compare with existing ACSR Zebra.
- iv. Drum drawings.
- v. Brief write up installation of the proposed conductor.
- vi. Type tests of proposed conductor, related hardware fittings & accessories from NABL accredited lab/ equivalent reputed international lab, conducted within last 5 years. (refer clause 3.1.5 & 3.2.3 of this specification)
- vii. Drawings of all Hardware fittings & accessories including material used for various parts of hardware fittings.
- viii. Guaranteed Technical Particulars of the Conductor & Hardware fittings / accessories.
- ix. Damper placement charts for spans ranging from 100 m to 500 m clearly indicating location of the dampers for various combinations of spans & tension and placement distances. The influence of mid span compression joints in the placement of dampers will also be taken into consideration.

**b) Drawings & Data to be submitted on award of contract :**

- i) Sag tension templates for the proposed conductor on acrylic/plastic sheet alongwith 4 copies / blue prints considering spans of 350m & 500m.
- ii) Stringing charts with proposed conductor i.e. sag v/s span & tension V/s span charts for different temperature varying from 15° to 45° in steps of 5° for use of stringing of proposed conductor.

# PART 5

**ANNEXURE -1****PRICE SCHEDULE**

The proforma corresponding to each item must be filled invariably alongwith the detailed tender. If any item is not applicable that must be filled with word n.a. The interpretation of this office shall be final, if information of any item is left blank:

Tender Enquiry No: STQ-

Name of the bidder & address:

**A. SUPPLY PART**

(All rates to be given in Indian Rupees)

Sl. No	Item Description	Unit	Qty. (tentative)			Unit Ex-works price including packing & forwarding charges forming part of production cost	Excise Duty @ ....	CST/ VAT @ ...	Any other tax applicable to be specified	Unit freight & insurance charges	FO R destination rate
			As per scope	Spares @ 5%	Total						
1	2	3	4	5	6	7	8	9	10	11	12
1	Design, Testing, Fabrication supply of High Temperature Low Sag (HTLS) conductor equivalent to ACSR Zebra (420 sq.mm) as per scope of work	Km	160	8	168						
2	Single tension fittings	Nos	408	21	429						
3	Single suspension fittings	Nos	498	25	523						
4	P.A. Rods	Set	510	26	536						
5	Straight joints	Nos	125	7	132						
6	Repair sleeves	Nos	50	3	53						
7	Dampers	Nos	1465	74	1539						
8	Double tension fitting	Nos	18	1	19						
9	Double suspension fitting	Nos	24	2	26						
10	Any other item (quantity and unit rates to be specifically mentioned )										

Charges for any other item required for stringing & sagging may be included in the table B for Installation / Erection charges.



**( B ) INSTALLATION/ ERECTION PART :**

i)

Sl. No.	Item Description	Unit	Qty (tentative)	Unit Installation/ Erection Charges	Total Installation / Erection Charges per unit	Total Installation / Erection Charges per unit
1	2	3	4	5	6	7
1	Complete de-stringing of existing ACSR Zebra (420mm Sq. ACSR) alongwith fittings, insulators & accessories and re-stringing with HTLS conductor alongwith fittings , insulators & accessories in line with the scope of work given in the specification	Km (line length)	23			

ii)

Sl. No.	Item Description	Unit	Qty (tentative)	Unit Installation/ Erection Charges	Total Installation/ Erection Charges per unit	Total Installation / Erection Charges per unit
1	2	3	4	5	6	7
1	Complete stringing with HTLS conductor alongwith fittings , insulators & accessories in line with the scope of work given in the specification	Km (line length)	3			

**Important Notes:**

1. The prices must be quoted on above proforma.
2. The prices quoted shall be inclusive of Service tax. Employer would not bear any liability on account of service tax. Employer shall, however, deduct such tax at source as per the rules, if any, and issue necessary certificate to the contractor.
3. Unit Freight & Insurance Charges must be quoted in part A "Supply Part" of the Price Schedule.
4. The quantities mentioned in the Price Schedule are tentative and may change.
5. The prices for the complete work shall be worked out accordingly on the basis of unit prices quoted by the bidder / offered to the firm in the Order.

**ANNEXURE -2**

**PERFORMA OF BANK GUARANTEE  
FOR BID GUARANTEE**

**(To be stamped in accordance with stamp Act)**

**The non-Judicial stamp paper should be in the name of issuing bank**

Ref: ..... Bank Guarantee No.....  
Date: .....

To  
Chief Engineer/TS,  
PUNJAB STATE TRANSMISSION CORP.  
Patiala –147001.

Dear Sirs,  
In accordance with your tender enquiry No. .... M/s .....  
having its Registered/Head office at ..... (hereinafter called the  
'Bidder') wish to participate in the said tender enquiry and you, as a special favour have  
agreed to accept an irrevocable and unconditional Bank Guarantee for an amount of  
Rs. .... Valid upto ..... on behalf of the Bidder  
in lieu of the Bid deposit required to be made by the bidder, as a condition precedent for  
participation in the said tender enquiry.

We, the ..... Bank at ..... having our Head  
Office at ..... (local address) guarantee and undertake to pay  
immediately on demand by PUNJAB STATE TRANSMISSION CORP. the amount of  
.....  
.....(in words & figure) without any reservation,  
protest, demur and recourse any such demand made by said 'Owner' shall be conclusive  
and binding on us irrespective of any dispute or difference raised by the Bidder.

This guarantee shall be irrevocable and shall remain valid upto an including  
..... if any further extension of this guarantee is  
required, the same shall be extended to such required period on receiving instructions  
from M/s ..... on whose behalf this  
guarantee is issued.

In witness whereof the Bank, through its authorised officer, has set its hand and stamp  
on this ..... day of ..... at .....

Witness

.....	.....
(Signature)	(Signature)
.....	.....
(Name)	(Name)
.....	.....
Official Address)	(Designation with Bank Stamp)

**PERFORMA OF BANK GUARANTEE FOR  
CONTRACT PERFORMANCE  
(To be stamped in accordance with stamp Act)**

Ref: ..... Bank Guarantee No.....  
Date: .....

To

Chief Engineer/TS,  
PUNJAB STATE TRANSMISSION CORP.  
Patiala –147001.

Dear Sirs,

In consideration of PUNJAB STATE TRANSMISSION CORP., (hereinafter referred to as the 'Owner' which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s ..... with its Registered/Head office at ..... (hereinafter referred to as the 'Contractor' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), a Contract by issue of Owner's letter of Award No.....dated ..... and the same having been unequivocally accepted by the contractor, resulting into a contract bearing No. .... dated ..... valued at ..... for .....(scope of contract) and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to ..... \* .....(%) .....per cent) of the said value of the Contract to the Owner.

We, .....  
(Name and Address of the Bank)

Having its Head Office at ..... (hereinafter referred to as the 'Bank' which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Owner, on demand any and all monies payable by the Contractor to the extent of .....as aforesaid at any time upto .....(days/month/year) without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor.

Any such demand made by the owner on the Bank shall be conclusive and binding notwithstanding any difference between the Owner and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The bank undertakes not to revoke this guarantee during its currency without previous consent of the Owner and further agrees that the guarantee herein contained shall continue to be enforceable till the Owner discharges this guarantee.

The Owner shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from time to time to extend the time for performance of the contract by

the Contractor. The Owner shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of

any right which they might have against the Contractor and to exercise the same at any time in any manner, and either to enforce or to for bear to enforce any covenants, contained or implied in the Contract between the Owner and the Contractor or any other course or remedy or security available to the Owner. The bank shall not be released of its obligations under these presents by any exercise by the Owner of its liberty with reference to the matters aforesaid or any of them or by reason of any other act of omission or commission on the part of Owner of any other indulgences shown by the Owner or by any other matter or thing whatsoever which under law would, but for this provision have the effect of relieving the Bank.

The Bank also agrees that the Owner at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Owner may have in relation to the Contractor's liabilities.

Notwithstanding anything contained herein above our liability under this guarantee is restricted to ..... and it shall remain in force upto and including ..... And shall be extended from time to time for such period, as may be desired by M/s ..... on whose behalf this guarantee has been given.

Dated this .....day of.....20.....at.....

WITNESS

.....	.....
◆ (Signature)	(Signature)
.....	.....
◆ (Name)	(Name)
.....	.....
◆ (Official Address)	(Designation with Bank Stamp)

Attorney as per Power of Attorney  
No.....

Date : .....

NOTE :

- ❖ This sum shall be ten per cent (10%) of the Contract price.
- ❖ The date will be ninety (90) days after the end of Warranty Period as specified in the Contract.

The stamp papers of appropriate value shall be purchased in the name of issuing bank.

**PERFORMA OF EXTENSION OF BANK GUARANTEE**

Ref: .....

Date: .....

To

Chief Engineer/TS,  
PUNJAB STATE TRANSMISSION CORP.  
Patiala –147001.

Dear Sirs,

Sub : Extension of bank Guarantee No..... for Rs. ....  
favouring yourselves, expiring on ..... on account of  
M/s ..... in respect of Contract No. ....  
..... dated ..... (hereinafter called original Bank Guarantee).

At the request of M/s ....., We .....  
Bank, branch office at ..... and having its Head Office at .....  
.....do hereby extend our liability under the above mentioned  
Guarantee No. .... Dated ..... for a further period of .....  
Years/Months from .....to expire on ..... Except as provided  
above, all other terms and conditions of the original Bank Guarantee No.  
..... Dated ..... Shall remain unaltered and binding.

Please treat this as an integral part of the original Bank Guarantee to which it would be attached.

Yours faithfully,

For .....  
Manager/Agent/Accountant  
Power of Attorney No. ....  
Dated .....

SEAL OF BANK

- **NOTE** : The non-judicial stamp paper of appropriate value shall be purchased in the name of the bank who has issued the Bank Guarantee.

**PERFORMA OF LETTER OF UNDERTAKINGS**  
**(To be submitted by the bidder alongwith his Bid)**  
**(To be executed on non-judicial paper of requisite value)**

Ref: .....

Date: .....

To

Chief Engineer/TS,  
PUNJAB STATE TRANSMISSION CORP.  
Patiala –147001.

Dear Sirs,

1. I\*/We\* have read and examined the following bid documents relating to the .....(full scope of work)
  - a) Notice Inviting Tender & the Scope in detail
  - b) Instructions to bidders and General Terms & Conditions
  - c) Design and Testing Requirements.
  - d) Technical specifications.
  
2. I\*/We\* hereby submit our Bid and undertake to keep out Bid Valid for a period of three months from the date of opening of Price Bid and six months from the date of opening of bid, whichever is later. I\*/We\* hereby further undertake that during said period I/We shall not vary/alter or revoke my/our bid.

This undertaking is in consideration of PSTCL agreeing to open my Bid and consider and evaluate the same for the purpose of award of contract in terms of provision of the specification.

Should this Bid be accepted, I/We also agree to abide by and fulfill all the terms, conditions and provisions of the above mentioned bid documents.

Signature alongwith Seal of Co.

.....  
(Duly authorised to sign the tender on behalf of the Contractor)

Name

.....  
Designation.....

...  
Name of Co.

.....  
(in Block Letters)

WITNESS

Signature .....

Date .....

Name & Address .....

.....

.....

.....

Telephone No. ....

Date & Postal Address

.....

.....

Telegraphic Address

.....

.....

Telex No.....

\*Strike out whichever is not applicable

**PROFORMA OF "AGREEMENT"**  
**(To be executed on non-Judicial stamp paper)**

This agreement made this ..... day of ..... Two thousand ..... between Punjab State Transmission Corp.(hereinafter referred to as "Owner" or PSTCL which expression shall include its administrators, Company incorporated under the Companies Act, 1956) on the one part and ..... having its registered office at ..... (here in after referred to as the "contractor" or ..... "X"..... name of the contracting Co. which expression shall include its administrators, successors, executors and permitted assigns) of the other part.

WHEREAS PSTCL , desirous of destringing/restringing of conductor on 220KV lines, invited bids for design, manufacturing , transportation , supply, Erection & commissioning of High Temperature Low Sag conductor as per specification No STQ- and whereas ..... 'X' ..... had participated in the above referred bidding vide their proposal No. .... Dated..... and awarded the contract to ..... "X"..... on terms and conditions, documents referred to therein, which have been accepted by ..... "X" .....resulting into a "contract".

**NOW THEREFORE THIS DEED WITNESSETH AS UNDER.**

1.0 Article .....

1.1 Award of Contract .....

PSTCL has awarded the contract to ..... "X".....for the work of ..... on terms and conditions contained in its letter of award No. .... dated ..... and the documents referred to there in. The award has taken effect from aforesaid letter of award. The terms and expressions used in this agreement shall have the same meaning as are assigned to them in the "Contract Documents" referred to in the succeeding article.

**2.0 CONTRACT DOCUMENTS**

The contract shall be performed strictly as per the terms and conditions stipulated herein and in the following documents attached herewith (herein after referred to as "Contract documents")

- i) PSTCL bidding documents in respect of specification No STQ-..... including all Instructions to Bidders , General Terms & Conditions and Technical Specifications , including amendments / corrigendums ,if any.
- ii) "X"s proposal No..... dated..... along with price schedules, data requirements, drawings etc submitted by "X" entitled as "....."
- iii) Agreed Minutes of the meeting held on ..... between PSTCL and "X".( if any)
- iv) PSTCL'S letter of award No..... dated .....duly accepted by "X" and detailed award No.....dated.....

All the aforesaid contract documents shall form an integral part of this agreement, in so as the same or any part conform to the bidding



documents and what has been specifically agreed to by the owner in its letter of award. Any matter inconsistent therewith, contrary or repugnant there to or any deviations taken by the contractor in its Bid Proposal, but not agreed to specifically by the owner shall not form part of this agreement. For the sake of brevity this agreement alongwith its aforesaid contract documents shall be referred to as the "Agreement".

### **3.0 CONDITIONS AND COVENANTS**

3.1 The scope of the contract, consideration, terms of payment, taxes, wherever applicable, insurance, Penalty, performance guarantee and all other terms and conditions are contained in PSTCL's letter of award No..... dated..... read in conjunction with other aforesaid contract documents. The contract shall be duly performed by the contractor strictly and faithfully in accordance with the terms of the agreement.

3.2 The scope of work shall also include supply & installation of all such items which are not specifically mentioned in the contract documents, but which are needed for successful, efficient, safe and reliable operation of the equipment unless otherwise specifically excluded in the specifications under "exclusions" or Letter of Award.

#### **3.3 TIME SCHEDULE**

3.3.1 Time is the essence of the contract and schedules shall be strictly adhered to and "X" shall perform the work in accordance with the agreed schedule.

### **3.4 QUALITY PLANS**

3.4.1 The contractor is responsible for the proper execution of the quality plans. The owner reserves the right to undertake quality surveillance and quality audit of the contractor's/Sub-Contractor's works, systems and procedures and quality control activities. The contractor further agrees that any change in the quality plan will be made only with the owner's approval. The contractor shall also perform all quality control activities, inspection and tests agreed with the owner to demonstrate full compliance with the contract requirements.

3.4.2 The contractor also agrees to provide the owner with the necessary facilities for carrying out inspection, quality audit and quality surveillance of contractor's and its Sub-Contractor's quality assurance systems and manufacturing activities.

3.5 Another Contract for erection portion has been placed upon you simultaneously. Any breach in the contract for erection portion will automatically mean breach of this contract also.

3.6 The contractor guarantees that all the equipment under the contract shall meet the ratings and performance parameters as stipulated in the technical specifications and in the event of any deficiencies found in the requisite performance figures, the owner may at its option reject the equipment or alternatively accept it on its terms and conditions and subject to levy of the suitable charges / Penalty in terms of contract documents.

3.7 It is further agreed by the Contractor that the Contract performance guarantee shall in no way be constructed to limit or restrict the owner's right to recover the damages/compensation due to short-fall in the equipment performance figures as stated above or under any other clause of the Agreement. The amount of damages/compensation shall be recoverable either by way of deduction from the contract price, contract performance guarantee and/or otherwise.

The contract performance guarantee furnished by the contractor is irrevocable and unconditional and the owner shall have the powers to invoke it notwithstanding any dispute or difference between the owner and the contractor pending before any court, tribunal, arbitrator or any other authority.

3.8 This agreement constitutes full and complete understanding between the parties and terms of the presents. It shall supersede any prior correspondence, terms and conditions contained in the agreement. Any modification of the agreement shall be effected only by a written instrument signed by the authorised representative of both the parties.

4.0 **SETTLEMENT OF DISPUTES**

It is specifically agreed by and between the parties that all the difference or disputes arising out of the Agreement or touching the subject matter of the Agreement shall be decided by the process of settlement & Arbitration as specified in relevant clauses of the Specification & of the provisions of the Indian Arbitration Act 1996 shall apply and **PATIALA** Court alone shall have exclusive jurisdiction over the same 1940 and rules thereunder . Any statutory amendment, modification or re-enactment thereof for the time being in force shall be deemed to apply.

4.1 **NOTICE OF DEFAULT**

Notice of default given by either party to the other party under Agreement shall be in writing and shall be deemed to have been duly and properly served upon the parties hereto if delivered against acknowledgement or by telex or by registered mail with acknowledgement due addressed to the signatories at the addresses mentioned herein above.

IN WITNESS WHEREOF, the parties through their duly authorised representatives have executed these presents (execution where of has been approved by the competent authorities of both the parties) on the day, month and year first above mentioned at Patiala.

WITNESS :

1. _____	(Owner's Signature)
_____	(Printed Name)
2. _____	(Designation)
_____	(Company's Stamp)
1. _____	(Contractor's Signature)
_____	(Printed Name)
2. _____	(Designation)
_____	(Company's Stamp)

**FORM OF JOINT VENTURE AGREEMENT**

**(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE TO BE PURCHASED IN THE NAME OF JOINT VENTURE)**

**PROFORMA OF JOINT VENTURE AGREEMENT BETWEEN  
.....AND.....  
..... FOR TENDER ENQUIRY No. STQ- OF PUNJAB STATE  
TRANSMISSION CORP. LTD..**

THIS joint venture agreement executed on this .....day of  
.....Two thousand Three between  
M/s ..... a Company  
incorporated under the laws of ..... and  
having its registered office at .....  
(herein after called the "Lead Partner" which expression shall include its successors,  
executors and permitted assigns), M/s ..... a Company  
incorporated under the laws of .....  
and having its registered office at .....  
(herein after called the "Partner" which expression shall include its successors, executors  
and permitted assigns) and M/s .....  
a Company incorporated under the laws of .....and having its  
registered office at .....  
(herein after called the "Partner" which expression shall include its successors, executors  
and permitted assigns) for the purpose of making a bid and entering into a contract (in  
case of award) against the Tender enquiry No. STQ- for Punjab State  
Transmission Corp. Ltd. having its office at Patiala, Punjab, (hereinafter called the  
"Employer").

WHEREAS the Employer invited bids as per the above mentioned Specification of  
Supply & Erection of 220 kV Transmission lines AND WHEREAS Specification  
Documents stipulates that a Joint Venture of two or more firms as partners, meeting the  
qualification requirements may submit their bid and in such a case, the tender  
documents shall be signed by all the partners so as to legally bind all the Partners of the  
Joint Venture, who will be jointly and severally liable to perform the Contract and all  
obligations hereunder.

The above clause further states that the Joint Venture agreement shall be attached to  
the bid and the contract performance guarantee will be as per the format enclosed with  
the bidding document without any restrictions or liability for either party.

AND WHEREAS the bid has been submitted to the Employer .....by Lead partner based on the Joint Venture agreement between all the partners under these presents and the bid has been signed by all the partners.

NOW THIS INDENTURE WITNESSETH AS UNDER:

In consideration of the above premises and agreements all the partners to this Joint Venture do here by now agree as follows:

1. In consideration of the award of the Contract by the Employer to the Joint Venture partners, we, the Partners to the Joint Venture agreement do hereby agree that M/s ..... shall act as lead Partner and further declare and confirm that we shall jointly and severally be bound unto the Employer for the successful performance of the Contract and shall be fully, responsible for the successful execution of the contract.
2. In case of any breach of the said contract by the Lead Partner or other partner(s) of the joint Venture agreement, the partner(s) do hereby agree to be fully responsible for the successful performance of the contract and to carry out all the obligations and responsibilities under the Contract in accordance with the requirements of the Contract.
3. Further, if the Employer suffers any loss or damage on account of any breach in the contract, the partner(s) of these presents undertake to promptly make good such loss or damages caused to the Employer, on its demand without any demur. It shall not be necessary or obligatory for the Employer to proceed against lead Partner to these presents before proceeding against or dealing with the other Partner(s).
4. The financial liability of the Partners of this Joint Venture agreement to the Employer, with respect to any of the claims arising out of the performance of non-performance of the obligations set forth in the said Joint Venture agreement, however, not be limited in any way so as to restrict or limit the liabilities of any of the Partners of the Joint Venture agreement.

5. It is further agreed by the Partners that the above sharing of responsibilities and obligations shall not in anyway be a limitation of joint and severally responsibilities of the Partners under this Contract.
6. This Joint Venture agreement shall be construed and interpreted in accordance with the laws of India and the courts of Patiala shall have the exclusive jurisdiction in all matters arising thereunder.
7. In case of an award of a Contract, We the Partners to the Joint Venture agreement do hereby agree that we shall be jointly and severally responsible for furnishing a contract performance security from a bank in favour of the Employer in the forms acceptable to the Employer for value of 10% of the Contract price.
8. It is further agreed that the Joint Venture agreement shall be irrevocable and shall form an integral part of the Contract and shall continue to be enforceable till the Employer discharges the same. It shall be effective from the date first mentioned above for all purposes and intents.

In WITNESS WHEREOF, the Partners to the Joint Venture agreement have through their authorised representatives executed these presents and affixed common seal of their companies, on the day, month and year first mentioned above.

<p>1. Common Seal of .....</p> <p>has been affixed in my/our presence pursuant to the Board of Director's resolution dated.....</p> <p>Designation.....</p> <p>Name .....</p> <p>Designation.....</p>	<p>For lead partner</p> <p>(Signature of authorised representative)</p> <p>Name.....</p> <p>Designation.....</p> <p>Common Seal of the Company</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------

2. Common Seal of .....  
has been affixed in my/our presence  
pursuant to the Board of Director's  
resolution dated.....

For lead partner

(Signature of authorised  
representative)

Name.....

Designation.....

Designation.....

Name.....

Designation.....

.....

Common Seal of the Company

**WITNESSES:**

.....  
(Signature)

Name .....

.....  
(official Address)

.....  
(Signature)

Name.....

.....  
(Official Address)

**FORM OF POWER ATTORNEY FOR JOINT VENTURE**

(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE TO BE PURCHASED IN THE NAME OF JOINT VENTURE)

KNOW ALL MEN BY THESE PRESENTS THAT WE, the partners whose details are given hereunder..... have formed a Joint Venture under the laws of ..... and having our Registered official(s)/head office(s) at ..... (herein after called the Joint Venture which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) acting through M/s ..... being the Lead partner do hereby constitute, nominate and appoint M/s..... a Company incorporated under the laws of ..... and having its Registered/Head Office at ..... as our duly constituted lawful Attorney (hereinafter called “Attorney” or “Authorized Representative” or “Lead partner”) to exercise all or any of the powers for and on behalf of the Joint Venture in regard to Tender Enquiry No STQ- , the bids for which have been invited by Punjab State Transmission Corp. Ltd. having its office at Patiala, Punjab (hereinafter called the “Employer”) to undertake the following acts:

- i. To submit proposal and participate in the aforesaid Tender Enquiry of the Employer on behalf of the Joint Venture.
- ii. To negotiate with the Employer the terms and conditions for award of the contract pursuant to the aforesaid Tender Enquiry and to sign the Contract with the Employer for and on behalf of the “Joint Venture”.
- iii. To do any other act or submit any document related to the above.
- iv. To receive, accept and execute the Contract for and on behalf of the “Joint Venture”.

It is clearly understood that the lead Partner shall ensure performance of the Contract(s) and if one or more partners fail to perform their respective portions of the Contract(s), the same shall be deemed to be ‘a default by all the Partners.

It is expressly understood that this Power of Attorney shall remain valid binding and irrevocable till completion of the Defects Liability Period in terms of the Contract.

**ANNEXURE –8**  
**Page 2 of 2**

The Joint Venture hereby agrees and undertakes to ratify and confirm all whatsoever the said Attorney/Authorised Representative/Lead partner quotes in the bid, negotiates and signs the Contract with the Employer and/or proposes to act on behalf of the Joint Venture by virtue of this Power of Attorney and the same shall bind the Joint Venture as if done by itself.

IN WITNESS THEREOF the Partners constituting the Joint Venture as aforesaid have executed these presents ..... on this ..... Day of ..... under the Common Seals(s) their Companies.

for and on behalf of the  
Partners of Joint Ventures

.....  
.....  
.....

Common Seal of the above Partner(s) of the Joint Venture, the Common Seal has been affixed there unto in the presence of:

WITNESS

1. Signature .....
- Name .....
- Designation .....
- Occupation .....
2. Signature .....
- Name .....
- Designation .....
- Occupation .....



PERFORMA OF INDEMNITY BOND TO BE EXECUTED BY THE CONTRACTOR FOR  
THE EQUIPMENT HANDED OVER BY PSTCL FOR PERFORMANCE OF ITS  
CONTRACT

**(Entire Equipment consignment in one lot)**  
**(On non-Judicial stamp paper of appropriate Value)**

**INDEMNITY BOND**

THIS INDEMNITY BOND is made this .....day of .....  
19..... by ..... a Company registered under the Companies  
Act, 1956/Partnership firm/proprietary concern having its Registered Office at  
.....(hereinafter called as 'Contractor' or 'Obligor' which  
expression shall include its successors and permitted assigns) in favour of Punjab State  
Transmission Corp. LTD., Patiala hereinafter called PSTCL which expression shall  
include its successors and assigns):

WHEREAS PSTCL has awarded to the Contractor a Contract for .....vide its  
Letter of Award/Contract No. .... dated ..... and its  
Amendment No. ....and Amendment No.  
.....(applicable when amendments have been issued) hereinafter  
called the Contract") in terms of which PSTCL is required to hand over various  
Equipment to the Contractor for execution of the Contract.

And WHEREAS by virtue of clause No. .... of the said Contract, the  
Contractor is required to execute an Indemnity Bond in favour of PSTCL for the  
Equipment handed over to it by PSTCL for the purpose of performance of the Contract/  
Erection portion of the Contract (hereinafter called the "equipment").

NOW THEREFORE, This Indemnity Bond witnessed as follows :

1. That in consideration of various Equipment as mentioned in the Contract, valued at  
Rs. .... (Rupees.....) handed over to the  
Contractor for the purpose of performance of the Contract, the Contractor hereby  
undertakes to indemnify and shall keep PSTCL indemnified, for the full value of the  
Equipment. The Contractor hereby acknowledges receipt of the Equipment as per  
despatch title documents handed over to the Contractor duly endorsed in their favour  
and detailed in the Schedule appended hereto. It is expressly understood by the  
Contractor that handing over of the despatch title documents in respect of the said  
Equipments duly endorsed by PSTCL in favour of the Contractor shall be construed  
as handing over of the Equipment purported to be covered by such title documents  
and the Contractor shall hold such Equipment in trust as Trustee for and on behalf of  
PSTCL.

2. That the contractor is obliged and shall remain absolutely responsible for the safe transit/protection and custody of the Equipment at PSTCL project site against all risks whatsoever till the Equipment are duly used/erected in accordance with the terms of the Contract and the plant/Package duly erected and commissioned in accordance with the terms of the Contract, is taken over by PSTCL. The Contractor undertakes to keep PSTCL harmless against any loss or damage that may be caused to the Equipment.
3. The Contractor undertakes that the Equipment shall be used exclusively for the performance/execution of the Contract strictly in accordance with its terms and conditions and no part of the equipment shall be utilised for any other works or purpose whatsoever. It is clearly understood by the Contractor that non-observance of the obligations under this indemnity Bond by the Contractor shall inter alia constitute a criminal breach of trust on the part of Contractor for all intents and purpose including legal/penal consequences.
4. That PSTCL is and shall remain the exclusive Owner of the Equipment free from all encumbrances, charges or liens of any kind, whatsoever. The equipment shall at all times be open to inspection and checking by Engineer-in-Charge/Engineer or other employees/agents authorized by him in this regard. Further, PSTCL shall always be free at all times to take possession of the Equipments in whatever form the Equipments may be, if in its opinion, the Equipment are likely to be endangered, misutilized or converted to uses other than those specified in the Contract, by any acts of omission or commission on the part of the contractor or any other person or on account of any reason whatsoever and the Contractor binds himself and undertakes to comply with the directions of demand of PSTCL to return the equipment without any demur or reservation.
5. That this Indemnity bond is irrevocable. If at any time any loss or damage occurs to the Equipment or the same or any part hereof is misutilised in any manner whatsoever, then the Contractor hereby agrees that the decision of Engineer-in-Charge/Engineer of PSTCL at to assessment of loss or damage to the Equipment shall be final and binding on the Contractor. The Contractor binds itself and undertakes to replace the lost and/or damaged Equipment at its own cost and/or shall pay the amount of loss of PSTCL without any demur, reservation or protest. This is without prejudice to any other right or remedy that may be available to PSTCL against the Contractor under the contract and under this Indemnity Bond.
6. NOW THE CONDITION of this Bond is that if the Contractor shall duly and punctually comply with the terms and conditions of this Bond to the satisfaction of PSTCL THEN, the Bond shall be void, but otherwise, it shall remain in full force and virtue.

**PERFORMA OF INDEMNITY BOND TO BE EXECUTED BY THE CONTRACTOR FOR  
THE EQUIPMENT HANDED OVER IN INSTALLMENTS BY PSTCL FOR  
PERFORMANCE OF ITS CONTRACT**

**(On non-Judicial stamp paper of appropriate Value)  
INDEMNITY BOND**

THIS INDEMNITY BOND is made this .....day of .....  
19..... by ..... a Company registered under the Companies  
Act, 1956/Partnership firm/proprietary concern having its Registered Office at  
.....(hereinafter called as 'Contractor' or 'Obligor' which  
expression shall include its successors and permitted assigns) in favour of Punjab State  
Transmission Corp. Ltd., Patiala hereinafter called PSTCL which expression shall  
include its successors and assigns):

WHEREAS PSTCL has awarded to the Contractor a Contract for ..... vide  
its Letter of Award/Contract No. .... dated ..... and its  
Amendment No. ....and Amendment No.  
.....(applicable when amendments have been issued) hereinafter  
called the Contract") in terms of which PSTCL is required to hand over various  
Equipment to the Contractor for execution of the Contract.

And WHEREAS by virtue of clause No. .... of the said Contract, the  
Contractor is required to execute an Indemnity Bond in favour of PSTCL for the  
Equipment handed over to it by PSTCL for the purpose of performance of the Contract/  
Erection portion of the Contract (hereinafter called the "equipment").

NOW THEREFORE, This Indemnity Bond witnessed as follows :

1. That in consideration of various Equipment as mentioned in the Contract, valued at  
Rs. .... (Rupees.....) handed over to the  
Contractor in installments from time to time for the purpose of performance of the  
contract, the Contractor hereby undertakes to indemnify and shall keep PSTCL  
indemnified, for the full value of the Equipment. The Contractor hereby acknowledge  
receipt of the initial installment of the equipment per details in the schedule appended  
hereto. Further, the Contractor agrees to acknowledge receipt of the subsequent  
installments of the Equipments as required by PSTCL the form of Schedules  
consecutively numbered which shall be attached to this Indemnity bond so as to form  
integral parts of this Bond. It is expressly understood by the Contractor that handing  
over of the dispatch title documents in respect of the said Equipments duly endorsed  
by PSTCL in favour of the Contractor shall be construed as handing over of the  
Equipment purported to be covered by such title documents and the Contractor shall  
hold such Equipment in trust as Trustee for an on behalf of PSTCL.

2. That the contractor is obliged and shall remain absolutely responsible for the safe transit/protection and custody of the Equipment at PSTCL project site against all risks whatsoever till the Equipment are duly used/erected in accordance with the terms of the Contract and the plant/Package duly erected and commissioned in accordance with the terms of the Contract, is taken over by PSTCL. The Contractor undertakes to keep PSTCL harmless against any loss or damage that may be caused to the Equipment.
3. The Contractor undertakes that the Equipment shall be used exclusively for the performance/execution of the Contract strictly in accordance with its terms and conditions and no part of the equipment shall be utilised for any other works or purpose whatsoever. It is clearly understood by the Contractor that non-observance of the obligations under this indemnity Bond by the Contractor shall inter-alia constitute a criminal breach of trust on the part of Contractor for all intents and purpose including legal/penal consequences.
4. That PSTCL is and shall remain the exclusive Owner of the Equipment free from all encumbrances, charges or liens of any kind, whatsoever. The equipment shall at all times be open to inspection and checking by Engineer-in-Charge/Engineer or other employees/agents authorised by him in this regard. Further, PSTCL shall always be free at all times to take possession of the Equipments in whatever form the Equipments may be, if in its opinion, the Equipment are likely to be endangered, misutilised or converted to uses other than those specified in the Contract, by any acts of omission or commission on the part of the contractor or any other person or on account of any reason whatsoever and the Contractor binds himself and undertakes to comply with the directions of demand of PSTCL to return the equipment without any demur or reservation.
5. That this Indemnity bond is irrevocable. If at any time any loss or damage occurs to the Equipment or the same or any part hereof is mis-utilised in any manner whatsoever, then the Contractor hereby agrees that the decision of Engineer-in-Charge/Engineer of PSTCL at to assessment of loss or damage to the Equipment shall be final and binding on the Contractor. The Contractor binds itself and undertakes to replace the lost and/or damaged Equipment at its own cost and/or shall pay the amount of loss of PSTCL without any demur, reservation or protest. This is without prejudice to any other right or remedy that may be available to PSTCL against the Contractor under the contract and under this Indemnity Bond.
6. NOW THE CONDITION of this Bond is that if the Contractor shall duly and punctually comply with the terms and conditions of this Bond to the satisfaction of PSTCL THEN, the Bond shall be void, but otherwise, it shall remain in full force and virtue.

IN WITNESS WHEREOF, THE Contractor has hereunto set its hand through its authorised representative under the common seal of the Company, the day, month and year first above mentioned.

Particulars of the Equipment handed over	Quantity	Particulars of Despatch title <u>Documents</u> RR/GR No. date Bill Carrier of lading	Value of the Equipment	Signature of Attorney in token of receipt

For and on behalf of  
M/s .....

WITNESS

1. I) Signature .....

Signature .....

II) Name .....

Name .....

III) Address .....

Designation .....

.....

Authorised representative

1. I) Signature .....

II) Name .....

(Common Seal)

III) Address .....

(In case of company)

---

\*Indemnity Bonds are to be executed by the authorised person and (i) in case of contracting company under common seal of the Company or (ii) having the power of attorney issue under common seal of the Company with authority to execute indemnity Bonds, (iii) in case of (ii), the original power of attorney if it is specifically for this Contract or a Photostat copy of the Power of Attorney if it is General Power of Attorney and such documents should be attached to Indemnity Bond

**SCHEDULE OF GENERAL INFORMATION**  
(TO BE FILLED BY THE BIDDER / JV PARTNERS )

1. Name, address & telephone Nos. of Manufacture/ Principals. \_\_\_\_\_
2. PAN No & proof of filling Income Tax return for last 3 years of manufacturer/principals. (to be attached) \_\_\_\_\_
3. Name & address of supplier/firm/company. \_\_\_\_\_
4. PAN No & Income Tax return for last 3 years of supplier/firm/company (to be attached) \_\_\_\_\_
5. Name address & telephone no. of Director/ Partners/proprietors. \_\_\_\_\_
6. PAN No.& proof of filling income tax return for last 3 years of Director/Partner/Prop. (to be attached) \_\_\_\_\_
7. MQP (to be attached) \_\_\_\_\_
8. Turnover of the firm for the last 3 years (to be attached) \_\_\_\_\_
9. Bank references. \_\_\_\_\_
10. Testing facilities available at works for routine and acceptance tests (furnish details of testing equipment). \_\_\_\_\_
11. Name of works Manager/Managing Director. \_\_\_\_\_
12. Telephone No. of the office at manufacture works/supplier to whom reference should be made for expeditious technical co-ordination. \_\_\_\_\_
13. Whether holding ISI and / or ISO 9000 / 14000 licence , if yes, enclose Photostat copy. \_\_\_\_\_
14. Whether the material carries State Quality Mark, if yes, enclose Photostat copy. \_\_\_\_\_
15. Memorandum and Article of Association of private Ltd., or Public Ltd., company/partnership deed in case of partnership firm(To be attached). \_\_\_\_\_

Dated:

Signature of bidder  
Name  
Designation  
Seal of firm/company.

**SCHEDULE OF DEVIATIONS**

Bidders shall carefully state below any and all points in his proposal, which are not in accordance with the Specification No. STQ-100--- / 2011: -

Sr. No.	Section No. / Clause No.	Deviation
<b><u>A. TECHNICAL</u></b>		
1.		
2.		
3.		
<b><u>B. COMMERCIAL</u></b>		
1.		
2		
3		

The Bidder(s) hereby certify that the above mentioned are the only deviations from the aforesaid Specification .

Signature\_\_\_\_\_

Name \_\_\_\_\_

Designation\_\_\_\_\_

Seal of the firm \_\_\_\_\_

Dated: \_\_\_\_\_

**GUARANTEE DECLARATION**

Bidder's Name & Address: .....

Specification No : STQ-

We hereby confirm that the equipment / material / items supplied / offered / used by us shall have minimum performance as specified in the specification. We also guarantee the performance / efficiency of the equipment and erection standards as per the requirement of the specification.

Date :.....

Place : .....

(Authorised Signatory).....

(Name) .....

(Designation) .....

(Seal) .....



## DETAILS OF STATUTORY REGISTRATION NUMBERS

1.	Name of the contractor	
2.	Complete Address	a) Registered Office b) Correspondence
3	Permanent Account No.	
4	Central Sales Tax No.	
5	VAT No.	
6	Work Contract Tax No.	
7	Service Tax Reg. No.	
8	PF Registration No.	
9	PF Regional Office Covered ( Address)	

(Authorised Signatory)

**Annexure 15****PERFORMA FOR ELICITING INFORMATION FOR APPRAISAL OF FIRM'S CAPABILITY AND CAPACITY TO MANUFACTURE ITEM(S) EQUIPMENT AS PER REQUIREMENTS OF PSTCL TENDER .****1. (A) Name of the Tendering Firm:**

- i. Complete Address of the office:
- ii. Telephone Number
- iii. E-mail
- iv. Fax Number

**(B) Name of the two Responsible Persons:**

- i. Officer with Designation (Managing Director/Partner/Chief Engineer/ Works Engineer etc.) alongwith their address, Income Tax Permanent Account No.
- ii. Day on which weekly holiday is observed in the office

**(C) Complete Address of the Works:**

- i) Telegraphic Address
- ii) Telephone Number
- iii) E-mail & Fax No.
- iv) Name of the two Responsible Persons with Designation (Managing Director/  
Partner/Chief Engineer/Works Engineer etc.)
- v) Day on which weekly holiday is observed

**(D) NAME , ADDRESS & TELEPHONE NO. OF TWO REFERENCE HAVING FACILITIES OF P&T TELEPHONE**

- |                    |                    |
|--------------------|--------------------|
| i) Name            | l) Name            |
| ii) Address        | ii) Address        |
| iii) Telephone No. | iii) Telephone No. |

**2. YEAR OF ESTABLISHMENT.****3. CONSTITUTION OF THE FIRM:**

- i) Private or Public Ltd.
- ii) Registered under the Companies Act  
Or any other act , giving registration  
No. & date
- iii) Year of establishment

**4. FINANCIAL POSITION**

- i) Land (Area & Value)
- ii) Building(Cover & Value)
- iii) Plant & Machinery
- iv) Total Drawing Limit from Bank
- v) Annual Financial Turn Over (duly  
Audited for the last three years)
- vi) Latest Income Tax Clearance Certificates

**5. MAN POWER**

- i) Graduate Engineer(s)
- ii) Diploma Holders
- iii) Skilled Workers
- iv) Unskilled works

**6. Production assessment:**

- i) Detail of Plant & machinery installed  
(Please attach separate sheet, if necessary)
- ii) Detail of Raw Material
- iii) Stock in Hand
- iv) Source of Raw Material
- v) In case, any Raw Material are required to  
be imported, indicate arrangement for procurement
- vi) Quality Control exercise in procurement of raw material

7.
  - a) Detail of manufacturing process
  - b) Scheme of quality control
    - i) During manufacturing
    - ii) At the finish stage
  - c) Whether any record is being maintained in respect of Quality Control exercised.
8. Details of testing facilities available with the firm(Information may be supplied in the enclosed performa)
9. Detail of order executed/ under execution during te last three years
  - a. With PSTCL
  - b. Other State Utilities/State Govt./ Govt of India and their institutions/undertakings
  - c. Other important customers.
10.
  - a) Whether the items are on Punjab Govt. DGS & D/Central Govt. approved rate contracts (attach copies of rate contract)
  - b) Whether the firm is licensed to use ISI mark or any other Govt. quality mark (copies of latest test certificates issued by Govt. laboratories and recognized test houses be attached)
  - c) Whether items offered conforms to ISS or any other internationally recognized standards, if so give reference
11.
  - (a) Manufacturing capacity of the firm per month ( in MT)
  - (b) Current commitments / order booking of the firm with other SEBs/ State utilities / Pvt. Concerns (in MT)
  - (c) Spare monthly capacity available for the instant Tender Enquiry of PSTCL (in MT)

Signature of authorized  
Signatory of the firm with stamp

- Note: 1.Please attach additional sheets bearing Authorised signatory's signatures & stamp where required.  
2.Copies of documents attached with the Performa should be attested by firm's authorized person with stamp mark of the firm.

**ANNEXURE-16****GENERAL COMMERCIAL PARTICULARS**  
(Following information must be given by the bidders)

<b>Excise Duty</b>	
i) Rate considered in quoted prices	@
ii) In case Nil / Concessional rate of ED is applicable then maximum rate of ED applicable at the time of tendering will be absorbed by the bidder (Yes/No)	
<b>CST / VAT</b>	
i) Rate considered in quoted prices	@
ii) In case Nil / Concessional rate of CST/ VAT is applicable then maximum rate of CST/ VAT applicable at the time of tendering will be absorbed by the bidder (Yes/No)	
<b>Entry Tax (if applicable)</b>	@
<b>Validity of offer (min. 120 days)</b>	
<b>Whether Schedule of delivery as per specification (Yes/No)</b>	
<b>Whether Terms of Payment as per specification (Yes/No)</b>	
<b>Nature of Price (VARIABLE/FIRM)</b>	<b>Firm</b>
<b>Any other information to be mentioned by the bidders</b>	

**ANNEXURE -17****TESTING FACILITIES AVAILABLE**

Name of test	Detail of Test facilities available	Remarks
1. Tests on Raw Material	i) ii) iii) iv) _____ _____	
2. Routine Tests	i) ii) iii) iv) _____ _____	
3. Type Tests	i) ii) iii) iv) _____ _____	
4. Acceptance Tests	i) ii) iii) iv) _____ _____	

Note : In case testing facilities are not available for tests, indicate in the remarks column from which testing house(s)/Institution these tests will be carried out.

**UNDERTAKING FOR NON PAYMENT OF COMMISSION ETC.**

We will not pay commission etc. or engage any commission agent or liaison agent for dealing with the PSTCL in any matter including purchase of specification etc.

Dated:

SIGNATURE OF BIDDER  
NAME  
DESIGNATION  
SEAL OF FIRM/COMPANY.

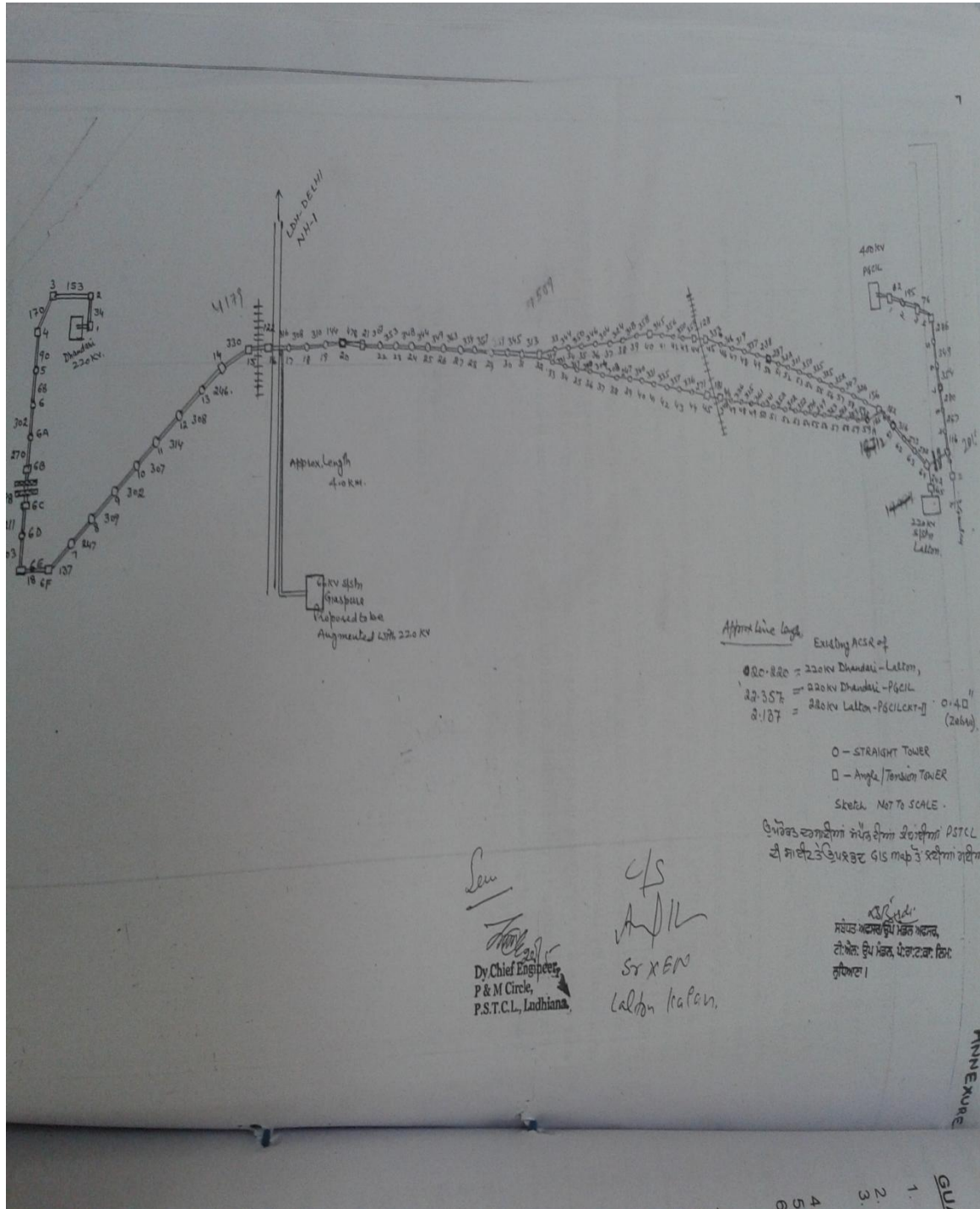
**UNDERTAKING FORM FOR ORDER PREFERENCE**

(TO BE ENTERED ON A NON-JUDICIAL STAMPED PAPER OF APPROPRIATE VALUE).

We \_\_\_\_\_ state that our works are situated in the state of Punjab and we claim "Order Preference" as stipulated in the PSTCL tender specification No. \_\_\_\_\_ due on \_\_\_\_\_ against which we have submitted our tender No. \_\_\_\_\_ dated \_\_\_\_\_. We undertake to execute the order/contract if placed/awarded on to us even by counter offer at the rates worked out by PSTCL in accordance with its Purchase Regulations. It is further understood that in the event of refusal by us or failure on our part to execute the order/contract (full or part) placed/awarded on to us under "Order Preference" on any account what-so-ever, the PSTCL shall have the right to forfeit the earnest money deposited by us and we shall have no claim for the refund thereof. The PSTCL shall also have the right to suspend business dealing with us and to black-list our firm, without prejudice to other rights accruing to the PSTCL under the purchase Order/Contract, if placed/awarded on to us.

Signature of  
Constituted attorney.

**SKETCH OF 220 KV D/CKT**





**GUARANTEED TECHNICAL PARTICULARS OF CONDUCTOR**  
**(TO BE FURNISHED BY THE FIRM)**

1. Standard according to which the conductor will be manufactured and tested.
2. Manufacturer's name and address
3. No. of Strands and wire diameter
  - a) Aluminium
  - b) HTGS / core wire
4. Calculated equivalent aluminium area in Sq.mm
5. Actual aluminium area in Sq.mm
6. Standard area of cross section in sq.mm
  - a) Aluminium strand
  - b) HTGS / Core Wire
  - c) Conductor
7. Diameter of complete conductor in mm
8. Guaranteed ultimate tensile strength of conductor in KN
9. Minimum breaking load in KN. For :
  - a) Aluminium strand
  - b) HTGS / Core wire strand
10. Zinc coating of steel strand (for HTGS wire)
  - a) Uniformity of coating, number of dips and duration
  - b) Minimum Wt. Of coating gm/Sq.Meter
11. Weight in Kg/KM of conductor
  - a) Aluminium
  - b) HTGS / Core wire
  - c) Conductor
12. D.C Resistance in ohms per KM at 20°C
13. Modulus of elasticity of:
  - a) Aluminium strand (GN/Sq.m)
  - b) HTGS / core wire strand (GN/Sq.m)
  - c) Conductor (GN/Sq.m)
14. Co-efficient of linear expansion per degree centigrade of conductor (before knee point & after knee point)
  - a) Aluminium strand
  - b) HTGS / core Wire
  - c) Conductor
15. Standard length of each piece in KM.
16. Tolerance, if any on standard length
17. Dimensions of the reel in cms.
18. Weight of the conductor in one reel in Kg.
19. Gross weight of the reel including weight of the conductor.
20. Lay Ratio and direction of lay
21. Max. continuous current carrying capacity at various conductor temp restricting the conductor sag to the max. design sag as per the specification
22. Max. sag with 350m span at various conductor temp.
23. Other particulars, if any

Seal & Signature of bidder

**TECHNICAL INFORMATION TO BE FURNISHED BY BIDDERS**

The technical data as asked for here under must be complete in every respect along with necessary type test reports without which the offer shall be liable for rejection without any further reference on the issue.

1. Please write N.A. against item, which are not applicable.

<b>Sr. No.</b>		<b>DESCRIPTION</b>	
1.		Name of Firm	
2.	a)	Whether Govt. concern, Pvt Ltd. Co., PSU or SSI Unit	
	b)	Whether documents in support of above like photo copy of Regd. with Deptt. of industries in case of SSI unit, attached?	
3.	a)	Whether the Firm holds ISI certification, PQM, ISO 9000 series certification.	
	b)	If so, whether documents in support of above attached?	
	c)	Whether the fittings offered carry ISI/ISO mark	
4.		Whether firms detailed dimensioned Drg. in respect of each item attached?.	
5.		Whether type test certificates as per items offered attached?	
6.		Whether all acceptance tests can be carried out at firm's premises?	
7.		Whether list/details of Testing Equipment & Facilities available with the firm attached?	

**GURANTEED TECHNICAL PARTICULARS**  
**SINGLE SUSPENSION LINE HARDWARE FITTINGS**

1. Drawing No. : \_\_\_\_\_

2. SIZE QUANTITY & MATERIAL FOR ONE FITTING:

<b><u>S.No.</u></b>	<b><u>Description</u></b>	<b><u>Qty</u></b>	<b><u>Material</u></b>
1	Ball Hook	_____	_____
2	Socket Eye	_____	_____
3.	Anchor Shackle	_____	_____
4.	Suspension Clamp & keeper	_____	_____
5.	Side Strap/U-Strap	_____	_____
6.	U-Bolt, Nut & P.Washer for clamp	_____	_____
7.	Other Nut, Bolts & P.washer for Anchor shackle	_____	_____
8.	Spring Washer	_____	_____
9.	Split Pin	_____	_____
10.	Security Clip (R-type)	_____	_____
11.	Ball & Socket Size	_____	_____
12.	UTS of the fitting	_____	_____
13.	Slip Strength	_____	_____
14.	Method of Casting	_____	_____
15.	Applicable Standard for fitting	_____	_____
16.	Standard for Galvanizing	_____	_____
17.	Any other details	_____	_____

**GURANTEED TECHNICAL PARTICULARS**  
**SINGLE TENSION LINE HARDWARE FITTINGS**

1. Drawing No. : \_\_\_\_\_

2. SIZE QUANTITY & MATERIAL FOR ONE FITTING:

<b><u>S.No.</u></b>	<b><u>Description</u></b>	<b><u>Qty.</u></b>	<b><u>Material</u></b>
1	Anchor Shackle	_____	_____
2	Ball Link	_____	_____
3.	Socket Clevis	_____	_____
4.	Bolt, Nut & P.Washer for Anchor Shackle & Socket Clevis	_____	_____
5.	Split Pin	_____	_____
6.	Dead End Body & Jumper	_____	_____
7.	Steel Sleeve(for HTGS core)	_____	_____
8.	Clamp Bolt, Nut with flat Washer	_____	_____
9.	Spring Washer	_____	_____
10.	Security Clip (R-Type)	_____	_____
11.	Ball & Socket Size	_____	_____
12.	UTS of the fitting	_____	_____
13.	Slip Strength	_____	_____
14.	Applicable Standard for fitting	_____	_____
15.	Standard for Galvanizing	_____	_____
16.	Any other details		

**GURANTEED TECHNICAL PARTICULARS**  
**PREFORMED ARMOUR RODS**

1. Drawing No. : \_\_\_\_\_

2. SIZE QUANTITY & MATERIAL :

<b><u>S.No</u></b>	<b><u>Description</u></b>	
-		
1	Type	_____
2.	Material	_____
3.	UTS	_____
4.	Dimensions	_____
	i) Length	_____
	ii) Dia	_____
5.	Tolerance in dimensions	_____
6.	Number of Rods in each set	_____
7.	Direction of Lay	_____
8.	Shape of ends & centre marking	_____
9.	Conductivity	_____
10.	Slip strength	_____
11.	UTS of the fitting	_____
12.	Pitch of Helix	_____
13.	Applicable Standard	_____
14.	Any other details	_____

**GURANTEED TECHNICAL PARTICULARS**  
**REPAIR SLEEVES**

1. Drawing No. : \_\_\_\_\_

2. SIZE QUANTITY & MATERIAL :

<b><u>S.No.</u></b>	<b><u>Description</u></b>	
1	Type	_____
2.	Material	_____
3.	UTS	_____
4.	Dimensions (Length)	_____
5.	Electrical Resistance	_____
6.	Slip strength	_____
7.	Applicable Standard	_____
8.	Gen. Tolerance	_____

9.	Dimensions	Dimensions before Compression (Round)		Dimensions after Compression (Hexagonal)	
		Outer Dia (mm)	Inner Dia (mm)	Corner to corner (mm)	Face to face (mm)
_____					

Repair sleeve                      \_\_\_\_\_                      \_\_\_\_\_                      \_\_\_\_\_                      \_\_\_\_\_

**GURANTEED TECHNICAL PARTICULARS**  
**MID SPAN COMPRESSION JOINT**

1. Drawing No. : \_\_\_\_\_

2. SIZE QUANTITY & MATERIAL :

**S.No.**   **Description**

- |   |                       |  |
|---|-----------------------|--|
| 1 | Type                  |  |
| 2 | Material              |  |
| 3 | UTS                   |  |
| 4 | Length    (Aluminium) |  |
|   | (Steel for HTGS)      |  |
| 5 | Electrical Resistance |  |
| 6 | Slip strength         |  |
| 7 | Applicable Standard   |  |
| 8 | Gen. Tolerance        |  |

9	Description	Dimensions before Compression (Round)		Dimensions after Compression (Hexagonal)	
		Outer Dia (mm)	Inner Dia (mm)	Corner to corner (mm)	Face to face (mm)
	Mid Span Comp Joint				

**GURANTEED TECHNICAL PARTICULARS**  
**4R-STOCK BRIDGE DAMPERS**

1. Drawing No. \_\_\_\_\_ :

2. SIZE QUANTITY & MATERIAL FOR ONE FITTING:

<b><u>S.No.</u></b>	<b><u>Description</u></b>	<b><u>Qty.</u></b>	<b><u>Material</u></b>
1	Material of Damper Mass	_____	_____
2	Messenger Cable (No. of strands/dia of each strand)	_____	_____
3	Clamp Body	_____	_____
4	Bolt Size	_____	_____
5	Flat Washers	_____	_____
6	Spring Washer	_____	_____
7	Mass Pull off weight	_____	_____
8.	Clamp Bolt Tightening Torque	_____	_____
9	Slip Strength of Clamp on Conductor	_____	_____
	a) Before Fatigue Test	_____	_____
	b) After Fatigue Test	_____	_____
10.	Applicable Standard for Damper	_____	_____
11.	Standard for Galvanizing	_____	_____
12.	Micro Strain Limit	_____	_____
13.	Approx. Wt. Of Damper Assy.	_____	_____
14	Resonance Frequencies	_____	_____
15	Tolerance for Lower than 15 Hz	_____	_____
16	Tolerance for Higher than 15 Hz	_____	_____
17	Min. UTS of stranded messenger Cable	_____	_____
18.	Gen. Tolerance	_____	_____

NOTE: All the ferrous parts to be Hot Dip Galvanized except S.S. Parts and Spring Washers, the latter being Electro- Galvanized as per IS: 1573/ other eq. stds.



**PRINCIPAL MANUFACTURER'S AUTHORISATION CERTIFICATE**  
**(ON LETTER HEAD OF MANUFACTURER)**

To

The Chief Engineer / TS  
 Shakti Sadan,  
 PSTCL, Patiala

We, M/s \_\_\_\_\_ (Manufacturer),  
 the manufacturers of High Temperature Low Sag Conductors for EHV  
 Transmission Lines having our works at \_\_\_\_\_, do hereby certify  
 that M/s \_\_\_\_\_ (bidder) \_\_\_\_\_, having their works at  
 \_\_\_\_\_, are  
 manufacturing High Temperature Low Sag Conductors under technical  
 collaboration/Licence from us. The Type Tests got conducted by us on similar to  
 the High Temperature Low Sag Conductor being offered against PSTCL Tender  
 Enquiry No. STQ-1022 by M/s \_\_\_\_\_ (bidder) \_\_\_\_\_ may  
 be considered suitable for the purpose of this bid. We undertake to ensure  
 compliance of all due standards/procedures for the manufacture of the said High  
 Temperature Low Sag Conductors at the works of the bidder for the purpose of  
 this tender enquiry.

Date & Place:

For and on behalf of manufacturer

(Signature)

\_\_\_\_\_

(Name)

\_\_\_\_\_

(Designation) \_\_\_\_\_

**NOTE:**

1. The above undertaking shall be duly notarized.
2. To be signed by person having Power of Attorney  
 (Power of attorney to be attached)